



THE INVISIBLE CRISIS: WATER UNAFFORDABILITY IN THE UNITED STATES

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DEFINITIONS AND TERMS

Affordability Program

More than just an affordability rate structure; a thorough program at all levels of government to secure access to adequate levels of safe water and sanitation at affordable costs for a household.

Affordability Standard

An enforceable guideline for water affordability. We argue that this should be measured at the household level and should not exceed 2.5% of household income for all water and sewer services.

Assistance Programs

Discounts, often one-time or limited to a maximum amount, that consumers can request to offset high bills. These are often funded through voluntary programs and do not reach all consumers in need.

Conservation Measures

Leak repairs, low-flow toilets, and consumer practices that can limit unnecessary or wasteful water or sewer usage, and can reduce costs.

Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fixed Fees

User fees and other charges on a water or sewer bill that do not change based on the amount of water used.

Human Rights to Water and Sanitation

In 2010, the United Nations General Assembly and Human Rights Council explicitly recognized the human rights to access water and sanitation; and that safe, sufficient, adequate, accessible, affordable water and sanitation are essential to the realization of all human rights.

Increasing Block Rate

A rate structure in which consumers are charged more per unit for water, the more water they use. This can make water costs more affordable and promotes conservation.

Levelized Bills

Estimated costs billed in equal installments. This helps consumers budget for water and sewer costs.

Lifeline Rate

A low cost for a basic amount of water. If the amount is adequate for household use, it can result in more affordable prices for low-income consumers.

Mass Shutoff

A utility's termination of water or sewer services to large numbers of consumers at a given time, usually in an attempt to collect unpaid bills.

Quintile

One fifth; used in this report to discuss populations divided into fifths based on (median) income.

Rate Structure

The way a utility bills consumers. This can include peak and off-peak rates, tiered rates, affordability rates, and other charges.

Shutoff

A utility's termination of water or sewer services to a consumer, including physically disconnecting a home from public water and sewer lines.

Universal Access

All people have equal ability to access a public good (like education or water).

Water and Sewer Costs

All costs associated with adequate water and sanitation, including billed water and sewer charges, fees, and costs to rural dwellers, including well and septic installation and upkeep.

Water Services Bill

The billed cost of water and sewer services, including fees and other charges.

CODA

I had the privilege of meeting Ms. Nicole Hill at a hearing in Federal Bankruptcy Court in Detroit in 2014. Nicole Hill is a courageous community leader, one of the petitioners in a class action suit that should make the country stop and take a serious look at itself. I know it did for me. This is Ms. Hill's lived experience of water injustice in the United States. She gave me permission to share this story. --Dr. Patricia Jones

One night, an eight-year-old girl who was staying at her aunt's house woke up, found the keys to the front door, let herself out, and began walking home alone through the streets of Detroit. It was 1:30 am. She was walking to find her mother because she had heard a social worker say she would be taken away to foster care because the family's water bill hadn't been paid. She didn't care that the Detroit Water and Sewer Department had turned off their water; she was afraid that she would never see her mother again.

That girl was Nicole Hill's daughter. The family's water was first shutoff in May and restored in late June, but it was at risk of another shutoff. Ms. Hill had paid \$2,800 toward her water bill — a near impossible amount for a family of five — but still owed another \$5,000, which was obviously a clerical error. The utility refused to acknowledge that her bill had been partly paid or that the amount she owed was wrong.

Ms. Hill had gone to the water department to try to resolve the bill, taking her daughter with her, as school was out for the summer. She also brought along a social worker for support and documents proving she had made past payments. In an unguarded moment, the social worker told Ms. Hill in front of her daughter that if the water was shutoff, her children would be taken into foster care.

Of course, when the water was shutoff for the first time, Ms. Hill had made arrangements for the children to take baths, clothes to be washed, drinking water purchased, and the neighbor's toilets available until the water was turned back on. But this time, afraid that the social worker would do her legally mandated duty and begin proceedings to take the children away, Ms. Hill immediately made arrangements to have her children stay with relatives.

That night as the girl was walking home in the dark, a man saw her and convinced her to wait while he called the police. The responding police officer, rather than taking her into custody and then into foster care, brought her back to her aunt's house. Her aunt called her mother, and that same morning, the girl was brought safely back to her mother.

Through the kindness and understanding of strangers, this family survived the damaging impacts of a water shutoff that never should have happened. They should not have had to rely on the kindness of strangers.

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INTRODUCTION

Water is essential to life: we use it to drink, cook food, and clean our bodies and homes, among other basic needs. But when it comes from a tap or well, drinkable water is not free. It requires major investments at the home or in a town or city. This has left a sizable portion of the population without continuous access to safe sources of water, affecting their dignity, health, living standards, and even family rights.

The United States does not include the affordability of water, sanitation, and other basic services for the lowest-income consumers in its laws or regulations.¹ Even for elders and children in the United States today, accessing publicly supported water and sanitation services is considered a privilege, not a legal right.

In some major U.S. cities, the cost of household water services has risen over 40% from 2010-2015. Because water costs are rising much faster than inflation and incomes in the United States, this problem will only worsen. Water affordability has reached a crisis level in many U.S. communities, including Flint and Detroit, Michigan, where mass shutoffs have left thousands without water in their homes.

Plainly, universal access to safe drinking water and adequate sanitation has not been achieved in the United States. This failure is at least in part due to discrimination on the basis of race, gender, age, ability, and income — another chapter in our long national history of discrimination against these populations. Making clean, affordable water available to all U.S. residents is a civil rights challenge for this century and a moral challenge requiring immediate action.

The challenge of paying for needed investments in water and sanitation infrastructure and the impending impacts of climate change will require a global effort to promote, protect, and fulfill the human rights to water and sanitation. UUSC and its partners are working on the forefront of these efforts, in the United States and beyond.

This report seeks to describe the real human impacts caused by the lack of universal access to safe, affordable water and sanitation in the United States and documents the responses to this challenge by activists from affected communities, civil society, governments, and service providers. It argues for a concerted effort at the national, state, local, and municipal level to study and remedy the crisis of unaffordable water in the United States.

Service providers and governments at the local, state, and national levels must take immediate, significant steps to address our country's drinking water and sanitation affordability crisis. At all levels, affordability standards and measures must be put in place, first through executive action, followed by legislative mandate.

Recommendations to Service Providers and Governments

- Require data collection at the household level on water and sanitation costs, lack of access, and the impacts of water shutoffs. Reporting must be transparent, publicly accessible, and free of jargon.
- Ensure universal, nondiscriminatory access to safe, affordable drinking water and sanitation for urban and rural consumers and all people experiencing homelessness.
 - Establish affordability standards and programs for safe drinking water and sanitation for urban and rural communities. Costs should not exceed 2.5% of monthly household income for all services. All levels of government must act to adopt affordability programs.
 - Ban water shutoffs for nonpayment when customers do not have the ability to pay. At a minimum, mandate immediate protections against water shutoffs for low-income children (under age 18), elders over 65, people with disabilities, pregnant and lactating women, and those with chronic and catastrophic illnesses.
 - Require regulatory agencies to study and remedy the impact of regulated and unregulated pollution on the cost of water and sanitation services for consumers and households.
 - Prioritize and target all water and sanitation funding to protect the rights of those without access and other vulnerable populations first, followed by other investments in water infrastructure as needed.
- Adopt the human right to water and sanitation in domestic law, with clear enforcement mechanisms and remedies.

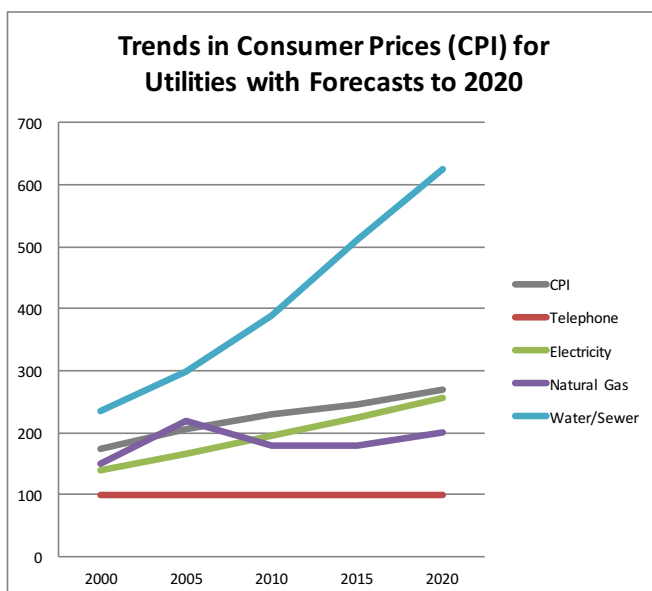
1 WATER AND SANITATION COSTS KEEP RISING

- Water and sanitation costs to households are unaffordable for millions of low-income Americans, threatening their family security, homes, and access to the basic necessities of life. Lack of access to safe, affordable drinking water and sanitation is a public health and economic crisis in the United States.
- Water and wastewater services have risen 41% over the last five years, outstripping inflation and making water unaffordable for low-income families. Rates are scheduled to rise dramatically to keep pace with needed infrastructure investments.

Millions of people across the country are facing water costs that are unaffordable, putting at risk their access to safe drinking water. It is estimated that 15% of U.S. water consumers may suffer financial hardship that could make paying water bills difficult.² This percentage could be much higher in some communities.³ Research by the Water Research Foundation and the Environmental Protection Agency (EPA) shows that a third of households in the lowest-income quintile reported periods when they could not pay their water bill on time and that service disconnection for low-income households are three times the average.⁴

Water is not cheap. Water bills have outpaced inflation in the United States for many years. Data from the Consumer Expenditure Survey shows that water expenses have grown much more sharply than other household utilities, such as gas and electricity, over the last 30 years.⁵ The National Consumer Law Center notes that from 1990–2006, water and wastewater bills increased by 105.7% in the United States, while household income increased by only 61%.⁶

Circle of Blue found in 2014 that in five U.S. cities (Austin, Charlotte, Chicago, San Francisco, and Tucson), water prices increased more than 50% over five years. And average water bills in 2015 varied widely. In Seattle, the average family of four paid \$310 per month for water, wastewater, and storm water fees; in Salt Lake City, that same family would pay just \$59. Circle of Blue's data suggests that for residents with lower incomes, many cities' water costs are unmanageable. Rising prices for water and sanitation have left low-income people in the United States without the services they need to maintain their health and dignity.



Source: For detailed data, see Trends in Consumer Prices Index for Utilities with Forecasts in Janice A. Beecher, IPU Research Note: Trends in Consumer Prices (CPI) for Utilities through 2014 (Institute of Public Utilities, Michigan State University, February 2015)

Unlike with other utilities, there are fewer, if any, protections against water shutoffs for periods of hardship or vulnerable populations in the United States. Protections against disconnections in electricity during extreme weather are required in many jurisdictions, and assistance programs for electricity are in place. Basic telecommunications services in many jurisdictions are required to ensure that all people can call emergency services, such as the fire and police departments, when needed. Yet, many utilities routinely shutoff water service to families who have not been able to pay their bills.

During Detroit's mass water shutoffs beginning in 2014, the utility made no provisions for the most vulnerable populations to keep their water services. It shut off water to pregnant and nursing mothers, households with small children and the elderly, children who needed water to cleanse nebulizers for their asthma treatment, and disabled residents with breathing machines that require water to use them.⁸

Low-income people in rural areas also face serious water affordability challenges. While there is even less data on rural water costs than urban costs, what does exist is striking. The Bureau of Labor Statistics reported that in 2011, rural residents paid on average almost twice the annual cost for "water and other utilities" as urban residents.⁹ Studies show that rural communities tend to have both lower average incomes than cities and higher costs per person for water infrastructure, in addition to facing more acute threats of water contamination from unregulated agriculture run off that can make water services unaffordable and water undrinkable.

This contradicts U.S. regulations that affirm the value of *environmental justice*. The EPA defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."¹⁰ Indeed, existing law and regulation does not ensure that water, which is necessary for life, is affordable for all consumers without discrimination. If the nation is to live up to this value, it must take steps to make water affordable for all people, no matter their income.



WATER BILL

\$185.00

DID YOU KNOW YOU MAY BE PAYING FOR:

PEAK/NON-PEAK RATES	ECOSYSTEM RESTORATION	WATER SHORTAGES
SEASONAL USAGE	MITIGATION	LEAKS
DROUGHT CHARGES	REMEDATION	CONSERVATION MEASURES
RUNOFF	POLLUTION CLEAN UP	UPKEEP + REPAIRS
FLOOD CONTROL	CAPITAL INVESTMENTS	PUMPING
CONNECTION FEES	SEWAGE TREATMENT	TAXES
SOFTWARE UPGRADES	WATER STORAGE	FILTERS + TREATMENT
OPERATING EXPENSES	REVENUE RAISING	GOVERNMENT SUBSIDIES
DISTRIBUTION	DEBT	INDUSTRIAL SUBSIDIES
FIXED FEES	WASTE WATER CHARGES	UTILITY PROGRAMMING
FIRE PIPES	STORM WATER FEES	TESTING
SUBCONTRACTORS	WASTEWATER COLLECTION	WATER TREATMENT
LEGAL FEES	FEDERAL FINES + FEES	INFRASTRUCTURE UPGRADES
	INSPECTION	

YOU'RE ALSO PAYING TO CLEAN UP POLLUTION BY OTHERS TO KEEP YOUR WATER SAFE



Created by João Proença
from Noun Project

MINING POLLUTION



AGRICULTURAL POLLUTION



Created by To Uyen
from Noun Project

SEWERAGE POLLUTION



OTHERS



2 AFFORDABILITY STANDARDS ARE INADEQUATE AND DISCRIMINATORY

- There is no enforceable water affordability standard in the United States. Existing guidelines, including the use of a municipality's median income, to determine water affordability are inadequate and discriminatory; they are only considered in enforcement actions, not in making water affordable for everyone.
- Water costs can consume up to 4–19% of monthly household income for low-income families.
- Water and sanitation assistance programs are inadequate. Low-income people in the United States need real affordability programs to maintain needed water and sanitation services, not sporadic assistance.

According to international human rights standards, water must be *affordable*. This means that when a family cannot afford to pay for water, they should not be denied access to it based on their income or inability to pay. Further, affordability is balanced with the ability to meet *all* basic necessities for an adequate standard of living, which means that water is not affordable if a household must give up another basic necessity in order to acquire it (for example, medicine, housing, food, education, transportation to work).

