

A clear glass filled with water sits on a white surface. The glass is partially filled, and the water's surface is slightly rippled. A sharp, dark shadow of the glass is cast onto the surface below it. The background is a soft, out-of-focus grey.

Clean Water and Reproductive Justice

LACK OF ACCESS HARMS WOMEN OF COLOR

About In Our Own Voice

In Our Own Voice: National Black Women's Reproductive Justice Agenda is a national Reproductive Justice organization focused on lifting up the voices of Black women at the national and regional levels in our ongoing policy fight to secure Reproductive Justice for Black women, femmes, queer, trans and gender non-conforming people, and youth. Our strategic partners include Black Women for Wellness, Black Women's Health Imperative, New Voices for Reproductive Justice, SisterLove, Inc., SisterReach, SPARK Reproductive Justice NOW, The Afiya Center and Women With A Vision.



Learn more: [BlackRJ.org](https://blackrj.org)

About NAPAWF

The National Asian Pacific American Women's Forum (NAPAWF) is the only multi-issue, progressive, community organizing and policy advocacy organization for Asian American and Pacific Islander (AAPI) women and girls in the U.S. NAPAWF's mission is to build collective power so that all AAPI women and girls can have full agency over our lives, our families, and our communities.



Learn more: [NAPAWF.org](https://napawf.org)

About the National Partnership

The National Partnership for Women & Families is a nonprofit, nonpartisan advocacy group dedicated to promoting fairness in the workplace, reproductive health and rights, access to quality, affordable health care and policies that help all people meet the dual demands of work and family.



Learn more: NationalPartnership.org

About the Sierra Club

The Sierra Club is America's largest and most influential grassroots environmental organization, with more than 3.8 million members and supporters. In addition to protecting every person's right to get outdoors and access the healing power of nature, the Sierra Club works to promote clean energy, safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and legal action.



Learn more: SierraClub.org

We acknowledge the contributions of **National Latina Institute for Reproductive Justice** to this report. The recommendations herein are solely those of the authors.

Learn more about the Latina Institute at latinainstitute.org

Dear Reader,

Grounded in the Intersections of Our Lives polling data, this brief focuses on the environmental and reproductive injustices experienced by Black, Latinx, and Asian American and Pacific Islander communities as a result of not having access to clean and affordable water. Clean water is unquestionably a priority for these communities, and significantly impact if, when, and how they raise their families, and how they vote.

In the time since this issue brief was originally conceptualized and written, the COVID-19 crisis had shed light on — and exacerbated — the clean water access inequities that people of color and economically disadvantaged communities have historically experienced in the U.S. Many of our nation's vulnerable water systems, particularly in rural areas, are struggling to keep the water flowing. Families in communities across the country are at immediate risk of water shutoffs or have already experienced shutoffs as water bills go unpaid because of job losses and other economic consequences of the pandemic. While preventing shutoffs is an important part of addressing the water access problem, reconnections are also critical to protecting families and communities during this crisis. For example, in Detroit, Michigan, where the city claimed to have restored water supplies to its residents, many families, mostly families of color, are still without clean running water. In New Orleans, there are over 9,000 homes whose water needs to be reconnected so that those families can have access to clean water during the COVID-19 outbreak and beyond. As it stands, only 14 states, including the District of Columbia and Puerto Rico, have established statewide water shutoff suspensions for the duration of the pandemic, but the vast majority of states have not.

The COVID-19 pandemic has also impacted access to essential reproductive health care. Federal and state governments have failed to recognize the significant impact that this crisis will have on maternal mortality given limited access to hospitals and adequate care. Additionally, anti-abortion politicians have capitalized on this public health crisis by attempting to undermine access to abortion by deeming it "non-essential" health care. As with other legal and administrative hurdles that interfere with abortion access, this has caused significant harm to women of color — all in the midst of a pandemic that is itself resulting in devastating harm to people of color, who are losing work, getting sick, and dying at disproportionate rates as a result of systemic racism.

These are just a few of the many ways in which the issues highlighted in this report — reproductive health and justice, environmental racism, problems with water regulation and infrastructure, untenable economic choices between water and other necessities, and the negative health impacts of all of these challenges — have been brought to the fore by this pandemic. Providing access to clean water is an essential government service and a basic public health necessity fundamental to reproductive and environmental justice.

