



WATER/COLOR

A STUDY OF RACE & THE WATER AFFORDABILITY CRISIS
IN AMERICA'S CITIES



A REPORT BY

THE THURGOOD MARSHALL INSTITUTE AT THE NAACP LEGAL DEFENSE AND EDUCATIONAL FUND, INC.

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A Study of Race and the Water Affordability Crisis in America's Cities

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introduction

It is difficult to overstate the importance of water. Water is life: it is essential for our health, for our food to grow, for our communities to function and thrive. Yet, critical issues like affordability and quality are often overlooked and understudied because of the abundance of water in our lives. For most of us throughout the United States, we turn on the tap and water flows freely and cleanly. But our lack of appreciation for water is nothing new: in 1776 (a time when the delivery and supply of water was no easy feat), the “diamond-water paradox” was coined. As the paradox goes:

Nothing is more useful than water: but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any use-value; but a very great quantity of other goods may frequently be had in exchange for it.¹

In other words, although we need water to survive, we take it for granted. This view informed how water law and policy developed in the courts: because water resources have historically been plentiful in this country (particularly on the East Coast), access to water has not traditionally been viewed as a fundamental right in the U.S. and has even been called a “deeply foreign” concept in American jurisprudence.²

Now more than ever, this must change. The price of water has greatly increased in recent decades, and scores of communities across the nation that cannot afford to pay higher rates have been plagued by service disconnections and lien sales, leading to home foreclosures and evictions. These practices have been shown to disproportionately impact people of color. But this form of discrimination is rooted in our nation’s history. For as long as our cities have been rigidly segregated by race, local officials have found ways to deprive communities of color of access to essential water services. Municipal discrimination in the provision of water services runs deep.



In recent years, significant strides have been made in recognizing the human right to water, as well as increased attention to the growing problem of water unaffordability. However, few studies have made an explicit link between race and the affordability of water or have interrogated the connection between the failure to pay a water bill and the loss of Black homeownership. This report does both. It begins with a historical overview of the construction of U.S. urban water systems and the development of water policy from the late 18th century to the present, including a discussion of Black access (or lack thereof) to water systems and services over time. We explain the current water affordability crisis impacting Black communities and identify failing infrastructure as the biggest contributing factor to rising costs.

To demonstrate the disproportionate impact of rising water bills on Black communities, this report includes a review of the affordability crises in Baltimore and Cleveland. We demonstrate how water costs are allocated in each area, document the rise in water costs to residents in recent years, and analyze each jurisdiction's use of water liens for unpaid bills. Finally, we provide a framework for potential litigation and policy solutions to challenge water lien sales and service disconnections that have a disproportionate impact on Black communities.

With this report, the NAACP Legal Defense and Educational Fund, Inc. (LDF) and its Thurgood Marshall Institute hope to equip water equality advocates with sufficient context and background about our waterworks systems and ways to challenge—and change—local government actions that impede Black access to water and sewer systems. We also wish to convey and instill an appreciation and awareness for the role water regulation has played in shaping our communities, reinforcing municipal power, and perpetuating racial inequities.



key findings



Black Access to Water Systems

First, this report examines early waterworks systems in the U.S., which revolutionized public health and defined the social contract between the American metropolis and its citizens. We conclude that the historical view of water as a public good ensured that, at least initially, cities priced their water low and did not preclude service to those who could not afford it. Despite this, many of our early waterworks were privately-owned, but not without controversy, including higher rates for customers and poor service.

Our research confirmed a clear connection between racial residential segregation and Black access to water systems.

Housing patterns helped inform Black access to water when our nation's public infrastructure was first constructed: as racial segregation at that time typically was limited to a street, or few city blocks, rather than stretching the width and breadth of an entire city ward or census tract, it was more difficult for municipalities to deny water services specifically to Black families, given the networked nature of these systems. The ensuing expansion of access to water led to an overall decline in Black mortality in the early 20th century. As U.S. cities became more racially segregated, however, localities prioritized services to white areas.

In the mid-20th century, residential segregation greatly increased in the United States, as homeownership became a reality for many white middle-class families and discrimination in both the public and private sectors restricted housing options in Black communities. Increased patterns of residential segregation enabled municipalities to more easily deprive majority-Black neighborhoods of access to essential services, including water and sewer. In the late 1960s, LDF pioneered an innovative campaign to equalize municipal services in Black communities throughout America, although the full reach of this effort was later limited by the Supreme Court.

Water Rates & Black Homeownership

In recent decades, the price of water has skyrocketed. Our research confirmed that failing infrastructure is the biggest contributing factor to rising water costs. Water rates vary widely among cities and regions, due to factors such as population loss and local political dynamics. Regardless, water is becoming increasingly unaffordable in communities nationwide. Of particular concern, the most common methodology for determining whether a water bill is affordable (examining whether it exceeds two/2.5 percent of median household income) is unsupported by social science research and may not capture the full extent to which water is unaffordable, highlighting the need for a revised, validated standard.



Unsurprisingly, rising water rates are most likely to impact communities of color.

The failure to pay a water bill can result in significant consequences, including service disconnections and property liens. We determined that there is a process in every state for local governments to place liens on homes for unpaid water or sewer bills, including for unpaid debt of just a few hundred dollars. In many states, a water or sewer lien can directly lead to foreclosure and eviction.

To demonstrate the disproportionate impact of rising water bills on Black communities, this report examines the current water crises in Baltimore and Cleveland. We determined that Baltimore's water affordability crisis has and will continue to have a disproportionate and detrimental impact on the city's Black neighborhoods. Until recently, Baltimore regularly placed liens on homes for as little as \$350 in unpaid water bills, which contributed to an overall decrease in homeownership in the predominantly Black city. Legislative efforts at the state and city level, spearheaded by water equality advocates, bring the promise of much-needed reforms to address the water crisis in Baltimore.

Property liens for unpaid water bills as low as \$300 are a massive problem in Cleveland. In Cuyahoga County, where Cleveland is located, more than 11,000 water liens were placed on properties between 2014 and 2018. LDF found that most water liens placed on homes in Cuyahoga County are located in majority-Black neighborhoods, which may lead to a devastating loss of homeownership among the city's Black population.

Cleveland Water also disconnects water service to thousands of delinquent customers every year. City officials have explained to local advocates that, to maximize efficiency, they prioritize utility shutoffs by targeting households with overdue balances in close proximity to one another. This potentially penalizes predominantly Black and low-income neighborhoods, effectively making no distinction between an account in arrears for a few thousand dollars, or just a few hundred.

Compounding these problems, for at least a decade, Cleveland's water department has been troubled by issues like billing glitches, customer service issues, and a faulty process for customers to contest their bills. LDF found that Cleveland's Water Review Board seldom grants complainants a hearing and even fewer ever see any adjustment in their bill. For example, while customers requested 207 hearings in 2018, only 33 were held. Of the hearings that were held, 28 percent of customers received no relief, and 26 percent received only a payment plan—with no bill adjustment—to pay off their debt.



Framework for Change

To address the impact of the water affordability crisis on Black communities across the country, this report provides a framework for potential litigation.

We conclude that litigation may be viable and appropriate to address municipal water practices, including water liens and service disconnections, which disproportionately impact Black communities.

We also offer potential policy solutions and research initiatives. Specifically, communities should adopt legislation to ban water lien sales, prevent the privatization of waterworks, and recognize the human right to affordable, clean water. Advocates should also support research initiatives, including on the benchmark for water affordability and the lasting effect of lien sales on communities of color.



part I: water under construction

Water is essential to life—the life of a city as well as the life of a human being. Without water, a man dies. Without water, a community faces the same fate.

-Leonard A. Scheele, Surgeon General, United States Health Service (1952)³

The concept of access to clean water and sanitation, even for the poorest among us, has always been part of the public commons, viewed as something owned by humanity as a rule.

-Maureen Taylor, State Chairperson, Michigan Welfare Rights Organization (2019)⁴

The Building Years (Late 18th Century to Early 20th Century)

The origin and development of our urban water systems began at the close of the 18th century, when the United States was transforming into a nation of cities with skyrocketing populations.⁵ These burgeoning cities were filthy and epidemic disease was rampant.⁶ As the urban population rapidly increased throughout the 19th century and infectious disease ravaged the American metropolis, local leaders learned that they must build large-scale systems to provide water to their citizens.⁷ They later realized that the water must be treated and that sewage systems are key to municipal health.⁸ Clean water technologies led to a rapid decline in mortality rates due to infectious disease and were named “the most important public health intervention of the 20th century.”⁹

In addition to the public health benefits, waterworks systems helped cities prosper. By the late 19th century, waterworks were viewed as essential for a city to be considered “respectable.”¹⁰ They also helped solidify the meaning of urban “citizenship” as city dwellers moved from utilizing individual water sources to banding together to provide funds for a system that would collectively serve them all.¹¹ “By linking oneself to a central water supply,” wrote Dr. Carl Smith in *City Water, City Life: Water and the Infrastructure of Ideas in Urbanizing Philadelphia, Boston, and Chicago*, “one irrefutably became an urban person, one of thousands of individuals whose everyday existence required this shared resource.”¹²

As cities built their waterworks systems, they needed to determine whether they would be public or private. As Dr. Smith described it, public ownership was not assumed: at the time, cities did not take on responsibility for major public works.¹³ In fact, at the turn of the 19th century, the prevailing sentiment was that a local government was not obligated to respond to the needs of its community. Instead, “the city was to be an environment for private moneymaking, and its government was to encourage private business.”¹⁴ The development of waterworks helped reshape this view, and the decision to construct a water supply system was often the first significant undertaking of a city government.¹⁵ Over time, cities started to view municipal ownership of waterworks as the best way to serve the collective public good.¹⁶ In 1849, the Committee on Public Health of the American Medical Association made a finding that:

*The introduction of an abundant supply of water is so intimately connected with the health of a city, that the municipal authorities should rank this among the most important of their public duties ... The public welfare is too deeply interested in their faithful performance, safely to permit them to pass into the hands of incorporated companies, who, however high-minded they may be, look to them as sources of revenue, and not as objects of public good.*¹⁷

This view of water as a public good, serving the public good, also informed how water was initially priced.¹⁸ While cities needed to generate revenue to cover expenses, the general view was that water should be priced as low as possible and that those who could not afford it would not be denied service.¹⁹

Despite this push for municipal ownership, there was initially a split between private and public ownership of waterworks.²⁰ In 1860, over half of U.S. waterworks were private, although many of the largest cities had public systems.²¹ New York’s system was initially private, while Philadelphia’s was public.²² The ownership decision was often directly correlated with the economic health of the city—the more financially stable a city, the more likely it would retain public ownership of its waterworks.²³

By the 1870s, there was a definite trend toward public ownership of waterworks.²⁴ At that time, cities were able to take on more funded debt through municipal bonds and control of the water system enhanced the authority of local government.²⁵ Additionally, public opinion was turning against the privately-owned companies, which charged customers high rates but often delivered poor service, failing to provide water to some neighborhoods, sufficient water for fire hydrants or other civic purposes, or in some cases, potable water.²⁶ Private firms also began to recognize that their investment in waterworks may not generate the expected profit, as the fees they were able to charge under franchise contracts (even if higher than the fees charged by publicly-owned systems) were insufficient to cover costs.²⁷ Private companies that were dissatisfied with their contracts would often refuse to make system repairs and upgrades, or would intentionally “disturb public comfort” by tearing up streets for extensions and improvements.²⁸ Given these issues, more than 65 percent of the total urban population in the United States was served by a public water system by 1890.²⁹ At the dawn of the 20th century, the vast majority of the American population received water from public systems.³⁰ (But this trend toward public ownership was slow to reach other utilities. Electric, gas, telephone, and even public transit systems were largely private enterprises until the mid-20th century.³¹)

By the early 20th century, American cities had completely transformed the way they delivered water and removed waste, moving from individual sources of collection to large-scale municipal systems that treated water and sewage. The benefits of these water and wastewater systems cannot be overstated: they revolutionized public health, helped solidify the meaning of urban citizenship, and defined the role of a municipality in providing for the wellbeing of its residents.

These (significant) benefits aside, few of the treatises that detail the history of our nation’s waterworks make any mention of race. Below, in *Race and Water in the Building Years*, this report examines Black access to waterworks when these systems were first constructed.

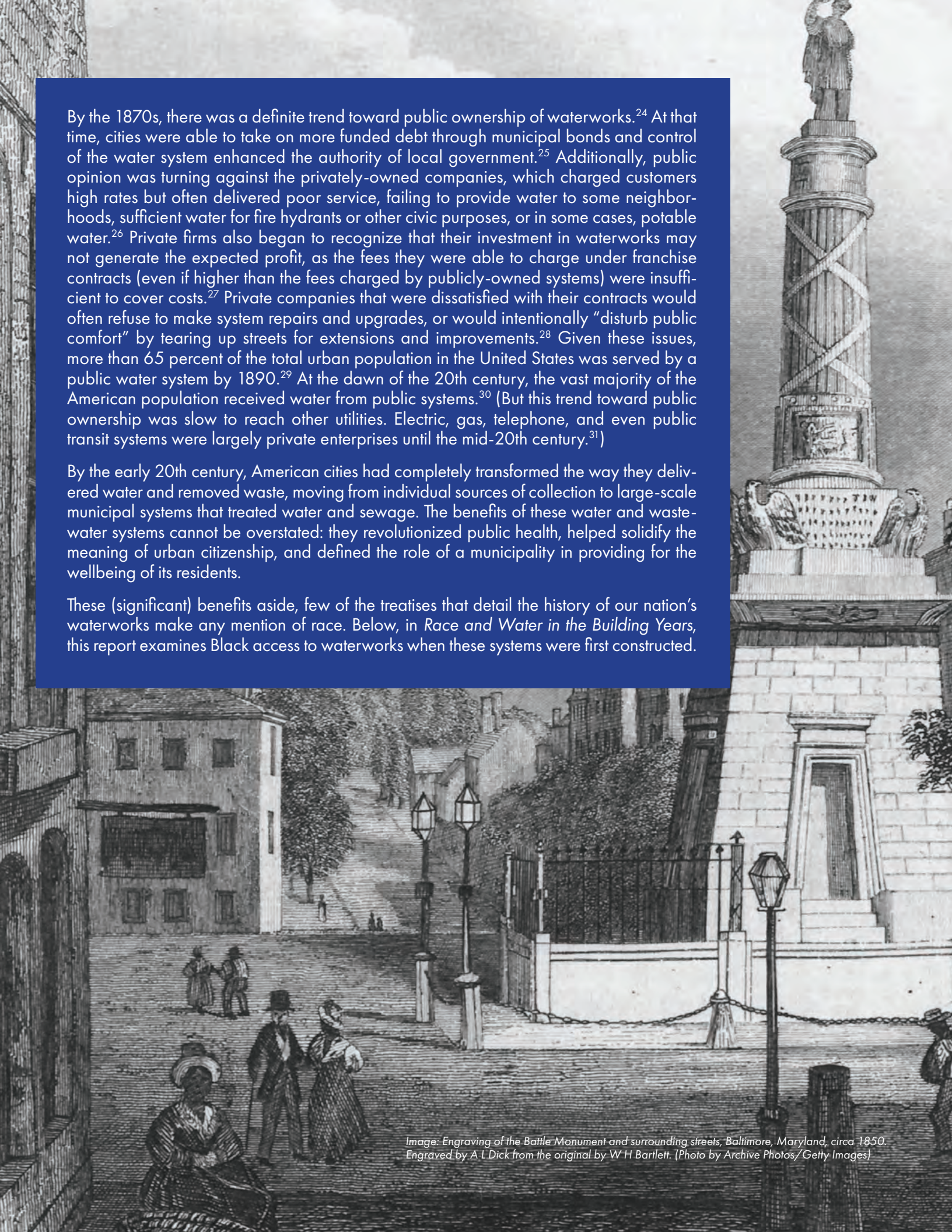


Image: Engraving of the Battle Monument and surrounding streets, Baltimore, Maryland, circa 1850. Engraved by A L Dick from the original by W H Bartlett. (Photo by Archive Photos/Getty Images)

Race and Water in the Building Years

In 1847, at a ceremony celebrating the construction of Boston's waterworks, Mayor Josiah Quincy Jr. gave an exuberant speech about the significance of water, stating that there was "nothing sectarian, nothing sectional, nothing exclusive about it."³² Water was "an equal blessing to the high and low, the rich and the poor, the just and the unjust."³³ In Mayor Quincy's view, the "gift of water" serves us all.³⁴ But this raises a key question: as our nation's waterworks systems were constructed, were their benefits extended to Black communities on an equal basis with other communities?

It's certainly true that Black Americans were exposed to the pervasive filth and disease of the Building Years. In *Black Gotham: A Family History of African Americans in Nineteenth-Century New York City*, Dr. Carla L. Peterson wrote about Collect Street in New York City, built on Collect Pond, where Black New Yorkers were able to buy or lease land in the early 19th century.³⁵ Dr. Peterson noted that the street filth that was a hallmark of this era was "particularly appalling" on Collect Street, leading one citizen to pen an open letter to the *New York Journal*, complaining: "It's like a fair every day with whites, and blacks, washing their cloths blankets and things too nauseous to mention; all their suds and filth are emptied into this pond ... and no doubt, many buckets [of bodily waste] from that quarter of town."³⁶ Many historians have noted that Black people (as well as newly-arriving immigrants and the poor) were especially vulnerable to and often blamed for the spread of epidemic disease.³⁷ In particular, cholera was blamed on the Black population in both the North and South.³⁸ As Dr. Peterson observed, while the white population accused Black people of spreading disease by engaging in risky behaviors (like drinking and promiscuity), it failed to recognize that Black workers were more likely to be employed in jobs that increased their exposure to bacteria, like street sanitation.³⁹ Additionally, many freed Black people, who moved north into cities or into refugee camps following the Civil War, were subjected to crowded and unsanitary housing conditions, leading to the spread of diseases like smallpox.⁴⁰ In 1887, Black mortality was estimated to be twice that of whites.⁴¹

At least one major sociological study conducted at the close of the 19th century found that Black access to water and sewer services was limited during this time. In his seminal classic, *The Philadelphia Negro*, Dr. W.E.B. Du Bois provided significant insight into the condition of Black neighborhoods in Philadelphia in the late 1800s.⁴² From 1896 to 1897, Dr. Du Bois surveyed approximately 9,000 Black Philadelphians about their living conditions.⁴³ His questionnaire asked each family about the existence of a bathroom, water closet, or privy in the home, as well as outside sanitary conditions and cleanliness.⁴⁴ In his findings, Dr. Du Bois made a clear connection between mortality and sanitation, noting that the highest death rate in the city was located in the ward with the poorest sanitation (conversely, the lowest death rate was in the part of the city with the cleanest streets).⁴⁵ Dr. Du Bois was not impressed with Philadelphia's waterworks, noting that "[f]or so large and progressive a city its general system of drainage is very bad; its water is wretched."⁴⁶ Dr. Du Bois found that few Black families had access to indoor plumbing.⁴⁷ He determined that just under 14 percent of the families he surveyed had access to bathrooms or water closets, and many did not have access to private outhouses.⁴⁸ Families in the "fairly comfortable working class" with access to bathrooms often shared them with others, and bathtubs either had no water connection or no hot water.⁴⁹ The homes in the area Dr. Du Bois examined had originally been constructed with larger backyards for outhouses, but by the time of his survey, the yards were filled with tenement houses, decreasing the overall sanitation of the neighborhood.⁵⁰ The residents of tenement housing were forced to obtain water from a hydrant in the alley.⁵¹ Dr. Du Bois also noted a general lack of public urinals and water closets throughout the city.⁵²

However, and perhaps surprisingly, there is evidence that there were fewer racial inequities in water and sewer facilities in the late 19th and early 20th centuries than might be expected.⁵³ Between 1900 and 1940, the life expectancy for urban-dwelling Black people in the U.S. rose by nearly 50 percent, from 30 to 44 years.⁵⁴ Black American life expectancy has always been less than that for whites, but the deficit closed from a 17-year gap in 1900 to a seven-year gap in 1960.⁵⁵ In *Water, Race, and Disease*, Dr. Werner Troesken connected these increases in Black American life expectancy to the construction of water and sewer systems throughout

the country.⁵⁶ While waterworks systems decreased mortality for all races, Dr. Troesken found that Black Americans—particularly those who resided in cities—benefitted more than whites from waterworks systems, as they were less likely to be able to afford private sources of clean water before these systems were built and thus were more susceptible to disease.⁵⁷

Critically, housing patterns in the late 19th century expanded Black access to water systems. At that time, to the extent that cities were racially segregated, it was typically limited to an alley, street, or block level, rather than across an entire city ward or census tract.⁵⁸ This made it more difficult for municipalities to deny water services specifically to Black families, given the networked nature of these systems.⁵⁹ In fact, in 1890, the average Black person lived in a city ward that was only 20 percent Black.⁶⁰ (New York and Chicago may have had the most stark racial segregation in the late 19th century, where Black people were restricted to certain blocks, but cities like Detroit and Cincinnati were far more racially integrated at the end of the century than they are now.⁶¹) By 1910, when segregation ordinances increased in popularity,⁶² most water and sewer systems were already in place in major cities.⁶³

To support his theory, Dr. Troesken examined the construction of the sewer system in Memphis, which was designed by Colonel George E. Waring following the 1878 yellow fever epidemic in the city.⁶⁴ He determined that, by 1884, nearly all Memphis residents, regardless of race, had access to the sewer system, save for one neighborhood with a slight majority-Black population.⁶⁵ Even assuming that service to this neighborhood was delayed because of racial discrimination, Dr. Troesken found that construction of the sewer system benefitted both Black and white people, as the total mortality rate for all races in Memphis fell 50 percent between 1884 and 1895.⁶⁶ By 1890, Memphis had one of the most developed sewer systems in the United States and there were only small racial disparities in access to the public sewer mains.⁶⁷ In fact, Dr. Troesken determined that Black people benefitted as much as whites, if not more, from the construction of the city's sewer system.⁶⁸

However, cities with higher rates of residential segregation prioritized water and sewer services to white neighborhoods. Dr. Troesken also examined the construction of a sewer system in Savannah, which was struck by yellow fever in 1820, 1854, and 1876.⁶⁹ Savannah was slow to respond to the epidemics and did not begin construction of its system until 1898.⁷⁰ By that time, the city was fairly segregated by race, enabling officials to prioritize construction in white areas.⁷¹ Indeed, Dr. Troesken concluded that Savannah did not extend service to Black neighborhoods on the same basis as white neighborhoods: in 1900, 88 percent of white households had access to the sewer system, compared to only 58 percent of Black households.⁷² However, by 1905, 100 percent of all households were connected.⁷³ Dr. Troesken also examined access to water and sewer services in 15 cities in 1915 and determined that in segregated cities, Black residents received water and sewer services only after whites did; in integrated cities, they received these services concurrently.⁷⁴

Importantly, Dr. Troesken acknowledged (in a subchapter of his book entitled "Why Bigots Wanted Sewers for Everybody") that increased access to water and sewer services for Black neighborhoods was not motivated by whites' desire for equality and justice, but self-interest in preventing the spread of disease.⁷⁵ Most cities could not risk exempting Black areas from water or sewer services, as that would increase the risk of disease in other areas, including majority-white neighborhoods.⁷⁶ White supremacy and paternalism also played a role in extending services to Black neighborhoods. For example, Dr. C.E. Terry, the municipal health officer for Jacksonville, Florida, advocated for adequate water and sewer services to Black neighborhoods only because he believed that Black people were inferior to whites and that poor hygiene and disease among the Black population stymied economic progress.⁷⁷ In papers sent to the American Public Health Association, Dr. Terry wrote that "[t]he increase in the total death rate of our cities, through the excessive negro mortality, exerts a definite, harmful influence upon our growth ... of [great] import is ... the direct influence of the negro race as a menace to our own—a source and disseminator of infection."⁷⁸ Dr. William F. Brunner, the health officer for Savannah, made similar specious arguments to the Association, stating that "there is a contamination of the white race by the negro race and this contamination is both physical and moral."⁷⁹



Image: Man Drinking Water at "Colored" Water Cooler in Bus Terminal, Oklahoma City, Oklahoma, USA, Russell Lee, Farm Security Administration, July 1939 (Photo by: Universal History Archive/UiG via Getty Images)

Dr. Troesken's findings are consistent with the accounts of other historians and sociologists: racial segregation in cities impeded Black access to water systems. Multiple studies have shown that, as water systems were constructed throughout the U.S., Black neighborhoods were delayed in receiving services.⁸⁰ And as residential segregation increased throughout the 20th century, Black access to municipal services like water and sewer decreased.

Next, this report delves into the development of water policy in the 20th century, when the federal government made serious investments in both housing and water systems before leaving municipalities to fend for themselves to make (or delay) infrastructure improvements.

The Boom and Bust Years (Early 20th Century to the Present Day)

Between the 1920s and 1940s, the urban population of the United States continued to dramatically increase, leading to sprawl and suburban expansion.⁸¹ The federal government played a significant role in the development of suburbs, guaranteeing affordable mortgages for white middle-class families through the Federal Housing Administration and Veterans Administration.⁸² In the 1940s, 22 million (mostly white) American families became homeowners, due in large part to the policies of the federal government that made homeownership for these families affordable and practicable.⁸³ As part of this housing boom, American homes were significantly modernized. By 1940, approximately 94 percent of urban homes had clean running piped water and sewer pipes for waste disposal, and more than 80 percent had interior flush toilets.⁸⁴ New technologies—such as automatic dishwashers, washing machines, and air conditioners—increased Americans' water usage and strained existing infrastructure.⁸⁵

By mid-century, many of the waterworks systems built in the late 19th and early 20th centuries were in decline, experiencing issues like low peak pressure, insufficient storage, and poor water quality.⁸⁶ In 1958, an article in *Fortune* magazine on infrastructure declared that water supply and sewerage "remain a signal failure in public works."⁸⁷ At the same time, new waterworks continued to be built, particularly in the post-World War II boom years. While there were only 244 waterworks systems in the U.S. in 1870, there were more than 20,000 systems supplying 20 billion gallons of water daily to 94 million people a century later.⁸⁸ By the mid-20th century, almost all systems—close to 85 percent—were publicly-owned.⁸⁹

Water pollution became a major concern in the 20th century as health experts began to recognize and appreciate the impact of industrial pollutants on waterways.⁹⁰ In 1948, Congress passed the Water Pollution Control Act to empower the federal government to help lessen interstate water pollution.⁹¹ However, the Act required consent from participating states and was difficult to enforce.⁹² In 1956, Congress reauthorized the Act, strengthening its enforcement provisions and providing loans and matching grants for sewage treatment plant construction.⁹³ This increased funding alleviated some pollution, but many cities continued to discharge waste into water bodies. For example, sewage and factory wastes were released into Lake Erie with little or no treatment.⁹⁴

Over the next few decades, environmental activists continued to bring attention to pollution concerns, particularly following the publication of Rachel Carson's *Silent Spring* in 1962 and the burning of the Cuyahoga River in 1969.⁹⁵ In 1965, the federal government became more involved in water quality management after passage of the Water Quality Act, although significant pollution issues remained even after the statute was enacted.⁹⁶ Eventually, the federal government assumed an even larger role in the regulation of the environment, including water supplies. President Nixon established the Environmental Protection Agency (EPA) in 1970, and the first Earth Day was celebrated that year.⁹⁷ In 1972, Congress overrode a presidential veto to enact the Clean Water Act, which regulates water pollution and was considered a critical turning point in water quality legislation.⁹⁸ In 1974, the Safe Drinking Water Act was passed to protect the nation's drinking water supply from contaminants.⁹⁹

The Clean Water Act required municipalities to expend significant funds to build and upgrade facilities to treat water. The federal government funded most of these improvements following passage of the statute. In the 1970s, federal funding for water systems was at an all-time high, peaking in 1977.¹⁰⁰ When adjusted for inflation, the federal government provided about \$80 billion to local utilities to construct and upgrade treatment facilities in the 15 years after the law was enacted.¹⁰¹

But once this building boom was over, the government stepped back. During the Reagan administration, the federal government weakened environmental protections and ended the Clean Water Act grant program.¹⁰² But it wasn't just the EPA that pulled back from funding water projects: during this time, public funding for water resources decreased by 60 percent.¹⁰³

The 1990s heralded somewhat of a trend back toward the privatization of waterworks systems.¹⁰⁴ Between 1993 and 2003, the number of publicly-owned systems operating under private contracts increased from 400 to 1,100.¹⁰⁵ During that same time period, the number of people served by these companies increased from 51 million to nearly 300 million.¹⁰⁶ But municipalities experienced similar issues with the private sector as they did in the 19th century. For example, in 1998, Atlanta granted a 20-year contract to a private company to run its municipal water system.¹⁰⁷ Once the company took over, the quality of Atlanta's water suffered (turning to a rusty brown color), hundreds of waterworks employees were fired, and city funds were improperly used by the company for outside projects.¹⁰⁸ The contract was "amicably dissolved" in 2003, and the city returned to public ownership.¹⁰⁹ In recent years, struggling municipalities have once again looked to private contracts to provide financial resources for waterworks—with similar pitfalls and problems, as described further in Part II below.