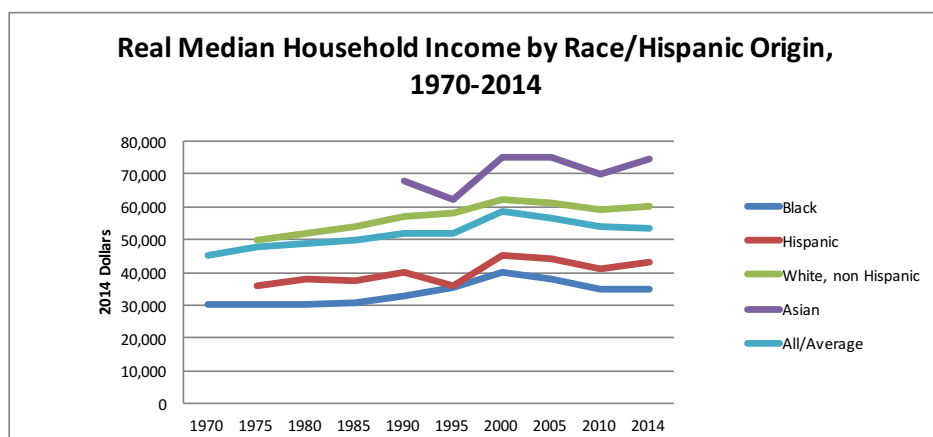
Currently, there is no national, enforceable affordability standard for water in the United States. The EPA uses “median income” to determine affordability when evaluating compliance measures, not whether the cost of services is actually affordable to low-income households.¹⁴ (This calculation is used to determine when the Clean Water Act and the Safe Drinking Water Act mandates may cause economic distress for municipalities.¹⁵) Often the threshold used to measure water affordability in a given municipality is 2.5% of median household income, with 4.5% used as the threshold for water and sanitation services.¹⁶

However, median income is the wrong measure of water affordability for lower-income households.¹⁷ This is particularly true in cities where the lowest and highest quintile have incomes that skew farther from the median than in the nation as a whole.¹⁸ General median income calculations also mask significant differences in real income across race, ethnicity, and gender that have their roots in historical discrimination and persist to this day.

Multiple studies document that for the lowest 20% income earners, some communities' water and sanitation services command from 4–19% of monthly household income, well beyond what could be considered affordable.¹⁹ The international community recognizes that total expenditure for water and sewer service combined should not exceed 2–5% of household income.²⁰ Still, in the United

States, people in this vulnerable group struggle to pay their bills and risk losing access to water as a result.

The U.S. federal poverty line for a family of four is \$24,250.²¹ That is widely understood to be a vast underestimation of real poverty,²² but the U.S. Census Bureau routinely



Source: For detailed data, see Carmen DeNavas-Walt and Bernadette D. Proctor, U.S. Census Bureau, Current Population Reports, P60-252, Income and Poverty in the United States: 2014 (U.S. Government Printing Office, Washington, DC, 2015).

documents the percentage of the population that falls below this line. In 2014, the Census Bureau reported that 46.7 million people were living in poverty, an average of 14.8% of people in the country.

Using Circle of Blue’s calculations for the average water bill for a family of four, it is clear that parents and children who live in poverty in U.S. cities face unaffordable water bills as a matter of course. In Seattle, where 14% of residents (or 94,000 people) live below the federal poverty line, the average annual water services bill for a family of four was \$3,720 in 2014. That calculates to at least 15% of household income for a family of four living at the poverty line. In Atlanta, 25% of people (or 114,000 people) live in poverty and an annual water services bill of \$3,912 consumes at least 16% of a similar family’s income.

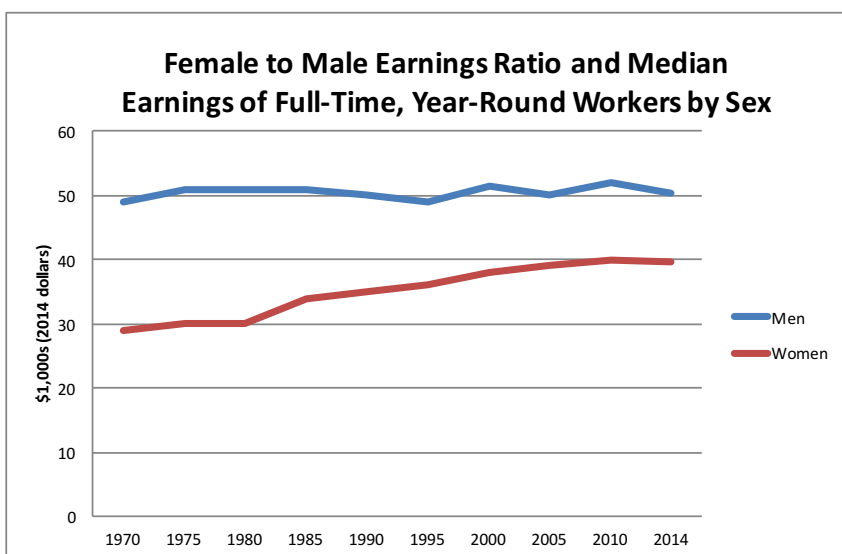
Average water services bills appear to be troublingly unaffordable even in cities where the ratio of household expenses to monthly income is not as high. In Baltimore, 24% of the population lives in poverty and the average water bill of \$1,896 would consume 8% of the income of a family of four living at the poverty line. In Detroit, a full 40% of residents live in poverty (272,000 people) and families of four living at the poverty line would have to pay at least 7% of their income to pay their average annual \$1,668 water bill.

The affordability crisis in the United States resulted in the U.N. Special Rapporteur on the human rights to safe drinking water and sanitation recommending that the United States “adopt a mandatory federal standard on affordability for water and sanitation” after her visit to the United States in 2011, where she heard from communities across the country about their lack of basic access to these services.²³ To date, there has been no effort to adopt such a standard at the national level.

Rather than working to ensure affordability for low-income customers, most existing assistance programs are aimed at shrinking overdue bills and arrears.²⁴ In a 2016 study, the EPA reported that of 795 utilities surveyed, less than 30% offered one or more “Customer Assistance Programs” (CAP).²⁵ And even those programs that do provide a needed discount for low-income consumers tend to have burdensome enrollment requirements. Most rely on donated rather than guaranteed funds, or provide assistance for a limited period. These programs are, by definition, assistance plans, not affordability programs that address the persistent needs of low-income families.

Yet, affordability and utilities expert Roger Colton argues convincingly that it is not charity but

“enlightened self-interest” for cities to create affordability programs that present lower-income customers with bills they can actually pay.²⁶ Colton shows how a low-income affordability program increases bill payment; increases “net back” through increased revenue and decreased collection costs; increases efficiency of collection efforts, which in turn increases long-term sustainability of bill payment and collection issues; increases 0% balances; improves effectiveness of “price signals”; and provides other social improvements, such as stability for students in school, decreased housing abandonment, public safety, and bringing in business.²⁷



Source: For detailed data, see Carmen DeNavas-Walt and Bernadette D. Proctor, U.S. Census Bureau, Current Population Reports, P60-252, Income and Poverty in the United States: 2014 (U.S. Government Printing Office, Washington, DC, 2015).

CONSUMER BILLS STILL HIGH DESPITE CAPs

In 2002, Washington D.C.'s water service prices were high enough to prompt a caution from the EPA.²⁸ But costs have continued to rise. Under the city's 2015 operating budget, the burden on approximately 15% of households was 5% or more of median household income. DC Water's combined water and sewer retail rate is projected to be \$13.95 per Ccf by 2023, a 61% increase over 2015 rates.²⁹ An additional 7% of DC Water customers pay 3–5% of their income for water services.³⁰

New rate structures effective October 2015 will moderate these increases in the short term.³¹ DC Water has three assistance programs for low-income customers:

- **The CAP program** "provid[es] a discount of 4 Ccf per month of water service for single family residential homeowners that meet income eligibility guidelines" as well as a discount of 4Ccf per month for sewer services to eligible consumers.³² In FY 2014, CAP assisted over 4,500 consumers and provided \$1.1 million in discounts. CAP only reaches about half of eligible consumers.³³
- **Serving People by Lending a Supporting Hand (SPLASH)** provides short-term assistance funded by private contributions to maintain critical water and sewer services during periods of economic distress. The program is administered by the Greater Washington Urban League.³⁴ SPLASH is very limited in scope: in FY 2014, it assisted 309 households and provided \$115,984 in contributions to low-income customers.³⁵
- **A lifeline rate** provides a deeply discounted rate for the first 4Ccf (3,000 gallons) of household water use.³⁶ Charges for additional water use rise steeply thereafter and may exceed average costs for those not in the program. Lifeline rates can be helpful, but some customers – with older, leaky pipes, for example – have not always benefited.³⁷

Unfortunately, a charge for the treatment of storm-water run off will keep Washington D.C.'s bills high. For the average Tier-2 consumer, with 700–2,000 square feet of impervious area, this rate is projected to rise from \$16.75 per month in 2015 to \$36.69 per month in 2023.³⁸ With storm-water fees, the average CAP consumer's total monthly bill in 2016 will still be \$53.59 per month.³⁹

Credit: Martha F Davis, Northeastern University School of Law



For many utility managers and lawmakers, the notion of charging some people less than others for the water they use is considered bad public policy. But as a Water Research Foundation study points out:

While cost-of-service ratemaking, avoidance of cross-subsidies between ratepayers, and equivalent treatment of ratepayers are time-honored principles in public utility theory, they are theoretical constructs that are intentionally blind to practical considerations that lie outside of ratemaking theory such as the real-world business problems posed to a utility by poverty.⁴⁰

Creating rate plans that make water affordable for lower-income ratepayers is in the interests of both consumers and utilities; but water utilities have been slow to remedy this problem.⁴¹ The National Consumer Law Center recommends a number of aid programs for lower-income consumers:

- Total and partial bill discounts
- Lifeline rates that provide a lower cost for minimum water usage
- More frequent billing schedules
- Levelized bills
- Payment plans
- Waivers of miscellaneous charges
- Conservation measures and leak repair
- Connection loans
- System-wide pricing assessments⁴²

When people do not pay their bills, it is a sign that bills are too high. The NCLC produced a study of existing affordability programs and best practices in the United States in 2014 and found that high levels of overdue bills are a clear indication of water unaffordability. Studies ranging from the 1970s to the 2000s found that the vast majority (as much as 97%) of consumers pay their bills in good faith and that when surveyed, disconnected customers indicate that they were willing to pay their bills if they had the funds.⁴³

Other studies have shown that when expenses exceed a consumer's income, paying the rent and utility bills is prioritized over other essentials, such as food, clothing, and medical bills.⁴⁴ Because a lack of water renders a home uninhabitable, water bills tend to “trump” other necessities such as doctor visits and groceries.⁴⁵

People pay their bills when they can

Water unaffordability in California

In 2012, California became the first state in the United States to pass a law establishing the human right to water. To support that mandate, a number of studies have examined water affordability in the state, finding troublingly high costs for lower-income households. The Public Policy Institute of California carried out a county-by-county study that estimated nearly 13% of Californians have water bills that exceed 2% of their income.⁴⁶ They also note that even families with a household income up to \$50,000 could struggle to meet bills in counties like Santa Barbara, where water prices are particularly high.

When affordability is measured using median income instead of household income, 40% (or more) of Californians face unaffordable water bills.⁵¹

A recent Pacific Institute study notes that in some areas, large portions of the population fall below the medium income, the threshold that the EPA uses to gauge affordability.⁴⁷ They found that the disparity between those above and below the median was stark. In the Sacramento metropolitan area, over 100,000 households were paying water bills that consumed over 2% of their household income.⁴⁸ In some cases, households that earned less than the median paid 19% of their income for water.⁴⁹

UUSC commissioned Roger Colton to provide recommendations to advocates, communities, and California state agencies on ways California could meet the standard of affordable water for all people in the state. Colton examined incomes in California counties and found that median-income measures mask vast disparities for those in lower-income quintiles. He underscored that it is imperative to calculate affordability at the individual household level, not by using median income: “By definition, median income for a geographic area is divorced from the divergence of income for those households with income below the median.”⁵⁰

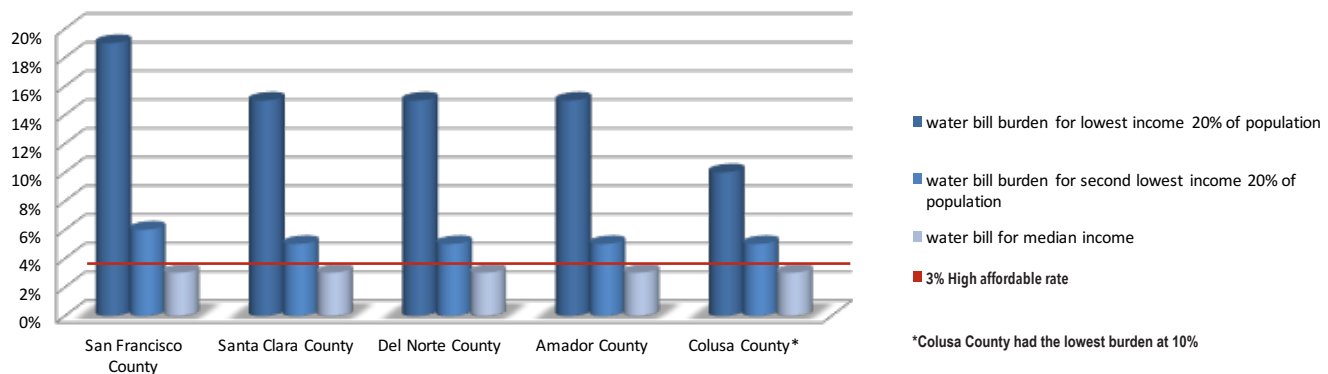
Colton calculated the percentage of household income that the lower two quintiles of customers would pay if rates were set using 3% of median income (a high measure of affordability). The results were staggering. For the second quintile (those just below the median), water rates ranged from 5–6% of median income. For those in the lowest quintile (still a fifth of the population), water rates were wholly unaffordable, ranging from 10–19% of household income.

As an alternative to the median-income measure, the U.S. Conference of Mayors recommends taking into account:

- Household income across five quintiles
- Household types (elderly, renters)
- Neighborhoods or census tracts
- Indicators of economic stress, such as unemployment, the use of public assistance, households needing home-energy assistance, and disproportionately high housing costs
- Nondiscretionary spending for lower-quintile households⁵²

Additional data collection is critical to establishing real affordability standards. Ultimately, the few detailed studies that do exist show that affordability needs to be taken seriously and tied to a water customer’s real household income. Water affordability programs should be indexed to 2.5% of monthly household income for all services. Eligibility for these programs must be based on actual income indexes for the local area, or 250% of the federal poverty level, to ensure that water bills do not end up stripping low-income families of their food, medicine, or other basic necessities.

Water Bill Burden if Calculated at 3% of Median Income in Selected California Counties



3 THE REAL COSTS AND CONSEQUENCES OF UNAFFORDABLE WATER

- If you cannot pay your water bill in the United States, you are at risk of losing your health, your home, your children, your family, and your freedom.
- Water shutoffs are one of the most serious consequences of the high cost of household water in the United States. Water utilities routinely shutoff running water to homes where families have not paid their bills.

Water and sanitation are vital for human health and dignity

Water is vital to maintaining hygiene and health, and the lack of water has particular negative impacts on children, the elderly, women, and persons suffering from an illness or chronic health concern. Dehydration can create threatening chemical imbalances for elderly people. Women who are menstruating need water to properly cleanse themselves, and mothers who are nursing need water to maintain their milk supply and their health. Some people with chronic illness need clean water in order to run and wash personal medical equipment.

During Detroit's mass water shutoffs, families with children who needed water to run their asthma nebulizers and elders with CPAP machines had their water disconnected.⁵³ There was no plan in place to ensure that those families had access to water. A lack of sanitation infrastructure puts children at risk for simply playing outside in their yards, where sewage can seep up through the soil. In Lowndes County, Ala., researchers have found that children carry the hookworm parasite because of a lack of functioning sanitation infrastructure.⁵⁴

After a water shutoff, children can be removed from the home

In 21 states, a parent's inability to provide running water in the home can be considered "child neglect."⁵⁵ Thus, not having running water can contribute to child protective services removing children from the home and placing them in foster care.