Clean Water and Reproductive Justice

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Access to clean, potable water is critical to our daily lives.¹ People need water to drink, to bathe, to wash their hands, to cook, to survive and, ultimately, to prosper. Despite the necessity of water, millions of individuals living in the United States face the daily reality of exposure to contaminated water sources that present serious risks to reproductive and overall health. Unsafe water can cause serious illness, including cancer in adults and children, and can damage children's nervous systems and hinder brain development. Unsafe water can also interfere with people's reproductive health, for example by increasing the chances of experiencing infertility or jeopardizing a person's ability to have a healthy pregnancy.

Many communities across the country cannot trust the safety of their water and cannot afford to pay more for cleaner water. Frequently, Black, Latinx, Asian American and Pacific Islander communities, lower-income communities, rural communities, and communities living at the intersections of these identities struggle daily to access safe, affordable water, and their health is disproportionately harmed as a result. From lead poisoning in Flint, Michigan to nitrate poisoning in California's San Joaquin Valley, people are suffering from the detrimental consequences of the lack of access to clean water to their health, including reproductive health.

Centuries of racial segregation in housing, infrastructure neglect in neighborhoods with low incomes, and poor water regulation has led to this situation. Combined with climate change, chemical and agribusiness run amok, and the Trump-Pence administration's gutting of the Environmental Protection Agency (EPA), we are now at a crisis point for clean water access and affordability in this country.

Women of color are leading the charge and demanding answers about their drinking water. *Intersections of Our Lives*, a collaborative of In Our Own Voice: National Black Women’s Reproductive Justice Agenda, the National Asian Pacific American Women’s Forum (NAPAWF), and National Latina Institute for Reproductive Justice (Latina Institute), commissioned a nationwide poll to understand what motivated women of color to vote and the issues they care about most. The poll explored the views of Black, Latinx, and Asian American and Pacific Islander women voters and revealed clean water was a top issue — 62 percent said that ensuring access to clean water is “extremely important.”² Women of color voters’ priorities are not monolithic; they are paying close attention to the actions of their elected officials and want to see progress made in their communities on a range of urgent political priorities that impact their well-being, including access to clean water, access to affordable health care, and ending racial discrimination. Grounded in the *Intersections of Our Lives* polling data, this brief focuses on the environmental and reproductive injustices experienced by Black, Latinx, and Asian American and Pacific Islander communities as a result of not having access to clean and affordable water. The authors of this brief recognize that there are communities not represented in this document, who experience reproductive oppression as well as unjust barriers to clean water access.

It is past time for policymakers at the federal, state, and local levels to step up and enact real change — to strengthen infrastructure, improve regulatory oversight and invest in communities — so that we can all trust our water to be safe, affordable and life-sustaining.

Reproductive Justice and Clean Water

Reproductive Justice is a framework rooted in the human right to control our bodies, our sexuality, our gender and our reproduction. Reproductive Justice will be achieved when all people have the economic, social and political power and resources to define and make decisions about their bodies, health, sexuality, families and communities in all areas of their lives with dignity and self-determination. Everyone should have the right to make reproductive decisions without facing impossible obstacles. This means being able to plan whether or when to start, or add to, their family without outside interference, no matter where they seek care, and without discrimination.

The Reproductive Justice framework is grounded in three principles: the right to have a child, to not have a child, and to raise children in a safe and healthy environment. Although access to family planning, abortion care, and economic security policies have long been at risk, the current political landscape has exacerbated this risk through the dismantling of critical social policies, including environmental policies designed to protect the right to raise children in a safe and healthy environment — the third principle of Reproductive Justice. As previously mentioned, the *Intersections of Our Lives* polling data confirms that Black, Latinx and Asian American and Pacific Islander (AAPI) women are impacted by and care deeply about environmental concerns, namely access to clean water.

No matter one’s gender, sexual orientation, immigration status, economic status or race, all people should be able to live in safe and healthy environments and be able to access and afford water that is free from contamination. Nonetheless, as this report details, these basic rights — as affirmed by the United Nations (UN) — are under attack. Women of color across the country are fighting to hold the line on funding, policies and rights at the national, state, and local levels in order to protect and maintain reproductive autonomy and access to clean water.