Federal funding for water projects, while greatly reduced from the 1970s peak, has not completely disappeared. Now, the EPA provides states with low-interest loans for water infrastructure projects from Drinking Water and Clean Water "revolving funds."¹¹⁰ Pursuant to these programs, the agency awards states with annual grants, which they use to make low- or no-interest loans to local communities and utilities for various water and wastewater projects.¹¹¹ States are required to match at least 20 percent of the federal funds.¹¹² From 1997 through 2015, the EPA provided over \$18 billion to states from the Drinking Water fund.¹¹³ Between 1988 and 2015, the EPA awarded nearly \$40 billion through the Clean Water fund. During these periods, states have contributed more than \$10 billion through both programs.¹¹⁴ Despite this investment, the revolving funds are not able to match the demand for infrastructure improvements nationwide, and federal funding for the programs has decreased over time.¹¹⁵

The delivery of water remains a local matter. Currently, there are approximately 156,000 public drinking water systems across the country, including about 54,000 community water systems, which serve most Americans (about 15 million households supply their own water).¹¹⁶ Perhaps surprisingly, water consumption in the United States has actually remained steady since 1985, despite a population increase of 70 million people.¹¹⁷ While Americans' water usage roughly doubled between 1950 and 1980, the decrease in the decades since can be attributed to more efficient fixtures, conservation efforts, and the transition from a manufacturing to a service economy.¹¹⁸ As Charles Fishman noted in *The Big Thirst: The Secret Life and Turbulent Future of Water*, if we used as much water today as we did in 1980, every place in the United States would need 40 percent more water than is needed now.¹¹⁹

Next, in *Race and Water in the Boom and Bust Years*, this report tackles issues of race and water beginning in the mid-20th century, when stark residential segregation limited Black communities' access to water and the concept of environmental justice came to the fore.

Race and Water in the Boom and Bust Years

As noted previously, the housing boom in the early decades of the 20th century was primarily for the benefit of white middle-class families that fled urban centers to settle in outlying suburban areas. This “white flight” ushered in intense residential racial segregation throughout the nation. As detailed by Richard Rothstein in *The Color of Law: A Forgotten History of How Our Government Segregated America*, residential segregation was created, encouraged, and reinforced through the racially explicit policies of federal, state, and local governments.¹²⁰ The Federal Housing Administration and Veterans Administration financed entire suburbs as white enclaves, refusing to insure loans to Black families and veterans.¹²¹ The Home Owners’ Loan Corporation, created by the federal government to rescue households that were near default on their mortgages, used color-coded maps to determine the risk of default and labeled Black neighborhoods as red (the highest level of risk) simply because of the race of their residents.¹²² This created the practice of redlining (which persists to this day), in which banks refuse to extend credit or otherwise have a lending presence in communities of color.¹²³ Federal and local governments promoted the use of racially restrictive covenants in deeds to prevent the sale of homes to Black families.¹²⁴ Segregation was also heightened through private action. For example, real estate agents engaged in blockbusting, in which they would persuade white families to sell their homes at a bargain (preying on the white fear of Black neighbors) and then resell the vacant homes to Black families at inflated prices.¹²⁵ As a result of these practices, by 1970, the average Black person lived in a neighborhood that was 70 percent Black, typically in the center city (in the North) or in a clustered community, often on the outside border of a municipality (in the South).¹²⁶

Consistent with Dr. Troesken’s findings, increased residential segregation heightened racial inequities in the provision of municipal services like water and sewer. In the Kerner Commission’s 1968 report, examining the causes of race riots throughout the U.S., municipal inadequacies were cited as a major grievance by Black communities.¹²⁷ In 1967, LDF pioneered an effort to require cities to equalize these services by filing a lawsuit on behalf of a group of Black families living in Shaw, Mississippi.¹²⁸ The lead plaintiff in *Hawkins v. Town of Shaw*, Andrew Hawkins, was a Black carpenter living with his wife and children in the “Promised Land,” one of Shaw’s oldest and largest Black neighborhoods.¹²⁹ Shaw was a poor town: it did not have a public water system until the 1930s, did not begin paving roads until 1960, did not have sanitary sewers until 1963, and had no system for surface water drainage until 1970.¹³⁰ By the late 1960s, Shaw was completely segregated with a white side, which had comfortable municipal amenities (despite the town’s general poverty), and a Black side, which lacked water mains, fire hydrants, and sanitary sewers, and where the streets were unpaved and unlit.¹³¹ While only 30 percent of Shaw’s population was white, 97 percent of the residents of the neighborhoods that lacked services were Black.¹³² Only 80 percent of homes on the Black side had access to sanitary sewers, while virtually all white homes had access.¹³³ Unlike the Black neighborhoods, Shaw’s white neighborhoods had underground storm sewers.¹³⁴ Smaller water mains had been installed in Black homes, resulting in much lower water pressure as compared to homes in the white neighborhoods.¹³⁵ Like many of his neighbors, Mr. Hawkins’s home had no indoor plumbing.¹³⁶



Image: March 1953, African American mother walking with children to distant school. (Photo by Carl Iwasaki/The LIFE Images Collection/Getty Images)

According to Charles Haar and Daniel Fessler, two law professors who filed an amicus brief in *Shaw* (and later wrote a book about the case), the idea to raise a constitutional challenge to a municipality's inequitable provision of public services arose out of LDF's Jackson, Mississippi office.¹³⁷ LDF lawyers believed that they could logically extend the successful battle to desegregate schools and public facilities to challenge discriminatory living conditions under the 14th Amendment to the U.S. Constitution.¹³⁸ Success was far from assured—as Professors Haar and Fessler described it, issues of sovereign immunity and standing would have dissuaded “all but the most ill-informed (or innovative) lawyers from attempting a municipal services equalization suit in 1960 ... the prospect of representing the destitute residents of the worst part of town would have tempted few lawyers even if ultimate legal victory had been far more likely.”¹³⁹ (Ill-informed comment aside, this statement still accurately reflects LDF's hard-working lawyers today.)

LDF filed Mr. Hawkins's class action complaint in the Northern District of Mississippi, alleging that the town violated the 14th Amendment by failing to provide municipal services to Shaw's Black neighborhoods that were equal to those provided to white neighborhoods.¹⁴⁰ Of particular note, the complaint alleged that Shaw had discriminated not only on the basis of race, but poverty as well: the inclusion of wealth discrimination was intended to mirror language from Supreme Court Justice Warren in *McDonald v. Board of Election Commissioners of Chicago*, where he cautioned that strict scrutiny of a governmental policy is “especially warranted where lines are drawn on the basis of wealth or race.”¹⁴¹

Following an evidentiary hearing, the district court dismissed LDF's complaint, rejecting the existence of a constitutional right to equal municipal services.¹⁴² The court took great pains to justify the inadequate services in Shaw's Black neighborhoods, noting that they could be explained by “substantial, rational considerations” like a static population and financial factors.¹⁴³ For example, according to the court, the lack of sanitary sewers in certain areas was not the result of racial discrimination but a consequence of improper housing codes.¹⁴⁴ The court further patronized the plaintiffs by advising them to exercise their right to vote if they wanted relief: as “Negro citizens have voting power approximately equal to that of white citizens,” any “problems” with unequal services “are to be resolved at the ballot box” (blatantly disregarding the long history of voting discrimination in this country).¹⁴⁵

LDF appealed to the Fifth Circuit Court of Appeals. In its appeal, LDF dropped the poverty claim, focusing instead on the need for application of strict judicial scrutiny of Shaw's actions because the service disparities were based on race.¹⁴⁶ In January 1971, the Fifth Circuit reversed the district court's ruling, finding that the town had violated the constitutional guarantee of equal protection.¹⁴⁷ Importantly, the three-judge panel began its opinion by stating:

*Referring to a portion of town or a segment of society as being ‘on the other side of the tracks’ has for too long been a familiar expression to most Americans. Such a phrase immediately conjures up an area characterized by poor housing, overcrowded conditions and, in short, overall deterioration. While there may be many reasons why such areas exist in nearly all of our cities, one reason that cannot be accepted is the discriminatory provision of municipal services based on race.*¹⁴⁸

The Fifth Circuit engaged in a careful review of the disparities in Shaw's Black and white neighborhoods in street paving, street lights, sanitary sewers, surface water drainage, and water mains, and determined that they could not be justified by any compelling state interests.¹⁴⁹ The court also noted that there was no evidence of intent to discriminate by Shaw or its officials, but held that the law was “clear” that no evidence of intent was required in a civil rights lawsuit alleging racial discrimination.¹⁵⁰ To remedy the disparities in municipal services, the court ordered Shaw to submit a plan for its approval.¹⁵¹



Image: Segregated drinking fountain in use in the American South. Undated photograph. Sign reads "For colored only." (Photo by Getty Images)

Unsurprisingly, Shaw petitioned the Fifth Circuit for rehearing *en banc*. The full appellate court upheld the panel decision, agreeing that proof of intentional discrimination was not required and that the facts "squarely and certainly" supported the inference of clear overtones of racial discrimination in the provision of municipal services in Shaw.¹⁵² It also determined that the panel's directive to the town to submit a plan to remedy the racial discrimination was a "sound approach."¹⁵³ Following the decision, Shaw expanded access to public services. By 2004 (when Dr. Troesken revisited the case), 97.5 percent of homes in the town had sewer access and 100 percent had access to the water system.¹⁵⁴

At the time, legal analysts predicted that the *Shaw* decision would have significant consequences nationwide. LDF's press release following the *en banc* decision noted that "the message is now clear to cities and towns across the South and hopefully throughout the nation; that the federal courts will no longer tolerate any inequality in the provision of municipal services to Black and minority group citizens."¹⁵⁵ In an editorial published in *The New York Times* in 1971, a writer reflected that the decision "throws open a broad new field of civil rights law" for the "many Shaws in America, North and South, in city ghettos and rural slums alike."¹⁵⁶ Another commentator wrote in the *Harvard Civil Rights-Civil Liberties Law Review* that "by providing the first precedent for invalidating varying patterns of municipal services," the case would become "the progenitor of cases attacking the unequal provision of services."¹⁵⁷

However, just a few years later, the Supreme Court effectively limited the reach of *Shaw* by declaring in *Washington v. Davis* that an Equal Protection claim requires a plaintiff to meet the higher standard of proving intentional discrimination.¹⁵⁸ In its opinion in *Davis*, the Court cited *Shaw* with disapproval in a footnote.¹⁵⁹ Since then, very few municipalities have been found liable for racial discrimination in the provision of public water and sewer services under the 14th Amendment to the U.S. Constitution.

The 14th Friendliest City in America: Municipal Inequalities in Apopka, Florida¹⁶⁰

While the Supreme Court made it more difficult for civil rights lawyers to challenge municipal inequalities through the Equal Protection Clause of the 14th Amendment, it's still possible to succeed on such a claim—provided there is evidence of particularly stark racial disparities. One of the few post-*Shaw* cases in which a municipality was found liable of intentional discrimination involves Apopka, Florida, a small town near Orlando.¹⁶¹ In *Dowdell v. City of Apopka*, which was litigated in the early 1980s, Black residents sued the town, Mayor John Land, and city council members, alleging racial discrimination in the provision of municipal services in violation of the 14th Amendment and Title VI of the Civil Rights Act of 1964 (Title VI).¹⁶² The plaintiffs alleged discrimination in the paving and maintenance of streets, storm water drainage facilities, the water distribution system, sewerage facilities, and parks and recreational facilities.¹⁶³

Apopka's water system was built after 1915, and its sewer system was constructed after 1922.¹⁶⁴ The town is bisected by Highway 441, to which the Seaboard Coastline Railroad runs parallel. In 1937, a city ordinance was passed that prohibited Black residents from living on the northern side of the highway and railroad tracks and barred whites from living on the south side.¹⁶⁵ The ordinance was not repealed until 1968.¹⁶⁶ At the time of the lawsuit, Apopka was 30 percent Black and was rigidly segregated by race: nearly all Black families lived south of the highway and railroad tracks.¹⁶⁷ The district court found that the city had virtually ignored complaints from Black residents about municipal services, while acting favorably on similar requests from white residents and directing financial attention to the white areas of town.¹⁶⁸ The district court pointed to significant racial disparities in the various areas of concern cited by plaintiffs, including that: (1) 42 percent of streets in the Black community were unpaved, compared to only nine percent in white areas; (2) the Black community had virtually no storm water drainage facilities, compared to 60 percent of white homes that had curbs and gutters; (3) Black homes experienced extremely low water pressure, making bathing at times impossible; and (4) Black neighborhoods lacked sewer mains.¹⁶⁹ The town, and its mayor, defended the suit by claiming that the services were beyond municipal jurisdiction or that the white side of town experienced the same issues.¹⁷⁰ The court rejected these arguments, finding significant disparities in municipal services and holding the town liable for intentional discrimination.¹⁷¹

Apopka appealed, but the Eleventh Circuit Court of Appeals affirmed the district court's ruling.¹⁷² Citing factors from the Supreme Court's decision in *Village of Arlington Heights v. Metropolitan Housing Development Corp.*, the appellate court made clear that there was ample evidence of discriminatory intent, including the magnitude of the disparities, the legislative and administrative patterns of decision-making (including the 1937 ordinance, which "contributed to ghetto-like qualities of the Black residential area"), and the continued and systemic relative deprivation of the Black community.¹⁷³ Here, the "totality of the relevant facts" supported the district court's finding that Apopka had engaged in a systemic pattern of cognitive acts and omissions, which "inescapably evidence[d] discriminatory intent."¹⁷⁴

John Land served as mayor of Apopka for a total of 61 years, until 2014, when he lost his bid for reelection at age 93. He died later that year. In 2017, two bronze statues of Mayor Land were erected in town, and a local toll road is named after him.¹⁷⁵ Apopka is still starkly segregated by race, and the 1937 ordinance continues to impact the Black population.¹⁷⁶



Image: In October 1998, a family leaves Sunday church services in Lions, Louisiana surrounded by chemical plants. The poor and predominantly Black towns along the Mississippi River near Baton Rouge are known as “Cancer Alley” due to high cancer clusters and the presence of many chemical and oil production factories. (Photo by Andrew Lichtenstein/Corbis via Getty Images)

In the 1960s and 1970s, it became more evident that the risks of pollution were borne most heavily by Black communities, giving rise to the environmental justice movement.¹⁷⁷ The early movement focused its efforts on the siting of toxic waste facilities in predominantly Black neighborhoods. In 1979, a majority-Black community in Houston filed the first lawsuit alleging racial discrimination in the siting of a landfill in their neighborhood, relying in part on a study from Dr. Robert D. Bullard, who established a connection between the location of waste landfills in Houston and race.¹⁷⁸ In 1982, the Black community in Warren County, North Carolina banded together to protest the construction of a landfill for chemical waste disposal.¹⁷⁹ Although the community was not successful in blocking the landfill, the Warren County protests “brought a sharper focus to the convergence of civil rights and environmental rights.”¹⁸⁰ Studies from the Government Accountability Office (GAO) in 1983 and the Commission for Racial Justice in 1987 were also instrumental in establishing a link between race and the location of toxic facilities.¹⁸¹

In the 1990s, environmental racism continued to gain traction as a significant issue impacting communities of color.¹⁸² In 1990, the *National Law Journal* published a study finding that EPA penalties differed in Black and white communities.¹⁸³ That same year, the EPA established an Environmental Equity Working Group, which issued a report in 1992 confirming that minority and low-income communities are disproportionately exposed to environmental pollutants.¹⁸⁴ In 1991, the First National People of Color Environmental Leadership Summit drafted the 17 Principles of Environmental Justice, which outlined the three major components of environmental justice that remain relevant today: (1) no community should bear a disproportionate burden of environmental hazards; (2) all communities should have access to environmental benefits; and (3) decision-making processes need to be transparent and include community voices.¹⁸⁵ In 1992, the EPA created an Office of Environmental Justice.¹⁸⁶ The following year, the agency established a National Environmental Justice Advisory Committee to provide analysis and advice from stakeholders on environmental justice issues.¹⁸⁷ In 1994, President Clinton signed Executive Order 12898, which directed agencies receiving federal funding to address the disproportionate environmental impacts of their policies and programs on communities of color and low-income commu-

nities.¹⁸⁸ That order remains in effect today.

Despite these efforts, the federal government's track record on environmental justice has been abysmal. Numerous independent studies have concluded that there has been "little effective or comprehensive implementation of environmental justice policies,"¹⁸⁹ that environmental justice "has not yet been fully integrated into [the EPA's] core mission or staff functions,"¹⁹⁰ and that "federal agencies have not established accountability and performance outcomes for programs and activities."¹⁹¹ In 2015, the Center for Public Integrity determined that the EPA's civil rights office had not made one formal finding of discrimination under Title VI—which prohibits discrimination by recipients of federal funding—in 22 years, although hundreds of complaints had been filed.¹⁹² That same year, Earthjustice, an environmental justice nonprofit, filed a lawsuit against the EPA on behalf of five local community groups for failing to complete investigations of complaints that had been filed at least a decade prior, contravening Title VI's regulations, which contain mandatory procedures and timelines for investigations of complaints.¹⁹³ (Since 2016, LDF, along with Earthjustice, has represented one of the groups in their underlying EPA complaint, which was originally filed in 2003, regarding the siting of a landfill in a majority-Black community in Alabama.¹⁹⁴) In 2016, the U.S. Commission on Civil Rights released a report finding that the EPA was failing to meet its obligations under Title VI.¹⁹⁵

Although it hardly seems possible, the current administration has curtailed environmental regulation and enforcement even further. In 2017, President Trump withdrew the United States from the Paris climate agreement, which had been signed by 195 nations in an attempt to address the impact of global rising temperatures.¹⁹⁶ The agreement required the U.S. to cut greenhouse gas emissions and provide aid to poorer nations.¹⁹⁷ That year, he also issued an Executive Order seeking to curtail the scope of the Clean Water Act.¹⁹⁸ During his controversial tenure, former EPA Administrator Scott Pruitt shrunk the agency's staff,¹⁹⁹ removed references to climate change in the agency's strategic plan,²⁰⁰ and overturned (or considered overturning) dozens of regulations, including related to sewage treatment.²⁰¹

Given the dire state of environmentalism in general and environmental justice in particular, it is perhaps unsurprising that many water injustices impact communities of color today, including higher rates for water and sewer usage, disproportionate exposure to contaminants, zoning and land-use regulations that impede access to basic water infrastructure, and uneven enforcement of environmental regulations.²⁰²

While these issues all merit attention, Part II of this report focuses on water affordability and its impact on Black communities, including in Baltimore and Cleveland, two cities grappling with rising water rates.



part II: water in crisis

Water should be free as air and should always be supplied by the government.

-Captain M.C. Meigs, army engineer (1853)²⁰³

We believe there is a right to water and there is a right to affordable water.

the high price of water

Rising Rates and Failing Infrastructure

In the last several decades, the price of water has increased exponentially. Between 1990 and 2006, water and wastewater bills increased by 105.7 percent nationally, although median household incomes increased only three percent per year.²⁰⁵ Put another way, if water and wastewater bills had increased only with the general rate of inflation during that time period, they would have decreased by 25 percent by 2006.²⁰⁶ For a family of four using 150 gallons per person a day, the average water bill increased nearly 60 percent between 2010 and 2018, from \$71.53 to \$112.04.²⁰⁷ Circle of Blue, an organization that conducts an annual study of residential water costs in 30 U.S. cities, determined in 2015 that the price of water rose faster than nearly every other household expense.²⁰⁸ In 2018 alone, water prices rose 3.3 percent—and even that was the smallest annual increase since 2010.²⁰⁹

By far, the biggest factor contributing to rising water costs in the United States is aging and failing infrastructure. Pipes installed at the beginning of the 20th century, in the post-World War II era, and during the 1970s Clean Water Act construction boom all require replacement now, due to varying materials and techniques used during these periods.²¹⁰ Utilities nationwide have ranked the renewal and replacement of aging water and wastewater infrastructure as the most pressing issue facing the industry every year since at least 2014.²¹¹ But many municipalities are not making upgrades fast enough, and the nation's water infrastructure is in a state of serious disrepair.²¹² At the current replacement rate, it will take another 200 years before the million pipes across the country are fully replaced.²¹³ Given the poor condition of U.S. water infrastructure, the American Society of Civil Engineers (ASCE), the nation's oldest engineering society, issued its lowest grade (a D-) to drinking water and wastewater systems in 2009.²¹⁴ (By 2017, these systems had apparently improved just enough to earn a D (drinking water)²¹⁵ and D+ (wastewater)²¹⁶ from ASCE.)

When water infrastructure repairs and upgrades are put on the back burner, there are consequences. Failures in drinking water infrastructure can lead to significant issues, including water disruptions, impediments to emergency response, and unsanitary health conditions.²¹⁷ Water main breaks are estimated to cost \$2.6 billion annually.²¹⁸ Drinking water pipe breaks can also be toxic to fish, and sewer pipe leaks can contaminate water with pathogens and organic matter.²¹⁹

But infrastructure upgrades are costly. The EPA has estimated that nearly \$400 billion must be spent by 2030 to keep the country's water systems operating properly and that \$655 billion will be needed for both drinking water and wastewater infrastructure over the next 20 years.²²⁰ In an alternative survey of infrastructure needs, the world's largest organization of water supply professionals, the American Water Works Association (AWWA), estimated that restoring existing water systems will cost at least \$1 trillion over the next 25 years and that the investment required to replace pipes and maintain current levels of water service could triple water bills in the most affected communities.²²¹ And these estimates don't even include cities' costs to comply with the Clean Water Act and Safe Drinking Water Act (including under court-enforced consent decrees), which also drive up water rates.²²² Nor do they include the effects of climate change (resulting in more severe storms in the East and Midwest, and drought in the South and West), which will place additional strain on U.S. water systems at a projected cost of more than \$36 billion by 2050.²²³

By virtually any estimate, cities do not have the funds for these repairs and upgrades.²²⁴ While utilities generally



issue or sell tax-exempt municipal bonds or obtain other loans to fund large water infrastructure projects, which they repay through the fees paid by customers,²²⁵ many cities are massively in debt—estimated to total \$1.7 trillion nationwide—and are unable to take on additional projects.²²⁶ Further, as discussed above, federal investment in water and wastewater systems has waned since the late 1970s. Since then, federal funding for water infrastructure has decreased by 74 percent.²²⁷ According to an analysis by the watchdog agency, Food & Water Watch, in 1977, the federal government spent \$76.27 (in 2014 dollars) per person on water services.²²⁸ By 2014, that amount had decreased to \$13.68 per person. States have also decreased their spending on water and wastewater systems.²²⁹ As a result, these costs must be borne by local governments.

Water Privatization

While publicly-owned utilities serve 88 percent of customers in the U.S. with piped water service,²³⁰ privatization is once again on the rise as municipalities struggle to fund water system improvements.²³¹ In recent decades, private companies hired by municipalities may handle a range of duties, from specific services like billing or maintenance to complete control over a city's waterworks.²³² Generally, municipalities may look to privatize part or all of their waterworks due to budget concerns or decreased federal funding—in fact, President Trump's "infrastructure plan" includes a \$100 billion fund to stimulate private sector involvement in water infrastructure repairs.²³³

But water privatization generally means higher prices for customers. In 2016, Food & Water Watch determined that privately-owned water utilities charge customers, on average, 59 percent more for water service.²³⁴ After Bayonne, New Jersey signed a 40-year lease to privatize its system in 2012, rates had increased 28 percent by 2016, despite the promise of a four-year price freeze.²³⁵ In Rialto, California, rates rose 68 percent after the town's water system was privatized.²³⁶ And while the private companies must often tackle needed infrastructure repairs when they take over a waterworks system, accounting for some of the rise in rates, they also take a profit from customer revenue.²³⁷ Of particular concern, the privatization of water services can have a particular and disproportionate impact on communities of color, including higher rates and increased risk of service interruptions.²³⁸ (And, as in the past, there are quality concerns as well. The French firm Veolia, the world's largest private water company, was sued for its role in the lead crises in both Flint and Pittsburgh.²³⁹ In 2015, Veolia issued a report finding that Flint's water met federal and state guidelines, but failed to report on the presence of lead in the water.²⁴⁰ Veolia was also hired to oversee Pittsburgh's water system from 2012 to 2015, and the city experienced a lead crisis in 2016.²⁴¹ The Michigan Attorney General and the Pittsburgh Water and Sewer Authority both sued Veolia in 2016.²⁴²)

But the tide may be turning once again against the private companies and toward a renewed commitment that the provision of water is a public good, for the public good. In 2018, Baltimore became the first major city in

the U.S. to ban water privatization when 77 percent of voters approved a charter amendment declaring the water system to be a permanent, inalienable asset of the city.²⁴³

Water Pricing

Interestingly, one significant reason for the gap between the funds needed for infrastructure improvements and municipalities' budgets may be that water has been *underpriced* for too long.²⁴⁴ (Citizens of most developed countries already pay twice as much for their water as the average American.²⁴⁵) Given the lack of federal funding, utility customers provide the vast majority of funds needed to operate water and wastewater systems, and may not be paying enough.²⁴⁶ In *The Big Thirst*, Mr. Fishman aptly described the economics of water as "a mash-up of tradition, wishful thinking, and poor planning."²⁴⁷ The U.S. Conference of Mayors has estimated that cities fail to collect at least 10 to 20 percent of the funds needed for infrastructure upgrades.²⁴⁸ ASCE has estimated that the total investment gap for water and wastewater upgrades is expected to total at least \$100 billion by 2025 and over \$150 billion by 2040.²⁴⁹ The EPA also estimated that water and wastewater utilities need to secure at least \$300 billion by 2030 to account for this investment gap.²⁵⁰

Water in the U.S. is not priced according to supply and demand, even in local areas.²⁵¹ This is because "people do not really demand water infrastructure," per Dr. Rachel Butts and Dr. Stephen Gasteyer, who conducted a study of water and racial inequalities in Michigan, but rather "it is supplied as a matter of policy."²⁵² In fact, it may have been a disservice for utilities to price water so low for so long, since customers may not fully appreciate its value: in a recent report, utilities ranked "public understanding of the value of water systems and services" and "public understanding of the value of water" as the third and fifth most pressing issues, respectively.²⁵³ While AWWA encourages utilities to employ "full cost pricing," meaning that consumer rates and fees should cover the cost of providing services as well as renewing, updating, or expanding infrastructure, the typical water bill simply covers the cost of delivering the water.²⁵⁴ According to a 2018 AWWA survey, only 21 percent of utilities believe they can cover the full cost of services through rates and fees.²⁵⁵

So how is water priced? Utilities have a significant amount of leeway to set prices, subject to a general requirement that rates must be reasonable, not unduly discriminatory, and grant no unwarranted preference to one group of customers over another.²⁵⁶ There are a few typical rate structures, including (1) increasing block rate, where the price of water increases with usage; (2) uniform rate, where customers are charged a constant price per gallon, regardless of usage; and (3) decreasing block rate, where the price of water declines with usage.²⁵⁷ Charging customers by volume used can create issues for utilities, as approximately 80 percent of costs are fixed, regardless of water consumption.²⁵⁸ As a result, many utilities are moving to a rate structure based on fixed fees rather than consumption-based fees in order to recover more revenue in light of decreased water usage.²⁵⁹

But water is inherently local, and not all water is priced the same. Water bills across the nation vary widely, based on the age of the infrastructure, variations in the cost of energy and labor, and political dynamics.²⁶⁰ The population of a waterworks' customer base also plays a significant role: generally, bills decrease when more households access the local water supply.²⁶¹ Areas of the United States that were previously focused on manufacturing, like the Midwest and Northeast, may be subject to additional water costs resulting from population decline, underutilized infrastructure (such as abandoned factories), and poverty.²⁶² For example, Detroit lost over 61 percent of its population between 1950 and 2010, passing on the costs required to maintain and upgrade its failing water infrastructure to a smaller customer base.²⁶³ Other factors can affect the price of water,

including quality, distance to supply, and other economies of scale.²⁶⁴ Using data from Circle of Blue, the chart below reflects how widely water bills vary across the nation (and note that sewer bills add additional costs):