In Detroit, Michigan, where over 33,000 accounts were cut off in 2014 alone, parental rights and family unity were threatened.⁵⁶ Under the law in that state and elsewhere, if a home lacks running water it can be deemed "uninhabitable," which means that "children . . . can be immediately taken from their parents or family and placed under protective services."⁵⁷ An investigation in Michigan found that "utility shutoffs" were a factor in at least 24 instances of child removal. In over half of these cases there was no allegation of child abuse and the lack of utility services in the home was one of the major factors contributing to the removal of children.⁵⁸ Parents facing recent mass water shutoffs in Detroit and Baltimore voiced fears that their children would be taken away because of their inability to pay their water bills.⁵⁹

Adding insult to injury, if children are taken into foster care, the foster family's bills are subsidized by the state. Yet, there are no programs for low-income water consumers sufficient to keep their water running and thus prevent state actions like child removal in the first place.

When the U.N. Special Rapporteur on the Human Right to Water and Sanitation visited the United States in 2011, she learned of threats that parents would lose custody of their children if they could not pay for costly water systems. A 27-year-old mother living on \$12,000 per year was told that she would lose her child if she did not install a septic system, which would have cost her half of her yearly income.⁶⁰

You can lose your home because of unpaid water bills

Unpaid water bills can lead to home eviction and foreclosure, a problem that is gaining needed attention. In Baltimore, Md., where water bills can be included as part of rent, a tenant's inability to pay a water bill can lead to eviction.⁶¹ In Detroit and elsewhere, unpaid water bills can be placed as a lien on a consumer's property tax. Unpaid taxes can lead to foreclosure and the loss of one's home. In Baltimore, if a title holder owes more than \$750 in unpaid water bills, the home can be put up for tax sale, which can lead to foreclosure.⁶² The National Consumer Law Center has reported that such tax lien sales have a disproportionate impact on homeowners in predominantly African-American and Latino neighborhoods.⁶³

There is evidence that in Detroit the inability to keep up with property taxes contributed to many families' decisions to move out of the city.⁶⁴ A massive wave of foreclosures — nearly 140,000 — has gutted Detroit from 2005 to 2015, emptying nearly one in three homes in the city.⁶⁵

Foreclosures are both an early warning sign and a tragic consequence of water unaffordability.

People are criminalized for lacking access to water and sanitation

People can face legal action, arrest, and fines when they cannot pay for water and sanitation services. In 1999, the Alabama Department of Public Health began citing people without functioning septic systems for failing to uphold state environmental and public health standards.⁶⁶ People who could not afford to install septic systems were arrested. They now live with an arrest on their permanent criminal record, simply because they could not afford water and sewer infrastructure.

After mass water shutoffs in Detroit, residents performed self-help, accessing needed water by reconnecting their homes to the water infrastructure. In Michigan, they could now face felony criminal charges for reconnecting their water without the permission of the utility.⁶⁷

Homeless people are denied basic access to water and sanitation

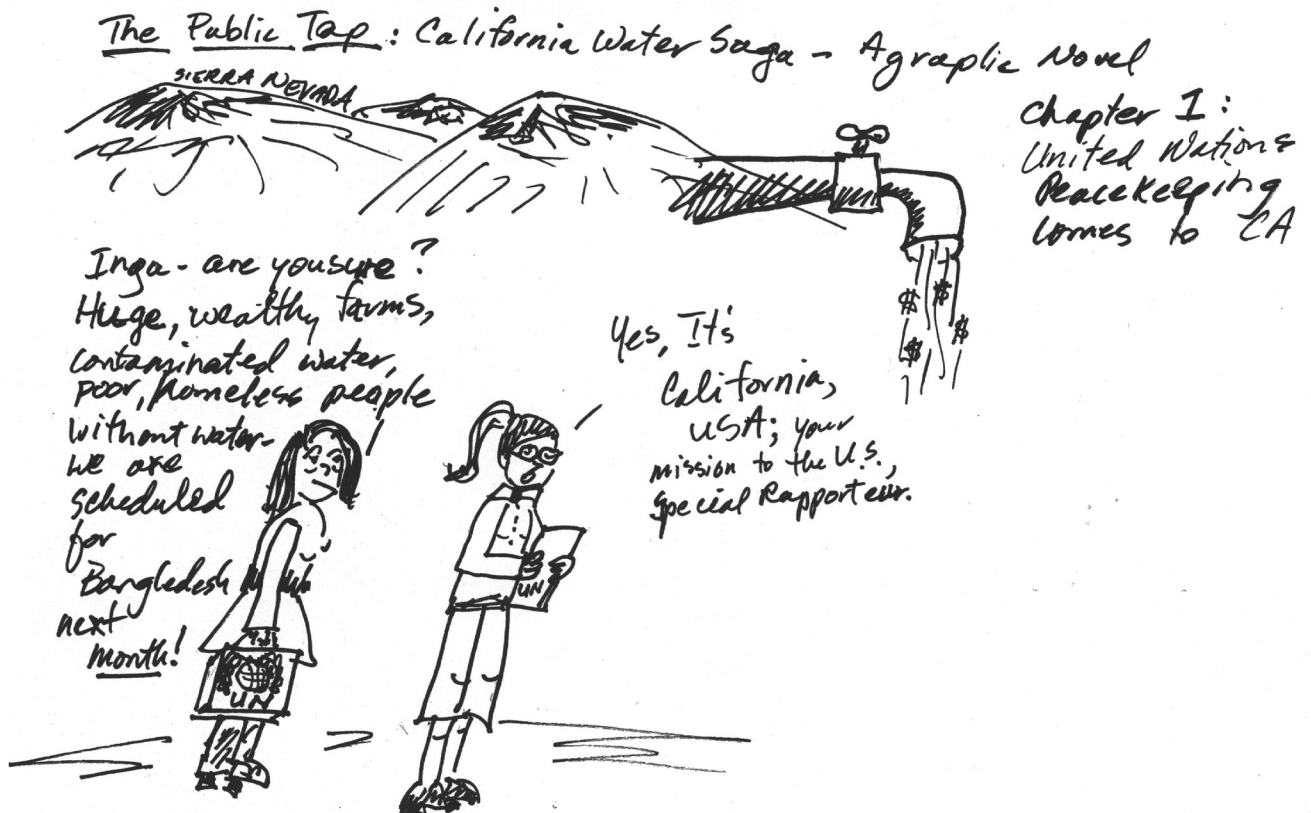
In the United States, there are over 500,000 people who are homeless on any given night.⁶⁸ Homeless people are nearly universally denied access to water services and basic sanitation in this country.⁶⁹ The National Law Center on Homelessness and Poverty (NLCHP) has documented the disturbing trend that local governments are criminalizing a lack of access to water and sanitation. In their report "No Safe Place," NLCHP details the double burden faced by homeless persons — first, lack of access to safe drinking water and sanitation; and second, criminalization of urination and defecation in public.⁷⁰ In St. Petersburg, Fla., in 2009, advocates filed a class action suit on behalf of the city's homeless, who were routinely penalized for using public space to perform basic bodily functions when they had nowhere else to go.⁷¹

During her 2011 U.S. visit, the U.N. Special Rapporteur learned from the NLCHP of a large camp of homeless people along the American River Parkway in Sacramento, Calif. She met with Tim Buckley, a man living there who had become the “Sanitation Technician” for the community.⁷² Three times a day, he carried away garbage bags full of human waste many miles on his bicycle to the nearest public park facility for safe disposal. Colin Bailey, of the Environmental Justice Coalition for Water (EJCW), recalled that the Special Rapporteur later commented that “this is exactly what we see among the poorest of the poor,” including among those she had recently visited in Bangladesh and India. Bailey reflected, “Right here in the capital of the wealthiest state in the wealthiest nation on earth, we have that level of poverty.”⁷³

Governments at all levels and utilities must work to ensure that low-income and homeless people in the United States have and maintain access to water, which is essential to sustain life. A national standard is needed across all jurisdictions to prohibit shutoffs to vulnerable households under any circumstances. At a minimum, disconnections to low-income households with children (under age 18), elders over 65, pregnant and lactating women, persons with disabilities, and persons with chronic and catastrophic illnesses must be prohibited.

States such as Connecticut, Massachusetts, and Rhode Island have instituted protections for vulnerable populations against drinking water disconnections. That is one important first step. But it is notable that at the international level, countries and courts have gone so far as to ban water disconnections as violations of human rights. Water shutoffs, if they are ever justified, can only be justified if people are able to afford to pay their bill but willfully refuse to do so. A water shutoff should never completely stop access to water essential to sustain life.⁷⁴

United Nations Visit to the United States, 2011



By Patricia Jones

4 INSUFFICIENT INVESTMENT AND FUNDING FOR DRINKING WATER AND SANITATION TO LOW-INCOME AND MINORITY HOMES AND COMMUNITIES

- Low-income and minority communities in urban and rural areas historically have been excluded from infrastructure improvements for water and sewer systems.
- There is still too little funding for studies of and solutions for insufficient water and sewer systems in historically underserved communities.
- Low-income families, children, women, the elderly, disabled people, and communities of color are disproportionately affected by polluted drinking water resources.
- Lack of investment can lead to health and hygiene concerns, including outbreaks of tropical diseases like hookworm in affected communities. These health issues can also contribute to the cycle of debt and poverty.

U.S. water and sewer infrastructure, much of which is over 80 years old, has often excluded low-income and minority neighborhoods and towns, Native-American communities, and low-income rural areas. Even today, the U.S. Census Bureau's American Community Survey reports that nearly two million Americans live without complete plumbing facilities. Initial research shows that this number is by no means equally distributed across the country, but rather is concentrated in areas with high populations of Native Americans and Alaskan Natives and in communities along the southern border.⁷⁵

Even the crumbling water infrastructure to which the American Society of Civil Engineers gave a grade of "D" in 2013 does not reach Americans who have been historically and systemically excluded from services. The American Water Works Association estimates that the cost of expanding and replacing service lines across the country could be more than \$1 trillion over the next 25 years.⁷⁶

Living Without Working Sewerage in Alabama

In Lowndes County, Ala., a history of plantation agriculture, racial disenfranchisement and government neglect have left residents without functioning sewerage systems for years. The county is 73% African American and 27% of the population lives below the poverty line, with a median household income of \$26,000.

Catherine Coleman Flowers, executive director of the Alabama Center for Rural Enterprise (ACRE), reports that because most residents rely on septic tanks due to the lack of available sanitation services to their homes, over 80% of county residents must try to finance their own on-site wastewater systems. Public health officials maintain that it is each resident's responsibility to install a working septic system, despite the fact that a system could cost \$6,000–30,000.

The soil is a major part of the problem. The area is named the "Black Belt" in reference to the soil's richness, through which sewage will not percolate. A recent unpublished study shows that a significant number of children there carry DNA evidence of hookworm and other tropical intestinal parasites not generally found in the United States; these diseases are found in tropical developing countries where people come in contact with raw sewage.⁷⁷ Public health officials have warned residents not to allow children to play in the yard because the soil is contaminated with waste from septic tanks.⁷⁸

The city of Hayneville, Ala., has a lagoon sewerage system. When it rains, raw sewage overflows and backs up into the lawns and bathtubs of residents who live nearby. Uniontown, Ala., invested in

spray fields to dispose of sewage, but because it does not absorb well, the waste runs into rivers and farmers' fields, where meat cattle develop sores on their hooves from wading in raw sewage.

In Lowndes County, the Alabama Department of Public Health brought environmental criminal action against residents who were unable to pay for newer septic systems. More recently a pastor in another county was arrested for having a failing septic system.⁷⁹ The local sewerage authority would not allow his church to connect to city sewer because the owner of the adjacent property would not allow access to the sewer main on his property. This is an example of how local residents are ignored by engineers and government officials who discount the knowledge they could bring to the problem.

Flowers has been working with local and national governments to address these major public health issues for many years, testifying before the U.S. Congress and the United Nations. Flowers and ACRE received a grant from the EPA in 2010 to quantify the problem and propose solutions that would enable residents, including in the Black Belt, to install sanitation systems that would keep their families safe; however, there is yet to be action by policymakers to provide resources. Foundations that fund solutions to address such problems in other parts of the world do not acknowledge that this problem also exists in the United States, according to Flowers. She termed the raw sewage problem "America's dirty secret." ACRE is currently working to bring together designers and manufacturers to create affordable, sustainable technology that will solve the sewage problem in the Black Belt.

The real costs of failed infrastructure investment in the United States are wide ranging. There is the obvious cost to public and individual health, but there is also the cost in lower property values and increased debt that contribute to cycles of poverty, the unmet costs of installing sanitation systems, the cost of defending prosecutions and possible job loss due to criminal records, and the unquantifiable cost of trying to raise families with dignity when a community's health needs are ignored.





Flint, Michigan

An environmental justice failure

The lead contamination water crisis in Flint, Mich., is a microcosm of the real impacts of the failure to ensure environmental justice that plagues the U.S. water sector. In Flint, an unelected “emergency manager” switched the city’s clean water supply to the Flint River, at least in part to save \$5 million. But the river water corroded the city’s lead pipes, releasing toxic metals into the drinking water. That switch, combined with Flint’s failure to properly treat the river water, resulted in contaminated and lead-laden municipal drinking water being piped into Flint homes, poisoning city residents. The EPA found that the water in Flint “poses an imminent and substantial endangerment” to city residents.⁸⁰

From July 2014 to June 2015, water testing showed rapidly rising lead levels in Flint’s drinking water; yet, there was no move to bring the city into compliance with federal and state drinking water standards on lead and copper. People in Flint were drinking water laced with lead for months, even after initial reports raised an alarm. Infants were visiting doctors’ offices with extremely high levels of lead in their blood, a condition known to cause long-term health effects and mental impairment. Local medical providers documented rising lead levels in children’s blood samples as part of routine medical visits, raising concerns in October 2015.⁸¹

On January 14, 2016, President Obama declared a state of emergency in Flint, directing the U.S. Department of Health and Human Services to spend \$80 million to coordinate a response to the water crisis. On January 29, 2016, Michigan Governor Rick Snyder approved \$28 million in immediate aid to Flint. The American Red Cross and other civil society organizations mobilized to provide bottled water, filters, and other aid.

As one of the poorest cities in the nation, it is no coincidence that Flint fell victim to Michigan’s cost-cutting austerity measures.⁸² A task force commissioned by Snyder recently found that what happened in Flint was an incident of environmental injustice, noting that state and federal agencies apparently discounted the health and well-being of Flint residents at least in part because of their poverty and race.⁸³

Citizens and the local medical community had raised concerns about lead in blood levels as early as 2014. The Virginia Technical Institute assisted citizens and civil society advocates in testing 252 water samples and warned of serious lead levels in early September 2015. Lead levels exceeded all requirements, and in some cases were over 1,000 parts per billion (ppb); the EPA recommends that steps be taken if a test comes back with lead levels higher than 15 ppb.⁸⁴ Researchers state there is no 100% “safe” level of lead in drinking water.

The task force reported that the city and utility showed “intransigent disregard” for the compelling evidence community members presented proving that their water was a danger to their health.⁸⁵ Since then, the city’s population has been cut in half; only 100,000 people remain, 42% of whom live below the federal poverty level.⁸⁶

What happened in Flint is an example of why we need better law and policy, better data, and full transparency to ensure environmental justice for low-income communities and communities of color.