Many People in the United States Lack Access to Clean Water — And It's Harming Their Reproductive and Overall Health

The assumption that safe, affordable water for drinking and household use is available to all residents is widespread within the U.S.³ However, because of inadequate water delivery infrastructure such as decaying or nonexistent plumbing, and the failure of the regulatory system to sufficiently protect water sources against water contamination, the reality is that many communities lack access to clean water for their most basic needs. Today, more than 77 million people in the U.S. are served by water systems that violate health-based standards established in the Safe Drinking Water Act, a federal law that requires the EPA to identify and regulate drinking water contaminants.⁴ Indeed, the American Society of Civil Engineers gave the nation's drinking water a "D" grade in its 2017 infrastructure report card.⁵

The impact of lack of access to clean water is significant — from disrupting people's daily lives (for example, impacting what kinds of food can be cooked at home to causing school closures to test for lead), to forcing untenable choices between paying for water or rent, to causing a wide range of health problems. One serious consequence of contaminated drinking water is harm to reproductive health, a cost that is borne disproportionately by women of color and their families.

Exposure to lead in water can be particularly detrimental to health during prenatal and early childhood development — for instance, prenatal lead exposure can increase the risk of low birth weight,⁶ and even low-level exposure can cause a variety of adverse effects on children, including permanent damage to the nervous system, behavior and learning disabilities, impaired hearing and impaired function of blood cells.⁷ High levels of lead exposure before and during pregnancy can also cause fertility problems, premature birth and miscarriage.⁸

Women of color are at particular risk of lead exposure given the racial and socioeconomic factors that critically underpin exposure of lead in the U.S. For example, data shows Black and Hispanic neighborhoods have historically exhibited higher rates of lead toxicity in comparison to white neighborhoods.⁹ Moreover, socioeconomic factors such as poverty, education, housing-related residential segregation, discrimination in housing markets, and neighborhood disinvestment factors such as unit age, vacancy and dilapidation, further exacerbate racial inequalities in lead exposure.¹⁰

In addition to lead, the water supply in communities of color often contain polyfluoroalkyl substances (PFAS) — a man-made toxin that interferes with the body's endocrine system causing adverse developmental, reproductive, neurological and immune effects in humans.¹¹ These toxic chemicals are used in a wide variety of consumer products as a water repellent and are also released at airports and military bases; in fact, military sites have many of the nation's highest levels of groundwater contamination with PFAS.¹² PFAS is in the drinking water supplies of more than 16 million individuals living in the U.S. at a level higher than the EPA's health advisory.¹³ And PFAS chemical contamination has been identified at 106 military sites across the country,¹⁴ where women of color are disproportionately exposed, as 56 percent of female enlisted recruits identify as Hispanic or another racial minority.¹⁵ Studies suggest a link between PFAS and a variety of reproductive health problems, such as decreased fertility, pregnancy-induced hypertension and pre-eclampsia,¹⁶ which are already more likely to impact women of color.

Lead Poisoning in Flint, Michigan

In early 2014, in an effort to cut the budget, government officials switched the city's water supply from Lake Huron to the more corrosive and polluted Flint River.¹⁷ After the switch, they failed to treat the water appropriately and, consequently, the protective lining that had built up on lead pipes and connections was eroded over 18 months.¹⁸ Local water activists and parents' concerns about the water problems were largely ignored. This catastrophe was not simply a result of government mismanagement — it was a predictable result of Flint's long history of redlining and disinvestment in water infrastructure.¹⁹ Black women — who bore the brunt of Flint's water crisis — continue to spearhead the movement to raise awareness about and bring material change to the conditions of their community's water system.²⁰

The water poisoning in Flint caused undeniable harm to residents' reproductive health.²¹ Analyzing health records from 2008 to 2015, researchers found that fertility rates in Flint dropped by 12 percent and fetal deaths rose by 58 percent after the water was switched to the Flint River in 2014.²² Additionally, babies who were born at full-term during the water crisis had lower birth weights.²³ The lead exposure also increased the risk of hypertension for pregnant women and may have interfered with their choice of whether or not to breastfeed.²⁴ Moreover, the health effects of lead exposure in children in Flint increased the risk of impaired cognition, behavioral disorders, hearing problems and delayed puberty.²⁵

Although Flint has since switched its water back to the Detroit system, the Flint water crisis is by no means past. Many households continue to be at risk of exposure given the pipe replacement work that is still in progress.²⁶ Moreover, residents in the city, which is approximately 54 percent Black,²⁷ are still dealing with the massive health impacts and the trauma of having been effectively poisoned at the hand of the government.²⁸ As access to affordable, quality health care — and to reproductive health care specifically — remains fragmented at best for many Black women and women with lower incomes, many communities in Flint remain unable to get the care that they need.