Table 1: Average Monthly Water Bills in 30 U.S. Cities, 2018²⁶⁵

City	Average Monthly Bill
Santa Fe	\$284.10
San Francisco	\$209.71
San Diego	\$198.83
Austin	\$197.37
Los Angeles	\$182.71
Seattle	\$160.34
Atlanta	\$141.20
Tucson	\$140.49
Boston	\$131.00
Charlotte	\$130.63
Houston	\$118.94
San Jose	\$112.62
San Antonio	\$111.77
Philadelphia	\$107.84
Indianapolis	\$96.85
Dallas	\$96.30
New York City	\$91.44
Columbus	\$83.54
Fort Worth	\$83.20
Baltimore	\$79.26
Las Vegas	\$75.82
Phoenix	\$71.58
Chicago	\$69.84
Detroit	\$64.04
Jacksonville	\$63.49
Denver	\$62.10
Milwaukee	\$58.99
Fresno	\$48.08

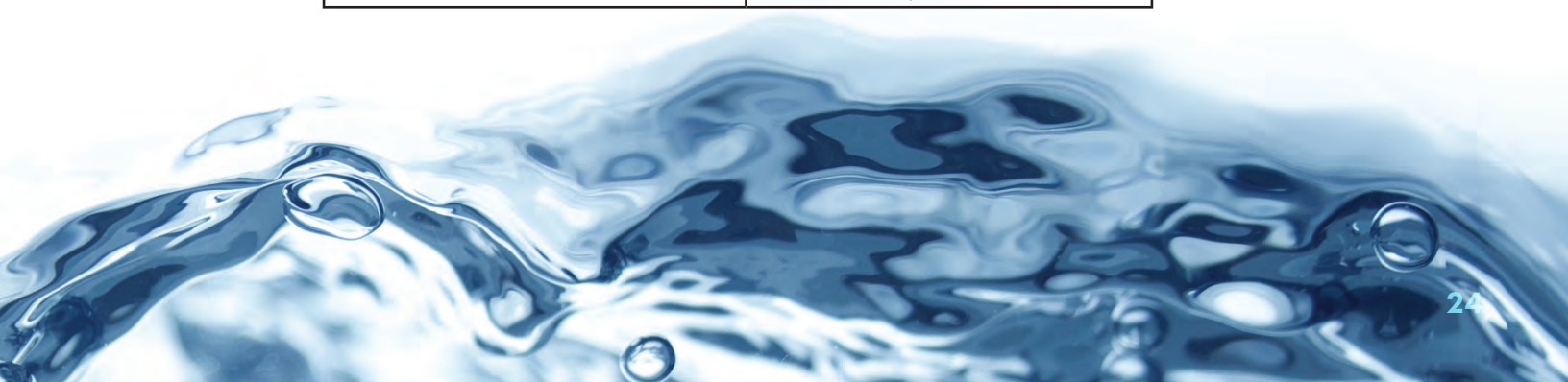




Image: General view of Downtown Detroit, Including factories on banks of Detroit River, October 27, 1964. (Photo by Keystone-France/Gamma-Keystone via Getty Images)

Salt Lake City	\$44.63
Memphis	\$44.52

Notwithstanding these varying factors, it is undisputed that rising water costs will have to be paid by customers.²⁶⁶ And as the price of water increases, more people are unable to pay their bills. In 2010, a report sponsored by the EPA and Water Research Foundation found that low-income households “will find it increasingly more difficult to pay their water and wastewater bills” and even higher-income households may not be able to afford their bills in light of competing needs, such as higher energy and food costs.²⁶⁷ When customers cannot afford their water bills, utilities take in less revenue, which makes it more difficult—if not impossible—to fund needed infrastructure improvements. For example, Detroit estimated that it lost \$40 to \$50 million in revenue in

recent years due to a low collection rate, and Gary, Indiana saw no increase in revenue despite raising rates 30 percent in 2011.²⁶⁸

Measuring Water Affordability

Water is generally considered “affordable” when families spend no more than two to 2.5 percent of their median household incomes for water services²⁶⁹ or 4.5 percent for combined water and wastewater services.²⁷⁰ While median household income is the most common benchmark to measure water affordability, it has been soundly criticized. Somewhat shockingly, there is apparently no social science research to support the two/2.5 percent or 4.5 percent benchmarks for affordability.²⁷¹ The two percent median household income measure first emerged in 1997 guidance from the EPA, but included “no methodological or theoretical explanation.”²⁷² And multiple studies have shown that current income is not sufficient to measure the toll of individual economic hardships, given that families differ in size, access to credit, standards of living, and demands on resources.²⁷³ Other indicators may more accurately gauge whether bills are affordable for families, including the level of arrearages, the rate at which service is disconnected, whether the customer or household can pay the bill without compromising the ability to pay for other services, and the accessibility and availability of low-income and other assistance programs.²⁷⁴ The EPA’s Environmental Financial Advisory Board has recommended that the agency use the lowest 20th percentile of income as a measure of a household’s ability to afford a rate increase.²⁷⁵

But regardless of the metric used, it is difficult to estimate how many people across the nation are unable to afford their water bills, given the general lack of data.²⁷⁶ There is no requirement in the United States for municipalities or utilities to collect data on water affordability, rate increases, or infrastructure investments.²⁷⁷ For example, in 2014, when its water shutoff crisis began, Detroit officials revealed that they did not collect any data on the number of people living without tap water, or on the age, disability, chronic illness, race, or income level of the affected population.²⁷⁸ Similarly, in 2017, the Baltimore Department of Public Works stated that the city does not retain information on the total amount of payments received from residential customers, the average arrears for all residential accounts, the average bill for all residential accounts in arrears, or the number of accounts receiving a notice of disconnection for nonpayment.²⁷⁹

Despite this lack of available data, various studies demonstrate the increasing unaffordability of water. The 2010 study sponsored by the EPA and Water Research Foundation estimated that 15 percent of residential water customers are constantly at risk of payment problems.²⁸⁰ In 2016, the GAO released a study of 10 cities, which showed that in four of them, the average water and wastewater bill was more than eight percent of income for low-income households.²⁸¹ And in 2017, a significant amount of media attention was given to a new study that estimated that millions of Americans would be unable to afford their water bills in just a few years.²⁸²

In that study, two researchers from Michigan State University, Dr. Elizabeth A. Mack and Sarah Wrase, concluded that more than a third of U.S. households may be unable to afford their water bills in the next five years, if bills continue to increase at their current rates.²⁸³ To measure affordability, Dr. Mack and Ms. Wrase used the EPA’s 4.5 percent benchmark for combined water and wastewater bills, meaning that they considered these bills to be unaffordable if they exceeded 4.5 percent of a household’s median income.²⁸⁴ They also calculated the average annual water and sewer bill to be \$1,686, using data from AWWA and Circle of Blue.²⁸⁵ Given the amount of the average bill, and using nationwide median household income data, Dr. Mack and Ms. Wrase determined that households need to earn at least \$32,000 per year in order to meet the 4.5 percent affordability cutoff.²⁸⁶ Approximately 13.8 million households (11.9 percent) in the U.S. have incomes below this threshold and thus must allocate more than 4.5 percent of their incomes to their water and wastewater bills.²⁸⁷ Therefore, water and wastewater services are currently unaffordable for these families.

Dr. Mack and Ms. Wrase projected that the percentage of households that will be unable to afford their water and wastewater bills will greatly increase over time. If bills continue to rise by six percent annually, 14.7 per-



Image: Demonstrators in Detroit demand action on the water crisis in Flint, March 3, 2016. (Photo by Chip Somodevilla/Getty Images)

cent of U.S. households will face affordability challenges.²⁸⁸ If bills increase by 41 percent over the next five years (the average rise between 2010 and 2015), an estimated 35.6 percent of U.S. households will not be able to afford their water and wastewater bills.²⁸⁹

The Collateral Consequences of Water Bills: When Failing to Pay Means Losing Your Home, Your Health, Your Kid, or Your Freedom

Losing Your Home (and Your Health)

Families can lose their homes (either practically or literally) and can suffer health risks for the failure to pay their water bills.

Service Disconnections

In recent years, water shutoffs have significantly increased as utilities have become more aggressive in their collection practices, particularly after the Great Recession when many cities struggled financially.²⁹⁰ As recognized by the EPA, a water service disconnection amounts to a practical eviction, as the home may be deemed uninhabitable.²⁹¹ In one extreme example, the city of Easton, Pennsylvania had a policy of evicting residents when their water service was disconnected for nonpayment and required a code inspection and repair of any code violations before water service could be reconnected (the city has since changed its law).²⁹² Water shutoffs also pose a threat to public health and human dignity.²⁹³ Without access to running water, families are unable to cook, bathe, clean, or flush their toilets. Additionally, families may forego medical expenses or food in order to pay their water bills.²⁹⁴

Detroit is the most well-known example of a city facing a water shutoff crisis. In 2014, approximately 44,000 households in the city had their water service disconnected for nonpayment of bills.²⁹⁵ With the ACLU of Michigan, LDF advocated for a moratorium on the shutoffs and expressed grave concern over the racial impact of the shutoff policy.²⁹⁶ Despite this advocacy, and the international attention given to the shutoffs, they have continued; in 2016, there were 28,000 service interruptions and nearly 18,000 were at risk of losing service in Detroit in May 2018.²⁹⁷ In 2017, experts issued preliminary findings that city blocks that experienced water shutoffs were 1.55 times as likely to experience water-related illnesses as blocks with no shutoffs.²⁹⁸ But Detroit is not alone. Among many other examples, about one in five customers in New Orleans and Gary, Indiana had their water service disconnected in 2015, and about one in eight customers lost their water service in Birmingham, Alabama and Youngstown, Ohio, respectively.²⁹⁹ More recently, a 2019 report by APM Reports, Great Lakes Today, and National Public Radio (NPR) found that utilities in Chicago, Cleveland, Milwaukee, Detroit, Buffalo, and Duluth collectively issued nearly 370,000 shutoff notices over the last decade.³⁰⁰

Water Liens

Every state has a process authorizing local governments to place liens on properties when homeowners fail to pay property taxes or certain municipal charges, including for water and sewer services.³⁰¹ In many states, if the homeowner does not satisfy the lien (including interest and costs), they can lose their home at tax sale or their lien might be sold to a private investor, who can later evict them.³⁰² Water and sewer liens are particularly problematic, as the homeowner or tenant may lose their home for an unpaid bill of just a few hundred dollars. These liens have a potentially devastating impact on homeownership rates and have been shown to disproportionately impact communities of color, as detailed below in the city studies of Baltimore and Cleveland.

While most are familiar with Flint's water contamination crisis (also discussed below), the city's water lien crisis has not garnered as much attention. In 2017, about 8,000 Flint homeowners were warned that they were at risk of losing their homes through tax foreclosure for failure to pay their bills for (contaminated) water. LDF, once again in collaboration with the ACLU of Michigan, persuaded the city to suspend



efforts to place property liens on homes with unpaid water bills.³⁰³ While Flint resumed its water lien practice in 2018, the city agreed in 2019 not to place liens on owner-occupied properties and the Genesee County treasurer has stated that she will not proceed with any foreclosures based on unpaid water bills while Flint is under a water emergency.³⁰⁴ LDF continues to monitor this situation. Further advocacy may be needed to ensure that Flint residents are not at risk of losing their homes due to unpaid water bills.

Losing Your Family

In many states, the lack of water service may impact parents' ability to retain custody of their children. For example, in Michigan, the lack of running water is a factor in determining whether parents are providing a suitable home for their children.³⁰⁵

Losing Your Freedom

In some states, the inability to pay for water and sanitation services can lead to criminal charges or other legal action.³⁰⁶ In Detroit, residents can face felony criminal charges for reconnecting their water

Image: A worker turns off the water supply to a home in Detroit on August 27, 2014. The Detroit Water and Sewer Department has disconnected water to thousands of Detroit residents who are delinquent on their bills. (Photo by Joshua Lott/Getty Images)

Water Affordability Programs

While there is a federal program to help low-income households with the costs of heating and cooling their homes, called the Low Income Home Energy Assistance Program (LIHEAP),³¹⁰ there is no equivalent federal law requiring states to ensure that water is affordable or establish programs for low-income customers.³¹¹ The Clean Water Act and Safe Drinking Water Act address water affordability only indirectly: the Clean Water Act and its implementing regulations recognize that lower water charges may be appropriate for impoverished customers; the Safe Drinking Water Act allows the EPA to grant variances to local governments if compliance with the statute would be unaffordable for the municipality.³¹² But there have been attempts to enact federal legislation related to water affordability. In June 2018, U.S. Senator Kamala Harris introduced the Water Affordability Act to help low-income families pay their water and sewer bills.³¹³ The bill would have required the EPA to award grants to public utilities to assist low-income families with their bills.³¹⁴ Additionally, in April 2018, U.S. Representative Keith Ellison introduced the Water Affordability, Transparency, Equity, and Reliability (WATER) Act, which would have provided billions in federal funding for water and wastewater improvements.³¹⁵ Neither bill passed during the 115th session of Congress, although the WATER Act was reintroduced in the House and Senate in February 2019, during the 116th session.

During the Obama administration, the EPA did officially recognize the financial challenges faced by many municipalities in meeting their federal compliance obligations under the Clean Water Act.³¹⁶ In a memorandum to local governments, the agency encouraged municipalities to consider rate structures to ensure that lower-income households can continue to afford vital wastewater services.³¹⁷ It also developed a Financial Capability Assessment Framework to assess a community's ability to meet Clean Water Act objectives.³¹⁸ The framework estimates the impact of statutory compliance on both residential customers and the relevant jurisdiction as a whole.³¹⁹ It includes a list of considerations that may be useful in evaluating financial capability, including the income distribution of the community; poverty rates and trends; water and wastewater fees as a percentage of household income; unemployment data; and data on late payments, disconnections, and service terminations.³²⁰ Despite this framework, it is unclear to what extent the EPA is determining that municipalities are unable to afford their federal compliance costs.³²¹

More recently, in October 2017, the National Academy of Public Administration (NAPA), in response to a directive from Congress, issued a lengthy report on the EPA's metrics for water affordability.³²² Among other recommendations, NAPA urged the EPA to revise its affordability standards to (1) include all water costs, including planned infrastructure costs, when determining the financial burden on a municipality to comply with federal law; (2) focus on the incomes of the customers most vulnerable to rate increases, rather than median household income; (3) identify the population of vulnerable users in a given municipality; and (4) avoid arbitrary normative thresholds when determining the cost burden on a municipality.³²³

In response to the report, the EPA was vague, telling Circle of Blue that it "look[s] forward to using this information to help communities and utilities fund their infrastructure needs while ensuring services remain affordable."³²⁴ The agency stated that it agreed with many of the report's recommendations, but would not elaborate further.³²⁵ If the agency does revise its affordability metrics, it could have a trickle-down effect on water rates, as municipalities would be granted more time to make infrastructure upgrades to comply with federal law.³²⁶ Ultimately, though, system improvements would need to be made, or water quality in these communities would suffer.³²⁷

For now, affordability, like water delivery itself, is a local matter. But the legal requirements that rates must be "reasonable" and "non-discriminatory" (mentioned above) have proven to be a roadblock for many afford-

ability programs.³²⁸ Many state utility commissions and courts have determined that these requirements mean that utilities cannot use rate revenues to fund affordability programs for low-income customers; in other words, higher-income customers cannot subsidize water costs for poorer families.³²⁹ In fact, in 2017, the University of North Carolina's Environmental Finance Center determined that state laws present an obstacle for utilities to implement customer affordability programs in nearly every state.³³⁰ These restrictions vary: in Maryland, private water and wastewater companies are prohibited from implementing affordability programs that are subsidized by customers, but public utilities are not so restricted and most counties in the state operate under individual charters, allowing them to implement such programs.³³¹ In California, there is express statutory authorization for private water and wastewater companies to administer customer affordability programs using rate revenues, but public utilities in the state are prohibited from doing so.³³² Michigan grants utilities broad rate-setting powers, but the Headlee Amendment to the state Constitution, prohibiting local governments from raising taxes without voter approval, has been interpreted to mean that rate revenues cannot be used to subsidize a water affordability program.³³³

Fortunately, many utilities have worked around this bar by funding affordability programs through other means. For example, in areas of California with public systems, these programs are funded by property tax revenues.³³⁴ Detroit has sought to implement programs that do not violate the Headlee Amendment, and currently has a customer assistance program that freezes arrearages for a year, provides \$25 in bill discounts per month, and offers \$700 toward past due amounts.³³⁵ And in 2017, Philadelphia launched an innovative water affordability program, discussed further below. According to AWWA, 48 percent of utilities nationwide offered some kind of affordability program in 2018, up from 37 percent in 2017 and only 14 percent in 2002.³³⁶ The benefits of affordability programs are not limited to the customer: these programs have been found to increase bill payment rates and bring in additional revenue for utilities to fund much-needed infrastructure improvements.³³⁷

Water affordability programs vary by jurisdiction. Many utilities offer bill discounts, through either a percentage discount on the total bill or a discount on a particular portion of the bill.³³⁸ Utilities may also offer rate structures with lower fixed charges, which are more beneficial for low-income customers (although, as stated above, fixed charges are becoming more common)³³⁹ or rate structures that use increasing block rates or seasonal rates, which can also reduce bills for low-income families.³⁴⁰ Bill timing adjustments (for example, issuing water bills monthly rather than quarterly) have been shown to increase payment rates.³⁴¹ Some utilities may exempt low-income households from the costs associated with setting up a new account, such as new account fees or deposits.³⁴² Utilities may also offer payment plans, through which a customer with arrearages makes a down payment and then agrees to pay the remaining balance owed over a period of time. The size of the required down payment and accuracy of the bill are critical when evaluating whether these programs are helpful for low-income customers.³⁴³

Water Affordability and Black Communities

Rising water and sewer rates are likely to disproportionately impact communities of color.³⁴⁴ Dr. Stephen Gasteyer, a sociologist with expertise in water access issues, told Circle of Blue in 2016 that water infrastructure is crumbling in places without the ability to absorb the cost—and those who are left in these cities are people of color.³⁴⁵ According to Dr. Gasteyer, “where you see things falling apart are predominantly minority communities.”³⁴⁶ Despite this finding, there are limited studies examining the intersection between water affordability and race. A new 2019 study determined that water shutoffs in cities in the Great Lakes region have been concentrated in Black and Latinx neighborhoods over the last decade.³⁴⁷ In 2011, Dr. Gasteyer and Dr. Rachel Butts examined the cost of water in Michigan counties and determined that prices were higher in areas with a greater proportion of racial minorities, even after controlling for various factors, including income.³⁴⁸ In Dr. Mack and Ms. Wrase's 2017 study of water affordability, they observed that Black and Latinx households have median incomes substantially lower than whites and thus are more likely to have water affordability

challenges.³⁴⁹ Similarly, in 2016, a Detroit-based group called We the People examined water shutoffs in the city and determined there was a widespread impact on African-American neighborhoods.³⁵⁰ In Boston, Massachusetts Global Action (MGA) studied the relationship between income, race, and water access through its 2012 Color of Water project.³⁵¹ In examining data from 2007 to 2011 on water shutoff notices, MGA found a “strong, persistent” relationship between race and water access.³⁵² For every two percent increase in people of color by city ward, there was a corresponding three percent increase in the likelihood of a water shutoff notice being issued.³⁵³

The Human Right to Water

Access to clean and affordable water has been recognized as a human rights issue in recent years. In 2002, the United Nations (UN) Committee on Economic, Social, and Cultural Rights adopted General Comment 15 on the human right to water.³⁵⁴ In the comment, the committee recognized that everyone is entitled to sufficient, safe, acceptable, physically accessible, and affordable water for personal and domestic uses.³⁵⁵ The comment also explained that water should be free from discrimination and should be informationally accessible, so that people can seek, receive, and impart information on water issues.³⁵⁶ In 2005, the UN’s Sub-Commission on the Promotion and Protection of Human Rights built on this work, adopting Guidelines for the Realization of the Right to Drinking Water and Sanitation.³⁵⁷ The guidelines contained affordability measures, including the promotion of flexible payment schemes and subsidies for low-income households.³⁵⁸ The next year, the former High Commissioner for Human Rights presented a study to the Human Rights Council on the scope and content of the relevant human rights obligations related to equitable access of safe drinking water and sanitation.³⁵⁹ In the study, the former Higher Commissioner stated that it is “now time to consider access to safe drinking water and sanitation as a human right, defined as the right to equal and non-discriminatory access to a sufficient amount of safe drinking water for personal and domestic uses.”³⁶⁰

In 2008, the UN appointed a Special Rapporteur to examine the human rights to safe drinking water and sanitation and to make recommendations.³⁶¹ As part of the Special Rapporteur’s mandate, an independent expert from the UN visited the United States in 2011 and raised a number of concerns at the conclusion of her visit, including that the U.S. must do more to eliminate discrimination in access to safe drinking water and sanitation and ensure that water and sanitation are available at a price people can afford.³⁶² In a written response to the Special Rapporteur, the United States ducked responsibility, stating that the issues raised would be “most feasibly handled” at the state or local level rather than through federal action.³⁶³

In 2010, the UN General Assembly declared that drinking water is a human right.³⁶⁴ In so doing, the UN made clear that people must be able to access drinking water and sanitation services that are safe, acceptable, and affordable.³⁶⁵ In 2012, California passed a law—the first in the nation—establishing the human right to water.³⁶⁶ The law recognizes that “every human being has the right to safe, clean, affordable, and accessible wa-



ter adequate for human consumption, cooking, and sanitary purposes.”³⁶⁷ The UN Human Rights Council also recognized the human right to water in 2010 and 2011.³⁶⁸ In 2015, the General Assembly reaffirmed that the right to sanitation is part of an adequate standard of living, recognizing it as distinct from the right to water.³⁶⁹ (On June 19, 2018, the United States withdrew from the UN Human Rights Council.³⁷⁰)

Further research is needed to determine the full impact of rising water bills on communities of color. Below, the city studies of Baltimore and Cleveland provide an overview on the water issues faced by these jurisdictions and establish a clear connection between race, water affordability, and homeownership.

city studies

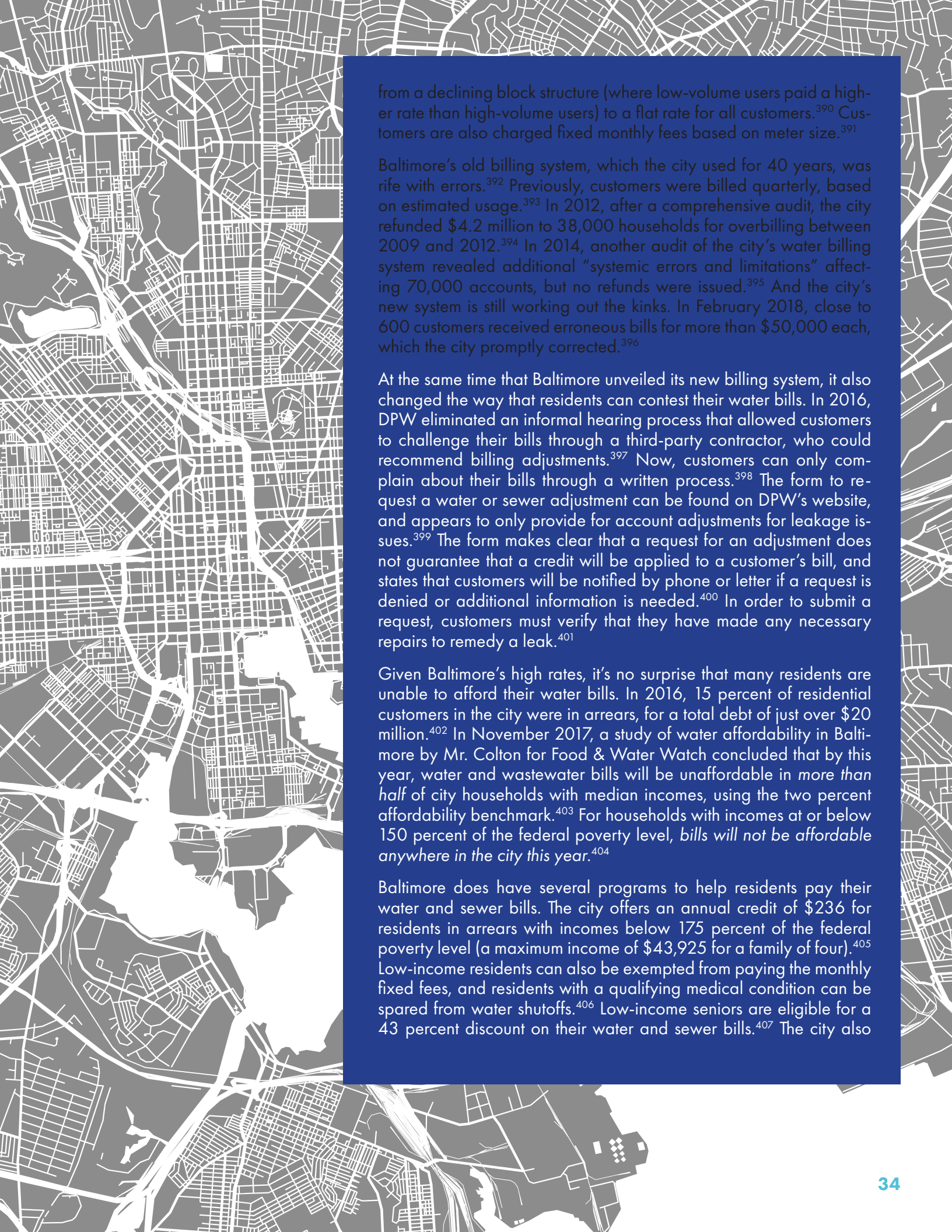
Baltimore, Maryland

Water and Wastewater Bills in Baltimore

Baltimore’s water rates have risen more rapidly than the national average. When measured either from 2006 to 2016 or from 2010 to 2018, the cost of water service in Baltimore increased by 127 percent.³⁷¹ Annual bills for combined water and wastewater services for residential customers increased 37 percent between 2014 and 2018 alone, from an average of \$517.26 to \$787.58.³⁷² Each year between 2016 and 2018, water rates rose 9.9 percent and sewer rates rose by nine percent.³⁷³ In January 2019, the city approved another 30 percent rate increase over the next three years.³⁷⁴ According to calculations by attorney and economist Roger Colton, the average customer’s water bill is expected to rise to \$1,115 by 2022, more than triple the average bill of \$350 in 2010.³⁷⁵

There are several factors driving Baltimore’s increased water and wastewater rates. Similar to other parts of the nation, Baltimore’s water infrastructure needs to be replaced due to old age.³⁷⁶ Baltimore’s plans to upgrade and improve its water and wastewater systems are expected to cost \$2 billion.³⁷⁷ Since 2005, Baltimore has been operating under a costly consent decree with the EPA to resolve allegations that it violated the Clean Water Act by discharging untreated sewage into the Chesapeake Bay.³⁷⁸ Through 2016, Baltimore spent close to \$900 million diagnosing problems in its sewer system and designing fixes.³⁷⁹ Revenue from residents’ rising water bills funded this work.³⁸⁰ Despite these efforts, the city’s sewer system was still in need of significant repairs, with thousands of residents reporting sewage backups into their homes.³⁸¹ The consent decree was renewed in 2016, and the projects provided for in the revised decree were expected to cost \$630.1 million in fiscal year 2017 and an additional \$548.4 million by 2030.³⁸² In addition to the sewage system upgrades, the city launched a \$160 million project to retrofit a drinking water reservoir in 2017.³⁸³ In February 2019, the city announced that it had received a federal loan of over \$200 million from the EPA to fund upgrades to its wastewater infrastructure.³⁸⁴

Most counties in Maryland, as well as the city of Baltimore, operate under home rule charter or code.³⁸⁵ This means that government-owned water and wastewater companies are not regulated by the Maryland Public Service Commission and have broad powers to set their own rates, subject to a general “reasonableness” requirement.³⁸⁶ Baltimore’s Public Works (DPW) and Finance Departments set water rates in the city, subject to approval by the Board of Estimates.³⁸⁷ In 2016, Baltimore made several changes to its billing system, converting to a system called “BaltiMeter Billing,” with meters that monitor hourly water consumption.³⁸⁸ Under the new system, customers are billed monthly, only for actual water used.³⁸⁹ The city also changed its rate structure,



from a declining block structure (where low-volume users paid a higher rate than high-volume users) to a flat rate for all customers.³⁹⁰ Customers are also charged fixed monthly fees based on meter size.³⁹¹

Baltimore's old billing system, which the city used for 40 years, was rife with errors.³⁹² Previously, customers were billed quarterly, based on estimated usage.³⁹³ In 2012, after a comprehensive audit, the city refunded \$4.2 million to 38,000 households for overbilling between 2009 and 2012.³⁹⁴ In 2014, another audit of the city's water billing system revealed additional "systemic errors and limitations" affecting 70,000 accounts, but no refunds were issued.³⁹⁵ And the city's new system is still working out the kinks. In February 2018, close to 600 customers received erroneous bills for more than \$50,000 each, which the city promptly corrected.³⁹⁶