Nine cities in Michigan are or have recently been placed under receivership by the state. Calculating those cities' populations, we find that a full 53% of African Americans in Michigan live in areas that are under the governor's emergency management, while only 3% of whites do. Today, one in every two African-American Michiganders live in cities that violate their human rights to water and sanitation; and 750,000 African Americans live under Snyder Administration emergency management.

The politicization of poverty and race in Michigan, and the undemocratic nature of Snyder's austerity program, is of grave concern for the state's protection of civil and political rights, nondiscrimination, and economic social and cultural rights. Pamela L. Pugh, Health Chair of the Michigan State Conference of the NAACP, argues, "The appointment of emergency managers, primarily in communities of color, continues to extend an oppressive and unjust form of governance that takes away local control and power from Michigan's most vulnerable residents."⁸⁷

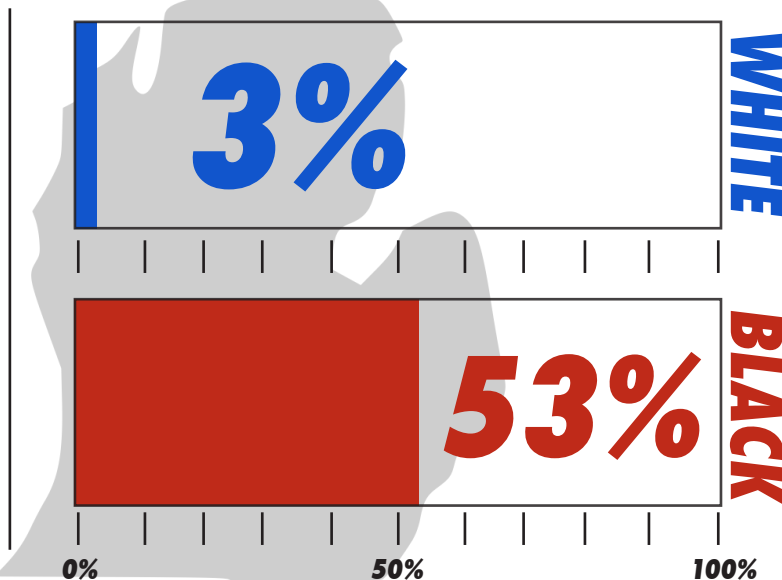
MICHIGAN DEMOGRAPHICS

STATEWIDE

**85%
WHITE**

**15%
BLACK**

UNDER EMERGENCY MANAGEMENT



Source: US Census Quickfacts for Michigan Cities; Michigan Department of Treasury Emergency Manager Information

5 PASSING THE BURDEN OF TREATING CONTAMINATED DRINKING WATER ONTO CONSUMERS

- **Legally permitted and unregulated pollution passes the burden of treating drinking water and the resulting rising water prices from the polluter onto consumers without adequate remedy.**

Existing law and regulation allows industrial, commercial, and agricultural interests to pollute drinking water resources without paying for the costs of mitigation. A recent Stanford University study revealed that fracking near Pavilion, Wyo., has contaminated drinking water sources. The Agency for Toxic Substances and Disease Registry advised area residents not to drink, bathe in, or cook with local tap water; the researchers note that “there are no rules that would stop a company from doing this anywhere else.”⁸⁸

Environmental justice studies show that such pollution often has a disproportionate impact on low-income communities of color. In a recent statement, an oil and gas industry executive revealed how their siting policies favor wealthy communities over poorer ones, leading to environmental justice failures. The executive, from a company fracking the Marcellus Shale in Pennsylvania, acknowledged that they avoid drilling near the homes of wealthy people who might have the resources to litigate. Repeatedly, studies have shown that fracking wells are disproportionately located in areas where lower-income people of color live.⁸⁹

Mossville, La., an African-American unincorporated town founded by freed people in the eighteenth century, is surrounded by industrial and chemical plants connected to the oil industry that have federal permits to pollute the water, soil, and air.⁹⁰ The EPA granted 13 of 14 permits in this area allowing these plants to discharge industrial waste into the predominantly black parish’s environment. Studies have documented high levels of toxins, including dioxin, in residents’ blood.

Mossville residents brought a case in domestic court and won a multi-million dollar settlement to help pay for the pollution’s health impacts; yet, residents have not found a sufficient remedy under U.S. law to prevent such contamination from happening again in their community or others.

In 2005, Mossville residents and advocates petitioned the Inter-American Commission on Human Rights to remedy this discrimination because the U.S. government failed to protect their rights to health and a healthy environment. The United States challenged the jurisdiction of the commission, and the case is pending before the commission.⁹¹

A recent study revealed that environmental justice complaints, even those that are filed formally for remediation, are routinely ignored or dismissed by government agencies. The EPA has its own Office of Civil Rights, which is tasked with ensuring that agencies receiving federal funding do not discriminate. Yet affected communities have revealed that nine out of ten times a community files a complaint with the office, it has been dismissed or rejected, sometimes due to the office’s own inaction.⁹²

In July 2015, EarthJustice, an environmental justice law firm, sued the EPA on behalf of five affected communities, charging that the EPA had failed to finish investigations that had been pending for more than a decade.⁹³

The EPA and Congress acknowledge that there are common sources of water pollution that do not require standard permitting or regulation. For instance, Congress has created a provision that requires permitting for storm water that the EPA Administrator and State Director believe “contributes to a violation of a water quality standard or is a significant contributor of pollutants.”⁹⁴ Civil society groups like the American Rivers and Blue Water Baltimore have filed petitions with the EPA to require permitting of industrial, commercial, and storm water that pollutes Baltimore’s water source under a “residual designation authority.”⁹⁵ Permitting could raise money for mitigation, if needed, but could also contribute to better treatment of pollution or storm water at the source, before polluting drinking water sources. Similar petitions filed in recent years were denied by the EPA.

Concerned with the impact on low-income households and water rates, Des Moines, Iowa, is suing neighboring counties over farm runoff that has polluted its water supply, costing the city (and city residents) millions.⁹⁶ Des Moines gets its water from the Raccoon and Des Moines Rivers, which are being polluted with fertilizer and agricultural waste runoff from farms along the watersheds.⁹⁷

To date, this agricultural pollution, which has been largely unregulated by state and national government, is a primary source of nitrates, compounds that are harmful to human health in excessive quantities. There are significant agricultural exemptions in Iowa that allow drinking water to be tainted, increasing the cost burden on water consumers.

Des Moines Water Works’ nitrate testing shows that the nitrate level near agricultural drainage districts on the rivers routinely reaches two to three times the 10-milligrams-per-liter threshold recommended by the EPA.⁹⁸ As a result, Des Moines, a city of only 208,000 people, has been operating one of the largest denitrification plants in the country. Operating this plant cost \$1.5 million in 2015; future capital investment will require up to \$183 million.⁹⁹ The city’s water rate increased 7% in 2015 alone. Nearly one-third of that increase was used to pay for denitrification alone. If the city were to try to tackle these rising costs and build a needed new nitrification plant, it would have to raise water rates 10% per year over 30 years.

Des Moines cannot afford these rising costs, which pose threats to lower-income families’ access to water. Of Des Moines residents, 18%, or over 37,000 people, live with incomes below the federal poverty line.¹⁰⁰ For families of four living at the poverty level, an average water bill is already 4% of their average annual income.¹⁰¹ Des Moines currently has a charitable-giving program, called Project H2O, through which customers can donate to a pool of funds that can then be accessed by families in need.¹⁰²

The Iowa Supreme Court will consider some of the questions in the Des Moines case, and discovery is slated to continue in 2016 in federal court.¹⁰³

Contamination in Small, Rural, and Household Water Systems

The Public Policy Institute of California reports that small water systems in rural areas face unique challenges because many rural communities have lower incomes and higher costs for infrastructure per household. These same communities also require outside financing from revolving-loan funds, rural-water assistance grants, and other investment to upgrade their failing water systems.¹⁰⁴ The National Rural Water Association has also shown that non-metropolitan areas tend to have higher-than-average rates of people in poverty and lower-than-average median incomes.¹⁰⁵

Existing water system funding, which still relies primarily on local consumers to pay for it, cannot meet the needs of low-income communities. Nationally, the Congressional Budget Office estimates that state and local governments cover approximately 75% of infrastructure spending for transportation and water, without disaggregating water alone, while the federal government accounts for the other 25%.¹⁰⁶ Of state and local funding, the majority comes from consumers’ payments for on-site or piped supplies.

Costs of onsite water and sanitation systems

Approximately 15% of American households use private wells as their primary source of water and must themselves fund drinking water and sanitation systems, which cost thousands of dollars.¹⁰⁷

A new well-based water system for a single home can cost \$3,500–\$50,000 or more, and reconditioning well equipment can range from \$1,500–\$3,500.¹⁰⁸ For low-income families, quality testing for regular well water is cost prohibitive, and many are unwilling to have a government agency test the well and possibly shut it down due to contamination.

The EPA also estimates that one in five households, or 60 million people, have on-site, decentralized sanitation treatment systems.¹⁰⁹

The cost of installing a new septic system for a family of four is approximately \$7,000–\$15,000; replacing an aged system is \$3,000–7,000.¹¹⁰

The Struggle in San Jerardo Continues, This Time for Clean Water

The San Jerardo community in California's Salinas Valley has a vibrant history born of struggle. Before being revitalized in the 1970s by a farmworkers' cooperative, San Jerardo was used as a government internment camp during WWII and then as sub-standard housing for Mexican migrant farmworkers as part of the Bracero Program. Horacio Amezcuita and his family were part of the cooperative that emerged and contributed 1,600 hours of community service on weekends to build a housing project for 60 farm workers and their families.

The same features that make California's valleys rich for growing food also make them good at holding and concentrating pollutants. Nitrates, fungicides, herbicides, and pesticides from nearby industrial farms have contaminated local wells, causing a range of ailments from skin rashes to cancer.¹¹¹ Many agricultural communities now struggle to access safe, clean, affordable water. A University of California, Davis study from 2012 reported alarmingly high levels of nitrate contamination in the Tulare Lake Basin and the Salinas Valley, where San Jerardo sits. According to the study, 10% of residents may be drinking nitrate-contaminated water. Without a major change, by 2050 that number could reach 80%.¹¹²

This is no surprise to San Jerardo residents. Tests since the early 1990s have shown nitrate and toxic chemical contamination in the community's drinking water. The levels have been so high that residents cannot drink the water that comes from their taps. A recent report by the Safe Water Alliance and other civil society groups in California argues that disadvantaged communities of color like San Jerardo bear a disproportionate burden of inadequate access to safe water.¹¹³

The Public Policy Institute of California estimates that as many as 160,000 Californians live in communities where their water source is contaminated to such an extent that it is costly to access safe drinking water. They estimate that providing safe drinking water to these homes would cost \$30–\$160 million per year.¹¹⁴

Instead of rectifying the wrongs done to the San Jerardo community, the government attempted to evict them in 2006. California Rural Legal Assistance lawyers represented San Jerardo in the eviction case and won and in 2006 the community won relief when the county installed a water-filtration system, after advocates fought to get funding. In 2010 the county used the funding to construct a new well two miles away from the community, but then raised water rates 500%. Many of the San Jerardo residents are paying over 15% of their income for water. The county now wants to sell the water system to a private company, which could raise rates even higher.

Residents of San Jerardo are asking the country to transfer control of the system to them. Amezcuita believes that the community can cut costs and make water more affordable for residents. San Jerardo has identified affordable waste-water treatment technologies that will reduce costs, reduce drinking water use, and reduce the contamination of drinking water sources, among other innovative solutions.

6 DETROIT: DISPROPORTIONATE IMPACT ON LOW-INCOME HOUSEHOLDS

- Governments and service providers' policies and procedures disproportionately affect vulnerable and marginalized Detroit populations, putting the lives of low-income families, children, and others with health concerns at serious risk.
- Due process violations, and lack of adequate procedures and remedies to contest billing errors, shutoffs, or denial of access to payment plans, are endemic across most jurisdictions. There is no national standard for procedures to protect consumers.
- Commercial consumers receive beneficial rates, procedures, and subsidies.

Until 2014, Detroit was home to the country's third-largest water and sanitation public utility, along with above-average water rates. In 2014, the utility began mass water shutoffs, cutting water to an *estimated* 33,000 accounts in 2014 and nearly 24,000 residential households in 2015.¹¹⁵ There is no provision in Detroit, or nationally, for maintaining access to water for people with disabilities, persons suffering chronic or catastrophic illnesses, children, the elderly, or pregnant women.

In response, the Michigan Welfare Rights Organization, the Detroit People's Water Board, and over 20 lawyers formed a pro bono lawyers and litigants committee and filed suit to stop the mass water shutoffs. Although water shutoffs were temporarily stopped for 15 days in 2014 due to the litigation and media attention, they resumed in spring 2015, despite the known impacts on families, including the disproportionate health impact on low-income households.¹¹⁶ In the spring of 2016, water shutoffs are scheduled to begin again, despite major public controversy and the known impacts on families.¹¹⁷



Recent mass shutoffs and investigations in Detroit and Baltimore show that while commercial customers often make up a large, or the largest, portion of missing revenue due to unpaid bills, utilities do not target them for shutoffs. Instead, in both cities, tens of thousands of residential customers, mostly low-income people of color, were shut off.¹¹⁸

The Michigan Welfare Rights Organization and the plaintiffs in the *Lyda v. City of Detroit* federal case sued the City of Detroit for the mass water shutoffs carried out by the Detroit Water and Sewerage Department (DWSD), charging that the shutoffs violated due process and equal protection guarantees, and violated the plaintiffs' human right to water.¹¹⁹ The federal bankruptcy court decided that the plaintiffs had proved serious harm; however, it rejected their claim on jurisdictional grounds because the emergency manager (appointed by the Snyder administration) had declared Detroit in bankruptcy and the bankruptcy court was the only forum allowed by law. The case is on appeal in federal court.

The bankruptcy proceedings concluded, with no remedies for the thousands who were shutoff from services, but broke up DWSD and leased the assets to the Great Lakes Water Authority (to be discussed below).

The Michigan Welfare Rights Organization (MWRO) and advocates in Detroit, faced with continued mass water shutoffs, pressured the City to remedy the suffering. Mayor Mike Duggan appointed a panel to study the issue, instead of adopting an affordability program.

Detroit's Blue Ribbon Panel on Affordability report (discussed below) highlights a key part of the problem: Detroit ranks as the poorest major metropolitan area in the United States.¹²⁰ U.S. census data shows Detroit's 2009–2013 poverty rate is 39.3%, over 2.5 times higher than the U.S. poverty rate and over 2.3 times higher than Michigan's poverty rate.