While the contamination of the Flint River is by far one of the most egregious in the U.S., it is not an isolated occurrence.²⁹ Cities like Washington D.C., Pittsburgh, and Newark have experienced similar water crises in recent years.³⁰ Like in Flint, Black and Brown communities in less affluent neighborhoods are disproportionately at risk of contamination.³¹ These water crises are clear examples of how a legacy of systemic oppression and disinvestment can erupt in the present to cause acute environmental and reproductive injustices.

In addition, in many rural communities of color, particularly small farming communities, intensive agricultural practices result in the contamination of drinking water with nitrates.³² Studies have linked high nitrate exposure in adults to miscarriage, and high nitrate levels in drinking water have been linked to Sudden Infant Death (SIDS) and methemoglobinemia (known as “blue baby syndrome”), a blood disorder that causes serious illness, such as cancer, and sometimes death in infants.³³

Other Common Water Contaminants that Affect Reproduction and Fertility:³⁴

- **Atrazine:** Commonly found in drinking water from cornfields and agricultural runoff. Atrazine is a hormone disruptor that can “delay puberty, alter the development and function of the breast and ovaries, damage testes and cause prostate inflammation.”³⁵
- **Disinfection byproducts:** Cancer-causing contaminants formed during the chlorination and disinfection of water. Disinfection byproducts increase risk problems during pregnancy and may harm fetal growth and development.³⁶
- **Arsenic:** Commonly found in drinking water, arsenic affects pregnancy outcomes, infant neurodevelopment and increases risks of cancer.³⁷
- **Perchlorate:** Affects maternal thyroid. Exposure during pregnancy affects fetal brain development.³⁸

Exposure to contaminated water contributes to a maternal and infant health crisis that harms women and families of color most, as a result of structural and environmental racism and unjust barriers to coverage and care. Black women in the U.S. are more than three times as likely as white women to experience pregnancy-related death; and Black women, Hispanic women, and AAPI women disproportionately experience births with severe maternal morbidity relative to white women.³⁹ In addition, infant mortality rates vary by race, with higher rates among infants born to Black and Hispanic women as compared to white women,⁴⁰ there are also significant disparities along racial lines in infant health outcomes, such as low birth weight.⁴¹ These disparities result in large part from historic and ongoing lack of access to quality health care, pervasive systemic barriers to comprehensive health coverage, and underinvestment in family support and health care programs—all rooted in structural racism in health care and social service delivery systems.⁴²

Fundamentally, lack of access to clean, safe water is an issue of reproductive oppression: it undermines an individual’s reproductive health, limits their ability to choose to have or not have children, and infringes on their right to raise children in healthy and safe environments. For women of color — who already must contend with the harms of institutional racism, coercion and jeopardized bodily autonomy when it comes to reproductive health and decision-making⁴³ — unsafe water and the environmental racism underneath it only compounds and further perpetuates these injustices. In addition to protecting access to a full range of reproductive health care, policymakers need to advance policies that ensure safe, healthy living environments for communities most impacted by barriers to clean water and resulting health outcomes.

The Problems with America's Water Systems

America's Water Infrastructure is Failing

In many places in the U.S., water infrastructure — including wells, reservoirs, pumps and pipelines, storage tanks and treatment facilities — is nearing the end of its useful life. Some communities are served by water systems that are more than 100 years old — sewer and household pipes are old, broken, decaying and leaking, which can cause discolored water, foul taste and bacterial contamination.⁴⁴ Older infrastructure is more likely to include lead pipes, which Congress banned in the 1980s due to the substantial health risks of lead exposure.⁴⁵ Despite this Congressional ban, approximately 15 to 22 million people nationally are still served by lead water lines.⁴⁶ In addition to lead, bacterial contamination in older infrastructure exposes water to a group of disinfection byproducts, known as trihalomethanes (THMs), during the disinfection process.⁴⁷ These contaminants form unintentionally when chlorine and other disinfectants react with certain organic matter in water pipes.⁴⁸