At the same time that Baltimore unveiled its new billing system, it also changed the way that residents can contest their water bills. In 2016, DPW eliminated an informal hearing process that allowed customers to challenge their bills through a third-party contractor, who could recommend billing adjustments.³⁹⁷ Now, customers can only complain about their bills through a written process.³⁹⁸ The form to request a water or sewer adjustment can be found on DPW's website, and appears to only provide for account adjustments for leakage issues.³⁹⁹ The form makes clear that a request for an adjustment does not guarantee that a credit will be applied to a customer's bill, and states that customers will be notified by phone or letter if a request is denied or additional information is needed.⁴⁰⁰ In order to submit a request, customers must verify that they have made any necessary repairs to remedy a leak.⁴⁰¹

Given Baltimore's high rates, it's no surprise that many residents are unable to afford their water bills. In 2016, 15 percent of residential customers in the city were in arrears, for a total debt of just over \$20 million.⁴⁰² In November 2017, a study of water affordability in Baltimore by Mr. Colton for Food & Water Watch concluded that by this year, water and wastewater bills will be unaffordable in *more than half* of city households with median incomes, using the two percent affordability benchmark.⁴⁰³ For households with incomes at or below 150 percent of the federal poverty level, *bills will not be affordable anywhere in the city this year.*⁴⁰⁴

Baltimore does have several programs to help residents pay their water and sewer bills. The city offers an annual credit of \$236 for residents in arrears with incomes below 175 percent of the federal poverty level (a maximum income of \$43,925 for a family of four).⁴⁰⁵ Low-income residents can also be exempted from paying the monthly fixed fees, and residents with a qualifying medical condition can be spared from water shutoffs.⁴⁰⁶ Low-income seniors are eligible for a 43 percent discount on their water and sewer bills.⁴⁰⁷ The city also

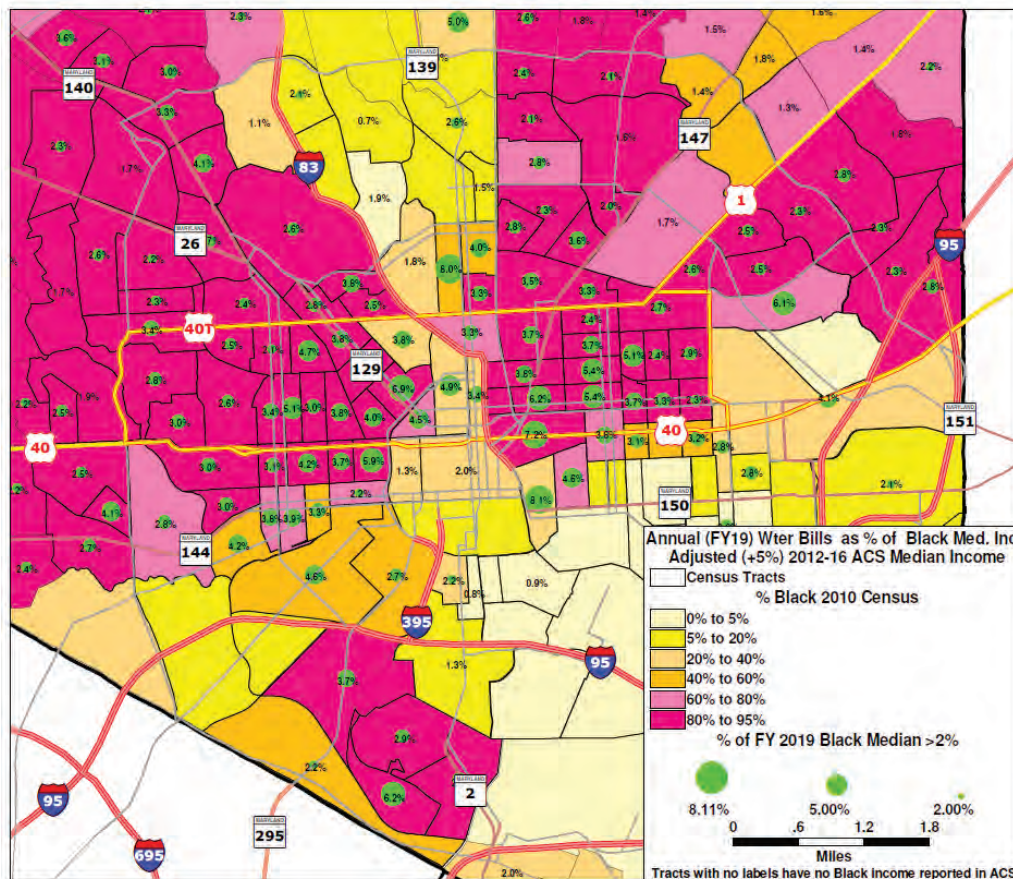
Water Affordability and Race in Baltimore

As of July 2017, the population of the city of Baltimore totaled 611,648.⁴¹² Sixty-three percent of the city's population is Black; 28 percent is white; and close to five percent is Latinx.⁴¹³ Of the 200 census tracts in Baltimore, 132 are majority-Black. Twenty-three percent of residents are impoverished.⁴¹⁴

Building on Roger Colton's analysis of water affordability in the city, LDF examined to what extent water bills will be unaffordable for Baltimore's Black population in fiscal years 2019 and 2020.⁴¹⁵ To conduct this analysis, LDF used Mr. Colton's projections that water and wastewater bills will total \$860.96 in 2019 and \$938.45 in 2020 and compared these figures to the 2014 LDF affordability threshold and Black median income. Given that the map currently being constructed is for 2019, LDF adjusted the threshold and Black median income per year (a five percent adjustment for 2019 and six percent for 2020).

In 2019, water bills will exceed two percent of Black median income in 118 of 200 census tracts. Sixty-five percent of the Black population in Baltimore lives in these tracts. Only 19 of the 118 tracts are not majority-Black. In 98 tracts, bills will range from two to four percent of Black median income. Eighty-three of these tracts are majority-Black. In 15 tracts, 12 of which are majority-Black, households will have to spend four to six percent of their incomes on water bills. In five tracts, water will cost six to eight percent of Black median income. Four of those five tracts are majority-Black (the fifth is 34 percent Black). The map below demonstrates how severely majority-Black tracts will be impacted by rising water bills this year.

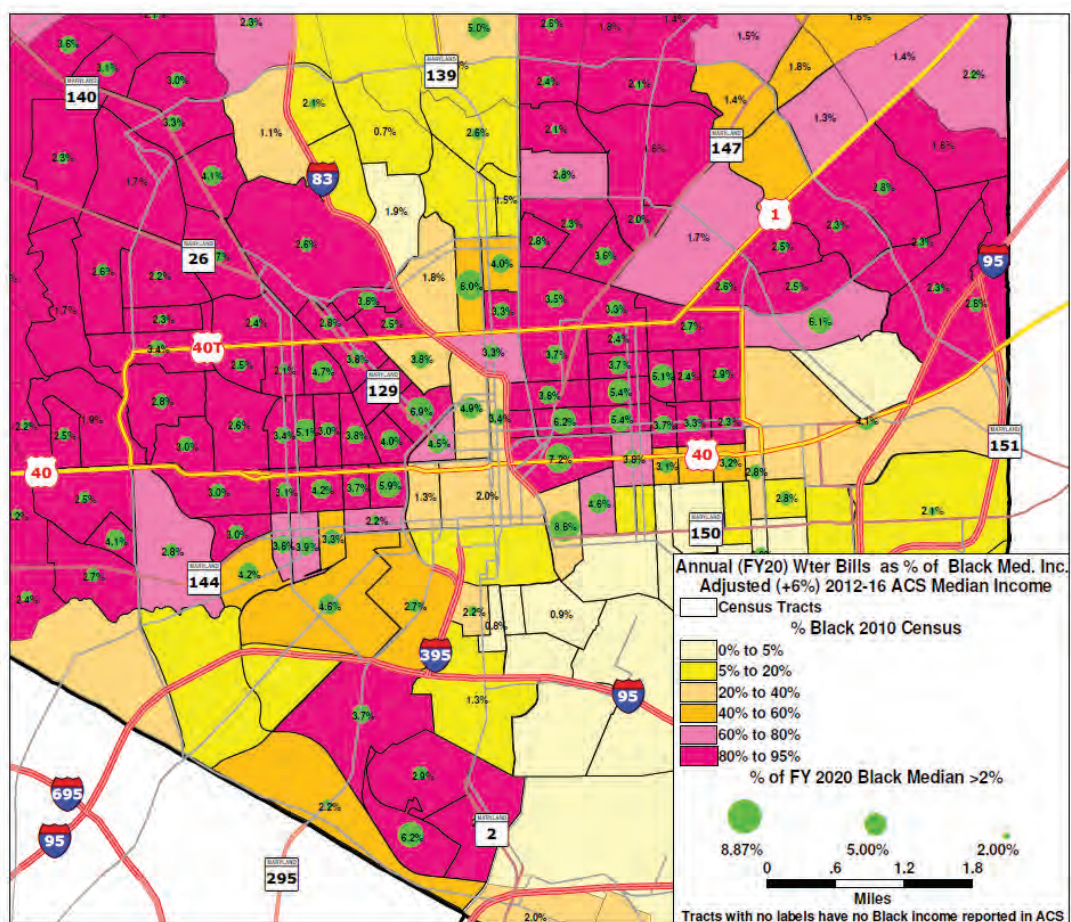
Map 1: Projected 2019 Water Bills as a Percentage of Black Median Income in Baltimore



And the problem will worsen next year. In 2020, water bills will exceed two percent of Black median income in 131 of 200 census tracts. Only 23 of the 131 tracts are not majority-Black. In 106 tracts, bills will range from two to four percent of Black median income. Eighty-eight of these tracts are majority-Black. In 18 tracts, 14 of which are majority-Black, households will have to spend four to six percent of their incomes on water bills. In eight tracts, water will cost six to eight percent of Black median income. Seven of these tracts are majority-Black (as in 2019, the eighth is 34 percent Black). The map below shows the distribution of rising water bills in 2020

by the percentage of Black median income in Baltimore's 200 census tracts.

Map 2: Projected 2020 Water Bills as a Percentage of Black Median Income in Baltimore



Failure to Pay Water or Sewer Bills in Baltimore

In the last several years, Baltimore has been aggressive in handling delinquent water and wastewater accounts. The city may disconnect water service to any customer who owes at least \$250 over two months of billing.⁴¹⁶ In 2015, Baltimore sent shutoff notices to 25,000 residential and commercial customers (approximately 60,000 individuals⁴¹⁷) in both the city and county who collectively owed more than \$40 million in unpaid bills.⁴¹⁸ Ultimately, it disconnected service to 8,100 residential properties, with only half getting water restored after settling their accounts (including paying a shutoff fee of almost \$100).⁴¹⁹ At the time, City Council President (who is serving as acting mayor as of May 2019) Bernard C. “Jack” Young expressed support of the impending shutoffs, noting that “I like it better than taking people’s houses and putting them into foreclosure” (more on that below).⁴²⁰ Prior to 2015, the city had typically shut off water service to around 3,000 customers per year.⁴²¹ Baltimore ramped up its disconnection practice after it rectified its billing errors and had more confidence that water bills were accurate.⁴²² In 2016, the city disconnected service to 1,385 customers for failure to pay their water bills.⁴²³

In addition to shutoffs, Baltimore residents have lost their homes for the failure to pay water bills as small as \$350. Until only recently, when a temporary—and now permanent—ban has barred the practice, Baltimore placed liens on homes for the failure to pay water or wastewater bills and sold those liens in the city’s annual property tax auctions.⁴²⁴

Water Liens in Maryland

Maryland’s tax sale process dates back to at least the 19th century.⁴³⁴ Maryland defines “tax” broadly, to include “any charge of any kind due to the State or any of its political subdivisions,” and thus any kind of municipal lien may be included in the annual tax sale, including liens for unpaid water bills.⁴³⁵ Maryland also allows local jurisdictions the discretion to determine which kinds of debt should be included in tax sales.⁴³⁶ While 90 percent of jurisdictions across the state include water debt, property taxes, and other charges in their annual sales, some Maryland municipalities sell very few to no properties each year through tax auctions.⁴³⁷

Others are more aggressive, selling thousands of homes annually for failure to pay taxes and other charges.⁴³⁸

Maryland homeowners receive their property tax bills on July 1,⁴³⁹ and additional penalties and interest are added if they are not paid by October 1.⁴⁴⁰ Once taxes (including municipal charges, if relevant) are delinquent, a lien can be placed on the property and sold at the jurisdiction's annual auction.⁴⁴¹ The tax lien takes precedence over a mortgage on the property.⁴⁴² Prior to the auction, property owners must receive notice of the sale, the amounts owed, and the payment due date.⁴⁴³ In Maryland, the tax collector may withhold properties from auction if less than \$250 is owed; in Baltimore, owner-occupied properties may not be sold for debts (including taxes, interest, and penalties) less than \$750 (an increase from the previous allowed amount of \$350).⁴⁴⁴

During the annual auctions, properties are sold to the highest good faith bidder.⁴⁴⁵ Those who bid—and win—on the lien certificates offered at auction earn the right to charge interest and fees to homeowners seeking to redeem their properties, as well as the right to foreclose.⁴⁴⁶ Following the auction, the jurisdiction must send notice to the homeowner within 60 days that a certificate for the property was sold and that the purchaser may foreclose on the property as early as six months from the date of sale (shortened to 60 days for properties needing substantial repairs).⁴⁴⁷

The homeowner can redeem the property following the tax sale but prior to foreclosure, provided they can pay the original lien amount, interest, and legal fees.⁴⁴⁸ If the owner does not pay all required amounts within two years, the lien holder can go to court to terminate the homeowner's rights.⁴⁴⁹ The homeowner is not compensated for lost equity, and the foreclosure process extinguishes all other mortgages and liens on the property.⁴⁵⁰ However, if the lien holder paid more for the certificate than the taxes owed, state law provides for the excess amount to be conveyed to the owner if they lose their home through the tax sale process, called the "excess fund."⁴⁵¹ Owners are not notified these funds are available and many are not aware of it.⁴⁵²

Baltimore conducts its annual auction of liens each May.⁴⁵³ While Baltimore is now barred by state law from selling liens based only on water or sewer debt, discussed more below, unpaid water bills previously qualified a property for tax lien certificate sale in Baltimore.⁴⁵⁴ Until December 2017, the city was permitted to sell certificates for non-owner-occupied properties for as little as \$350 in unpaid water and wastewater debt and \$750 for owner-occupied properties that missed at least three quarters of payments.⁴⁵⁵ Before 2015, owner-occupied properties could also be sold for unpaid water bills as small as \$350.⁴⁵⁶ In 1999, Baltimore reduced the maximum interest rate that lien holders could charge on overdue bills from 24 percent to 18 percent.⁴⁵⁷ On top of penalty interest rates, a lien holder could charge a 12 percent redemption interest rate for owner-occupied residences and 18 percent for non-owner-occupied properties.⁴⁵⁸ Additionally, between four and six months after a tax sale, a lien holder could add fees for a title search (around \$350) and legal charges (typically around \$1,500).⁴⁵⁹ (These practices are still in effect for other types of liens.)

These additional charges made it impossible for many homeowners to redeem their homes after a lien certificate was sold at tax sale. And if a homeowner was unable to pay, the lien holder could initiate court proceedings to officially foreclose on the home and evict the owner. As reported by the *Huffington Post Investigative Fund*, one Baltimore resident was evicted from her home—which her family had owned for three decades—after a \$362 unpaid water bill ballooned to \$3,600 after interest, penalties, and fees were added to the redemption costs.⁴⁶⁰ Another East Baltimore resident lost her two properties to an investor after a \$272.22 unpaid water bill grew to \$6,414.69, nearly \$5,000 of which was legal fees.⁴⁶¹ In 2014, about 3,000 open tax foreclosure cases were pending in the local court system.⁴⁶²

Homeowners in Baltimore had been at risk of losing their properties for unpaid water bills for decades, but the steep increases in water rates and billing system issues made the practice more pervasive in recent years.⁴⁶³ In 2006, approximately one-third, or 750, of the 8,000 liens offered for sale had no property taxes, and about 10 percent were for debts under \$500.⁴⁶⁴ In 2009, the city sold 666 tax liens based on unpaid water bills.⁴⁶⁵ In 2013, Baltimore sold 5,935 tax sale certificates, 523 (nine percent) of which were for water bills only.⁴⁶⁶ In May 2014, 671 homes were sold in 2014 for water liens only.⁴⁶⁷ In 2015, that number increased to 902.⁴⁶⁸ In 2016, Baltimore placed 9,984 properties in tax sale; 733 for water liens only.⁴⁶⁹

In 2017, Baltimore informed approximately 7,000 residents in arrears that their water debt would be sold at tax

sale.⁴⁷⁰ The total amount of arrears for these customers was over \$13 million.⁴⁷¹ Over nine million of the debt was paid off prior to tax sale.⁴⁷² Still, about 1,000 customers faced tax sale for unpaid water bills in 2017, and the city recovered approximately \$6.4 million by selling water-only liens.⁴⁷³

Baltimore's practice of placing water liens on homes and selling the liens to investors reportedly led to a significant loss of homeownership in a city with a predominantly Black population.⁴⁷⁴ The city attempted to justify the tax sale process by claiming that it was seeking new owners for its numerous abandoned or dilapidated properties.⁴⁷⁵ According to one investor, "the benefit of the system is that property can be put back in the hands of people who will put it back on the tax rolls and redevelop it."⁴⁷⁶ However, most properties sold to investors were occupied.⁴⁷⁷ Investors also claimed that the practice relieved the government of the burden of collecting debts and managing long-neglected properties, entitling them to profit in exchange for taking on this risk.⁴⁷⁸

The Racial Impact of Baltimore's Tax Sales

Data from the Tax Sale Prevention Project, a joint effort of the Pro Bono Resource Center of Maryland and the Maryland Volunteer Lawyers Service, sheds some light on the demographics of Baltimore homeowners with water liens. The Project holds four Tax Sale Prevention Clinics in Baltimore each year, serving 120 clients in 2016 and 137 in 2017.⁴⁷⁹ Both years, the majority of the Project's clients identified as Black (80 percent in 2016 and 73 percent in 2017) with a household income under \$30,000 (67 percent in 2016 and 63 percent in 2017).⁴⁸⁰ In 2016, 78 percent of clients had delinquent water bills; the percentage rose to 86 percent in 2017.⁴⁸¹ However, more analysis is needed to determine the full impact of Baltimore's lien sales on Black residents, and the lasting effects of past water lien sales on the city, even though the practice has now ended.

Local Advocacy and Legislative Remedies

Local advocates and lawmakers have expended great efforts in recent years to make water more affordable and manage the water lien crisis in Baltimore. The Baltimore Right to Water Coalition, which includes organizations such as the Maryland Volunteer Lawyers Service, the Pro Bono Resource Center of Maryland, Food & Water Watch, and the University of Baltimore School of Law, has been a key player in the fight for change in Baltimore's water practices. Additionally, journalist Joan Jacobson published two critical studies related to water bills and liens in Baltimore that informed much of the research discussed above.

Attempts to pass state and local legislation to manage the water crisis in Baltimore have had mixed results. In 2017, then-State Delegate Mary Washington, who represented north Baltimore, introduced two bills pertaining to water affordability and tax liens. House Bill 918 would have implemented statewide standards for water affordability programs, requiring utilities to adjust water bills for low-income households down to a level they could pay.⁴⁸² House Bill 453 would have prohibited Baltimore from selling tax lien certificates solely to enforce a lien for unpaid water, sewer, or sanitary system charges.⁴⁸³ Neither bill passed.

In February 2017, the Maryland legislature appointed a task force to examine tax lien sales and recommend statewide reforms.⁴⁸⁴ The task force met four times, including one public hearing, and a subgroup of the task force met once to discuss water liens.⁴⁸⁵ On January 18, 2018, the task force issued its report to the Maryland legislature.⁴⁸⁶ The report set forth recommendations and proposed legislation to address vacant and abandoned properties throughout the state and to add consumer and homeowner protections to the tax sale process.⁴⁸⁷ It also included specific recommendations related to water debt, proposing that jurisdictions implement water affordability programs and encourage payment plans.⁴⁸⁸ The task force also recommended that the state engage in an examination of its drinking water infrastructure.⁴⁸⁹

In December 2017, former Baltimore Mayor Catherine Pugh ordered a moratorium on the sale of water liens on owner-occupied residential properties.⁴⁹⁰ The moratorium did not extend to commercial or rental properties.⁴⁹¹ Given the limitations of the moratorium, Delegate Washington introduced a bill to revoke the City Council's authority to use liens to collect debt from unpaid water bills.⁴⁹² The bill passed the House but was not voted on by the Senate.⁴⁹³ Instead, in the final 90 minutes of the legislative session in April 2018, the Senate passed a bill to extend the mayor's moratorium through 2019, extending the ban to include all residential (owned and rented) properties with only water and sewer debt.⁴⁹⁴ However, properties with multiple types of liens (for example, water plus property tax debt) were still subject to tax sale. Maryland's Department of Legislative Services prepared a financial assessment suggesting that Baltimore's revenue losses because of the law could be "significant."⁴⁹⁵

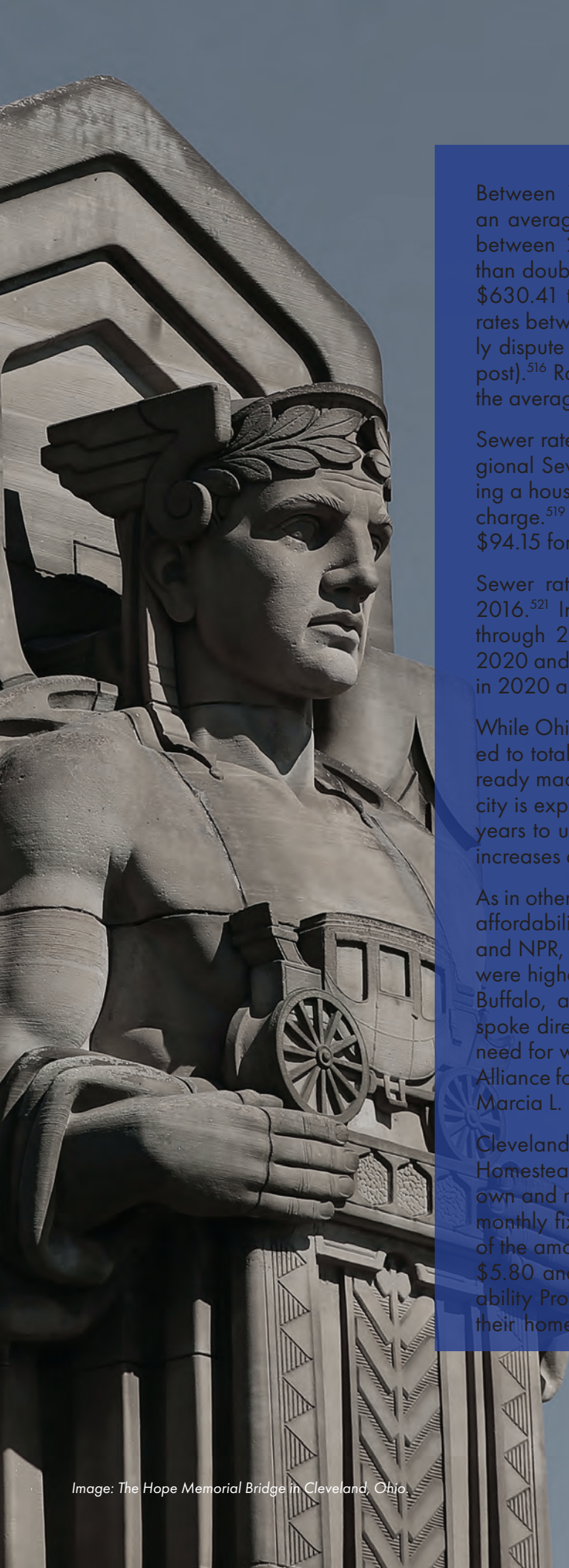
More recently, strides have been made at the state and city level in the fight to make Baltimore's water affordable for its residents. In December 2018, City Council President Young introduced the "Water Accountability and Equity Act," which would provide for income-based billing for impoverished residents and other customer protections.⁴⁹⁶ Under the proposed law, city residents earning less than 200 percent of the federal poverty level would be provided with credits for their water bills.⁴⁹⁷ The city's ability to shut off residents' water service for non-payment would also be restricted.⁴⁹⁸ The proposed law would create an Office of Water-Customer Advocacy and Appeals, which would serve as a neutral intermediary between residents and DPW to promote fairness to customers dealing with water billing disputes.⁴⁹⁹ Operating independently of DPW but with its cooperation, the office would: (1) serve as a customer advocate by conducting investigations into disputes, connecting customers to social services, and adjusting bills; and (2) conduct appeals hearings at the request of customers after a problem-solving determination is made.⁵⁰⁰ The bill specifies certain due process protections for customers at hearings, including the right to self-representation or representation by an attorney, to present evidence, to submit evidence in rebuttal, and to conduct cross examination.⁵⁰¹ It also authorizes a customer or other party aggrieved by a final decision to seek judicial review of that decision.⁵⁰² The first public hearing was held on the bill in May 2019.⁵⁰³

Separately, in January 2019, now-State Senator Mary Washington and other lawmakers introduced Senate Bill 96 in the Maryland General Assembly.⁵⁰⁴ The bill proposed to permanently ban Baltimore from placing liens on homes and churches for unpaid water bills.⁵⁰⁵ In January 2019, LDF submitted written testimony in support of the bill.⁵⁰⁶ On April 3, 2019, the General Assembly unanimously passed the bill, and Governor Larry Hogan has signed it into law.⁵⁰⁷

Cleveland, Ohio

Water and Wastewater Bills in Cleveland

Water bills in Cleveland, which are controlled by the city's Division of Water, include fixed and consumption charges.⁵⁰⁸ The fixed charge, which totals nine dollars a month for the typical residential customer, is based on the water meter size.⁵⁰⁹ The consumption charge is determined by the distance and elevation of the customer's address from Lake Erie.⁵¹⁰ In 2019, a home in the city of Cleveland that uses approximately 1,500 gallons of water a month is charged \$20.57, with additional usage resulting in a charge of \$34.97 per 7,480 gallons of water (prorated to the customer's actual usage).⁵¹¹ Rates increase in the outlying suburbs.⁵¹² Cleveland transitioned from quarterly to monthly billing in January 2017.⁵¹³



Between 1993 and 2015, water rates in Cleveland increased by an average of seven percent per year, with a significant increase between 2011 and 2015.⁵¹⁴ According to one study, rates more than doubled between 2010 and 2017, from an annual average of \$630.41 to \$1,249.29 for a family of four.⁵¹⁵ The city did not raise rates between 2016 and 2018 (although some customers apparently dispute this, as shown by comments on a Cleveland Water blog post).⁵¹⁶ Rates are expected to increase by \$16 to \$32 per year for the average residential customer in 2019 and 2020.⁵¹⁷

Sewer rates in Cleveland are controlled by the Northeast Ohio Regional Sewer District.⁵¹⁸ Sewer charges are calculated by multiplying a household's water consumption by the sewer rate, plus a base charge.⁵¹⁹ In 2019, the base charge is \$6.35, and the sewer rate is \$94.15 for every 7,480 gallons of water.⁵²⁰

Sewer rates increased 13 percent per year between 2012 and 2016.⁵²¹ In 2016, another 41 percent rate increase was approved through 2021.⁵²² Accordingly, the base rate will rise to \$7.95 in 2020 and \$9.70 in 2021.⁵²³ The sewer rate will increase to \$100.15 in 2020 and \$106.50 in 2021.⁵²⁴

While Ohio's water and wastewater infrastructure needs are expected to total \$20 billion over the next 20 years,⁵²⁵ Cleveland has already made significant upgrades to its infrastructure.⁵²⁶ Even so, the city is expected to invest more than \$235 million in the next several years to upgrade its underground water mains, and the sewer rate increases are intended to fund additional infrastructure projects.⁵²⁷

As in other areas, residents of Cleveland are concerned about water affordability. In the 2019 study by APM Reports, Great Lakes Today, and NPR, researchers found that Cleveland's water and sewer rates were higher than the rates charged in Chicago, Milwaukee, Detroit, Buffalo, and Duluth.⁵²⁸ In May 2018, local community members spoke directly to the Sewer District and Cleveland Water about the need for water affordability at a roundtable event organized by the Alliance for the Great Lakes and supported by U.S. Congresswoman Marcia L. Fudge and other organizations.⁵²⁹

Cleveland Water has two water affordability programs. Under the Homestead Discount program, which is for low-income seniors who own and reside in their homes, residents pay only \$5.65 toward the monthly fixed fee and \$13.37 for monthly consumption, regardless of the amount of water used.⁵³⁰ In 2020, these rates will increase to \$5.80 and \$14.20, respectively.⁵³¹ Cleveland also has an Affordability Program for any low-income resident who owns and lives in their home.⁵³² Under the program, residents receive a 40 percent

discount on their water bill.⁵³³ For a family of four, total household income must be at or below \$50,200 in order to qualify for the program.⁵³⁴ The Sewer District also has Affordability and Homestead programs for low-income homeowners.⁵³⁵

Certain residents of Cleveland can contest their water bills through a hearing with the Water Review Board, which was created by the consent decree in *Colegrove v. City of Cleveland*, a class action filed in 1974.⁵³⁶ Pursuant to the decree, the city has the duty and responsibility to provide water and sewer customers with notice and an opportunity to be heard prior to a service disconnection.⁵³⁷ The Water Review Board is intended to provide a neutral forum to settle disputes prior to disconnecting a customer's water service.⁵³⁸ It may reduce amounts owed by a customer to Cleveland Water and defer the payment of amounts owed.⁵³⁹ To be eligible for a hearing, (1) the property must be residential; (2) the person requesting the hearing must be the owner or a resident with an approved Cleveland Water Tenant Deposit Agreement;⁵⁴⁰ (3) proof of residency must be submitted; (4) the requestor must have received a shutoff or termination notice; and (5) the hearing must be requested within 10 days of receipt of the notice.⁵⁴¹ Residents of multi-family dwellings with more than four units, such as apartment buildings, are not eligible for a hearing. The Water Review Board is staffed by Cleveland Public Utilities employees who are not affiliated with the water department's customer service, billings, or collections units.⁵⁴² According to local advocates, Cleveland Water has represented that its customer service representatives do not verbally notify customers about the availability of Water Review Board hearings.