At the same time, Detroit's water and sewer (including storm-water) charges are among the highest in the country. Detroit residential customers using 500 cubic feet of water per month are charged \$824.34 annually, which represents approximately 3.16% of Detroit's 2010–2014 *median* household income of \$26,095.¹²¹ (By comparison, the national median household income is \$53,482, twice Detroit's median income.¹²² It is worth noting that Detroit's median income is nearly equivalent to the federal poverty line of \$24,300 for a family of four.¹²³)

For the lowest-income families or households, earning less than \$10,000 per year, DWSD costs for just 500 cubic feet of water per month accounted for at least 8.2% of their monthly household income — just for water, not including sanitation or storm-water fees.¹²⁴

Income, and water as percentage of monthly income

Income (inflation adjusted 2014 dollars for the year)	Households	% of population	% of monthly household income required to pay \$824 water bill
Less than \$10,000	54,334	21%	Over 8% for \$10,000
\$10,000–14,999	25,962	10.2%	Over 5.5% for \$15,000
\$15,000–24,999	42,888	16.9%	Over 3% for \$24,999
Income (inflation adjusted 2014 dollars for the year)	Families	% of population	% of monthly household income required to pay \$824 water/sewer costs
Less than \$10,000	24,561	16.9%	Over 8.2% for \$10,000
\$10,000–14,999	12,257	8.6%	Over 5.5% for \$15,000
\$15,000–24,999	22,926	15.8%	Over 3% for \$24,999

Source: US Census

It is clear the mass water shutoffs created undue harm and suffering for Detroit residents who already faced severe economic hardship. Many of the plaintiffs in *Lyda v. City of Detroit* who contacted DWSD when their water was disconnected were advised that they could have their water restored only if they entered into impossible payment plans — even when it was clear that there were children and people who needed water for health in the home.

Maurikia Lyda, the lead plaintiff in the case, supports four children with Social Security income and federal assistance for food. When she contacted DWSD, she was told that she had an outstanding balance of \$1,200 on her water bill and must pay \$438 just to be entered into a payment plan. Nicole Hill, another plaintiff who is raising three children, two of whom suffer from medical conditions, was told she must pay \$1,700 of her \$5,700 bill just to enter into a payment plan and that she must pay her current bill in full each month to maintain service, despite the fact that her bill was in formal dispute proceedings. She documented that her past bill is in error and includes charges for both her landlord's previous tenants and other properties and leaks the landlord refuses to repair, but there are no remedies to correct or address this issue.

Janice Ward, another plaintiff who lives with two children who require water for nebulizer treatments for asthma and her disabled mother who requires water for her C-Pack therapy, reports that her water bill takes up over 20% of her household income. In 2013 the city placed her water bill onto her property taxes as a lien against her home. In order to lift the lien, she was forced to enroll in a payment plan that she cannot afford; there were no other options.

Due process and equal protection violations are a major issue in the *Lyda* mass-water-shut-off class action suit in Detroit. There are no standards across all levels of government that require basic procedures and remedies for water and sanitation problems, leaving the most vulnerable households without recourse. There is no consistent practice across all jurisdictions for adequate notice of disconnections (language, time to resolve notice, method of delivery of notice), contesting errors in billing, representation, appeals, or payment plans to avoid disconnection. This is a violation of basic due process rights and international human rights.

The mass water shutoffs in Detroit and water affordability crises throughout the country illustrate that a meaningful affordability program must include:

- Adequate notice of decisions on rate increases, changes in policies, disconnections, drinking water quality, and permitting the discharge of pollutants into local drinking water sources, in appropriate language and with adequate time for consultation and appealing decisions, and remedies against negative impacts.
- Consumers, both urban and rural, must have a right to a hearing, representation, appeal, remedy, and payment plans; they must also have access to financial assistance for piped service and well contamination.
- All levels of government and service providers must adopt policies prohibiting discrimination and discriminatory impacts, and promote universal access on a nondiscriminatory basis.
- All law and policy criminalizing lack of access to water services of any person, including the homeless, must be repealed, and sentences, fines, and criminal records must be repaid, forgiven, and expunged.

7 WHERE'S THE DATA? NOBODY KNOWS THE REAL SCOPE OF THE PROBLEM

- Current data-collection practices on water affordability and water shutoffs are nonexistent, hiding the full extent of the crisis.
- New requirements for data collection and reporting must be established, including collecting and reporting on water arrears and shutoffs, demographics, vulnerable populations, infrastructure and access, and impacts of contamination on affordability.
- Data must be made public and be adequate for the public to make reasonable decisions about their rights; it must be presented clearly, in a timely manner, without jargon.

Complete data on U.S. household water services does not exist, because it is not being collected by any government agency.¹²⁵ There are no reporting requirements on affordability or the impacts of rising rates on low-income and vulnerable populations. There is little if any comprehensive data on who is not served, to inform decision making on rate increases, operations, infrastructure investments, or pollution permitting. No service provider is obligated to report to any regulator, elected officials, decision makers, or consumers on disconnections, rate increases, and the impacts on affordability for low-income households, nor is there any type of demographic data.

As a result, there is little to no reliable data on water affordability; it is a crisis that is hidden from public view. While cases like the mass water shutoffs in Baltimore and Detroit and Flint's lead-contaminated water shock us, other man-made environmental justice disasters continue unnoticed. Water shutoffs for nonpayment are standard operating practice. In spite of the solutions proposed by advocates, early indicators for hardship, like mass foreclosures in Detroit, are ignored, and no action is taken to assist vulnerable populations to maintain their water supply. Philadelphia shutoff water services to 31,000 households in 2015.¹²⁶ Lead pipes still carry water to 15–22 million people across the country, carrying the risk of poisoning.¹²⁷ In Cleveland, 14.2% of children have elevated blood lead levels; in Atlantic City, New Jersey, and Philadelphia and Allentown, Pennsylvania, over 23% of children have elevated blood lead levels. Yet help from the U.S. Congress, the Centers for Disease Control, state governments, and municipalities is underfunded and ineffectual.¹²⁸

To conform with basic international human rights standards and provide equality and affordability in water services, utilities and municipalities must begin tracking a wide range of data.

In a 2007 memo to the National Association of Regulatory Utility Commissioners' Committee on Water and Consumer Affairs, Melissa J. Stanford of the National Regulatory Research Institute, noted that this lack of data represents a major shortfall in existing studies about the need for affordability programs.¹²⁹ The National Consumer Law Center likewise notes that at least "tracking customer complaints regarding water affordability would be helpful."¹³⁰ During the mass water shutoffs, Detroit officials revealed that they did not collect any data on "how many people have been and are living without tap water, let alone information on age, disabilities, chronic illness, race, or income level of the affected population."¹³¹ As of the writing of this report, Detroit still has not collected this necessary data.¹³² However, this could change. A Blue Ribbon Panel on water affordability convened by Mayor Duggan and the City Council provided a substantive proposed research plan meant to begin collecting data, in order to help policy makers better understand "the vexing problems faced by those living in poverty, and the compounding impacts of water affordability challenges."¹³³

The Color of Water

The Color of Water project, created by Massachusetts Global Action (MGA), has revealed the complex relationship between income, race, and water access in the city of Boston, Mass. MGA has collected and reported on data on water shutoff notices (notices threatening that water will be disconnected from a household) since 2007. They have analyzed the data alongside information about demographics and land use from the 2010 U.S. Census and Geographic Information System files to map their findings geographically. MGA ran statistical regressions on a number of important interrelated variables: average income, percentage of people of color, vacancy rates, median property value, percentage of multifamily parcels, shutoffs per 100 residential parcels, and shutoffs per 1,000 residential parcels.

The most striking results of MGA's multivariate regressions show that, not surprisingly, there are significant relationships between percentage of people of color in an area and average income, as well as between average income and median property value.¹³⁶ But importantly, when looking at shutoffs per 1,000 residents in particular, the strongest determinants were median property value, percentage of multifamily parcels, and percentage of people of color.¹³⁷ Perhaps the most alarming finding is that while average income alone was not a strong determinate for water shutoffs, the percentage of people of color in a given area was – in fact, it was the strongest variable.¹³⁸

MGA's analysis found that for every 1% increase in people of color by city ward, there was a corresponding 2–3% increase in the likelihood of a water shutoff notice being issued. This finding was consistent with their preliminary comparison of predominantly white neighborhoods to predominantly African-American, Latino, and immigrant neighborhoods. MGA found the latter nearly 10 times more likely to receive shutoff notices than the former.¹³⁹



**BLACK BOSTON IS
10 TIMES
MORE LIKELY TO
FACE THREAT OF
WATER SHUTOFFS**

Colton recommends that all utilities be required to report data on billings, overdue payments, credit and collection practices, and disconnections. This would provide state agencies with the information they need to implement effective affordability programs, monitor disproportionate impacts, and ensure water affordability. It would also allow consumers to compare their water rates with others in the industry.¹³⁴ In addition, utilities should develop reporting metrics to show how successfully they have achieved the goal of universal water access.¹³⁵

Water services utilities should track data about the demographics of the consumers they serve. This would help them to assess when vulnerable populations, such as children, the elderly, and the disabled, may be affected by rate or policy changes and when their practices may have a disproportionate impact on historically marginalized populations. The types of demographic data related to the impacts of these changes must include data on race and ethnicity, gender, age, ability, household size, and household income.

Utilities that disconnect water service for nonpayment must collect data and report on shutoffs correlated to the demographics of households, the demographics of surrounding census tracts, and the duration of shutoffs. They should also collect data on the impacts of shutoffs; in particular, whether or not any children were taken into custody by the state due to shutoffs, the public health impacts of shutoffs, prosecutions related to shutoffs and unauthorized reconnections, liens against ratepayers' homes due to shutoffs or unpaid water bills, and foreclosures and evictions related to unpaid water bills.

Utilities should track additional data to determine whether water rates are affordable for the populations they serve, including investment in infrastructural upgrades correlated to demographics, rate data correlated to demographics, and rate and income data down to the household level. The U.S. Census Bureau and American Community Survey should track water costs at the household level, along with water shutoff notices and disconnections and lack of access to drinking water services.

Utilities and governments must not simply collect this data; they have a duty to report their findings to the public, authorities, and consumers. They should report in clear, jargon-free terms and carry out public consultations to assess the impacts of water policies on water and sanitation consumers. Such policies include operating procedures such as shutoffs, rate setting, rate increases, and water-quality monitoring.

At a minimum, government and service providers should report annually to the public, regulatory bodies, and decision makers on their performance with regard to water affordability for low-income consumers and populations who are not being served by public investments, such as the homeless, peri-urban, and rural communities. This should include annual reporting on disconnections; reports on lack of infrastructure development at all levels; specific, time-bound targets to improve access and reports on progress; impacts of contamination on affordability, including well closures for contamination; and resources for low-income people to access replacement water. Governments must also investigate and report on criminalization of the lack of access to water services, self-help, and homelessness, including reporting on any laws or policies criminalizing lack of water access, prosecutions, and penalties.

Service providers and governments at all levels must conduct affordability impact assessments when there are significant changes and new investments, to ensure that new rates, investments, or consent decrees will not adversely affect vulnerable populations and low-income households. Reporting should track geographic and demographic data by age, gender, race, ability, homelessness, veteran status, persons with chronic or catastrophic illnesses, and by income quintiles. Data should be specific, disaggregated, and not averaged.

Further, the U.S. Census Bureau and American Community Survey should include reporting on affordability and low-income and homeless people's access to water and sanitation services as a means of verifying reporting, and to set targets for revolving-loan and grant fund eligibility, preferential tax rates on bond issuances, investments, and other public interventions in water services. Reports should be made to the public, civil rights bodies, and governments at all levels (local, state, federal).

Increases on the horizon: How will YOU pay for climate change?

Climate change adaptation measures for drinking water, sewerage, and storm-water services will cost the United States more than \$36 billion by 2050. Current climate change measures are not targeted to protect access to affordable water services for low-income communities.

The Center for American Progress estimates that making the improvements and changes necessary to bring U.S. water service infrastructure in line with the needs of climate change will be very costly. Maintaining, replacing, and improving waste-water facilities to deal with storm waters from weather events could cost \$5–10 billion through 2050 alone.¹⁴⁰ Drinking-water supplies, conservation, flood protection, and necessary changes to water management practices could cost another \$14–26 billion. The center warns that the “unfunded mandate” that climate change investments will require could reach hundreds of billions of dollars annually.¹⁴¹

Unless adaptation plans and funding are specifically targeted to protect vulnerable populations, the impacts of climate change in the United States will disproportionately affect low-income U.S. households. Current local adaptation plans, which are targeted to the sustainability of the service, will not meet the needs of the poor and will leave many behind.

Without attention to affordability, climate change and conservation measures can have disastrous and unequal effects. As California faced its fifth year of severe drought, the state has mandated that water districts reduce consumption by 36%.¹⁴² But the resulting policies adopted by local governments applied the goal unequally. In Apple Valley (east of Los Angeles), for instance, the utility levies a drought surcharge on households that exceed maximum water usage (about 30% of households face fines), sometimes adding hundreds of dollars to water bills. Low-income households who live on \$22,000 a year, like Debbie Alberts and her family, have seen monthly water bills increase to over \$300. Meanwhile, wealthy neighborhoods, like Bel Air, continue to allow residents to fill huge swimming pools and water ample lawns without any fines.

These types of unjust disparities must be eliminated in any program to adapt to climate change. Full human rights impact assessments must be required to evaluate all climate change adaptation plans, policies, and programs, including funding of adaptation initiatives.

8

INTERNATIONAL, FEDERAL, AND STATE STANDARDS

At the international level, water is a human right

In 2010, the UN Human Rights Council and the UN General Assembly recognized that all people have a right to safe, sufficient, adequate, accessible, and affordable drinking water and sanitation.¹⁴³ In addition to having access to a sufficient amount of water, people must be able to access water that is safe, acceptable, and affordable. Inga Winkler explains that states are expected to spend approximately 1% of gross domestic product on water services, and individual costs for water and sanitation, measured at the individual household level, must be affordable.¹⁴⁴ The UN Development Programme defines water service as affordable at approximately 3% of household income, with the combined cost of water and sanitation not exceeding 5%.¹⁴⁵

Governments have the obligation to respect, protect, and fulfill the human rights to water and sanitation, including ensuring that private actions do not interfere with these rights. Governments at all levels must respect the enjoyment of these rights; prevent third parties from impeding the enjoyment of these rights; and fulfill (progressively over time, within maximum available resources) conditions by which every person enjoys these rights. Governments have obligations to ensure that companies based in their jurisdiction but functioning in another do not violate the human rights to water and sanitation.¹⁴⁶

The United States is well behind the curve when it comes to recognizing, protecting, and fulfilling the human rights to safe drinking water and sanitation. Dozens of countries — from Ecuador to Bolivia, Tanzania to South Africa, India to Kazakhstan, and beyond — have enshrined the human right to water in their national constitutions, framed it within national legislation, or judicially recognized these rights.¹⁴⁷ Many countries have banned disconnection of water and sanitation services because of an inability to pay as a violation of human rights. Belgium, France, Russia, Scotland, and The Netherlands have banned water shutoffs.

The United States has thus far failed to provide protections for the rights to water and sanitation in domestic law and policy. However, U.S. advocates have begun an effort to adopt national legislation that will set a standard for affordability.

Federal Laws are Insufficient

- **Neither the Clean Water Act nor the Safe Drinking Water Act establish affordability standards designed to ensure that low-income consumers can afford water services.**
- **There is no national funding to support affordability or assistance programs for water and sanitation services for the poor in urban, peri-urban, or rural areas. Quite the contrary, utilities and states allow for disconnection of services for unpaid bills, and there is no regulation of this practice at the national level.**

Current federal law, regulations, policy, and guidelines do not require states to ensure that water service providers or local governments establish affordability standards or programs to serve low-income people. Nor do they require reporting on low-income water access for the tax dollars they receive, or infrastructure investments to unserved, low-income communities. In practice, *investment of public funds in water and sanitation infrastructure and enforcement support those who **can already afford to pay for service.***

Clean Water State Revolving-Loan Funds

Clean Water State Revolving-Loan Funds (CWSRFs) help lift the economic burden of treating water off states, but they are not aimed at assisting low-income households. The EPA's proposed 2017 budget allocated 45.3% of agency resources to "protecting America's waters" (Goal No. 2). This includes \$2 billion for SDWA and CWA CWSRFs, but reduces budgets for these programs by \$257 million from the 2016 level.¹⁵³ Estimates suggest that over \$300 billion in investments are needed for wastewater treatment alone.