Beyond deteriorating and dangerous piping, hundreds of thousands of households — upwards of 1.6 million people — live without full indoor plumbing.⁴⁹ This is particularly pronounced for communities of color: Black households make up 16.6 percent of plumbing-incomplete households, compared to 12.8 percent of all U.S. households and Hispanic households make up 16.7 percent of plumbing-incomplete households, but just 12.5 percent of all households.⁵⁰

In part, America's failing water infrastructure is a result of decreased federal funding for these critical systems. On a per capita basis, from 1977 to 2014, federal spending on water infrastructure fell from \$76 per person to only \$11 per person.⁵¹ Consequently, state and local governments bear the burden of 96 percent of all public spending on water and wastewater utilities.⁵² Many cities, counties and states do not have the resources to pay these steep infrastructure costs. Drinking water and wastewater systems throughout the country need an estimated \$743 billion over the next 20 years to maintain and repair water infrastructure to meet current environmental and health standards.⁵³ Leaving state and local governments to pick up the tab is particularly devastating to communities with lower incomes because they cannot make up the significant shortfall caused by a lack of federal investment, leaving these water systems inadequately funded, and jeopardizing water quality and affordability for residents.⁵⁴ Moreover, given the structural and economic barriers that have historically impacted the lives of people of color, this lack of investment inevitably creates a patchwork where communities of color are less likely to be served by clean water systems, as well as by other social service systems such as quality health care providers, safe housing, or food supports. For women of color living in these communities, this means that they are less likely to have access to the environmental, health care and economic resources necessary to exercise reproductive autonomy.

Regulations Are Insufficiently Protective Against Drinking Water Contamination

The Safe Drinking Water Act, originally passed by Congress in 1974 and amended in 1986 and 1996, authorizes the EPA to set maximum levels of both naturally occurring and man-made contaminants permitted in drinking water, and there are inadequate penalties for water systems that violate the rules.⁵⁵ State and local governments are predominately responsible for implementing federal water quality standards, which means that the quality of monitoring and enforcement varies significantly based on geography.⁵⁶ In recent years, the EPA and Justice Department have been reluctant to assist or penalize states and municipalities that fail to enforce or report drinking water violations.⁵⁷ As a consequence, it is estimated that three to ten percent of the country's water systems are in violation of federal Safe Drinking Water Act health standards each year.⁵⁸

Pollution in San Gabriel Valley, California

Over half a million Asian American people and 7,000 Native Hawaiian and Pacific Islander people live in the San Gabriel Valley.⁵⁹ This 200 square mile area of Southern California is also home to rampant pollution. As a result of high pollution, drinking water contamination is common in areas including Alhambra, Arcadia, Monterey Park, Temple City and West Covina.⁶⁰ All of these cities are comprised of at least 26 percent Asian Americans and Pacific Islander people (AAPI), with AAPI communities making up 68 percent of Monterey Park's population, 61 percent of Arcadia's population and 63 percent of Temple City's population.⁶¹ The clear overlap between pollution, including contaminated drinking water, and the region's most concentrated AAPI populations is not without consequences. Asian American people are more likely to die of cancer than any other racial group in the San Gabriel Valley, and one in five Asian American people in the region do not have a regular source of health care.⁶² Moreover, more than 67 percent of Asian American people in the region are immigrants, and there could be up to 58,000 undocumented Asian immigrants spread across San Gabriel Valley.⁶³ This means that for many AAPI communities, existing health disparities arising from water contamination could be exacerbated because of inaccessible health care as well as linguistic and cultural barriers to care that exist within current health care systems. For example, about one in five Asian American households are linguistically isolated,⁶⁴ and a study found that among all racial groups, AAPI communities are the most likely to feel looked down upon by their providers and least likely to perceive their background was understood by their providers.⁶⁵