Unlike other major utilities that are subject to regulation by the Ohio Public Utilities Commission, Cleveland Water is unregulated and reports only to a city council committee.⁵⁴³

Water Department Issues

Cleveland's News 5 investigative team, led by Chief Investigative Reporter Ron Regan, has been instrumental in uncovering a series of issues with the city's water department over the last decade. In 2008, the news team revealed that 35,000 water meters were broken, producing inaccurate bills.⁵⁴⁴ In 2010, they determined that the average customer service wait time was 35 minutes, and two years later, that Cleveland Water had failed to collect \$40 million in revenue.⁵⁴⁵

Cleveland Water's problems continued in 2013, when customers complained of billing glitches from newly-installed wireless smart meters.⁵⁴⁶ In 2017, the news team determined that nearly 400,000 smart meters were incorrectly installed, which could lead to inaccurate bills.⁵⁴⁷ In a report by the subcontractor that Cleveland hired to install its meters, Itron, the company warned that "many errors can occur during installation that can cause an inaccurate meter read."⁵⁴⁸ Between 2013 and 2017, Cleveland replaced nearly 3,500 malfunctioning meters.⁵⁴⁹

In 2016, Mr. Regan and his team found that customer complaints and overbilling were a massive problem in Cleveland.⁵⁵⁰ Approximately 16,000 water customers complained of overbilling in 2015 alone.⁵⁵¹ While Cleveland Water claimed that some of the high bills were due to leaks, customers that spoke with the news team insisted there were no leaks—and some hired plumbers to ensure there were none.⁵⁵² Those residents also complained that Cleveland Water's customer service team frequently hangs up on callers and exhibits rude behavior.⁵⁵³ The news team obtained disciplinary records for the customer service department and found that one of every three representatives violated water department policies.⁵⁵⁴ Cleveland Water received more than 72,000 water customer billing complaints between 2013 and 2017.⁵⁵⁵

Water shutoffs and liens are also a pervasive problem in Cleveland. In 2015, 44,000 shutoff notices were sent out to Cleveland Water customers for failure to pay their bills.⁵⁵⁶ While many customers settle their accounts after receiving a notice, Cleveland Water regularly disconnects service to delinquent customers. Indeed, the 2019 report by APM Reports, Great Lakes Today, and NPR found that there were more than 40,000 water shutoffs in Cleveland between 2010 and 2017.⁵⁵⁷ Cleveland Water has told local advocates that it determines where to disconnect service based on geographic zone and account balance amounts. The department reportedly rotates through zones, turning off service to accounts with either high or low overdue balances if in the same area.

Thousands of water liens are placed on homes in Cleveland each year. According to data received by the news team, close to 8,000 tax liens were filed by Cleveland Water with the Cuyahoga County Auditor from 2013 to 2015, and nearly half of them (3,651) were filed in 2015 alone.⁵⁵⁸ Cleveland Water reported slightly different (but very similar) lien numbers for the period between 2012 and 2016. According to the department, it placed liens on 1,136 properties in 2012 and 1,742 in 2013.⁵⁵⁹ The number of liens increased greatly in subsequent years: Cleveland Water reported 2,847 liens in 2014; 2,872 in 2015; and 4,442 in 2016.⁵⁶⁰ All told, between 2012 and 2016, the department placed liens on just over 13,000 properties.⁵⁶¹ (Separately, LDF received publicly-available data from Cuyahoga County indicating that more than 11,000 water liens were placed on properties between 2014 and 2018.) Cleveland Water further claims that it recovered \$8.5 million through the

water lien process between 2012 and 2016, representing just 0.59 percent of its operating revenue.⁵⁶²

According to the news team, Cleveland Water customers are typically not told of their right to a hearing before the Water Review Board, and few hearings are held each year.⁵⁶³ They determined that, in 2015, the board held only 31 hearings despite thousands of customer complaints.⁵⁶⁴ And when hearings are held, serious issues have been uncovered, including malfunctioning meters, incorrect meter readings, and improperly-prepared bills.⁵⁶⁵

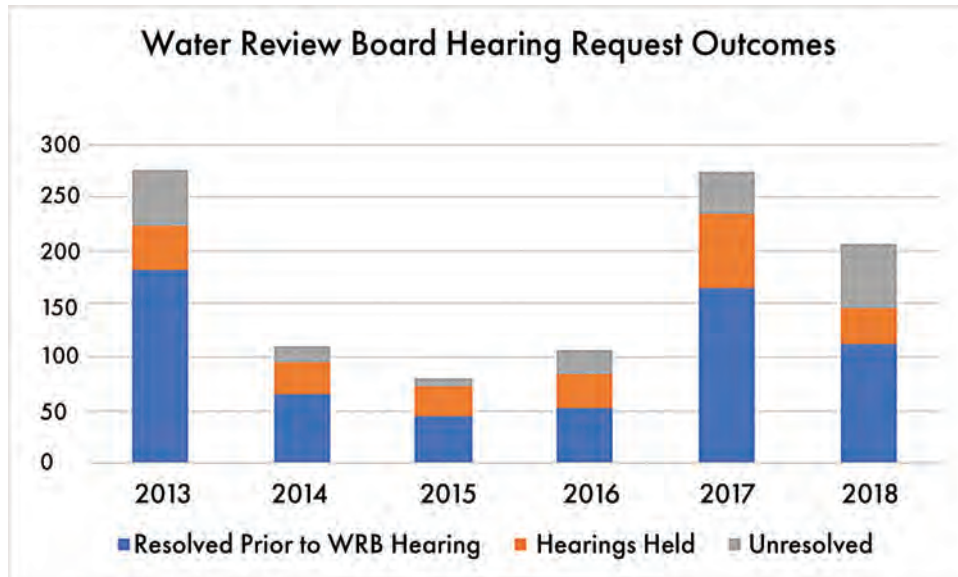
Through a public records request, LDF independently confirmed that Water Review Board hearings are rarely held. Between 2013 and 2018, only a few dozen hearings were held each year, with the highest number of hearings in 2017. The table below shows the number of hearings requested and held each year for the last six years.

Table 2: Cleveland Water Review Board Hearings Requested and Held, 2013-2018

Year	Hearings Requested	Hearings Held
2013	276	43
2014	111	30
2015	81	29
2016	106	32
2017	274	69
2018	207	33

According to Cleveland Water, many issues prompting hearing requests are resolved prior to a hearing. Still, many customers who request a hearing do not receive one, according to the department's own records. The figure below reflects hearing request outcomes between 2013 and 2018, including resolved requests, hearings held, and unresolved requests. Of course, this data does not capture the number of hearing requests that are never made because customers are not aware of, or are not informed of, their right to do so.

Figure 1: Water Review Board Hearing Request Outcomes, 2013-2018



Further, those who do receive a hearing are not guaranteed a bill adjustment or even a payment plan. The figures below provide a breakdown of Water Review Board hearing resolutions between 2013 and 2018.

Figure 2: Water Review Board Hearing Resolutions, 2013



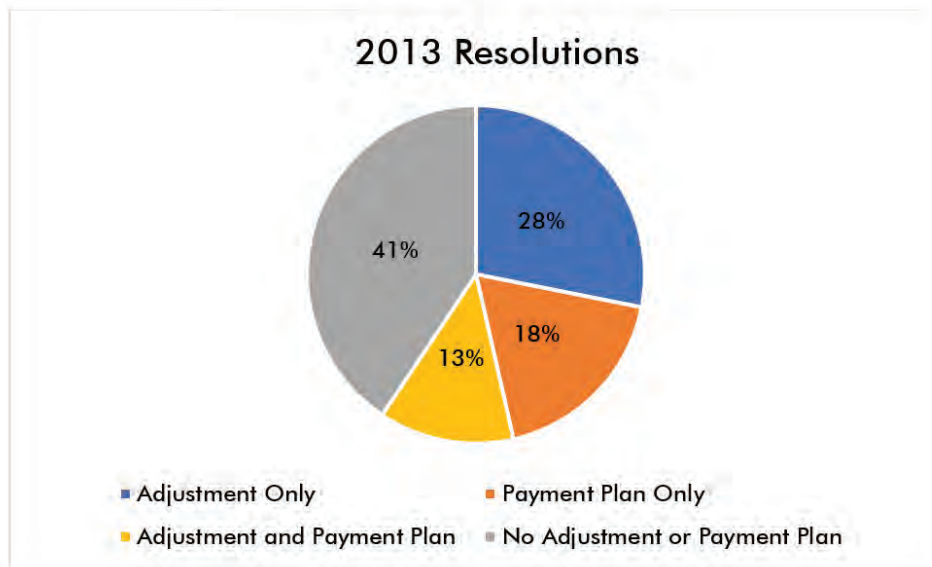


Figure 3: Water Review Board Hearing Resolutions, 2014



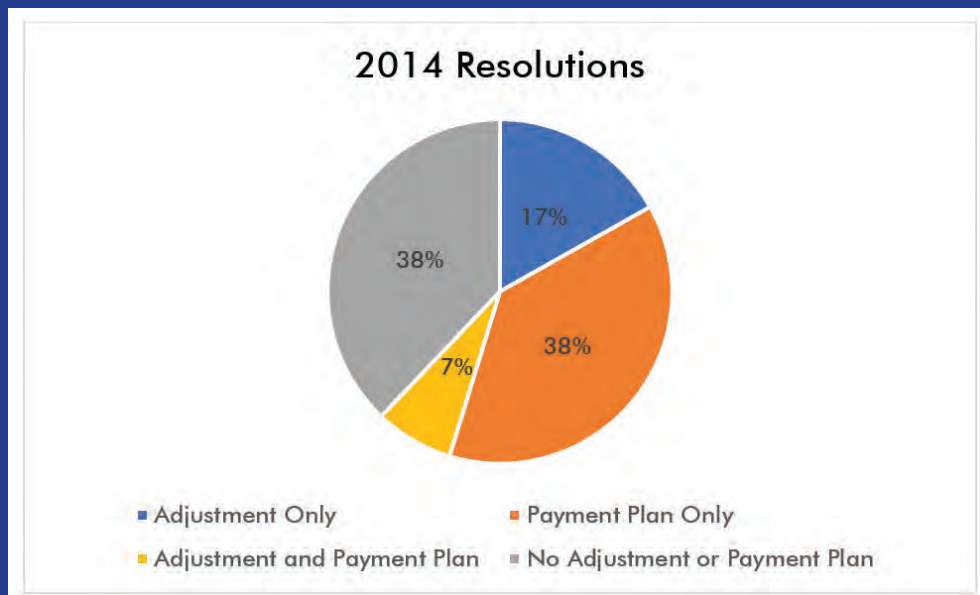


Figure 4: Water Review Board Hearing Resolutions, 2015

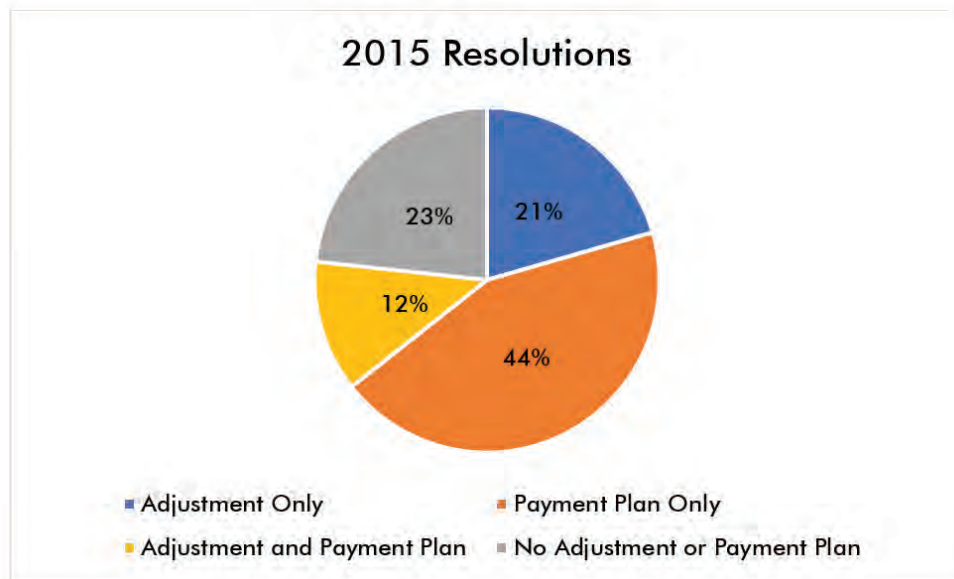


Figure 5: Water Review Board Hearing Resolutions, 2016

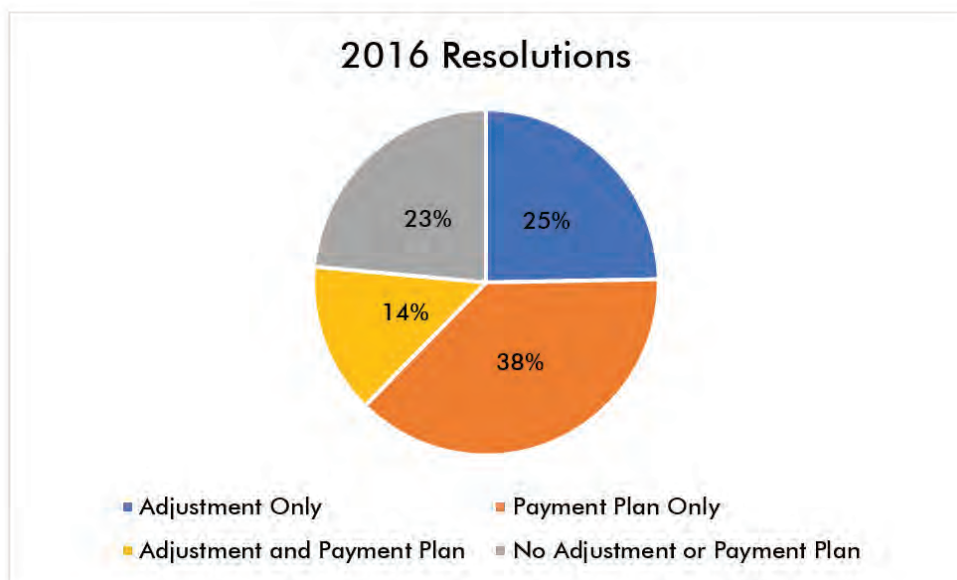


Figure 6: Water Review Board Hearing Resolutions, 2017



Figure 7: Water Review Board Hearing Resolutions, 2018

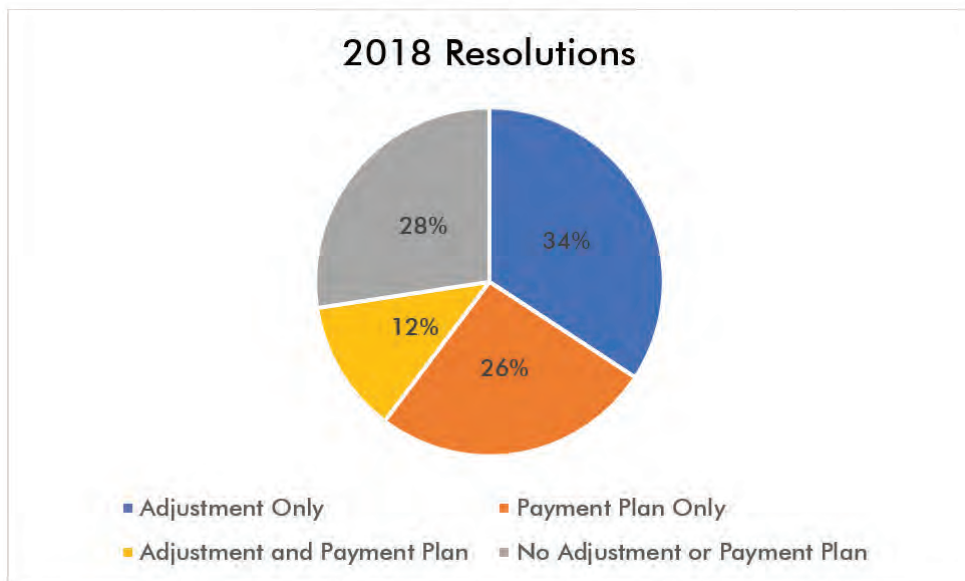
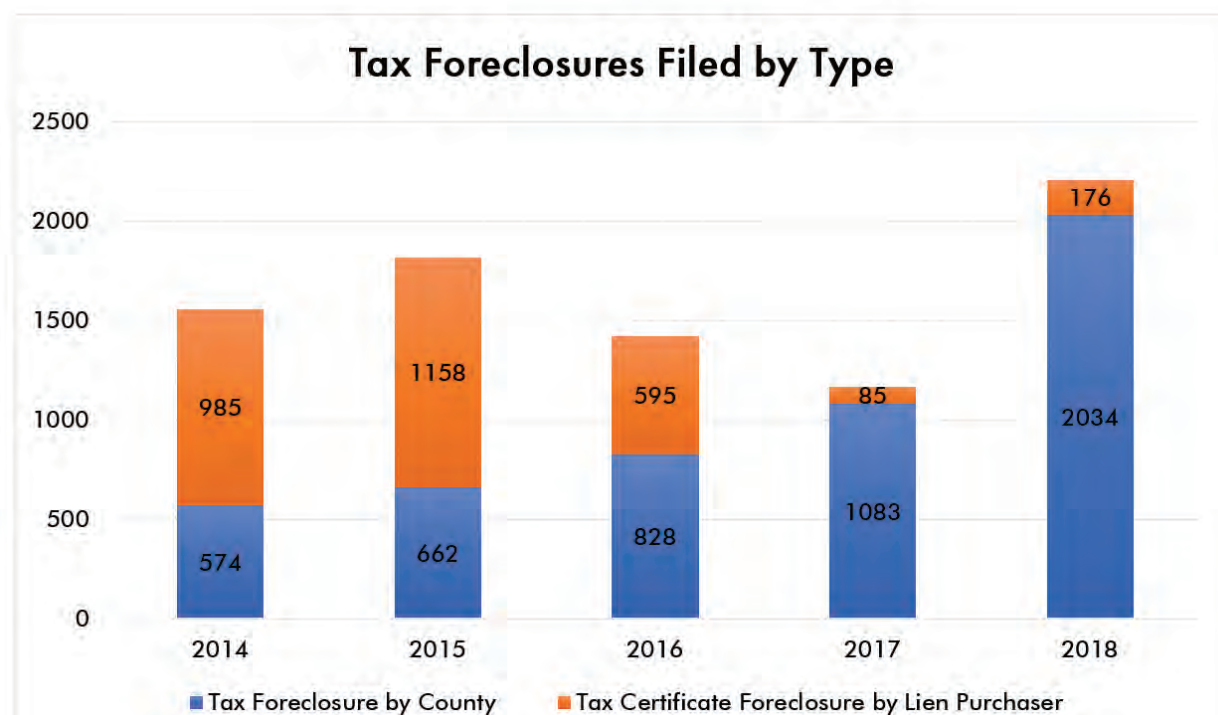


Figure 8: Tax Foreclosures in Cuyahoga County by Type, 2014 to 2018

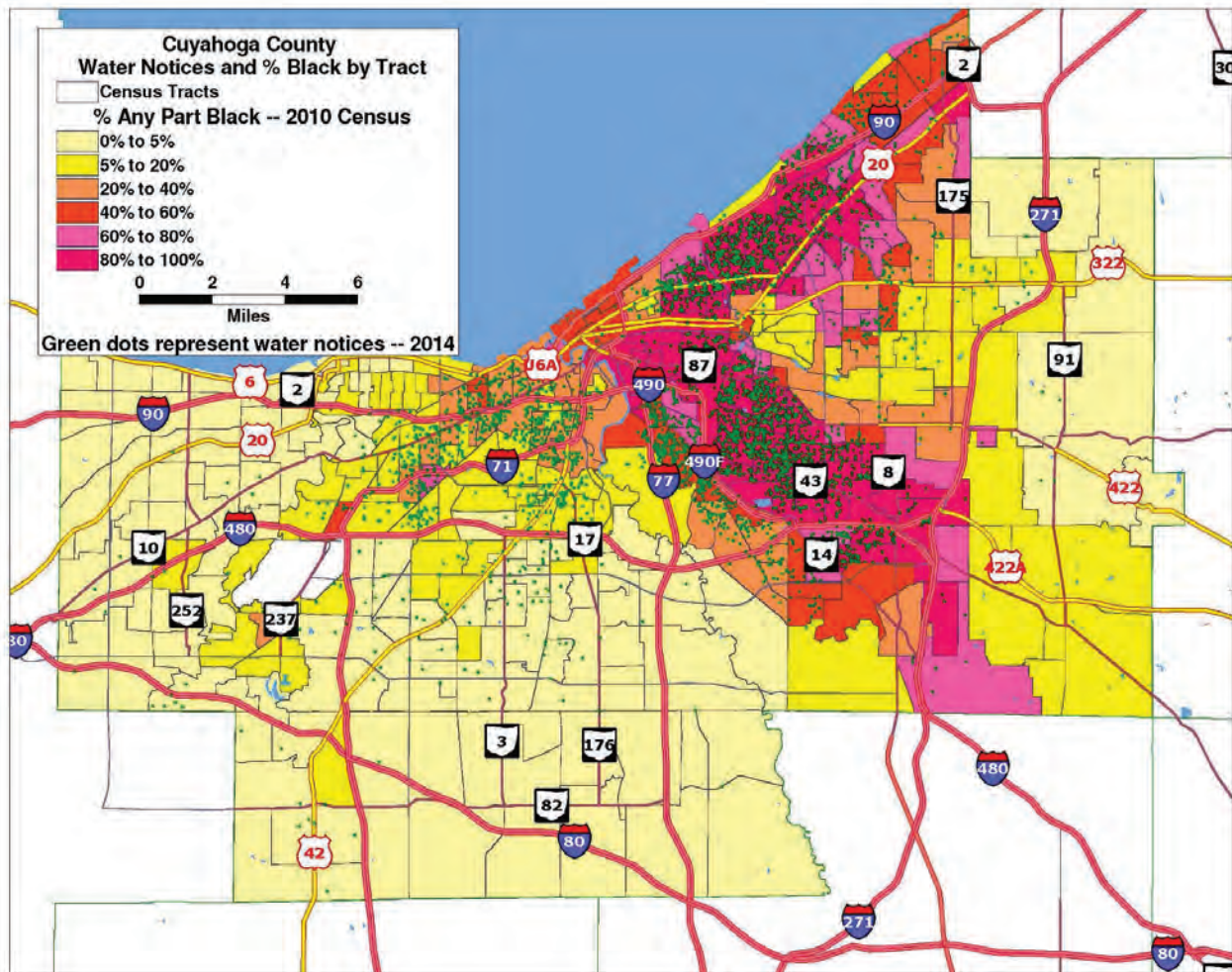


Water Affordability and Race in Cleveland

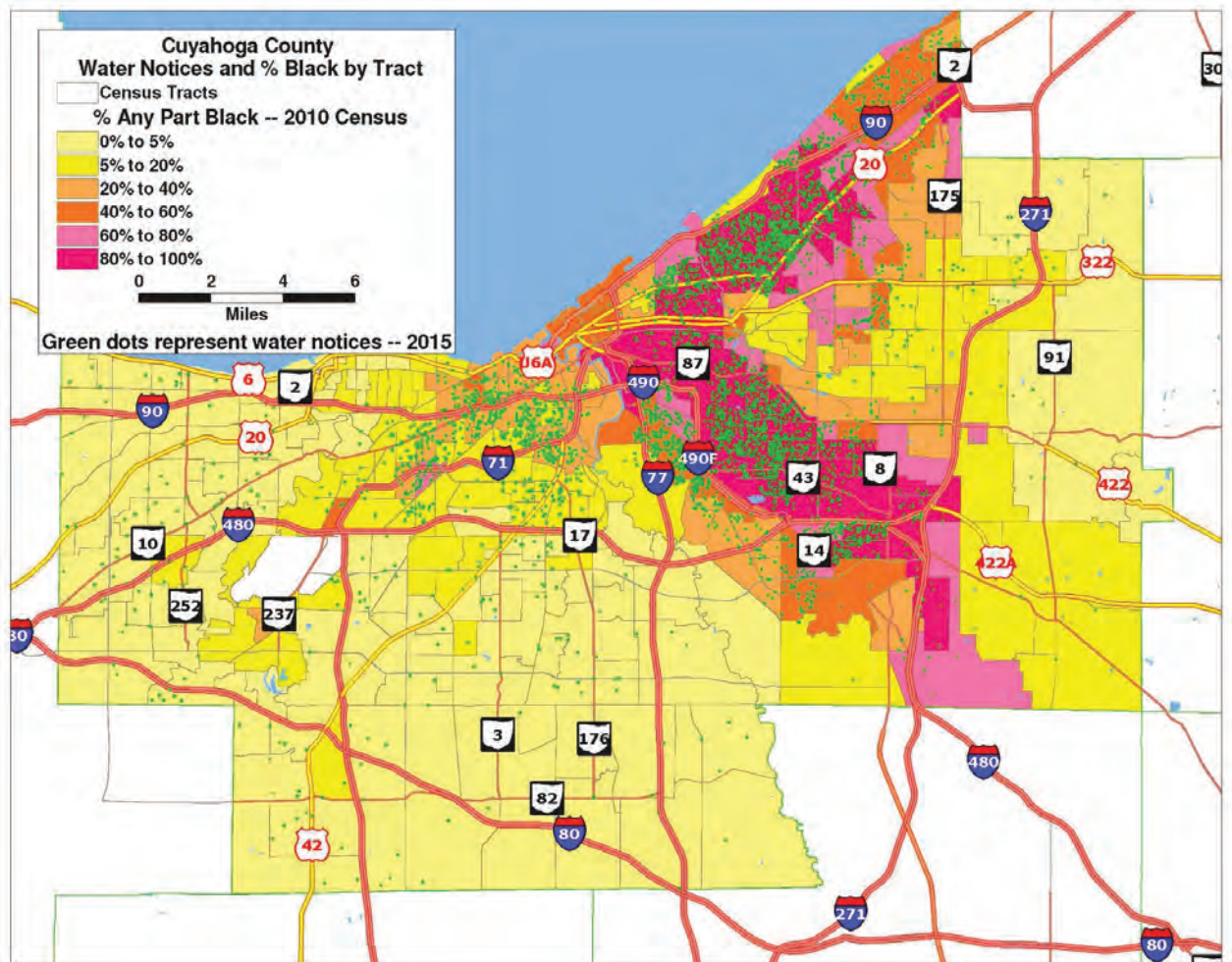
As of July 2017, the population of Cuyahoga County was approximately 1.3 million.⁵⁸² Approximately 30.5 percent of the county's population is Black; nearly 60 percent is white; and close to six percent is Latinx.⁵⁸³ In 2017, the population of the city of Cleveland was 385,525.⁵⁸⁴ Approximately 51 percent of Cleveland's population is Black; 34 percent is white; 11 percent is Latinx.⁵⁸⁵ Thirty-six percent of the city's residents are impoverished; 18.3 percent of the county's population lives in poverty.⁵⁸⁶

LDF examined water liens and shutoffs in Cuyahoga County to determine if the county's Black population is disparately impacted by these practices.⁵⁸⁷ First, LDF analyzed water liens in the county from 2014 to 2018. The maps below demonstrate that water liens have been heavily concentrated in majority-Black census tracts in the county overall, including Cleveland. In 2014, 66.5 percent of water liens were located in majority-Black census tracts. That year, only 20.2 percent of liens were located in majority-white tracts.⁵⁸⁸ In 2015, 68.9 percent of water liens were located in majority-Black tracts and about 18 percent were located in majority-white tracts. In 2016, 52.9 percent of liens were located in majority-Black tracts and 23.3 percent were located in majority-white tracts. In 2017 and 2018, the percentages spiked again—in 2017, 68.9 percent were located in majority-Black tracts, with a slight decrease to 66.3 percent in 2018. In those years, only 18 percent and 21.5 percent of liens were located in majority-white tracts, respectively. The distribution of water liens for each year between 2014 and 2018 is shown in the maps below.