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Two main laws at the federal level set a minimum floor for states to ensure they, and the utilities they regulate, protect the quality of drinking water and the source waters within their jurisdiction. These are:

- 1) **Clean Water Act** (Federal Water Pollution Control Act), or CSW, passed in 1972¹⁴⁸
- 2) **Safe Drinking Water Act** (Title XIV of the Public Health Service Act, Safety of Public Water Systems) or SDWA, passed in 1974¹⁴⁹

Clean Water Act

The Clean Water Act (CWA) is the primary source of regulation on water pollution in the United States. The law, regulation, policy, and enforcement related to it set out the process and limits for polluting the waters of the United States. The act was primarily designed to outlaw the discharge of sewage and storm waters into the environment (unless permitted) and provides for permitting and treatment measures to remove pollutants from direct "point sources" of pollution (end-of-pipe effluents).¹⁵⁰

The CWA is also the vehicle that "regulates" other pollution sources, including agricultural runoff and extractive industries, such as uranium mining, oil refining, and hydraulic fracturing. The CWA establishes only the "minimum floor" of regulations; states are expected to adopt equal or higher standards.

The CWA's current regulation of pollutants is inadequate and enforcement is underfunded. This means that polluters can pass the burden of treating polluted drinking water onto the consumer through water rates or health impacts. This amounts to hidden subsidies to polluters, since because they are not required by law to reduce or treat some pollutants and most non-point source pollution, they do not pay their share of the costs of treating polluted drinking water.

The CWA is related to affordability in two important ways. First, it costs money for utilities to comply with CWA standards by treating wastewater and storm water runoff before returning these waters to the environment. Second, CWA uses an affordability measure to assess how financially burdensome compliance with pollution standards will be for a community.

The EPA evaluates a compliance measure using economic indicators: the "residential indicator" and the "financial capacity" of the utility. The *residential indicator* weighs the average-per-household cost of wastewater bills relative to median household income and the financial capacity of the utility. (The calculation uses median household income, bond rating, debt, unemployment rate, and tax collection rates to predict the economic burden bills would pose.) If the residential indicator is 2% of median household income or greater, or the financial capacity is low — meaning the utility is unable to absorb the costs of compliance without significant burden on the community — the EPA considers enforcement to have widespread economic impact. It is important to note here that, as detailed above, there is widespread criticism that using median income as the measure masks real unaffordability.¹⁵¹

The CWA does not set affordability standards for states or utilities to ensure that low-income consumers can pay their bills. There is no regulation or policy requiring states or utilities to ensure access to water for those who cannot pay for services in times of economic hardship, regardless of whether a child, an



SDWA and Affordability for Small Systems

The Congressional Research Service reports that the SDWA regulates approximately 152,700 privately and publicly owned water systems in the country, with 51,350 community water systems providing drinking water year-round to 299 million people.¹⁵⁷ Most community water systems are small, serving 3,300 or fewer people – approximately 42,100 systems (82% of all community water systems) provide water to 9% of the total population. These systems, located in areas where the source water is very contaminated, are especially challenged to comply with drinking-water standards. Community water systems that provide drinking water to over 10,000 persons make up only 8% of the total number of systems (approximately 4,000 systems), but provide 82% of the population, or 246 million individuals, with water. The SDWA regulates 18,178 non-community water systems (factories, schools, etc.) and 83,200 transient non-community systems (campgrounds, gas stations, etc.).

elder, a person living with disability, or a person with a chronic illness is part of the household. There is no national funding to support public assistance programs for sanitation and storm-water services for the poor.

Recognizing that there is no corresponding federal assistance program for sanitation as there is for energy, in February 2016, U.S. Congresswoman Marcia L. Fudge of Ohio's 11th District, joined other representatives from Ohio and Michigan to introduce the Low-Income Sewer and Water Assistance Act of 2016.¹⁵² Despite its title, the support to low-income customers is for sewer services alone. The bill would amend the CWA and fund 10 pilot grants to municipal service providers that establish assistance programs for low-income sewer customers, to help consumers maintain sanitation services during periods of economic hardship. Customers' eligibility would be determined by enrollment in federal and state assistance programs, and 150% of federal poverty, or state, poverty levels. The act is currently in subcommittee.

Safe Drinking Water Act

The SDWA was designed to address several issues, including widespread water quality problems and health risks resulting from poor operating procedures, inadequate facilities, and uneven management of public water supplies in communities of all sizes.¹⁵⁴

Under the SDWA, the EPA has discretionary authority to regulate contaminants like lead in drinking water that pose a risk to public health, while most states have "primacy" (authority and responsibility) and must ensure implementation and enforcement. The water crisis in Flint, Mich., is an example of where state primacy, in part, has broken down with disastrous consequences.

The SDWA includes affordability in its framework for regulating contaminants in drinking water in very limited ways:

- It allows states to set affordability criteria for giving variances or exemptions from compliance for small systems serving communities of 10,000 people or fewer.
- It requires states to set affordability criteria for eligibility for federal revolving-loan funds to finance drinking-water infrastructure projects related to drinking-water quality.

The EPA uses a guideline of 2.5% of the national average median household income for communities with fewer than 10,000 persons to evaluate a proposed technology or new measure. In practice, the Congressional Research Service reports that the EPA has determined compliance of all available technologies for small systems to be "affordable."¹⁵⁵ According to the American Water Works Association and the Water Environment Foundation, states do not approve of exemptions because of the burdensome procedure needed to document when an exemption is based on "un-affordability."¹⁵⁶

Like the CWA, the SDWA does not set affordability standards for any state or utility. There is no regulation or policy requiring states or utilities to ensure access to those who cannot afford to pay for services in times of economic hardship, regardless of whether a child, an elder, a person living with disabilities, or a person with a chronic illness is part of the household.

National Affordability Legislation Proposed

NCLAWater

Attorney Alice Jennings took what she had learned as lead attorney of the Lyda Pro Bono Lawyers Committee and developed the Michigan human right to water bill package with Representative Stephanie Chang and colleagues. Michigan lawyers Marilyn Mullane and Lorry Brown had worked since 2005 on affordability in Detroit, with Michigan Welfare Rights Organization's Maureen Taylor and Highland Park Human Rights Coalition's Marian Kramer. Taylor and Jennings called the country to Detroit to stop the mass water shutoffs in that city in 2015. The idea to develop national affordability legislation came out of that gathering of social movements in Detroit.

Jennings and other human-right-to-water leaders from Detroit and around the country have launched the National Coalition for Legislation on Water Affordability (NCLAWater). UUSC and our partners the Environmental Justice Coalition on Water and the NAACP Legal Education Defense Fund worked with Jennings and the Detroit leadership to found NCLAWater. Its goal is to develop national legislation that sets minimum standards for water affordability for the nation.

NCLAWater Statement of Principles

The National Coalition for Legislation on Affordable Water (NCLAWater) was created to adopt federal and state legislation that establishes affordable water and sanitation services, ensuring that every person has access to safe, affordable water and sanitation. No person shall be denied access to basic water and sanitation services based on ability to pay, race, age, or gender. All state and local criminal law provisions that criminalize a lack of access to safe affordable water and sanitation are a violation of constitutional due-process and equal-access guarantees.

- Accessible water — drinking water and sanitation services and facilities must be accessible at home, in schools, at clinics, in low-income and elderly housing, and to homeless persons.
- Safe water — safe drinking water must be free from microbes, parasites, chemical substances, heavy metals, and radiological hazards that constitute a threat to human health. Sanitation facilities must ensure the health and physical security of the person.
- Affordable water — means that every person can pay for drinking water and sanitation without sacrificing another basic human need, such as food, health care, housing, transportation, education, or emergency communications. No person can be denied access based on an inability to pay. Drinking water and sanitation must not comprise more than 2.5–4% of monthly income for low-income persons.

State and local legislation

“We are introducing these bills because we all believe that accessible, safe, and affordable water is a human right, and we need to ensure the residents of Detroit, Highland Park, and Flint each have access to water here in the Great Lakes State . . . Our bills will not only protect our residents, but also all Michiganders, because what has happened in our cities could happen anywhere in Michigan.”

– Rep. Stephanie Chang (D-Detroit)

- **State-elected officials in California and Michigan are stepping in to fill the gap in national legislation and moving to protect low-income consumers’ human rights to safe, affordable drinking water and sanitation.**
- **California’s AB 685 (Eng), the human right to water act of 2012, and AB 401 (Dodd), the Low-Income Water Assistance Act of 2015, are the first laws in the country to protect the human right to water of Californians; more must be done at all levels of government.**
- **Local governments in Boston, Detroit, and Philadelphia have adopted legislation and policies to protect access for some low-income consumers. More must be done.**
- **Philadelphia’s Low-Income Water Assistance Program is the “best in class” of the municipal affordability measure to date, establishing its protections based on income to ensure consumers’ access to drinking water *and* sanitation.**

State and local governments, in response to advocacy by local affected communities, in partnership with civil rights, human rights, environmental, and faith groups, are stepping in to fill the gaps in the federal regulation of access to safe, affordable drinking water and sanitation for low-income people. These actions hold much promise and are steps in the right direction. Still, they are inadequate to alleviate the suffering of low-income persons who lack access to these basic services.

California

CA AB 685: The Human Right to Water Act of 2012

In 2008, affected communities and environmental, faith-based, and human rights organizations mobilized to pass a statewide human right to water act in California, AB 1242. The bill was passed by the state legislature, but vetoed by then Governor Arnold Schwarzenegger. Undaunted, the groups remobilized following the election of Governor Jerry Brown. By 2012, their efforts bore fruit with the passage of California AB 685, the first state-level recognition of the human right to water in the United States.

AB 685 establishes a state policy recognizing that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” It requires that all state agencies have a duty to consider the human right to water whenever implementing new regulations, policies, or funding criteria.¹⁵⁸

The movement to pass AB 685 has had a substantial impact in California and beyond. Under the law, small communities and unrecognized tribes in the state of California may access state funds for drinking water and sewerage systems, local authorities must create plans to address discrimination in their service areas, and water agencies must give notice of water quality violations and disconnections in languages that meet the needs of their consumers.

Bailey, of the Environmental Justice Coalition for Water (EJCW), notes that his organization works with policy makers who now embrace the human right to water as a “value set” and view its implementation in California as part of their professional legacy.¹⁵⁹

EJCW continues to work to establish new regulation based on AB 685 and to urge policymakers to apply the values of human rights to the long-standing structural inequalities that continue to leave low-income and minority populations vulnerable to climate change, water scarcity, pollution of water resources, and exclusion from services, information, and financing.

CA AB 401 (Dodd): The Low-Income Water Rate Assistance Act

While the human right to water law in California is a major step toward justice, it is notable that an accompanying bill that would have advanced specific guidelines for water affordability did not pass. That legislation, AB 2334, would have moved the state toward defining affordability thresholds, and would also have required the California Department of Water Resources to take steps to bring water bills within 2% of household income.¹⁶⁰

While the California legislature did not pass the 2012 proposed water affordability law, it did begin to address affordability explicitly in 2015. AB 401, the Low-Income Water Rate Assistance Act, was passed and signed by the governor on October 9, 2015.¹⁶¹ This law stipulates that by January 1, 2018, the State Water Resources Control Board must “develop a plan for the funding and implementation of a low-income water rate assistance program.” For the purposes of this act, *low-income* includes anyone whose income falls below 200% of the federal poverty line. In addition to an assistance program, the act also notes that the plan could include water-conservation measures and recommendations for other methods of ensuring access to water, like billing alternatives.

Massachusetts

Article 10 of the Constitution of the Commonwealth of Massachusetts, as amended by Article 97, contains important provisions on water access for state residents. It acknowledges a “right to water” and public responsibility for the “maintenance and distribution of *at reasonable rates*, during time of war, public exigency, emergency or distress, of a sufficient supply of food and other *common necessities of life*.”¹⁶² Article 97 has been judicially interpreted to allow conservation easements to protect water resources; however, the question of the plain-text “right to water” in Massachusetts has not been asserted to date.¹⁶³

Massachusetts allows water services to be shutoff to residential consumers for nonpayment of services provided by private utilities;¹⁶⁴ however, a private provider may not shutoff or refuse to restore water services to consumers who are seriously ill or experiencing financial hardship, to homes with an infant, or during winter months,¹⁶⁵ with the consumer obligated to “certify” to the company the conditions for such protection. Generally, public utilities follow the restrictions on private providers.

User Fees

"Our city's utility considers its monitoring of water systems to be the state of the art, noting, for example, that it can inform residents if their pipes are leaking at home. Unfortunately, this capacity is not extended to informing our city's residents about the impact of price increases or demographic inequalities in water shutoff rates.

We need a broad public conversation about water infrastructure spending and the current system of financing it out of user fees. Low-income communities in Boston pay the same rates as their better-off counterparts; however the spending also creates jobs and dividends for higher-income communities which are often outside the city."

– Suren Moodliar, Massachusetts Global Action

Boston

As a response to advocacy by civil society groups led by Massachusetts Global Action, the Boston Water and Sewer Commission (BWSC) took steps to provide some protections for low-income residential customers who are over the age of 65 or suffering an illness in its "right of service" policy:

Provided there are no violations of BWSC regulations, BWSC will not terminate water service to an owner-occupied property when the property owner or a direct family member is seriously ill and certifies that a financial hardship exists. Similarly, water service to homes occupied entirely by individuals over the age of 65 will not be terminated if a documented financial hardship exists.¹⁶⁶

In 2015, Boston Mayor Marty Walsh announced a discount program for low-income seniors and persons with disabilities. BWSC implemented the discount in 2015, and low-income home owners who are 65 years and older or fully disabled are eligible for a 30% discount on their water bill only (not the sewer or storm-water portion of their bill). Only homeowners are eligible for the program, however, leaving renters at risk.¹⁶⁷

Sewer and storm-water fees and other charges in Boston have rapidly increased as a result of litigation by environmental groups working to clean up Boston Harbor and a subsequent federal mandate under the CWA. While BWSC customers were not the only ones to pollute the harbor, they are paying the price for its cleanup and the legal fees of litigators, through their rates.¹⁶⁸

BWSC is the largest customer of the Massachusetts Water Resources Agency (MWRA), which sells both bulk water and sewerage services to the greater metropolitan area. BWSC sets its rates annually for all services based on the rates charged by MWRA. Consent decrees from lawsuits dating back to the early 1980s have required MWRA investments of \$900 million in sewerage services alone. The consent decrees negotiated by MWRA, BWSC, the EPA, and the litigators did not include protections for water access for vulnerable populations, nor did they include guarantees of affordable rates.¹⁶⁹

Renegotiated in 2012 to include storm waters, the agreements still do not include protections against water shutoffs even after all parties were aware of MGA's findings that water shutoffs disproportionately affect communities of color in Boston.