In 2017, five companies accepted responsibility for polluting groundwater in San Gabriel Valley and agreed to finance the water cleanup for the region, saving residents from extreme hikes in their water costs.⁶⁶ While the agreement is a promising step toward rectifying the environmental problems in the region that disproportionately harm AAPI communities, it fails to remedy the socioeconomic and health damage that has already been done. This damage is not limited to high cancer and low health care coverage rates among Asian American people in the region; residents of San Gabriel Valley are regularly exposed to high levels of pollution in both the air and water, which leads to respiratory diseases, cardiovascular diseases and increased risk for poor birth outcomes among pregnant women.⁶⁷ In Alhambra alone, a city whose population is more than 50 percent AAPI, groundwater contamination levels are as much as 1,000 times the maximum contaminant level allowed by state and federal law.⁶⁸ Both high doses of this water and small doses over a long period of time are linked to liver and kidney damage, compromised immune systems, fetal development problems, blue-baby syndrome and cancer.⁶⁹

These health problems mean that AAPI communities in the region lack the autonomy needed to make their own reproductive decisions. Because of adverse health outcomes for both infants and mothers, the contaminated drinking water in San Gabriel Valley makes it so that AAPI people are not able to choose if, when, and how to raise a family, free from coercion and discrimination. San Gabriel Valley residents hoping to start families are faced with mounting health risks, while those already raising families must also pay high costs — both financial and health-related — in attempting to keep themselves and their children safe from the region's high pollution rates that disproportionately affect AAPI communities.

The Trump-Pence Administration has Gutted the EPA's Authority to Regulate Clean Water

The Trump-Pence administration is making our water systems and the water we drink more contaminated and less safe through the rollback of critical regulatory measures protecting those systems. The EPA is now conducting fewer inspections and imposing lower penalties on many polluters, which is making it easier for corporations to dump pollutants into our water systems. For example, the administration has reversed a regulation that protected streams and waterways from coal mining waste and scrapped a proposal to protect groundwater near uranium mines.⁷⁰ On January 23, 2020, the administration finalized a regulation declaring that a significant proportion of the streams, lakes, bays, lagoons, wetlands, headwaters and more across the nation no longer count as “waters of the United States”—this means that excluded waterways will no longer have protections under the Clean Water Act, enabling more dumping of toxic byproducts into U.S. waters.⁷¹ Moreover, the Trump-Pence administration has suppressed research about the health impacts of contaminated water — in May 2018, emails uncovered through a Freedom of Information Act request submitted by the Union of Concerned Scientists revealed that administration officials sought to block a publication about the toxic effects of PFAS for fear that it would cause a “public relations nightmare.”⁷² Although the draft report has since been released, this censorship of scientific research jeopardizes transparency and creates a serious threat to public health.

Violations of EPA standards are most frequent in small water systems, which tend to be located in rural or sparsely populated areas.⁷³ Today, systems serving fewer than 500 people account for nearly 60 percent of all violations and 50 percent of all health-based violations.⁷⁴ These violations are also concentrated in certain regions.⁷⁵ For example, in Puerto Rico, a staggering 99.5 percent of its population is served by community water systems that are in violation of the Safe Drinking Water Act.⁷⁶

This number of violations is likely an underestimate and does not fully capture the extent of drinking water contamination in the U.S.⁷⁷ In part, this is because the EPA fails to regulate or cap many contaminants — the government has ignored its obligation to set standards on many newly discovered water contaminants. Indeed, the EPA has not established a standard for a single new contaminant since 1996, even though there are currently hundreds of unregulated contaminants; this is due to an amendment to the Safe Drinking Water Act that rolled back important standard-setting provisions, weakening the EPA's ability to set health-protective standards.⁷⁸ For example, although the EPA has issued a severe health advisory for PFAS,⁷⁹ it has not established a cap on the acceptable level of contamination in water systems that would trigger required monitoring and treatment of public water supplies. Moreover, very small water systems have fewer monitoring and reporting requirements. For example, private well systems that serve fewer than 25 people — the source of water for about 13 million households — are not regulated by the EPA.⁸⁰ Water surveys suggest that about one in five private wells contain contaminants in excess of EPA drinking water standards, and disease outbreaks from private wells are increasing.⁸¹

However, community water systems are not solely to blame for drinking water contamination — these violations largely result from insufficient federal infrastructure funding, heightened strain on water systems as a result of climate change's impact on the amount, timing, form, and intensity of

precipitation,⁸² and failure by the federal government to regulate industries that degrade drinking water sources. Communities struggling with water contamination could benefit from responsive assistance, instead of being forced to accept lower-quality water, or increased costs, and the health consequences.