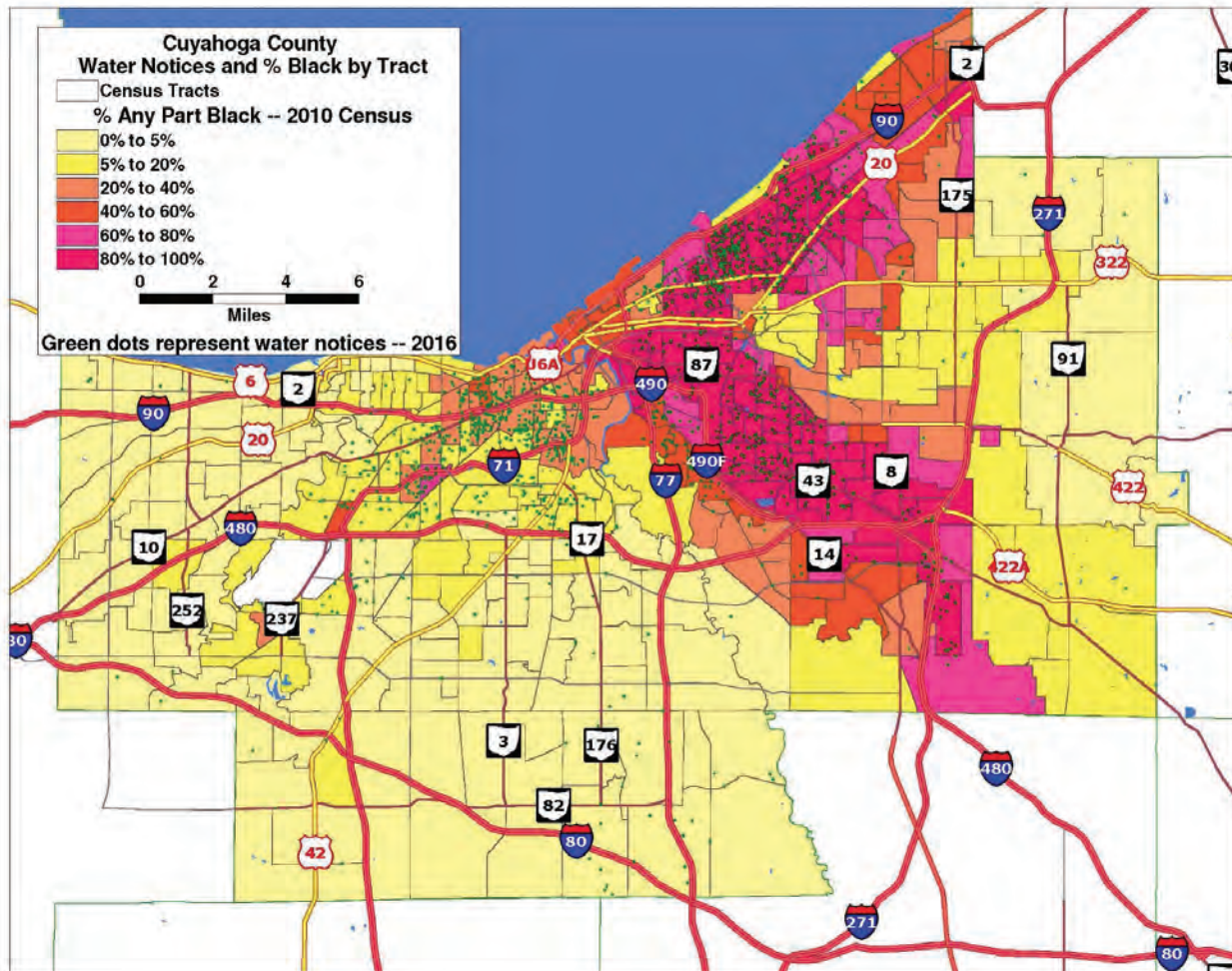
Map 3: Water Liens in Cuyahoga County, 2014



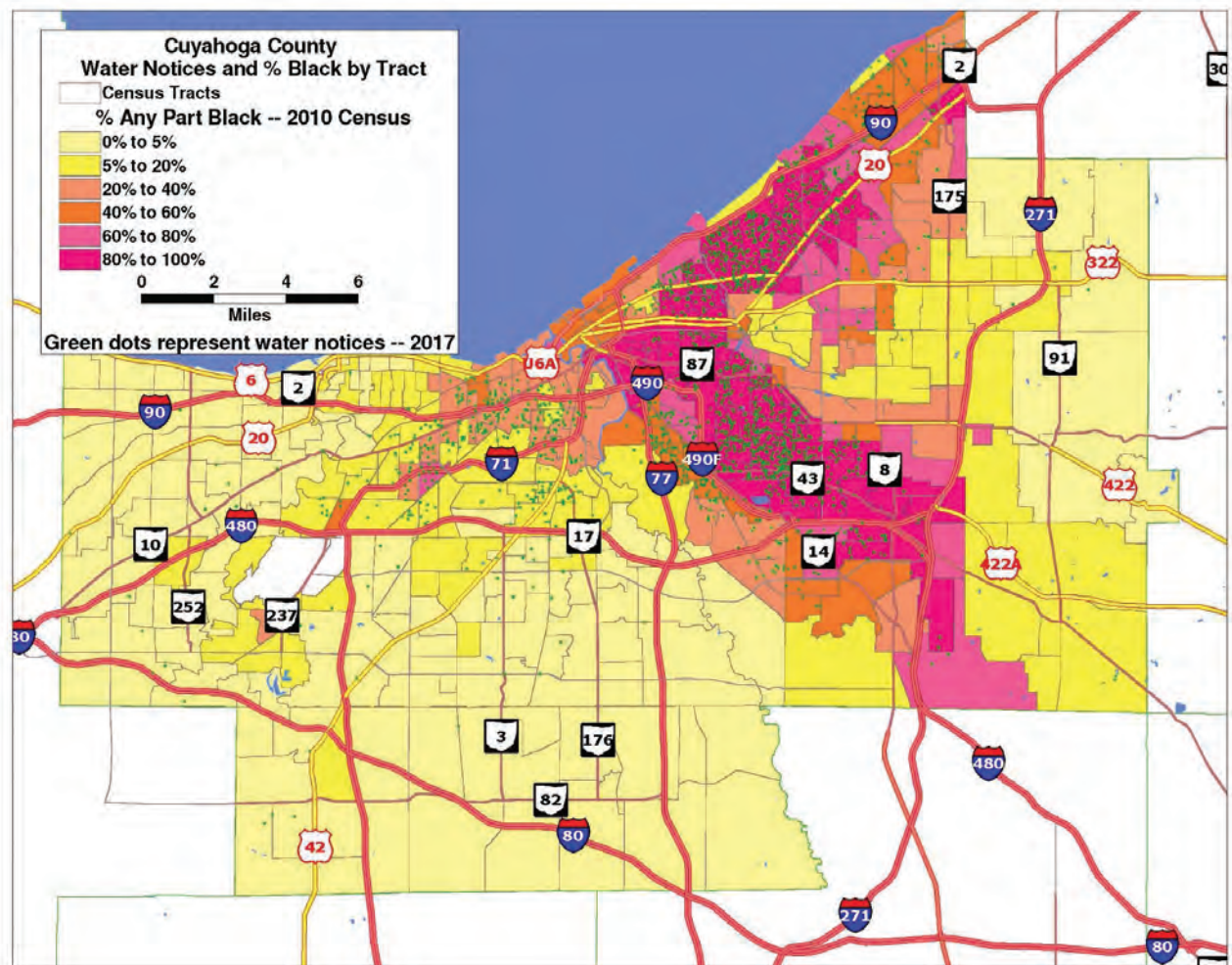
Map 4: Water Liens in Cuyahoga County, 2015



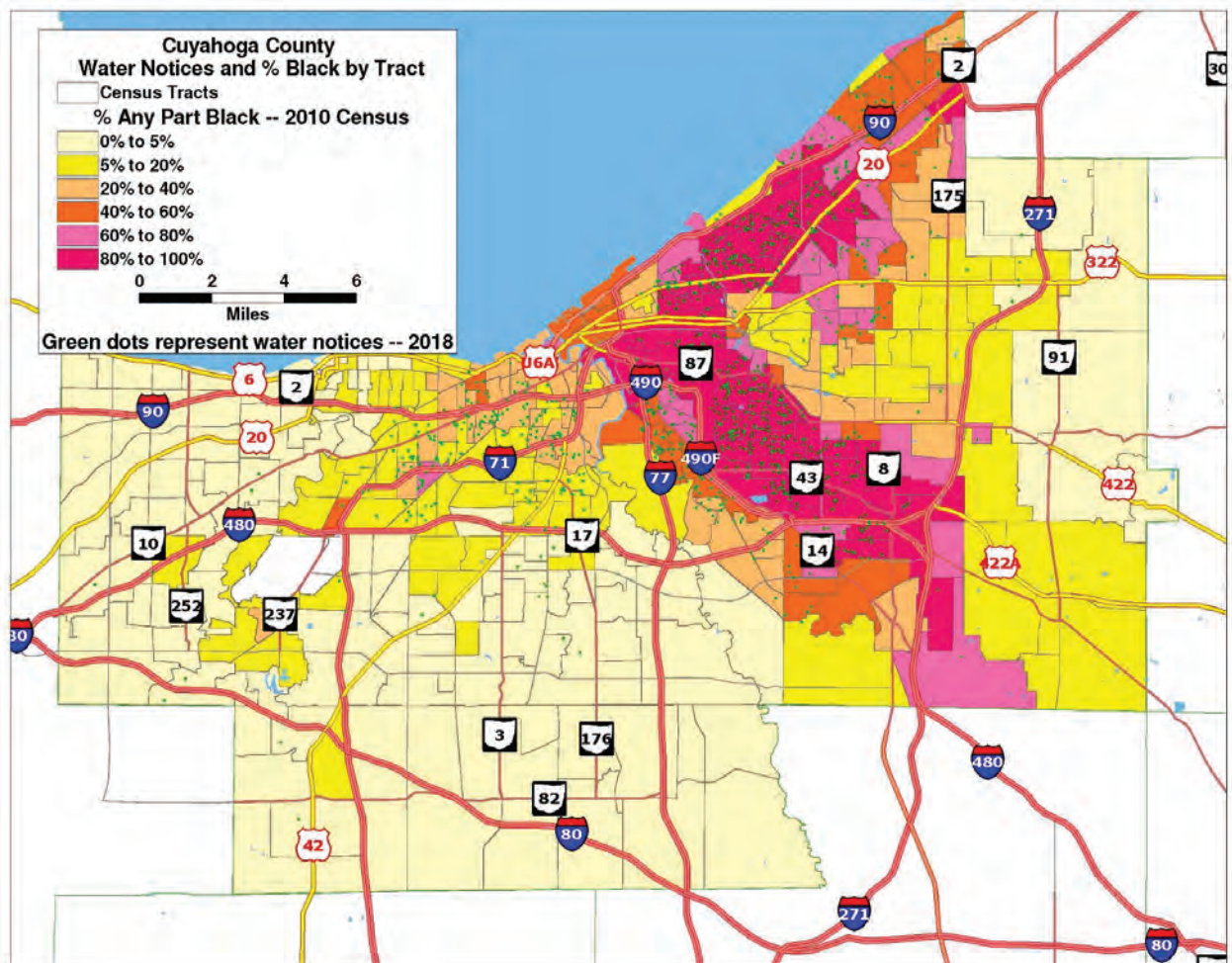
Map 5: Water Liens in Cuyahoga County, 2016



Map 6: Water Liens in Cuyahoga County, 2017

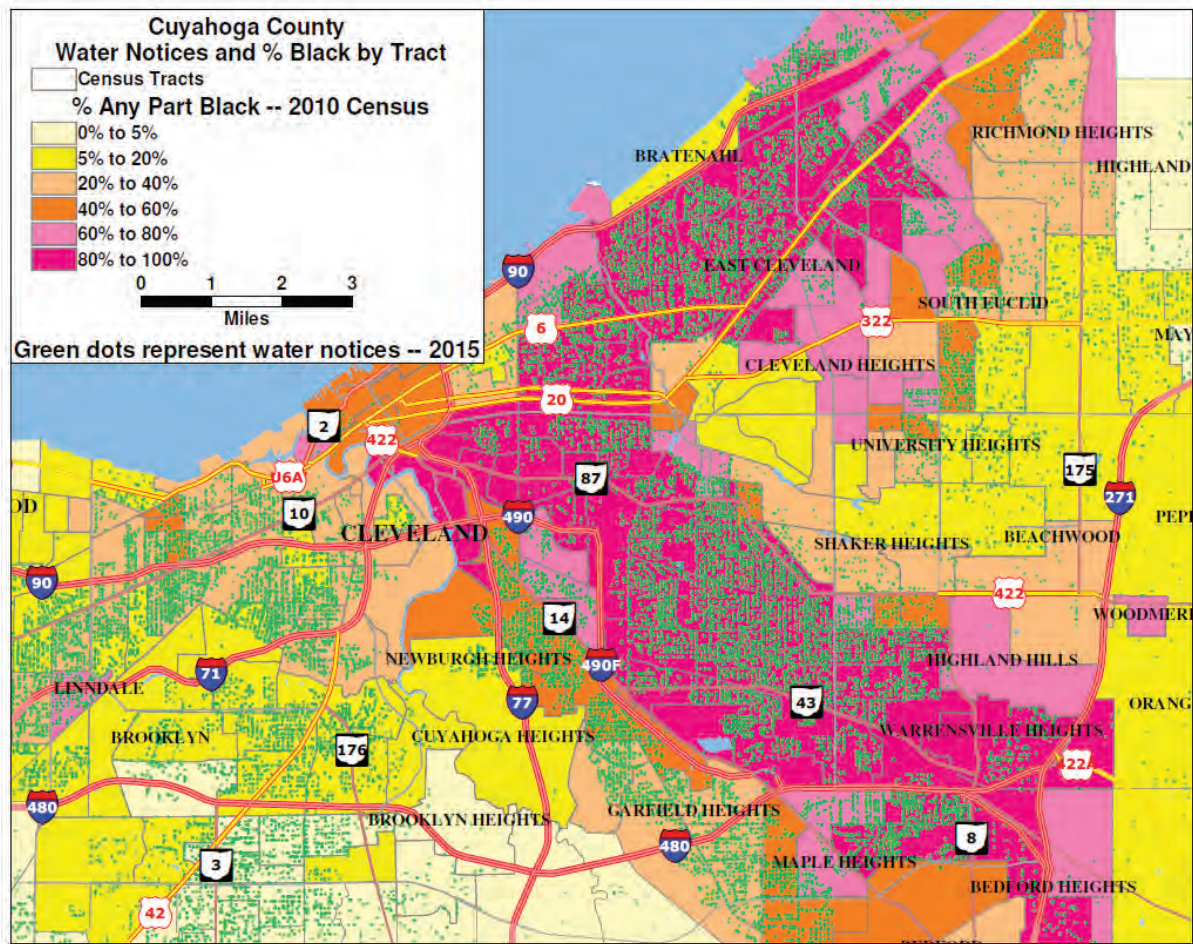


Map 7: Water Liens in Cuyahoga County, 2018



LDF also examined water shutoff notices in 2015. Of the 41,970 notices issued in Cuyahoga County, 18,701 (44.6 percent) were in majority-Black census blocks and 18,570 (44.2 percent) were in majority-Black census tracts. About 78 percent of the county's Black population lives in a census block with one or more water notices, compared to 72 percent of the overall population and 69 percent of the white population. Given that shutoff notices are far more common than water liens, it is unsurprising that the racial impact is not as stark.

Map 8: Water Shutoff Notices in Cuyahoga County, 2015



improvements to repair infrastructure or remedy contamination, and a community may be at risk of contamination if the municipality delays infrastructure improvements due to financial concerns. These issues are described in more detail below.

Access to Water Infrastructure

Many communities within the United States do not have full access to water or sewer systems. As of 2013, be-



tween 600,000 and one million U.S. households lacked some or all plumbing facilities.⁵⁸⁹ More than 100,000 households lacked hot running water and 93,000 households lacked flush toilets.⁵⁹⁰ Eighteen percent of households are not connected to public sewers and use individual systems like septic tanks.⁵⁹¹ The lack of water and sewer infrastructure heightens the risk of waterborne disease and contamination.⁵⁹²

While it is difficult to measure racial disparities in access to water systems due to enforcement failures and data gaps,⁵⁹³ Black communities, particularly small towns in the South, are more likely to lack access to basic water and sewer infrastructure.⁵⁹⁴ At least one study has established that Black people are twice as likely as whites to live without modern plumbing.⁵⁹⁵ The lack of proper sanitation infrastructure is a particularly pervasive problem in Alabama, which is close to 30 percent Black.⁵⁹⁶ While current data is unavailable, in 2002, the EPA noted that 40 to 90 percent of households in the state had no septic system or were using an inadequate one.⁵⁹⁷ A 2013 study determined that close to 20 percent of households in Alabama's Black Belt had no means of wastewater disposal, and another found that up to 90 percent of sanitation systems in the region were failing.⁵⁹⁸

In Lowndes County, Alabama, which is situated between Selma and Montgomery and where more than 70 percent of the population is Black, more than 80 percent of the community has no connection to the municipal sewer system.⁵⁹⁹ Several obstacles play a role in the county's lack of sanitary infrastructure, including entrenched poverty (the median household income in the county was below \$26,000 in 2015, and private septic systems can cost up to \$30,000) and poor soil conditions.⁶⁰⁰ As an alternative to sanitary infrastructure, many homes simply have straight PVC pipes that carry waste into open pits and trenches that overflow when it storms.⁶⁰¹

Consequences can arise from the county's lack of sanitation infrastructure. Alabama law makes it a misdemeanor "to build, maintain, or use an insanitary sewage collection, treatment, and disposal facility or one that is or is likely to become a menace to the public health."⁶⁰² This includes private plumbing facilities or disposal systems, and failure to comply with the law can result in fines or arrest.⁶⁰³ Between 1999 and 2002, the state issued a number of arrest warrants to county residents for failing to install proper sanitation infrastructure.⁶⁰⁴ There are also health impacts. In 2017, approximately 35 percent of adults surveyed tested positive for hookworm, which can cause intestinal illness and developmental delays in children.⁶⁰⁵

Catherine Coleman Flowers, who coined the term "America's dirty secret" to refer to the lack of sanitation in Alabama's Black Belt and has advocated for proper sanitation in Lowndes County, believes that racial discrimination explains the infrastructure disparities.⁶⁰⁶ She notes that the areas of Alabama that have historically had wastewater treatment were inhabited largely by white populations, to the exclusion of Black communities.⁶⁰⁷

Other communities of color are similarly affected by the lack of water infrastructure. For example, the predominantly Latinx residents of the small, unincorporated settlements along the U.S.-Mexico border, known as *colonias*, as well as American Indian and Alaskan Native communities, are less likely than white communities to have access to basic water and sewer infrastructure.⁶⁰⁸ And a September 2018 survey by *The Washington Post* found that, one year after Hurricane Maria, Puerto Rico was still plagued by sporadic water access and 50 percent of residents did not have enough water to drink.⁶⁰⁹

One common way that local governments exclude communities of color from the provision of water and sewer services, particularly in the South, is by declining to include them in the town's official boundaries, known as "underbounding."⁶¹⁰ Several studies have documented that, following the Civil War, Black families that remained in the South often settled in rural pockets in the outer bounds of municipal areas.⁶¹¹ Over time, once residential segregation was firmly entrenched in a particular town, municipalities would selectively annex white neighborhoods into the town's official boundaries, ignoring Black neighborhoods.⁶¹² Underbounding ensured that the excluded Black neighborhoods received fewer services, including reduced access to water and sewer, and had limited or no political voice in the community.⁶¹³

Not surprisingly, several studies link underbounding to the vestiges of Jim Crow and suggest that it evinces discriminatory intent on the part of local officials to exclude Black residents from essential services.⁶¹⁴ For ex-

ample, in 2018, two researchers from the University of North Carolina at Chapel Hill assessed the relationship between race and access to water and sewer services in areas bordering municipalities in 75 North Carolina counties.⁶¹⁵ Despite their close proximity to local utilities, these communities have been historically excluded from municipal water and sewer services and have been forced to use septic tanks and wells, increasing their risk of contamination and disease.⁶¹⁶ The researchers determined that the two most unserved groups throughout the counties were lower-income Black populations that had been excluded from municipal services on the basis of race during the era of legal racial segregation, and higher-income non-Black populations that could better afford and properly maintain private wells and septic systems.⁶¹⁷

Contamination

Drinking water contamination also remains an issue throughout the United States. In 2017, the National Resources Defense Council released a report finding that nearly 77 million Americans lived in places where water systems were in some violation of safety regulations, including the Safe Drinking Water Act.⁶¹⁸ These violations included exceeding health-based standards, failing to properly test water for contaminants, and failing to report contamination to state authorities or the public.⁶¹⁹ Between 2004 and 2009, close to 50 million people were served by water systems that had contaminants exceeding federal guidelines.⁶²⁰ Contaminated drinking water is estimated to cause more than 16 million gastrointestinal illnesses each year, although the health impacts are difficult to measure.⁶²¹

Lead contamination of drinking water is particularly pervasive and problematic. Lead pipes were often used in the construction of drinking water service lines in the late 19th and early 20th centuries, because of lead's malleability and ease of use.⁶²² Lead has been banned from plumbing materials since 1968, but can still be found in older infrastructure—in fact, approximately seven percent of the U.S. population is served by utilities that have full or partial lead service lines.⁶²³ Lead can cause neurological damage, renal disease, cardiovascular effects, and reproductive toxicity.⁶²⁴ Lead exposure impacts children more than adults, given their smaller body volumes, and can permanently impact brain function and development.⁶²⁵ Studies have shown that with each microgram per deciliter increase in blood lead level, children perform worse on intelligence tests.⁶²⁶

Communities of color are often the most impacted from drinking water contamination.⁶²⁷ In 2017, researchers from Florida Atlantic University and Texas A&M University released a study finding that low-income Black and Latinx communities were more likely to have Safe Drinking Water Act violations than other communities (including Black communities with average incomes).⁶²⁸ The lack of demographic data from community water systems has precluded a comprehensive study on the extent of contamination on communities of color.⁶²⁹ However, it is well established that lead contamination disproportionately impacts Black communities, and in particular, children. Black children are three times more likely than white children to have elevated blood lead levels.⁶³⁰ While lead contamination can come from other sources, water can be the primary source of exposure.⁶³¹ In Milwaukee, which is 40 percent Black and highly segregated by race, more than 11 percent of children tested positive for elevated lead levels in 2016.⁶³² While the city has repeatedly emphasized that lead from paint is the most pressing concern, many residents believe that lead is being leached into their water from service lines.⁶³³ And in August 2018, drinking water was disconnected in all Detroit public schools after elevated levels of lead and copper were found in 16 of 24 schools tested.⁶³⁴ As an alternative, the school district provided water coolers and bottled water to students.⁶³⁵

In 2016, the governor of Louisiana declared a public health emergency in St. Joseph, a majority-Black community, after lead and copper were found in the town's drinking water supply.⁶³⁶ While St. Joseph's residents had complained for more than a decade that their tap water was brown or yellow, no improvements were made to the water system until elevated lead levels were found at City Hall and in a private home.⁶³⁷ By the end of 2017, the town's water system had been entirely replaced—and the costs were expected to fall on residents, 40 percent of whom live under the federal poverty line.⁶³⁸ Water rates in St. Joseph are expected to increase

by 45 percent in order to maintain the new system.⁶³⁹

Of course, Flint, Michigan is the most infamous example of water contamination in recent years. Flint is 54 percent Black and 42 percent of residents are impoverished.⁶⁴⁰ In April 2014, while the city was under emergency management due to financial distress, it switched its public water source from Lake Huron to the Flint River, but failed to add corrosion-control chemicals to the water, which caused lead to leach from older pipes.⁶⁴¹ Residents complained about the odor, taste, and appearance of the Flint River water almost immediately, and *E. Coli* bacteria was found in the drinking water supply just four months after the switch.⁶⁴² In 2015, reports emerged regarding the levels of lead in Flint's water, which was so significant that residents could not drink or bathe in water from their taps.⁶⁴³ At its peak, the highest lead level recorded in Flint was 13,000 parts per billion, more than 866 times the allowable upper level.⁶⁴⁴ Many were hospitalized due to illnesses from consuming the contaminated water.

For example, between June 2014 and March 2015, there was an outbreak of infections caused by *Legionella* bacteria in Genesee County (where Flint is located), with multiple deaths reported.⁶⁴⁵ At least half the cases were traced to the Flint water supply.⁶⁴⁶ By October 2015, the city had reverted back to water supplied by the Detroit Water and Sewerage Department, the entity that had provided Flint's water since 1967.⁶⁴⁷

When then-Michigan Governor Rick Snyder was asked if race was a factor in how the Flint crisis unfolded, he gave a non-answer: "I don't know if you can conclude that it was a racial issue by any means, but I don't know."⁶⁴⁸ But the Flint Water Advisory Task Force was more definitive, issuing a report stating that the facts led them to "the inescapable conclusion that this is a case of environmental injustice."⁶⁴⁹

Unsurprisingly, Flint's crisis resulted in criminal charges and multiple civil lawsuits, which are pending in at least seven different state and federal courts in Michigan.⁶⁵⁰ In two cases, *Boler v. Early* and *Mays v. Snyder*, plaintiffs alleged that their constitutional rights to substantive due process and equal protection had been violated by the governor and other state actors.⁶⁵¹ With respect to substantive due process, they alleged that the government violated plaintiffs' fundamental rights to bodily integrity and protection from state-created danger, as well as their right to protection from government conduct that shocks the conscience.⁶⁵² Plaintiffs also alleged that the harm to Flint residents was based on their race and poverty, violating their constitutional right to equal protection.⁶⁵³ While state officials vigorously defended against these claims, one key point was uncontested: "No one disputes that the Flint drinking water situation has detrimentally affected Flint residents, businesses, and public entities, and sparked significant health and safety concerns."⁶⁵⁴ The district court in *Boler* found that plaintiffs' claims were preempted by the Safe Drinking Water Act, and both cases were dismissed.⁶⁵⁵ On appeal, the cases were consolidated, and the Sixth Circuit reversed, finding no preemption under the federal law.⁶⁵⁶ The consolidated case (which now includes a total of eight cases) continues to be litigated.⁶⁵⁷ On August 1, 2018, the district court dismissed the State of Michigan and former Governor Snyder from the case, but kept the city of Flint and other state officials as defendants.⁶⁵⁸ In a separate litigation, also alleging that state and city officials violated residents' substantive due process right to bodily integrity, the Sixth Circuit Court of Appeals recently determined that plaintiffs made a plausible substantive due process argument, analogizing the water crisis to government experiments on unknowing and unwilling patients.⁶⁵⁹

Flint continues to struggle to recover from its water crisis. Water lead levels have improved, but the city is still behind in replacing lead service lines. As of December 2018, only 7,000 out of 18,300 lead or galvanized steel water lines had been replaced, and the work was expected to last through the end of 2019.⁶⁶⁰ Flint's corrosive water also impacted other home appliances, such as washing machines, dishwashers, and hot water heaters.⁶⁶¹ And while Flint continues to distribute free filters, many residents do not know how to use them or have understandable mistrust of even filtered tap water, requiring them to resort to expensive purified bottled water (Michigan stopped providing free bottled water to Flint in April 2018).⁶⁶² The fallout from Flint's water crisis is expected to last for generations.⁶⁶³

Water affordability is complicated. Cities need funds to pay for infrastructure upgrades, and water bills may not bring in enough revenue to support these efforts. But many cities have been overly aggressive with collection tactics, punishing their customers for their inability to pay their bills by shutting off their water and taking their homes. In many instances, these cities may be improperly billing their customers or providing insufficient means to dispute a bill. As shown by the city studies of Baltimore and Cleveland, and the lessons learned in Detroit and Flint, these practices are likely to have a disproportionate impact on Black people. Part III of this report outlines potential litigation strategies and policy solutions to address the problem of water unaffordability in communities of color across the United States.