Michigan Human Right to Water Bill Package

Advocates in Michigan, including Jennings and MWRO, with Rep. Stephanie Chang, convened a bipartisan working group of legislators in Michigan that has begun working with civil-society advocates and low-income consumers on a package of bills to address the Flint water crisis, the Detroit mass water shutoffs, and the inadequacy of existing state laws to protect low-income water consumers in Michigan.¹⁷⁰

The bills, introduced in 2015, include provisions for affordability, protections against water shutoffs, testing for water quality, and the human right to water. The legislative package addresses affordability in the following bills:

- **H.B. 5101 (Plawecki) / S. B. 643 (Young): Michigan Human Right to Water Act.** Establishes that each individual in Michigan has the right to safe, clean, affordable, and accessible water for human consumption, cooking, and sanitation purposes.¹⁷¹
- **H.B. 5097 (Chang) / S. B. 678 (Young): Affordability.** Addresses the water rate structure that unduly burdens low-income residents by amending the Social Welfare Act to create a residential water affordability program within the Department of Health and Human Services (DHHS) ensuring that water bills are based on household income.¹⁷²
- **H.B. 5122 (Chang) / S.B. 655 (Ananich): Shutoff Protections.** Institutes water shutoff protections for low-income seniors, families with young children, pregnant women, and people with a disability, and provides for clearer notices about potential shutoffs.¹⁷³
- **H.B. 5095 and 5096 (Chang/Garrett): Decriminalization.** Decriminalizes the act of reconnecting water service (because of a shutoff due to inability to pay) from a five-year felony to a civil infraction for a first or second offense and a misdemeanor for the third offense. HB 5095 changes the sentencing guidelines; HB 5096 changes the statute.¹⁷⁴
- **H.B. 5110 (Garrett): Timely Billing Required.** Allows some consumers who have not received a water bill within 10 days of the end of the billing cycle to no longer be responsible for paying that bill if she or he contacted the department in writing twice to confute the bill and the department did not respond within 30 days.¹⁷⁵
- **H.B. 5178 (Canfield): Continuous Billing.** Requires that each consumer's account for water or sewage services be billed on a regular basis, as determined by the city, regardless of whether the account is considered current or delinquent.¹⁷⁶
- **H.B. 5093 (Plawecki): Transparency.** Increases transparency by requiring water providers to submit an annual report to DHHS regarding water rates and how they are determined, along with information about shutoffs from the previous year.¹⁷⁷
- **H.B. 5177 (Canfield): Drinking Water Access.** Requires access points for safe drinking water to be available in places where residents are not supplied with municipal water hookups.¹⁷⁸
- **H.B. 5404-6 (Phelps/Neeley/Chang): MDEQ Citizen Oversight Commissions.** This bill package restores two gubernatorial-appointed citizen oversight commissions for air pollution and water quality.¹⁷⁹
- **H.B. 5462 (Neeley): Water Ombudsman.** Establishes a water ombudsman to advocate for residents throughout the state concerning water-related issues.¹⁸⁰

The Michigan Human Right to Water bill package is the most comprehensive state legislation on water affordability thus far in the United States. The bills are being held in committee.

Detroit Blue Ribbon Panel on Affordability Proposal

“The people have a right to expect city government to provide for its residents . . . safe drinking water and a sanitary, environmentally sound city.”
– Charter of the City of Detroit, Declaration of Rights¹⁸¹

In 2005, MWRO and Michigan Legal Services commissioned utility-rate expert Roger Colton to develop one of the first water affordability program proposals in the country. The plan was not implemented by Detroit; however, it was reconsidered in 2014–2015 during the *Lyda* litigation and the recent mass water shutoff crisis. The plan proposed setting the affordable rate at 2% of income to ease the water burden on low-income households. It also included measures to help with water conservation and a plan for forgiveness and payment of delinquent bills.

In response to anti-water-shutoff advocacy campaigns, litigation, and international media attention, in 2014–2015 Detroit Mayor Duggan and the Detroit City Council convened a Blue Ribbon Panel on Water Affordability (BRPA), as mentioned above. The panel presented a modest compromise draft plan in February 2016, acknowledging that “no single rate design or assistance program can adequately address the diverse, multi-dimensional poverty and water affordability challenges that persist in Detroit, or elsewhere.”¹⁸²

Detroit’s BRPA evaluated three approaches to making water, sewer, and storm-water bills affordable for low-income residents: rate structure options, customer-assistance options, and billing and collection options.¹⁸³

Rate Structures

The BRPA evaluated four basic options to change the rate structure for low-income persons:

1. The 2005 proposed affordability plan’s income-indexed option, which is a customized rate based on the customer’s ability to pay as a percentage of their income
2. A minimum-quantity allowance, which sets a rate for a minimum quantity of water that is affordable for all DWSD customers
3. Increasing “block” rates, which charge a basic “affordable” rate from 4–8% of monthly household income for the first block of water, with higher rates for higher consumption
4. Property-value-based fire protection charges, which charges a fixed rate for fire protection based on the value of the property

BPRA Recommendations

The BRPA’s recommended consumer assistance plans included expanding the Great Lakes Water Authority’s Water Residential Assistance Program, an amnesty program forgiving a percentage of arrearages and providing assistance with water conservation measures (fixing leaking pipes).

These options included variations on customer billing that incorporated payment plan schemes, DWSD current billing schemes, and others.

The BRPA ended up favoring the increasing block-rate design combined with budget-based billing. In the short term the BRPA recommended continuing and enhancing DWSD’s current practices to “enable disconnection avoidance through payment plan enrollment.” The plans recommended

were a combined bill payment and water conservation assistance program if funding can be found through nonrate sources.¹⁸⁴ The plan dismisses an “income-indexed rate component,” because it may be “more susceptible to legal challenge, more difficult to implement and administer, and less broadly based due to the income-qualification provision of this rate design.”¹⁸⁵

While the expansion of Detroit’s bill-payment and water-conservation assistance programs is certainly a positive step toward making water more affordable, it does not do nearly enough to ensure that all Detroit water services consumers have equitable access to water. Funding for the assistance programs is unpredictable in a city where nearly 40% of the population live in poverty.¹⁸⁶

The panel urged DWSD to explore “non-rate funding sources” to support additional funding and suggests that the city of Detroit endorse new state and federal laws that would create low-income water and sewer assistance programs, like the Low-Income Home Energy Assistance Program (LIHEAP).

In Detroit and in the United States, we need true water affordability plans – not just assistance plans. An affordability plan recognizes that customers in chronic low-income communities require more than an assistance program, as is recommended in Detroit. Instead, chronic low-income folks need water plans based on their household income, between 2% and 4%. What is needed is an upfront review of the household’s finances to prevent a shutoff of water and sewage services. Once the water is shut off, there are immediate traumatic events to the households. In many cases, families are placed on long waiting lists and/or wait for weeks for a financial review only to be told that they do not meet the guidelines or the money is depleted. In most states, not having water in a home makes the home uninhabitable, and children can be removed from their parents or guardians. There is a role for assistance programs when someone has an acute financial loss, a death of a wage earner, or a new roof, furnace or other household emergency. Assistance programs for household emergencies for some customers will work for a temporary financial crisis, but not day-to-day for those with low income. The problem with affordability, accessibility, and safe water is national and widespread. National legislation is mandated to address this critical human crisis.

–Alice Jennings, Lyda, et. al. Pro Bono Lawyers Committee, Member of the Working Group on the “Michigan Water Is a Human Right” package of bills, and co-founder of the National Coalition for Legislation on Affordable Water (NCLAWATER)

Legal Challenges to Affordability Programs

Some municipalities claim they cannot create affordability plans that take the consumer's "ability to pay" into account because their state laws forbid giving "unreasonable preferences" to some consumers. In California, Proposition 218 (1996), which requires that fees be specifically linked to the services provided to a specific property, has been interpreted to limit the water utility's ability to implement lifeline rates or discounts for low-income households.¹⁸⁷ In Detroit, opponents of an income-based rate structure have argued that the 1978 Headlee Amendment to the state's constitution disallows this sort of new rate structure.¹⁸⁸ In Boston, the city has argued that the 1977 Enabling Act, which states that "it is essential that fees, rates and charges for water and sewerage service within the city be established on just and equitable standards and that all consumers . . . pay their fair share of the costs of such services based on their actual use," limits its ability to create income-based rates.¹⁸⁹

The bottom line, according to Jennings, is that Detroit's new proposed plan is an assistance plan, not an affordability program. It does not offer solutions to families who are simply not able to pay for water services due to extreme poverty, and it allows shutoffs with no protections for vulnerable populations.

Affordability expert Roger Colton argues that states should enact legislation that explicitly authorizes affordable rates.¹⁹⁰ The National Consumer Law Center notes that there are already federal, state, and municipal laws that help support fundamental needs like low-income housing. But widespread relief for low-income water consumers remains insufficient. The Water Research Foundation and the EPA have identified examples of state statutes in California, Massachusetts, New Mexico, Texas, and Washington that specifically authorize utilities to provide alternative rates through lifelines, discounts, or other assistance for low-income customers.¹⁹¹

Some legal experts maintain that new laws are not even necessary. The National Council of Black Lawyers recently argued that Detroit Water and Sewer Department could create an income-based rate structure, just as it has altered rates for infrastructure improvements or to make up declining revenues.¹⁹² The council argues that the concern over the Headlee Amendment is irrelevant because a water fee is not a tax, so the *Bolt v. City of Lansing* decision is not applicable and the Headlee Amendment is not retroactive. Cities provided water services for decades before Headlee, so it should have no impact on water rate structures now.

Pennsylvania

The constitution of the Commonwealth of Pennsylvania contains text stating that residents have an environmental "right to water":

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment . . .¹⁹³

Pennsylvania is one of two states that recognizes a "right to pure water" in its constitution. Yet Drexel University's Community Lawyering Clinic has shown that there are Philadelphians who have lacked access to running water, in some cases for many years, without finding relief from the utility and that harsh shutoff practices resulted in 31,000 shutoffs in 2015.¹⁹⁴

In response to the work of affected communities, Community Legal Services of Philadelphia, the Community Lawyering Clinic, and the Philadelphia City Council moved to address the crisis facing low-income customers in 2015.

Philadelphia Income-Based Water Rate Assistance Program¹⁹⁵

Philadelphia's new income-based water-rate assistance program offers a promising next wave of meaningful affordability legislation at the municipal level. It focuses on developing a water rate structure indexed to income, in order to ensure that all households in the city have access to affordable water services.¹⁹⁶ This new approach represents an important policy shift away from assistance, which is "charitable support," to affordability, which is about fairness.¹⁹⁷ The program has the potential to bring Philadelphia into greater compliance with the human rights to water and sanitation and could potentially be a model for other jurisdictions.¹⁹⁸

In Philadelphia, the city council in 2015 adopted the Income-Based Water Rate Assistance Program (IWRAP), which subsidizes water rates for low-income people, making water more affordable. The new program, as outlined in the city council's 2015 Ordinance,¹⁹⁹ takes a number of steps that are necessary to overcome structural inequality and weaknesses in earlier discount programs.

Like many other assistance-based water-access programs, Philadelphia's earlier program did not work. For instance, it had unnecessarily onerous requirements and a denial rate of 40%.²⁰⁰ Drexel University's Community Lawyering Clinic reported hundreds of tax lien sales tied to unpaid utility bills. Most of the families involved, the clinic notes, should have been able to enroll in the assistance program but had been denied.²⁰¹ The clinic had even documented cases of Philadelphians who were without running water in their homes, in one case for 20 years.²⁰²

The purpose of Philadelphia's new IWRAP program, which applies to drinking water, usage, and storm-water charges, is to limit enforcement actions for nonpayment of bills and provide rate assistance to low-income consumers. It defines a *low-income consumer* as someone earning 150% of the federal poverty level and creates rate tiers based on monthly *household* income, the income earned by all adults residing in a household. IWRAP also requires rates to be affordable for households at 50%, 100%, and 150% of monthly household income, providing a discount to persons in these income tiers. The utility can devise custom rates for households that have "special hardship," a new dependent, or a person with a serious illness, or if payment would threaten the household's ability to secure "the necessities of life." The program eliminates any debts that are outstanding for more than 15 years.

Further, consumers can request the utility to meet with them and look at their specific circumstances to determine if they have a special hardship and, on that basis, devise a custom rate. If this program is not affordable enough for the individual's income, the department can devise a "more affordable alternative" for the consumer. Delinquencies prior to enrollment in IWRAP can be forgiven under a program to be adopted in the future, but in all cases payment plans must be affordable. All decisions of the department are to be done in writing and can be appealed, including the right to an administrative hearing.

Philadelphia's IWRAP offers people a way out of the constant cycle of debt that many low-income households face when they fall behind on water bills. It helps to ensure water access by mandating that agencies postpone shutoffs long enough for people to apply for IWRAP. Still, the consumer must apply and can be denied service; and IWRAP does still allow shutoffs.

The most difficult cases for IWRAP will be the "border income areas," where income is just above eligibility, which are always challenging, as we have seen with the Affordable Care Act. It is hoped that the chance for consumers to request a hardship determination will help to resolve these cases.

What Must An Affordability Program Include?

Income-indexed rates for piped water services

- Water rates must be indexed to 2.5% of monthly household income for all water services (drinking, sewerage, storm water).
- Eligibility for rate programs must be based on actual income indexes for the local area or 250% of the federal poverty level.

Low-income consumers must not be made to choose between paying their water bills and buying food, medicine, or other basic necessities.

Mandated protections against disconnections for the most vulnerable populations

- A national affordability standard across all jurisdictions to prohibit disconnections to vulnerable households under any circumstances must be studied, defined, funded, and adopted.
- At a minimum, disconnections to low-income households with children (under age 18), the elderly (over 65), pregnant and lactating women, persons with disabilities, and persons suffering chronic and catastrophic illness must be prohibited.

The tragic consequences of disconnections of services to households with children, families, persons with disabilities, the elderly, or persons with chronic or catastrophic illnesses are undeniable. Protections against disconnections in electricity during extreme weather are required in many jurisdictions, and assistance programs for electricity are in place. But not for water.

Some states have instituted protections for vulnerable populations against drinking water disconnections and some countries and courts have banned disconnections as violations of human rights. Colton notes that consumer protections for water customers are a key element of an affordability program that will limit water shutoffs and help lower-income customers maintain water access.²⁰³

Consumer Bill of Rights

- Consumers must receive Adequate notice of rate increases, changes in policies, disconnections, drinking water quality of piped and local ground water sources, and permitting the discharge of pollutants into local drinking water sources. These must be in appropriate language and provide adequate time for accessing assistance, consultation, and appealing decisions.
- Consumers, both urban and rural, must have a protected right to be consulted on decisions affecting their access, right to a hearing, representation, appeal, and remedies (payment plans and access to financial assistance for piped service and well contamination).
- All levels of government and service providers must adopt policies prohibiting discrimination and discriminatory impacts, and promote universal access on a nondiscriminatory basis.
- All law and policies criminalizing lack of access to water of any person, including the homeless, must be repealed, and sentences, fines, and criminal records must be repaid, forgiven, and expunged.

One of the basic tenets of democracy in the United States and international human rights is the equality before the law of all persons and prohibition of all forms of discrimination. Discriminatory impacts of lack of access to water services on the basis of race, gender, age, ability, income, and health status are documented above, despite these basic principles. The *Lyda* class action suit is in part a result of violations of residents' due process and equal protection rights. Due process and equal protections are essential to protecting access to water services. There has not been a survey of due process protections nor any data collected across the country on the water and sanitation sector.

Reporting Requirements

At a minimum:

- Government and service providers must report annually to the public, regulatory bodies, and decision makers on their performance regarding water affordability for low-income consumers and those populations who are not being served by public investments, like the homeless.
- When there are significant changes and new investments, service providers and decision makers must conduct affordability impact assessments to ensure that the new rates, investments, or consent decrees will not adversely affect vulnerable populations and low-income households.
- Reporting must include geographic and demographic data by age, gender, race, ability, homelessness, veteran status, persons with chronic or catastrophic illnesses, and income quintiles. Data should be specific, disaggregated, and not averaged.
- The U.S. Census Bureau and American Community Survey should include reporting on affordability as a means of verifying other government reporting, and to set targets for revolving-loan and grant-fund eligibility, preferential tax rates on bond issuances, investments, and other public interventions in water and sanitation services.
- Reports should be made to the public, civil rights bodies, and governments at all levels (local, state, federal).

Annual water quality reports to consumers and regulators are required by all service providers but are inadequate, as Flint has taught us. However, there are no reporting requirements on affordability or the impacts of rising rates on low-income and vulnerable populations, nor is there data reporting who is not served, which could inform decision making on access to water services, rate increases, operations, investments, or pollution permitting. No service provider is obligated to report to any regulator, elected officials, or decision makers on disconnections, rate increases, and the impacts on affordability for low-income households, nor any type of demographic data. As a consequence, there is little to no data on water affordability.

Investigation and reporting should include demographic and geographic data

Governments and providers should also:

- Investigate and report the lack of infrastructure investment and lack of access to water services at every level in every jurisdiction by 2018
- Investigate and report on criminalization of the lack of access and self-help remedies for homeless, urban, and rural residents, including reporting any new laws or policies criminalizing lack of water access, prosecutions, and penalties, by 2018
- Investigate and report service provider operating finances, disaggregated and including all subsidies and preferential rates to all commercial and nonprofit consumers, and the impacts of these preferential rate subsidies on affordability for low income consumers, by 2018
- Annually report on disconnections
- Give specific time-bound targets to improve access and report progress annually, including decriminalization measures
- Require affordability impact assessments for all changes in services or source waters
- Report on impacts of contamination on affordability, well closures for contamination, and measures taken to ensure low-income persons have access to resources to replace drinking water sources and installation of sanitation systems
- Incorporate reporting on low-income access to basic water services, in both rural and urban areas, including homeless persons
- Make plans and investments, including adaptation and mitigation measures for climate change that prioritize and target low-income and vulnerable populations first

Universal Access

In an analysis of the legal avenues that residents of Washington, D.C., might take to remedy mass water shutoffs, Martha Davis notes that existing law fails to stipulate that there is a fundamental right to a basic level of drinking water and sanitation in the United States. She writes, “Even though water is among the most important of human needs, the Constitution does not obligate the government to affirmatively assure that it is available to all, but simply to avoid actively discriminating in its administration.”²⁰⁴

The need for universal access to water and sanitation services is emerging as one of the critical challenges facing our nation. State support for universal access is not unprecedented in this country. States have the primary role in regulating and funding universal access to primary and secondary education, with minimum standards set at the national level and additional funding where and when needed. As Davis points out, “There are limits to government denial of important benefits that are otherwise made generally available. For example, though there is no fundamental right to education, the Court in *Plyler v. Doe* ruled that the state of Texas could not deny primary and secondary education to undocumented children.”²⁰⁵ Using this model for universal access to water could easily translate to better protection of the right to clean water across the country.

Federal Affordability Legislation

- The federal government must adopt a national affordability standard that incorporates affordable rate programs and a consumer bill of rights. It must be tied to federal funding for infrastructure investments, water-quality law, policy and regulations, and permitted pollution.
- It must establish remedies for violations of due process, equal protection, and instances of lack of access to water services.

In the face of climate change and degraded drinking water sources, the federal role in setting a minimum affordability standard for water and sanitation services, and setting aside funding for the program, is now more critical than ever. It is scalable and there are models on which to base these programs, both internationally and in local U.S. jurisdictions. Similar programs for universal access, like education, have been achieved to a relative degree. Access to safe, affordable water services must be made universal in the United States.



RECOMMENDATIONS

There is still no coherent national commitment to recognize or address the lack of access to safe, affordable water and adequate sanitation for all people in the United States. We are many Flints, many Detroits, many San Jerardos, many Lowdnes Counties in this country, with unseen and untold suffering. As people of conscience, we have a moral challenge: will everyone have equal access to safe, affordable drinking water and sanitation in this country, or will we allow our two-tiered system of haves and have nots to continue, especially in the face of climate change? It is a basic civil rights failing of our country – the new Selma, just add water. That is the challenge. – Dr. Patricia Jones

Service providers and government at the local, state, and national levels must take significant steps to immediately address the drinking water and sanitation affordability crisis in the United States. At the local, state, and federal levels, affordability standards and measures must be put in place immediately through executive action, followed by legislative mandate.

- **Mandate data collection to the household level on water and sanitation costs, lack of access, and the impacts of water shutoffs. Reporting must be transparent, publicly accessible, and free of jargon.**
- **Ensure universal, nondiscriminatory access to safe, affordable drinking water and sanitation for urban *and* rural consumers and all people experiencing homelessness.**
 - Establish affordability standards and programs for safe drinking water and sanitation for urban and rural communities. Costs should not exceed 2.5% of monthly *household* income for all services. All levels of government must act to adopt affordability programs.
 - Ban water shutoffs for nonpayment when consumers do not have the ability to pay. At a minimum, mandate immediate protections against water shutoffs for low-income children (under age 18), the elderly (over 65), persons with disabilities, pregnant and lactating women, and persons with chronic and catastrophic illnesses.
 - Require regulatory agencies to study and remedy the impact of regulated and unregulated pollution on the cost of water and sanitation for consumers and households.
 - Prioritize and target all water and sanitation funding to those who do not currently have it and vulnerable populations first, followed by other investments as needed.
- **Adopt the human right to water and sanitation in domestic law with clear enforcement mechanisms and remedies.**

NOTES

1. For programs supported by public tax dollars at the federal and state level (such as revolving-loan funds) the law does not even require minimum reporting on water shutoffs, rates, and who is served and who is left out of infrastructure, much less require affordability standards for the poor. Protections against disconnections in electricity during extreme weather are required in many jurisdictions, and assistance programs for electricity are in place. Basic telecommunications service in many jurisdictions are required to ensure that all people with a telephone line can reach emergency services, such as the fire and police departments, are well established.
2. Using 1–2 times the federal poverty level (which was calculated to cover the cost of food, not other expenses, and is thus an underestimation) to estimate hardship.
3. Water Research Foundation, John E. Cromwell et. al., “Best Practices in Customer Payment Assistance Programs,” 2010, 34.
4. Ibid.
5. See graphic in Oriol Miroso, “Water Affordability in the United States: An Initial Exploration and an Agenda for Research,” *Sociological Imagination* 51(2), 48.
6. National Consumer Law Center, “Review and Recommendations for Implementing Water and Wastewater Affordability Programs in the United States,” March 2014, 3.
7. Carmen Denavas-Walt and Bernadette D. Proctor, “Income and Poverty in the United States,” 5, Figure 1: Real Median Household Income by Race and Hispanic Origin: 1967–2014.
8. Alice B. Jennings, “Congressional Briefing: Trouble on Tap: Challenges to Affordable Water in the U.S., The View from Detroit,” February 26, 2015; *Lyda et al. v. City of Detroit*, Adversary Complaint for Declarative & Injunctive Relief, United States Bankruptcy Court Eastern District of Michigan, Southern Division, July 30, 2014, www.aclumich.org/sites/default/files/DetroitWater-Lawsuit.pdf
9. Bureau of Labor Statistics, “Expenditures of Urban and Rural Households in 2011,” www.bls.gov/opub/btn/volume-2/expenditures-of-urban-and-rural-households-in-2011.htm; Ellen Hanak, “Water, Drought, and Social Justice in Urban and Rural California.” Paper presented at Northern California Grantmakers, May 27, 2015, 4, www.ppic.org/content/other/slideshanakdroughtandequity_0615.pdf; Scott J. Rubin, “Update on Affordability Database for National Rural Water Association,” January 2003, <http://nrwadev.org/benefits/whitepapers/afford/afford02/afford02.doc>
10. Environmental Protection Agency, “Environmental Justice,” www3.epa.gov/environmentaljustice/
11. Public Policy Institute of California, Ellen Hanak et al., “Paying for Water in California” March 2014, 15, www.ppic.org/content/pubs/report/R_314EHR.pdf
12. Ibid., 44.
13. Jennifer Lai et al., “Dry Counties: Who Lacks Access to Basic Water Services in the United States,” paper presented at the American Sociological Association Annual Conference, Chicago, Illinois, August 2015.
14. National Consumer Law Center, “Review and Recommendations for Implementing Water and Wastewater Affordability Programs in the United States,” March 2014, 7; EPA, “Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development,” February 1997, www3.epa.gov/npdes/pubs/csofc.pdf
15. U.S. Conference of Mayors, “Affordability Assessment Tool for Federal Water Mandates,” 2013, 3.
16. Margot Freeman Saunders, *Water Affordability Programs* (American Water Works Association, 1998), 51.
17. Santa Clara International Human Rights Clinic (IHRC), Interview with Community Legal Services of Philadelphia, November 19, 2015; Santa Clara IHRC, Interview with Patricia Jones, Senior Program Leader for the human right to water at the Unitarian Universalist Service Committee (UUSC), Santa Clara, California (October 19, 2015).
18. US Conference of Mayors, Affordability Assessment Tool for Federal Water Mandates, 16.
19. U.S. Conference of Mayors, “Water Cost Per Household”; Pacific Institute, Juliet Christian-Smith et al., “Assessing Water Affordability: A Pilot Study in Two Regions in California,” August 2013; Roger Colton, “State Legislative Steps to Implement the Human Right to Water in California,” March 2015; Oriol Miroso, “Water Affordability in the United States: An Initial Exploration and an Agenda for Research,” *Sociological Imagination* 51(2), 52.

20. Inga T. Winkler, *The Human Right to Water: Significance, Legal Status and Implications for Water Allocation* (Oxford: Hart Publishing, 2012), 138.
21. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Federal Poverty Guidelines for 2016, <https://aspe.hhs.gov/poverty-guidelines>
22. J. Light, “Why is the Federal Poverty Line So Far Off,” Moyers and Company, September 18, 2013, <http://billmoyers.com/2013/09/18/why-is-the-federal-poverty-line-so-low/>
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24. Cromwell et. al., “Best Practices,” 15.
25. EPA, “Drinking Water and Wastewater Utility Customer Assistance Programs,” April 2016.
26. Roger Colton, “Water Bill Affordability for the City of Philadelphia,” April 9, 2015, 24.
27. Ibid.
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29. DC Water Operating Budgets, FY 2015 Revised, FY 2016 Approved, at III-16, www.dewater.com/investor_relations/budget_sections/2015/financial_plan.pdf; *id.* at IV-31, www.dewater.com/investor_relations/budget_sections/2015/rates_and_revenue.pdf
30. Ibid., IV-31.
31. See DC Water, “Your DC Water Bill at Work,” October 15, 2015, www.dewater.com/about/rates/default.cfm
32. DC Water Customer Assistance Program, www.dewater.com/customercare/special_programs.cfm
33. See DC Water, “2015 Cost of Service and Rate Structure Analysis,” 13, www.dewater.com/news/publications/September%2023%20Retail%20Rates%20Committee.pdf
34. Community residents can apply for assistance once during calendar year. Greater Washington Urban League, “Emergency Assistance with Water Bills,” October 7, 2008, www.gwul.org/node/137
35. DC Water, “Operating Budgets,” IV-21.
36. DC Water, “Your DC Water Bill at Work,” October 15, 2015, www.dewater.com/about/rates/default.cfm
37. Cromwell et al., “Best Practices,” 55–56.
38. DC Water, “Operating Budgets,” n. 45, at IV-10. The rate for 2016 is \$20.30.
39. This represents a reduction from the average monthly customer bill in 2016 of \$96.53 calculated by DC Water.
40. Cromwell et al., *Best Practices*, 50.
41. A Water Research Foundation study published in 2010 revealed that utilities tended to identify water bill arrears as a major problem if they served a larger population (<100,000 people) or had higher than average water prices. John E. Cromwell et. al., “Best Practices,” 13.
42. The minimal costs associated with administering discount programs should, The National Consumer Law Center argues, be offset by the regular payments customers can make if their bills become affordable, not to mention savings on disconnections, reconnections, collections, and other costs of non-payment. NCLC, “Review and Recommendations for Implementing Water and Wastewater Affordability Programs in the United States,” 45. For a very recent survey of customer assistance programs, see EPA, “Drinking Water and Wastewater Utility Customer Assistance Programs,” April 2016.
43. NCLC, “Review and Recommendations for Implementing Water and Wastewater Affordability Programs in the United States,” 10.
44. Ibid.
45. Cromwell et. al., “Best Practices,” 27.
46. Hanak, “Paying for Water,” 33.

47. Pacific Institute, Juliet Christian-Smith, et al., "Assessing Water Affordability: A Pilot Study in Two Regions in California," 9 (August 2013), www.pacinst.org/publication/assessing-water-affordability/.
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196. Ibid. See also, Santa Clara IHRC, Interview with Community Legal Services of Philadelphia, November 19, 2015.
197. Ibid.
198. Santa Clara Law International Human Rights Clinic, “Draft Post-Thematic Hearing Report on the Human Rights to Water and Sanitation in the United States,” December 8, 2015, 9.
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200. Robert W. Ballenger and Thu B. Tran, “Uncharted Waters: The Emergence of Low-Income Water Affordability in Philadelphia,” 2016, <http://povertylaw.org/communication/advocacy-stories/ballenger> [login required]
201. Community Lawyering Clinic, “Needless Drought,” 5; Cassie Owens, “Philly City Council Helps with Water Shutoffs and Blight Prevention,” *Next City*, June 25, 2015, <https://nextcity.org/daily/entry/philadelphia-water-bills-low-income-payment-plans>; Santa Clara IHRC, Interview with Community Legal Services of Philadelphia, November 19, 2015. They reported that for 2014, over 170,000 residential parcels had tax liens on them.
202. Community Lawyering Clinic, “Needless Drought,” 5
203. *Vulnerable consumers* include, but are certainly not limited to, households with children, households with seniors, low-income households, households facing medical emergencies or chronic illness, and households with people with disabilities.
204. The existing federal framework on the right to water primarily consists of two statutes: the Clean Water Act (1972) and the Safe Drinking Water Act (1974.) Neither recognizes a right to safe drinking water. See Clean Water Act, 33 U.S.C. § 1251 and Safe Drinking Water Act, 42 U.S.C. § 300f. On July 28, 2010, the UN General Assembly recognized the human right to water and sanitation. UN General Assembly, The Human Right to Water and Sanitation (G.A. Res. 64/292, U.N. Doc. A/RES/64/292), August 3, 2010.
205. *Plyler v. Doe*, 457 U.S. 202 (1982).

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UUSC advances human rights and social justice around the world, partnering with those who confront unjust power structures and mobilizing to challenge oppressive policies.

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UUSC envisions a world free from oppression and injustice, where all can realize their full human rights.



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