Litigating Water Affordability

Water equality advocates should consider litigation to challenge municipalities' discriminatory water practices. Although there is a wide range of plausible claims, below is a brief analysis of a potential procedural or substantive due process claim under the 14th Amendment and a summary of other possible causes of action that advocates should consider. In particular, potential plaintiffs should consider bringing a claim under the Fair Housing Act (FHA) to challenge water lien sales and shutoffs that have a disparate impact on Black communities.⁶⁶⁶

The 14th Amendment to the U.S. Constitution provides that a state may not "deprive any person of life, liberty, or property, without due process of law."⁶⁶⁷ Due process claims can be procedural (addressing the right to notice and a hearing before a deprivation) or substantive (deprivations of life, liberty, or property arising from governmental actions). The 14th Amendment does not include a private right of action, but a plaintiff can file a procedural or substantive due process claim against a local government under 42 U.S.C. § 1983 (Section 1983), a civil rights law that can remedy deprivations of constitutional rights.⁶⁶⁸

Procedural Due Process

As discussed above, municipalities may be providing insufficient means for customers to dispute their bills prior to taking action against them for arrears, including water service shutoffs or water liens. As several scholars have noted, including Professors Sharmila Murthy and Martha F. Davis, advocates could pursue a procedural due process claim to address this issue.⁶⁶⁹ Procedural due process claims examine whether there is a life, liberty, or property interest that the state has interfered with and whether the government has followed adequate procedures in depriving claimants of their interest.⁶⁷⁰ In determining whether a plaintiff has a property interest,

courts look to independent sources such as state law.⁶⁷¹ For example, a state law requiring a local government to provide residents with certain municipal services and permitting residents to seek remedies for the unlawful denial of these services has been found to create a protected property interest for procedural due process purposes.⁶⁷²

If a court determines that the plaintiff has an interest protected by procedural due process, it evaluates whether the available procedural safeguards are constitutionally adequate.⁶⁷³ Due process requires, at a minimum, that parties whose rights are to be affected are entitled to be notified of the proposed action and to be heard.⁶⁷⁴ The right to notice and the opportunity to be heard must be granted at a meaningful time and in a meaningful manner.⁶⁷⁵

When evaluating procedural due process claims challenging the adequacy of notice, courts determine whether the plaintiff was given “notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the [proceeding] and afford them an opportunity to present their objections.”⁶⁷⁶ Notice must be designed to inform the customer of the proposed disconnection and the reason for it; it must be given sufficiently in advance to permit them adequate opportunity to prepare for and be present at the hearing.⁶⁷⁷ Procedural due process claims involving the opportunity to be heard are generally evaluated under the three-part test established by the Supreme Court in *Mathews v. Elridge*.⁶⁷⁸ Under that test, courts consider (1) the private interest that will be affected by the official action; (2) the risk of erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute safeguards; and (3) the government’s interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.⁶⁷⁹ As described below, such claims may be used to challenge water shutoffs without adequate notice and procedures for appeal.

Substantive Due Process

Substantive due process ensures that governmental deprivations of life, liberty, or property are subject to limitations regardless of the adequacy or fairness of the procedures employed.⁶⁸⁰ It protects a range of fundamental rights “deeply rooted in this Nation’s history and tradition,”⁶⁸¹ including the specific freedoms enumerated in the Bill of Rights, as well the rights to marry,⁶⁸² to have children,⁶⁸³ to marital privacy,⁶⁸⁴ to use contraception,⁶⁸⁵ to bodily integrity,⁶⁸⁶ and to refuse medical treatment.⁶⁸⁷ When these fundamental rights are implicated, courts engage in an elevated scrutiny of the governmental action at issue.⁶⁸⁸

Substantive due process also extends to government conduct that is outrageous and “shocks the conscience.”⁶⁸⁹ As noted by Professor Toni Massaro and attorney Ellen Elizabeth Brooks, the shocks the conscience test empowers a court to hold government officials accountable for outrageous conduct even if it is unwilling to declare that the liberty at stake is a fundamental right.⁶⁹⁰ Even so, this test is rarely used and is highly deferential to government action.⁶⁹¹

The Supreme Court has generally been reluctant to expand substantive due process to new areas.⁶⁹² For example, the Court has refused to constitutionalize affirmative rights to basic human needs such as food, medical care, and housing, and attempts to expand substantive due process to include a right to basic services have generally been rejected.⁶⁹³ Still, scholars have advocated for the recognition of a substantive due process right to affordable water, and this issue was raised in litigation challenging the Detroit water shutoffs, as described below.⁶⁹⁴

Due Process Claims for Water Service Shutoffs

In *Memphis Light, Gas, and Water Division v. Craft*, the Supreme Court held that water services provided by public utilities are considered property interests for procedural due process purposes.⁶⁹⁵ In *Memphis Light, Gas, and Water Division v. Craft*, a couple in Tennessee, received two sets of bills for their monthly electric, gas, and water fees, due to an issue with their meters when they first moved to their home.⁶⁹⁶ Although the Crafts sought to determine the

cause of the double billing, their service was repeatedly cut off for nonpayment.⁶⁹⁷ Each bill they received contained a “final notice,” stating that payment was overdue and service would be discontinued if payment was not made by a certain date.⁶⁹⁸ The utility also included a flyer with the final notice—some customers received information about credit counseling stations that could assist them, and others advised the customers to bring their bills to an office or call in the event of a billing dispute or need for a payment plan.⁶⁹⁹ It was unclear which flyer the Crafts received, but they were not informed of the availability of a mechanism to discuss their dispute with the utility’s management.⁷⁰⁰

Eventually, the Crafts filed a class action lawsuit under Section 1983 for termination of utility service without due process of law.⁷⁰¹ The district court declined to certify a class action and determined that the Crafts did not have a property interest in continued utility service while a disputed bill remained unpaid.⁷⁰² It went on to acknowledge that the plaintiffs had not been given adequate notice of a procedure for resolving disputed bills, but found that they had not been deprived of due process.⁷⁰³ The Sixth Circuit affirmed the denial of class certification, but held that the utility’s procedures did not comport with procedural due process.⁷⁰⁴ The Supreme Court granted review to determine whether a utility’s termination of service for nonpayment deprives a customer of “property” within the meaning of the Due Process Clause and whether the utility’s procedures afforded the Crafts due process.⁷⁰⁵

First, the Court determined that Tennessee law created a property interest in continued utility service within the scope of the Due Process Clause, as a state statute barred a utility from disconnecting service except for nonpayment of bills.⁷⁰⁶ The fact that continued service was conditioned on the payment of charges properly owed did not affect the Crafts’ interest, because “the Fourteenth Amendment’s protection of property has never been interpreted to safeguard only the rights of undisputed ownership.”⁷⁰⁷

After determining that a legitimate property interest was at issue, the Court evaluated whether the Crafts had been deprived of their constitutional right to due process. First, the Court noted that due process requires “notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections.”⁷⁰⁸ The utility’s notification procedure did not inform the Crafts of the availability of an opportunity to present an objection and thus they were deprived of proper notice within the scope of the Due Process Clause.⁷⁰⁹

The Court further determined that, given the importance of utility service, the Crafts should have been afforded “some kind of hearing” prior to the shutoff.⁷¹⁰ In the Court’s view, “[u]tility service is a necessity of modern life; indeed, the discontinuance of water or heating for even short periods of time may threaten health and safety.”⁷¹¹ Accordingly, even if service may be ultimately restored, “the cessation of essential services for any appreciable time works a uniquely final deprivation.”⁷¹² Because the utility failed to afford the Crafts an opportunity to present their complaint to a designated employee empowered to review disputed bills and rectify errors, the Supreme Court held that the Crafts were deprived of their constitutional right to procedural due process.⁷¹³

Following the Court’s decision in *Memphis Light*, circuit courts have acknowledged that the expectation of utility service is a protected property interest for procedural due process purposes.⁷¹⁴ For example, the Sixth Circuit has recognized that public utility services such as water and gas create a property interest entitled to procedural due process protections.⁷¹⁵ The Fourth Circuit has also approved of the holding in *Memphis Light*, but has emphasized that water and sewer services do not automatically convey a property interest to residents—state law must require the provision of service (as it did under Tennessee law in *Memphis Light*). In 2003, in *Southside Trust v. Town of Fuquay-Varina*, the Fourth Circuit held that plaintiffs, who lived in a mobile home park outside the town’s municipal boundaries and disputed the amount of their water and sewer bills, did not establish a property interest for due process purposes because the town was not required by law to provide these services to residents living outside their boundaries.⁷¹⁶

Recent litigation challenging the Detroit shutoffs demonstrates the potential difficulty in succeeding on a procedural (or substantive) due process claim involving water services. In 2014, Detroit residents, led by attorney

Alice Jennings, challenged the water service shutoffs by the Detroit Water and Sewerage Department (DWSD) by filing a complaint in the city's bankruptcy proceedings. In *Lyda v. City of Detroit*, the plaintiffs contended that the shutoffs violated the Due Process and Equal Protection Clauses of the 14th Amendment.⁷¹⁷ With respect to due process, plaintiffs alleged that DWSD did not provide them with adequate notice before the shutoffs and did not sufficiently inform them about the possibility of a hearing.⁷¹⁸ Plaintiffs also argued that DWSD violated their right to equal protection by disconnecting water services to residential customers in arrears, but not similarly-situated commercial customers.⁷¹⁹ Plaintiffs sought a moratorium on the shutoffs and a water affordability plan for residential customers, among other forms of relief.⁷²⁰

In an initial ruling from the bench, the bankruptcy court dismissed the complaint, finding that it did not have jurisdiction because it could not grant the injunctive relief requested by plaintiffs.⁷²¹ Despite this lack of jurisdiction, the court evaluated plaintiffs' constitutional claims and found they were without merit.⁷²² The court determined that plaintiffs did not have a property or liberty interest in their water services within the scope of the Due Process Clause.⁷²³ The court also determined that plaintiffs could not establish that they had a fundamental right to water services or that they were a suspect class for equal protection purposes.⁷²⁴ It further found that plaintiffs were not otherwise entitled to the requested six-month moratorium on shutoffs, particularly given the plaintiffs' failure to dispute their bills despite information provided by DWSD on how to do so and the city's need for revenue from its customer accounts.⁷²⁵

After plaintiffs filed a motion for reconsideration, the bankruptcy court issued a supplemental opinion. The court's conclusions were essentially the same as those reached in the bench ruling, with one key difference in its due process analysis. In its new opinion, the court conceded that "it is plausible that the plaintiffs could establish a liberty or property right to water service to which procedural due process rights apply," citing *Memphis Light* and other Sixth Circuit cases.⁷²⁶ However, the court also found that DWSD's notice procedures were constitutionally sufficient.⁷²⁷ In examining plaintiffs' water bills, the court determined that they gave notice of the amount due, the payment due date, the consequence of failing to pay the bill (i.e., disconnection), and the opportunity to dispute the bill by contacting DWSD.⁷²⁸ Additionally, after a failure to pay, a customer received a shutoff notice advising them that their water service was subject to disconnection.⁷²⁹ This specific content, in the court's view, established that plaintiffs' due process allegations were insufficient as a matter of law.⁷³⁰

The court also examined the plaintiffs' allegation that they were deprived of due process because they were not informed of, or offered, reasonable payment plans.⁷³¹ Given that most plaintiffs were on payment plans, or had been offered plans but found them unaffordable, it concluded that *water affordability* was the real crux of plaintiffs' claim: that plaintiffs were actually alleging that they had a constitutional right to water service at a price they could afford to pay.⁷³² The court noted that Michigan law does not permit a municipality to base its water rates on ability to pay but instead requires it to set rates at the reasonable cost of delivering the service.⁷³³ Accordingly, the court found that there is no constitutional or fundamental right to affordable water service or to an affordable payment plan for account arrearages.⁷³⁴

The Eastern District of Michigan affirmed the bankruptcy court's orders. With respect to the due process claim, the court determined that DWSD's shutoff notice was constitutionally sufficient.⁷³⁵ It also found that plaintiffs' equal protection claim failed because the commercial entities, as business entities, were not similarly situated to plaintiffs.⁷³⁶

Plaintiffs appealed to the Sixth Circuit. With respect to the due process claim, the appellate court found that DWSD had changed its service shutoff procedures during the pendency of the litigation.⁷³⁷ Now, DWSD places door hangers on households seven days before a scheduled shutoff. It also provides more information in bills and shutoff notices regarding dispute procedures and the customer's rights to file a complaint, request and appear at a hearing, enter a payment plan, and delay shutoff in the event of a medical emergency.⁷³⁸ Given these changes, the court was unable to evaluate the bankruptcy court's review of DWSD's prior procedures.⁷³⁹ It also affirmed the dismissal of the equal protection claim, determining that there may be a rational basis for the disparate treatment between residential and commercial customers.⁷⁴⁰

The Sixth Circuit also evaluated the bankruptcy court's interpretation that plaintiffs' complaint included a sub-

stantive due process claim for the “right to water service at a price they can afford to pay” (both parties agreed that the plaintiffs’ complaint included such a claim) and its conclusion that there is no constitutional or fundamental right to affordable water service or affordable payment plans.⁷⁴¹ The court affirmed that there is no constitutional right to continued affordable water service, as “[a] right of this nature is not rooted in our nation’s traditions or implicit in the concept of ordered liberty.”⁷⁴² Further, because Michigan law directs municipalities to set water rates at the reasonable cost of providing the service, DWSD’s policy of conditioning service on the satisfaction of past due charges was rationally related to maintaining its financial stability.⁷⁴³ Accordingly, it rejected plaintiffs’ substantive due process claim.⁷⁴⁴

Although not successful in the *Lyda* litigation, water equality advocates should consider a procedural due process claim when municipalities fail to provide proper notice and an opportunity to be heard prior to disconnecting water service. To establish such a claim, advocates should first determine, as in *Memphis Light*, whether state or local statutes provide that water service may only be shut off under certain conditions, thereby creating a property interest in continued service.⁷⁴⁵ As one example, in Ohio, water service may be disconnected only for specified reasons, such as nonpayment, tampering, contamination, and refusal to allow access to utility equipment.⁷⁴⁶ Additionally, the Baltimore City Code provides limited reasons for water service shutoffs, including nonpayment and unauthorized use.⁷⁴⁷ As discussed above, in both Ohio and Maryland (excepting Baltimore under the new state law), unpaid water charges can result in a lien on a resident’s property. If the municipality takes a property interest in a resident’s home as a result of unpaid water bills, then it follows that the resident has a property interest in their water service.⁷⁴⁸

However, success on a procedural due process claim is not guaranteed. If, like in Detroit, the bills and notices sent to customers provide sufficient information to customers about their rights, this type of claim may be a challenge.

Still, particular circumstances in the relevant jurisdiction may support a procedural due process claim. As noted above, in Cleveland, the *Colegrove* consent decree makes clear that the city has the duty and responsibility to provide water and sewer customers with notice and an opportunity to be heard prior to a service shutoff.⁷⁴⁹ The decree also sets out the rights of the customer, which include: (1) the right to a hearing prior to disconnection of service before an impartial hearing board; and (2) the right to a request a hearing within 10 days of receipt of a shutoff notice, in writing or in person.⁷⁵⁰ Yet, as the local news team reported and LDF confirmed, as described above, very few Water Review Board hearings are held in Cleveland each year.⁷⁵¹

Additionally, Baltimore’s DPW eliminated an informal hearing process in 2016 that allowed customers to challenge their bills.⁷⁵² Now, customers can only dispute water leaks through a written process, and there does not appear to be any mechanism to dispute bills on other grounds.⁷⁵³ There is nothing in Baltimore’s City Code providing for administrative hearings on disputed bills, although local law does grant the Director of Public Works the full power and authority to abate any charge for water, whenever they deem such abatement proper and advisable.⁷⁵⁴

In 2011, the Court of Special Appeals of Maryland issued an unpublished opinion finding that Baltimore’s hearing process for water bill disputes violated the procedural due process rights of a steel company.⁷⁵⁵ The court determined that the hearing provided to the company was deficient because it was not on the record, was limited to 15 minutes, and denied the parties the right to cross examination.⁷⁵⁶ In its opinion, the court noted that:

No legislature required the DPW to institute an adjudicative hearing sys-

tem to resolve complaints about bills for water service ... the DPW took this responsibility upon itself, even if it did so informally ... Having established, however informally, a system of adjudicatory hearings, the DPW was obligated to operate it in accordance with principles of fundamental fairness, including procedural due process. [DPW's hearing system] ... does not pass constitutional muster.⁷⁵⁷

This decision does not exactly align with *Memphis Light*—there, the Supreme Court was clear that due process protections with respect to water service are not optional—but in the years following this ruling, the city entirely eliminated its hearing process.⁷⁵⁸ The pending city council legislation, which would create the Office of Water-Customer Advocacy and Appeals, would offer the kind of procedural due process protections to which Baltimore residents are fully entitled.

A substantive due process challenge related to a right to affordable water would be much more challenging. While water service is a protected property interest for procedural due process purposes, not all property interests that create procedural due process protections necessarily create substantive due process rights.⁷⁵⁹ In fact, courts have found that substantive due process does not apply to the provision of water or sewer services and that there is no right to a healthful environment.⁷⁶⁰ (In the Flint litigation, as noted above, the plaintiffs styled their substantive due process claim as a violation of their right to bodily integrity and a right to freedom from third-party harms.⁷⁶¹)

In finding that a substantive due process right did not exist in *Lyda*, the Sixth Circuit pointed to Michigan law that directs municipalities to set water rates at the reasonable cost of providing the service as support for rejecting a right to affordable water.⁷⁶² While a plaintiff may be able to distinguish the law that would apply in their case (for example, in Ohio), a court is unlikely to find a substantive due process right to affordable water if solely grounded in state law.⁷⁶³ In Ohio, one statute (that only applies to private water companies) provides that public utility rates must be “just and reasonable”⁷⁶⁴ and another statute pertaining specifically to water rates notes that they should be assessed “for the purpose of paying the expenses of conducting and managing the waterworks ... including operating expenses and the costs of permanent improvements.”⁷⁶⁵ But unlike Michigan, the statutory language notes that water charges should be assessed and collected in an amount and manner deemed “most equitable from all tenements and premises supplied with water,” which may support a reading of a right to water affordability.⁷⁶⁶ And private water and wastewater companies in Ohio are permitted to grant free or reduced services for “charitable purposes.”⁷⁶⁷ While these companies would not likely be subject to a substantive due process claim,⁷⁶⁸ these statutes provide further support for a right to affordable water in the state. Additionally, municipal legislatures in Ohio can provide that water or wastewater services be “furnished free of charge.”⁷⁶⁹ In Maryland, public water and wastewater utilities are not subject to regulation by the Maryland Public Service Commission and simply must charge rates that are “reasonable.”⁷⁷⁰ However, the Baltimore City Code is more specific, requiring rates “to make each utility financially self-sustaining at all times,” to include provisions for operating and maintenance costs; depreciation accruals; amortization of bonds; and reasonable accumulation of surplus.⁷⁷¹ In this way, Baltimore’s law is more like Michigan’s.

Professor Sharmila Murthy has persuasively argued that the right to affordable water should be considered to have “near-constitutional” status.⁷⁷² In Professor Murthy’s view, access to safe and affordable drinking water has evolved to a “constitutive commitment,” borrowing a term coined by Professor Cass Sunstein and referring to a statutory right that is treated as if it is a constitutional right because of its special status in our society.⁷⁷³ Water for drinking, hygiene, and sanitation is essential to life.⁷⁷⁴ As detailed in Part I of this report, the development of our early waterworks systems revolutionized public health and defined the role of a municipality in providing for the wellbeing of its residents. Further, as discussed above, the UN has recognized the human right to safe, affordable water. Numerous federal courts have found the denial of water to prison inmates can violate the U.S. Constitution, and the lack of running water in a home can make it uninhabitable.⁷⁷⁵ It can also

make a home unfit for children, which could infringe on the fundamental right to family, which is protected by substantive due process.⁷⁷⁶ Ultimately, given the critical importance of modern waterworks, a right to affordable water should arguably be accorded substantive due process protections.

Still, it is unlikely that courts will recognize a substantive due process right to affordable water in the near future, given the reluctance to acknowledge other similar rights and the wide-ranging implications of a right to water.⁷⁷⁷ As noted at the outset of this report, the right to water is a “deeply foreign” concept in American jurisprudence.⁷⁷⁸ Still, water equality advocates should continue to strategize on ways that courts may eventually recognize a substantive due process right to affordable water.

Other Potential Claims

Water equality advocates should consider various other claims to address the disproportionate impact that water unaffordability has on Black communities, as described in more detail below.

Intentional Discrimination Claims

Some actions by local governments—such as disconnecting water service to delinquent customers who live in majority-Black neighborhoods (but not disconnecting delinquent customers in white areas) or differing policies for how water liens are sold in Black neighborhoods versus white areas—could give rise to a suit for intentional discrimination under 42 U.S.C. § 1981 (Section 1981), 42 U.S.C. § 1982 (Section 1982), and/or the Equal Protection Clause of the 14th Amendment.⁷⁷⁹

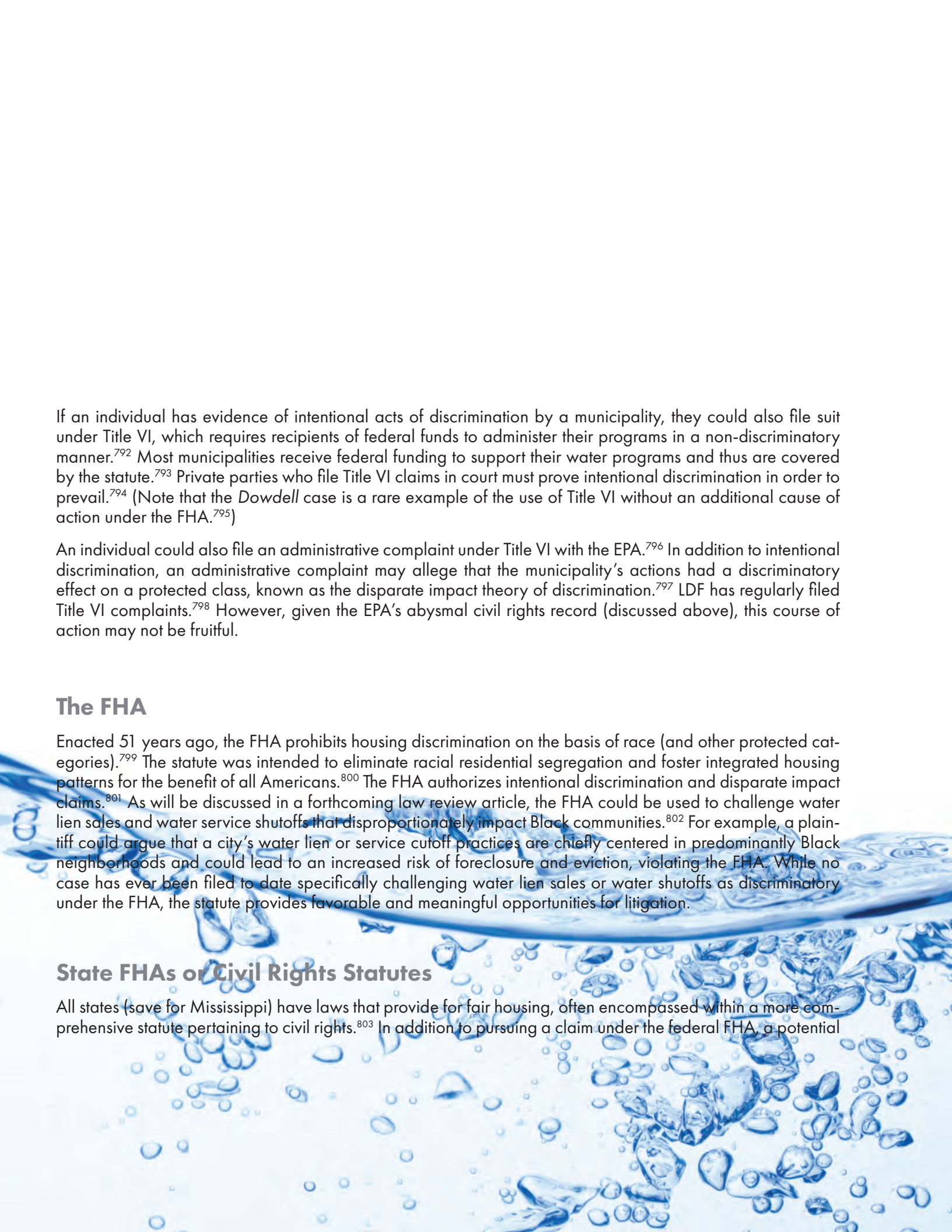
Section 1981 prohibits race-based discrimination in the making and enforcement of contracts, and has been held to apply to claims challenging the discriminatory denial of municipal services.⁷⁸⁰ Section 1982 prohibits race-based discrimination related to all real and personal property, including discriminatory municipal action benefiting white property owners but not Black owners.⁷⁸¹ The Equal Protection Clause prohibits a state from denying any person within its territory the equal protection of the laws, and is also available to plaintiffs seeking to challenge governmental discrimination in the housing market.⁷⁸² A law that burdens a fundamental right or targets a suspect class triggers elevated scrutiny, requiring the government to justify the classification.⁷⁸³ Other laws trigger only rational basis review.⁷⁸⁴

While Section 1982 includes a private right of action,⁷⁸⁵ claims under Section 1981 and the 14th Amendment would need to be brought under Section 1983.⁷⁸⁶ Courts apply similar standards for evaluating claims under Sections 1981 and 1982, as well as violations of the Equal Protection Clause.⁷⁸⁷ All three claims would require a showing of intentional discrimination, which can be difficult to prove.⁷⁸⁸ In order to prevail in a case under these provisions, the plaintiff would need to establish municipal liability, meaning that the allegedly discriminatory actions were conducted pursuant to an official policy or could be considered a custom or practice by a final policymaker.⁷⁸⁹ Once municipal liability was established, the plaintiff would need to demonstrate that (1) they were treated differently from others who were similarly situated; and (2) the treatment was intentionally based on impermissible considerations such as race.⁷⁹⁰ To demonstrate intent, the plaintiff could rely on the factors articulated by the Supreme Court in *Arlington Heights*, including:

[t]he historical background of the decision ... particularly if it reveals a series of official actions taken for invidious purposes, ... [t]he specific sequence of events leading up to the challenged decision[,] ... [d]epartures from the normal procedural sequence[,] ... [s]ubstantive departures ... particularly if the factors usually considered important by the decision-maker strongly favor a decision contrary to the one reached[, and] ... [t]he legislative or administrative history.⁷⁹¹

Title VI





If an individual has evidence of intentional acts of discrimination by a municipality, they could also file suit under Title VI, which requires recipients of federal funds to administer their programs in a non-discriminatory manner.⁷⁹² Most municipalities receive federal funding to support their water programs and thus are covered by the statute.⁷⁹³ Private parties who file Title VI claims in court must prove intentional discrimination in order to prevail.⁷⁹⁴ (Note that the *Dowdell* case is a rare example of the use of Title VI without an additional cause of action under the FHA.⁷⁹⁵)

An individual could also file an administrative complaint under Title VI with the EPA.⁷⁹⁶ In addition to intentional discrimination, an administrative complaint may allege that the municipality's actions had a discriminatory effect on a protected class, known as the disparate impact theory of discrimination.⁷⁹⁷ LDF has regularly filed Title VI complaints.⁷⁹⁸ However, given the EPA's abysmal civil rights record (discussed above), this course of action may not be fruitful.

The FHA

Enacted 51 years ago, the FHA prohibits housing discrimination on the basis of race (and other protected categories).⁷⁹⁹ The statute was intended to eliminate racial residential segregation and foster integrated housing patterns for the benefit of all Americans.⁸⁰⁰ The FHA authorizes intentional discrimination and disparate impact claims.⁸⁰¹ As will be discussed in a forthcoming law review article, the FHA could be used to challenge water lien sales and water service shutoffs that disproportionately impact Black communities.⁸⁰² For example, a plaintiff could argue that a city's water lien or service cutoff practices are chiefly centered in predominantly Black neighborhoods and could lead to an increased risk of foreclosure and eviction, violating the FHA. While no case has ever been filed to date specifically challenging water lien sales or water shutoffs as discriminatory under the FHA, the statute provides favorable and meaningful opportunities for litigation.

State FHAs or Civil Rights Statutes

All states (save for Mississippi) have laws that provide for fair housing, often encompassed within a more comprehensive statute pertaining to civil rights.⁸⁰³ In addition to pursuing a claim under the federal FHA, a potential



endnotes

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- 2 Paul Finkelman, *Why Access to Water Was Never a "Right": Historical Perspectives on American Water Law*, 18 Willamette J. Int'l L. & Disp. Resol. 168, 169, 172 (2010).
- 3 Nelson M. Blake, *Water for the Cities: A History of the Urban Water Supply Problem in the United States* 265 (1956) (citing U.S. Cong., House Comm. on Interior and Insular Affairs, *The Physical Basis of Water Supply and its Principal Uses* 42 (1952)).
- 4 Maureen Taylor, *When Cities Shut the Water Off*, Truthout (Mar. 31, 2019), <https://truthout.org/articles/when-cities-shut-the-water-off/>.
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- 6 Zimring, *supra* note 5, at 13, 29; David Sedlak, *Water 4.0: The Past, Present, and Future of the World's Most Vital Resource* 41 (2015); Juliet Christian-Smith & Peter H. Gleick et al., *A 21st Century U.S. Water Policy* 167 (2012); Melosi, *Sanitary City*, *supra* note 5, at 12; Werner Troesken, *Water, Race, and Disease* 17 (2004) [hereinafter Troesken, *Water, Race, and Disease*]; John Duffy, *The Sanitarians: A History of American Public Health* 30 (1992); Blake, *supra* note 3, at 8. By 1900, nearly half of all deaths in the United States were due to infectious disease, and waterborne disease accounted for nearly a quarter of reported infectious disease deaths in major cities. David M. Cutler & Grant Miller, *The Role of Public Health Improvements in Health Advances: The 20th Century United States*, 42 *Demography* 1, 2-3 (2005), <http://www.nber.org/papers/w10511>.
- 7 Sedlak, *supra* note 6, at 41; Melosi, *Sanitary City*, *supra* note 5, at 15, 18. See also Zimring, *supra* note 5, at 64; National Research Council, *Privatization of Water Services in the United States: An Assessment of Issues and Experience* 30 (2002); Duffy, *supra* note 6, at 75; Blake, *supra* note 3, at 5, 60.
- 8 Sedlak, *supra* note 6, at 56; Christian-Smith & Gleick et al., *supra* note 6, at 168; Melosi, *Sanitary City*, *supra* note 5, at 50; Robert D. Morris, *The Blue Death: The Intriguing Past and Present of the Water You Drink* 162 (2008); Cutler & Miller, *supra* note 6, at 6-7; Troesken, *Water, Race, and Disease*, *supra* note 6, at 40; Blake, *supra* note 3, at 248, 262.
- 9 Cutler & Miller, *supra* note 6, at 1-3; see also Sedlak, *supra* note 6, at 61; Morris, *supra* note 8, at 162; Troesken, *Water, Race, and Disease*, *supra* note 6, at 50.
- 10 Melosi, *Sanitary City*, *supra* note 5, at 82. In 1860, a report about Philadelphia's water system observed that: "The water supply to a great city is necessarily one of the most important and interesting features, upon which depends, to a greater extent, possibly, than any of its other advantages, either natural or artificial, its ultimate growth and prosperity." Smith, *supra* note 5, at 3 (citing City of Phila., Dep't for Supplying the City with Water, *History of the Works, and Annual Report of the Chief Engineer of the Water Department of the City of Philadelphia* 5 (1860)).
- 11 Smith, *supra* note 5, at 53.
- 12 *Id.* at 54.
- 13 *Id.* at 58; see also Melosi, *Sanitary City*, *supra* note 5, at 21; Blake, *supra* note 3, at 17.
- 14 Melosi, *Sanitary City*, *supra* note 5, at 13 (citing Sam Bass Warner, Jr., *The Private City* 99 (1987)).
- 15 *Id.* at 21 (citing Letty Donaldson Anderson, *The Diffusion of Technology in the Nineteenth-Century American City: Municipal Water Supply Investments I* (1980)); see also Blake, *supra* note 3, at 43 (noting that, in constructing Philadelphia's water system, "[t]he provision of adequate water supply for the inhabitants had been recognized as one of the responsibilities of an adequate city government").
- 16 Blake, *supra* note 3, at 268.
- 17 *Id.*
- 18 Smith, *supra* note 5, at 92-93.
- 19 *Id.*
- 20 Melosi, *Sanitary City*, *supra* note 5, at 21.

21 Smith, *supra* note 5, at 57-58; Blake, *supra* note 3, at 267.

22 Blake, *supra* note 3, at 63.

23 Melosi, *Sanitary City*, *supra* note 5, at 51. By contrast, nearly all sewer systems were public at the outset. Scott E. Masten, *Public Utility Ownership in 19th Century America: The "Aberrant" Case of Water*, 27 *Oxford J.L., Econ., & Org.* 604, 611 (2010).

24 Melosi, *Sanitary City*, *supra* note 5, at 55.

25 Smith, *supra* note 5, at 209; Melosi, *Sanitary City*, *supra* note 5, at 83-84. By 1860, municipal debt was three times the federal debt and almost equal to the aggregate state debt. Melosi, *Sanitary City*, *supra* note 5, at 53. Between 1860 and 1920, municipal debt increased from \$200 million to more than \$3 billion. Melosi, *Precious Commodity*, *supra* note 5, at 114.

26 Melosi, *Sanitary City*, *supra* note 5, at 84-85; Blake, *supra* note 3, at 77, 268; see also Craig Anthony Arnold, *Privatization of Public Water Services: The States' Role in Ensuring Public Accountability*, 32 *Pepp. L. Rev.* 561, 568 (2005).

27 Melosi, *Precious Commodity*, *supra* note 5, at 39 (citing Charles David Jacobson, *Ties That Bind: Economic and Political Dilemmas of Urban Utility Networks, 1800-1900*, at 3-11 (2000)); Masten, *supra* note 23, at 622.

28 Masten, *supra* note 23, at 625-26.

29 Melosi, *Sanitary City*, *supra* note 5, at 83.

30 Blake, *supra* note 3, at 77; see also Masten, *supra* note 23, at 605; Arnold, *supra* note 26, at 567.

31 Masten, *supra* note 23, at 605.

32 Smith, *supra* note 5, at 55.

33 *Id.*

34 *Id.*

35 Carla L. Peterson, *Black Gotham: A Family History of African Americans in Nineteenth-Century New York City* 35-62 (2012).

36 *Id.* at 56. In part due to the rampant pollution of this area, Collect Street was rebranded as Centre Street in the mid-1820s. *Id.* at 57.

37 *Id.* at 59; Melosi, *Sanitary City*, *supra* note 5, at 41-42.

38 Melosi, *Sanitary City*, *supra* note 5, at 41 (citing Howard N. Rabinowitz, *Race Relations in the Urban South, 1865-1890*, at 114-21 (1980)); Robert D. Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* 25 (3d ed. 2000) [hereinafter Bullard, *Dumping in Dixie*].

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40 Duffy, *supra* note 6, at 116.

41 *Id.* at 180.

42 W.E.B. Du Bois, *The Philadelphia Negro: A Social Study* 1 (2017 reprint) (1899).

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49 *Id.* at 292, 294.

50 *Id.* at 293.

51 *Id.* at 294.

52 *Id.* at 293.

53 Troesken, *Water, Race, and Disease*, *supra* note 6, at 8.

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61 Kenneth L. Kusmer, *A Ghetto Takes Shape: Black Cleveland, 1870-1930* 13 (1978).

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92 *Id.*

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145 *Id.* at 1169. Note that Professors Haar and Fessler stated that "[i]t is impossible to determine whether this deferential language was grounded in naïve notions of political realities, in a strict devotion to the doctrine of separation of powers, or in a desire to maintain the social and racial status quo in Mississippi." Haar & Fessler, *supra* note 128, at 40.

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 739 *Id.* at 694.
 740 *Id.* at 702.
 741 *Id.* at 699.
 742 *Id.* at 700.
 743 *Id.*
 744 *Id.*
 745 *Memphis Light*, 436 U.S. at 11-12. See also Opinion at 21, *Mayor & City Council of Baltimore v. ISG Sparrows Point, LLC*,
 No. 980 (Md. Ct. Spec. App. Nov. 4, 2011).
 746 Ohio Admin. Code § 4901:1-15-27.
 747 Balt. City Code, Art. 24, §§ 2-1(c), 2.3, 4.4.
 748 See Murthy, *supra* note 263, at 188.
 749 Amended Consent Decree, *Colegrove*, *supra* note 536, at 2.
 750 *Id.* at 2-3.
 751 See, e.g., Regan et al., *Drowning in Dysfunction*, *supra* note 543.
 752 Wenger, *Clarke Wants Hearings*, *supra* note 397.
 753 *Id.*
 754 Balt. City Code, Art. 24, § 2-2.
 755 Opinion, *Sparrows Point*, *supra* note 745, at 24.

756 *Id.*
 757 *Id.*
 758 Wenger, *Advocates Decry Loss*, *supra* note 397.
 759 Lyda, 841 F.3d at 699 (citing *Mansfield*, 988 F.2d at 1477).
 760 *Dunbar v. City of New York*, 251 U.S. 516, 519 (1920) (enforcing a lien against a landlord for the tenant's delinquent water bills did not violate the landlord's substantive due process rights); Lyda, 841 F.3d at 699; *Chatham v. Jackson*, 613 F.2d 73, 78-79 (5th Cir. 1980) (holding that Atlanta's practice of terminating water service to the landlord when the tenant's bills were delinquent did not violate substantive due process); *Coshov v. City of Escondido*, 34 Cal. Rptr. 3d 19, 30-31 (Cal. App. 4th 2005) (in a case challenging the fluoridation of drinking water, the court held that there is no constitutional right to drinking water of a certain quality or to water without the fluoridation agent); see also Murthy, *supra* note 263 at 195 n.258 (citing *Mansfield*, 988 F.2d at 1476-77 ("[W]e reject the claim that conditioning the receipt of water and sewer services on the satisfaction of past due charges for services rendered to the applicant's residence raises the question of a substantive due process violation."); *Ransom v. Marrazzo*, 848 F.2d 398, 411-12 (3d Cir. 1988) (disagreeing with the court's finding in *Roger v. Guarino*, 412 F. Supp. 1375, 1386 (E.D. Pa. 1976), which had determined that the policy of requiring a tenant to pay a landlord's delinquent water bills in order to avoid termination of water service violated substantive due process); *In re Agent Orange Prods. Liab. Litig.*, 375 F. Supp. 305, 310 (N.D. Ohio 1974) (there is no constitutional right to a healthful environment or one free of toxic chemicals); *Tanner v. Armco Steel Corp.*, 340 F. Supp. 532, 537 (S.D. Tex. 1971) (no constitutional right to a healthful environment)).
 761 Mays, 2017 WL 445637, at *1.
 762 841 F.3d at 700.
 763 *Id.* (quoting *Range v. Douglas*, 763 F.3d 573, 588 n.6 (6th Cir. 2014) ("Most state-created rights that qualify for procedural due process protections do not rise to the level of substantive due process protection")); see also *McKinney v. Pate*, 20 F.3d 1550, 1556 (11th Cir. 1994).
 764 Ohio Rev. Code Ann. § 4905.22.
 765 Ohio Rev. Code Ann. § 743.04(A).
 766 *Id.*
 767 Ohio Rev. Code Ann. § 4905.34.
 768 While it is generally accepted that municipal utilities are state actors for constitutional due process purposes, private water companies are not. See *Memphis Light*, 436 U.S. at 7; *Access to Utility Service*, *supra* note 334, at § 3.2.1. In *Jackson v. Metro. Edison Co.*, an LDF case argued by second Director-Counsel Jack Greenberg, the Supreme Court held that state action is not present for purposes of the Due Process Clause when a utility is privately owned, even though the company is regulated by the state. 419 U.S. 345, 350-51 (1974). This is something to be mindful of given the recent trend back toward privatization of water services.
 769 Ohio Rev. Code Ann. § 743.27.
 770 Md. Code Ann., Local Gov't § 5-205.
 771 Balt. City Code, Art. 24, § 3-5(a), (c).
 772 Murthy, *supra* note 263, at 162. Professor Martha Davis also argues that there is a colorable substantive due process claim for access to water. Davis, *supra* note 669, at 373.
 773 Murthy, *supra* note 263, at 161 (citing Cass R. Sunstein, *The Second Bill of Rights: FDR's Unfinished Revolution and Why We Need It More than Ever* 61-62 (2004)).
 774 Murthy, *supra* note 263, at 197; see also Jones & Moulton, *supra* note 223, at 11.
 775 Murthy, *supra* note 263, at 198-99 (citing *Atkins v. City of Chicago*, 631 F.3d 823, 830 (7th Cir. 2011) (noting that "a thirsty person deprived of water would last [only] a matter of days"); *Barker v. Goodrich*, 649 F.3d 428, 434 (6th Cir. 2011) (finding that "for no legitimate penological purpose, [the inmate] was denied adequate access to water"); *Battle v. Anderson*, 564 F.2d 388, 395 (10th Cir. 1977) ("Water, fire protection, air, and food are necessities of life.")).
 776 See *id.* at 201-04; see also Amirhadji et al., *supra* note 244, at 34.
 777 In examining the Flint litigation, Professor Toni Massaro and attorney Ellen Elizabeth Brooks noted that courts are unlikely to recognize a right to be free from contaminated water, given the prevalence of contaminants in the U.S. and the complexities of setting water quality standards. Massaro & Brooks, *supra* note 650, at 158. Recognizing a right to affordable water would arguably have even greater ramifications.
 778 Finkelman, *supra* note 2, at 169, 175.
 779 See Davis, *supra* note 669, at 374-76.
 780 Section 1981 reads: "All persons within the jurisdiction of the United States shall have the same right in every State and Territory to make and enforce contracts, to sue, be parties, give evidence, and to the full and equal benefit of all laws and proceedings for the security of persons and property as is enjoyed by white citizens, and shall be subject to like punishment, pains, penalties, taxes, licenses, and exactions of every kind, and to no other." 42 U.S.C. § 1981(a). Part (b) of the statute defines "making and enforcing contracts" as including "the making, performance, modification, and termination of contracts, and the enjoyment of all benefits, privileges, terms, and conditions of the contractual relationship." *Id.* at (b). Courts have allowed claims challenging the discriminatory denial of municipal services to proceed under Section 1981. See *Kennedy v. City of Zanesville*, 505 F. Supp. 2d 456,

494 (S.D. Ohio 2007) (involving the discriminatory denial of water services).

781 Section 1982 reads: “All citizens of the United States shall have the same right, in every State and Territory, as is enjoyed by white citizens thereof to inherit, purchase, lease, sell, hold, and convey real and personal property.” 42 U.S.C. § 1982. The Supreme Court has noted that Section 1982 supports a claim of discriminatory municipal actions. See *City of Memphis v. Greene*, 451 U.S. 100, 122-23 (1981) (Section 1982 concerns the right of Black persons to hold and acquire property on an equal basis with whites and the right of Blacks not to have property interests impaired because of their race). Additionally, Section 1982 is assumed to prohibit racial discrimination in the terms, conditions, and services related to housing as fully as Section 3604(b). See also Robert G. Schwemm, *Housing Discrimination: Law and Litigation* § 10:2, § 27:6 (2017 ed.) (citing Arval A. Morris & L.A. Powe, Jr., *Constitutional and Statutory Rights to Open Housing*, 44 Wash. L. Rev. 1, 83 (1968) (“Although section 1982 does not explicitly cover discriminatory terms and conditions . . . , the section would be practically nullified if it were not construed to prohibit th[is] practice [.]”).).

782 U.S. Const. amend. XIV, § 1, cl. 4.

783 See, e.g., *United States v. Virginia*, 518 U.S. 515, 531-34 (1996) (applying intermediate scrutiny and demanding “exceedingly persuasive justification” for gender classification); *Loving*, 388 U.S. at 11 (applying strict scrutiny to racial classification that burdened fundamental right to marriage).

784 See, e.g., *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 29 (1973).

785 *Jones v. Alfred H. Mayer Co.*, 392 U.S. 409, 413 (1968).

786 *Dennis v. County of Fairfax*, 55 F.3d 151, 156 (4th Cir. 1995) (refusing to find a private right of action against state actors under Section 1981).

787 *Painter’s Mill Grille, LLC v. Brown*, 716 F.3d 342, 348 (4th Cir. 2013) (quoting *CBOCS West, Inc. v. Humphries*, 553 U.S. 442, 447 (2008) (“[The United States Supreme Court’s] precedents have long construed §§ 1981 and 1982 similarly.”)).

788 *Patterson v. McLean Credit Union*, 491 U.S. 164, 186 (1989) (Section 1981 requires discriminatory intent); *Save Our Cemeteries, Inc. v. Archdiocese of New Orleans, Inc.*, 568 F.2d 1074, 1078 (5th Cir. 1978) (Section 1982 requires proof of discriminatory intent); *Hamilton v. Svatik*, 779 F.2d 383, 387 (7th Cir. 1985) (same, citing *Gen. Bldg. Contractors Ass’n, Inc. v. Pennsylvania*, 458 U.S. 375, 387 (1982)); *Hammary v. Soles*, No. 1:09-CV-781, 2013 WL 1192783, at *9 (M.D.N.C. Mar. 22, 2013) (same); *Byrd v. Local 24, I.B.E.W.*, No. 72-848-M, 1977 WL 15446, at *1 (D. Md. Jun. 13, 1977) (interpreting *Jones*, 392 U.S. 409, as requiring a showing of discriminatory intent to make out a claim under Section 1982).

789 *Spell v. McDaniel*, 824 F.2d 1380, 1385 (4th Cir. 1987) (citing *Monell*, 436 U.S. at 694).

790 *Denny v. Elizabeth Arden Salons, Inc.*, 456 F.3d 427, 434 (4th Cir. 2006); *Front Royal & Warren County Indus. Park Corp. v. Town of Front Royal*, 135 F.3d 275 (4th Cir. 1998); *LeClair v. Saunders*, 627 F.2d 606 (2d Cir. 1980).

791 429 U.S. at 267-68.

792 42 U.S.C. § 2000d. See also Davis, *supra* note 669, at 376-77.

793 See, e.g., Jay Apperson, *Board of Public Works Approves Funding for Clean Water and the Chesapeake Bay*, Md. Dep’t of the Env’t (Aug. 22, 2018), <http://news.maryland.gov/mde/2018/08/22/board-of-public-works-approves-funding-for-clean-water-and-the-chesapeake-bay-46/>; Div. of Envtl. and Financial Assistance, Ohio EPA, Office of Financial Assistance, <http://epa.ohio.gov/defa/ofa#16954615-about-us> (last visited Mar. 27, 2019).

794 *Alexander v. Sandoval*, 523 U.S. 275, 279-80 (2001); U.S. Dep’t of Justice, Civ. Rts. Div., Fed. Coordination & Compliance Section, *Title VI Legal Manual*, <https://www.justice.gov/crt/fcs/T6Manual6#101> (last visited Mar. 27, 2019) [hereinafter *Title VI Legal Manual*].

795 See Schwemm, *supra* note 781, at § 29.2 (citing *Dowdell*, 698 F.2d at 1184-87).

796 See, e.g., 40 C.F.R. § 7.120 (EPA regulation authorizing a party who believes they have been discriminated against to file an administrative complaint with the agency); *Title VI Legal Manual*, *supra* note 794.

797 See 40 C.F.R. § 7.35 (EPA regulation permitting disparate impact claims); *Title VI Legal Manual*, *supra* note 794.

798 See, e.g., NAACP Legal Def. & Educ. Fund, Inc., *Baltimore Residents and Civil Groups File Title VI Complaint with United States Department of Transportation over Maryland’s Discriminatory Decision to Strip Baltimore of Transportation Funding* (Dec. 18, 2015), <http://www.naacpldf.org/press-release/baltimore-residents-and-civic-groups-file-title-vi-complaint-united-states-department>.

799 See, e.g., 42 U.S.C. §§ 3601 *et seq.*

800 See 42 U.S.C. § 3601 (“It is the policy of the United States to provide, with constitutional limitations, for fair housing throughout the United States.”); *Texas Dep’t of Hous. & Cmty. Affairs v. Inclusive Cmty. Project, Inc.*, 135 S. Ct. 2507, 2513 (2015) (stating that the purpose of the FHA is “to eradicate discriminatory practices within a sector of our Nation’s economy”); *Otero v. N.Y. City Hous. Auth.*, 484 F.2d 1122, 1133-34 (2d Cir. 1973) (commenting that the FHA was designed “to prohibit discrimination . . . so that members of minority races would not be condemned to remain in urban ghettos . . . [and] to fulfill . . . the goal of open, integrated residential housing patterns and to prevent the increase of segregation, in ghettos, of racial groups”).

801 *Inclusive Cmty.*, 135 S. Ct. at 2525; *United States v. City of Birmingham*, 538 F. Supp. 819, 829-30 (E.D. Mich. 1982), *aff’d as modified*, 727 F.2d 560 (6th Cir. 1984) (city acted with racially discriminatory intent in violation of the Fair Housing Act by preventing development of housing complex that would have served low-income people and senior citizens).

802 See also Davis, *supra* note 669, at 379-82 (discussing a potential FHA action for water shutoffs).

803 See, e.g., Md Code Ann., State Gov't § 20-702; Ohio Rev. Code Ann. § 4112.02(H).

804 See, e.g., D.C. Code Ann. § 2-1402.21 (prohibiting housing discrimination on the basis of race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, gender identity or expression, familial status, family responsibilities, disability, matriculation, political affiliation, source of income, status as a victim of an intrafamily offense, or place of residence or business of any individual).

805 See, e.g., Md. Code Ann., Comm. Law § 13-303; Ohio Rev. Code Ann. § 1345.02. See generally *Access to Utility Service*, *supra* note 334, at § 15.4.2.

806 For example, Maryland's law does not apply to a "public service company, to the extent that the company's services and operations are regulated by the Public Service Commission." Md. Code Ann., Comm. Law § 13-104. However, public water utilities are not subject to regulation by the commission in Maryland. See Md. Code Ann., Pub. Util. Cos. § 1-101(ss); *Navigating Legal Pathways*, *supra* note 256, at 60. In Ohio, public utilities are exempted by Ohio Rev. Code Ann. § 1345.01(A), which exempts transactions made by companies subject to the public utilities commission. See Ohio Rev. Code Ann. § 4905.03. Public utilities that are owned or operated by a municipality are not regulated by the commission. Ohio Rev. Code Ann. § 4905.02(A)(3); *Navigating Legal Pathways*, *supra* note 256, at 88.

807 See generally *Access to Utility Service*, *supra* note 334.

808 *Id.* at § 2.1.2 (citing *United Fuel Gas Co. v. Railroad Comm'n*, 278 U.S. 300 (1929); *N.Y. ex. rel. Woodhaven Gaslight Co. v. Public Serv. Comm'n*, 269 U.S. 244 (1925); *Allen's Creek Props. v. Clearwater*, 679 So. 2d 1172 (Fla. 1996)). Ohio has incorporated this duty into a statute that applies to private water and wastewater companies. See Ohio Rev. Code Ann. § 4905.22.

809 *Access to Utility Service*, *supra* note 334, at § 2.1.2; see, e.g., *Nolte v. City of Olympia*, 982 P.2d 659, 667 (Wash. Ct. App. 1999) (as exclusive provider of water and sewer service, city owes public duty to serve all within service area subject to reasonable conditions as allowed by law).

810 *Access to Utility Service*, *supra* note 334, at § 2.1.2.

811 *Id.* at § 2.4.2.

812 *Id.* at § 6.7.

813 Justin Mitchell, *A Columbus Water Employee Did the 'Feeling Cute Challenge.' His Post Went Viral.*, *Ledger-Enquirer* (Apr. 11, 2019), <https://www.ledger-enquirer.com/news/local/article229094774.html>.

814 *Access to Utility Service*, *supra* note 334, at § 2.6.2; see also Amirhadji et al., *supra* note 244, at 43 (discussing water customers' frustration with ability to seek information from the water department).

815 *Access to Utility Service*, *supra* note 334, at § 2.6.2.

816 Kevin Murray & Sara Kominers, Program on Hum. Rts. and the Glob. Econ., Northeastern Univ. Sch. of Law, *The Human Right to Water in the United States: A Primer for Lawyers & Community Leaders* 4, 11, <https://www.northeastern.edu/law/pdfs/academics/phrge/water-primer.pdf>.

817 *Id.* at 28-34; see also Davis, *supra* note 669, at 358.

818 Letter from Kary Moss and Sherrilyn Ifill to Catarina de Albuquerque and Leilani Farha (Oct. 16, 2014), <https://www.naacpldf.org/wp-content/uploads/Detroit-Water-Shutoff-Letter-to-UN-1.pdf>.

819 See, e.g., Jacobson, *Steep Price*, *supra* note 433, at 5, 31-33. In *Steep Price*, Ms. Jacobson advocated for various tax sale reforms to protect homeowners and residents.

820 *Id.*

821 *Id.*

822 See, e.g., Amirhadji et al., *supra* note 244, at 5; Christian-Smith & Gleick et al., *supra* note 6, at 190.

823 Jones & Moulton, *supra* note 223, at 42; Murthy, *supra* note 263, at 216-17.

824 See, e.g., Colton, *Baltimore's Conundrum*, *supra* note 279, at 41; *Navigating Legal Pathways*, *supra* note 256, at 9; Jones & Moulton, *supra* note 223, at 41; Murthy, *supra* note 263, at 211-14; Jacobson, *Keeping the Water On*, *supra* note 269, at 12-13.

825 See, e.g., Wong et al., *supra* note 205, at 2.

826 Colton, *Baltimore's Conundrum*, *supra* note 279, at ES-9, 44-45.

827 See, e.g., Cromwell et al., *supra* note 205, at 45.

828 Jones & Moulton, *supra* note 223, at 42; Amirhadji et al., *supra* note 244, at 40-42.

829 See, e.g., Murthy, *supra* note 263, at 215-16; Jacobson, *Keeping the Water On*, *supra* note 269, at 15; Wong et al., *supra* note 205, at 15; Amirhadji et al., *supra* note 244, at 51-52; Cromwell et al., *supra* note 205, at 45.

830 Jones & Moulton, *supra* note 223, at 25; Wong et al., *supra* note 205, at 2, 44-46.

831 See, e.g., Jones & Moulton, *supra* note 223, at 45; Murthy, *supra* note 263, at 218-19; Christian-Smith & Gleick et al., *supra* note 6, at 79.

832 See National Coalition for Legislation on Affordable Water, <http://affordablewaternow.org/> (last visited Mar. 27, 2019); see also Jones & Moulton, *supra* note 223, at 33.

833 Murthy, *supra* note 263, at 214; Wong et al., *supra* note 205, at 36-38; Amirhadji et al., *supra* note 244, at 19, 49; Christian-Smith & Gleick et al., *supra* note 6, at 190.

834 42 U.S.C. §§ 8621-8630; see also *Access to Utility Service*, *supra* note 334, at § 8.1.1; Cromwell et al., *supra* note 205, at 61.

835 *Access to Utility Service*, *supra* note 334, at § 8.1.2.

836 42 U.S.C. § 8624(b)(2)(B) & (b)(5).

837 In fiscal year 2014, the most recent year that data is available, approximately 49 percent of funds went to heating assistance, seven percent went to cooling aid, 21 percent was used for crisis assistance, and nine percent for weatherization. Libby Perl, Congressional Research Service, *LIHEAP: Program and Funding*, Congressional Research Service 2 (Jun. 22, 2018), <https://fas.org/sgp/crs/misc/RL31865.pdf>.

838 *LIHEAP Frequently Asked Questions for Consumers*, Office of Cmty. Services, U.S. Dep't of Health & Hum. Serv. (Jan. 19, 2016), <https://www.acf.hhs.gov/ocs/resource/consumer-frequently-asked-questions> [hereinafter *LIHEAP FAQs*]; see also Cromwell et al., *supra* note 205, at 61.

839 See Perl, *supra* note 837, at 15. See also *Access to Utility Service*, *supra* note 334, at § 8.1.1; *LIHEAP FAQs*, *supra* note 838.

840 See, e.g., Wong et al., *supra* note 205, at 1, 46.

841 Jacobson, *Steep Price*, *supra* note 433, at 34. As Ms. Jacobson noted, water equality advocates in Baltimore have reported that tax sales lead to increased eviction and homelessness, among other consequences, but more research is needed to determine the full effects of these sales on communities. *Id.* at 8, 34. This research should be focused on predominantly Black communities across the nation.

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