The failures of the regulatory system to protect against contaminants as well as the numerous Safe Water Drinking Act violations across the country fundamentally put the health and lives of women and families at risk.

Clean Water Is Not Affordable and Is Becoming More Expensive

The affordability of clean, safe water is an increasingly dire problem. State and local governments often pass the cost of water infrastructure improvements on to consumers, increasing the amount people pay for their water each month.⁸³ Since 2000, water and wastewater costs have more than doubled,⁸⁴ and estimates show the average monthly residential bill for drinking water has gone up 48 percent since 2010.⁸⁵ According to a 2019 analysis, the average household water bill is currently \$104 per month, although this cost varies significantly in different cities and regions.⁸⁶

Water affordability is typically measured by the annual cost of water bills as a percentage of median household income.⁸⁷ Households paying an annual amount for water that exceeds an affordability threshold, often set by state and federal agencies, are considered to be paying a cost that is unaffordable. However, there are currently no federal programs to assist people with covering their water bill, though programs exist for telephone service and heat assistance.⁸⁸

Without this safety net, those with lower incomes often face trade-offs between paying for water services and paying for other necessities like housing, food and medicine.⁸⁹ Because of systemic economic inequities, women of color are disproportionately likely to have lower incomes. For example, women of color experience the nation's persistent and pervasive gender wage gap most severely.⁹⁰ For every dollar paid to white, non-Hispanic men Latinas are typically paid 54 cents, Black women are typically paid 62 cents, and Asian American women are typically paid 90 cents.⁹¹ However, disaggregated data reveals that many AAPI women experience much larger wage gaps, particularly for Southeast Asian and Pacific Islander women, making as low as 50 cents to the white male dollar.⁹² Women of color are also more likely to be un- or under-insured and thus face higher out-of-pocket costs for health care.⁹³ Consequently, for families and communities impacted by economic injustice and discrimination and struggling to make ends meet, the rising costs of drinking water are a dire threat.

When people cannot pay their water bill, their water is likely to be shut off. While water shutoffs have negative outcomes for the well-being of communities and public health overall,⁹⁴ they can have severe consequences for women of color, particularly those who are heads of households, caregivers of children and those not eligible for government assistance programs.⁹⁵ These consequences include the risk of losing custody of children if a state agency deems the home "unsafe," home foreclosures, higher instances of water-related illnesses and economic destabilization.⁹⁶ Each of these possible outcomes is yet another way in which a lack of access to affordable water undermines people's autonomy, agency and ability to make unencumbered decisions about their reproductive lives.

Nitrate Contamination in San Joaquin Valley, California.

San Joaquin Valley accounts for over half of California's agricultural production and, as a result, has the highest rates of drinking water contamination in the state.⁹⁷ Excess manure and fertilizer runs off into groundwater, where it can cause algae blooms or percolate down into aquifers, contaminating well water and other water systems in the process. Due to this runoff, San Joaquin Valley's water supply contains many contaminants, including nitrates, arsenic, coliform bacteria, pesticides and disinfectant byproducts.⁹⁸ Nitrates, the most prevalent contaminant, were detected in 97 percent of wells sampled throughout the valley.⁹⁹ Nitrates are a serious threat to public health and can cause severe health problems, such as blue baby syndrome and even death.¹⁰⁰

Small, rural Latinx communities tend to be disproportionately impacted by groundwater contamination.¹⁰¹ Indeed, community water systems serving a large percentage of Latinx people deliver drinking water with higher nitrate levels compared with systems serving white residents.¹⁰² Tulare County, where 65 percent of residents identify as Latino or Hispanic, is at the center of San Joaquin Valley's drinking water crisis.¹⁰³ Intensive agriculture and dairy production in the area has resulted in high nitrate contamination in groundwater — over 20 percent of small public water systems deliver water with nitrate levels that far exceed federal health limits.¹⁰⁴ As a result, residents in Tulare County in particular face reproductive health issues at levels significantly higher than elsewhere in California.¹⁰⁵ The incidence of miscarriage is double the state rate, and the incidence of SIDS is as high as 2.5 times higher than average.¹⁰⁶ Additionally, birth outcomes in the region have also been affected by arsenic from natural resources and its historic use in agriculture.¹⁰⁷

Moreover, because safe drinking water solutions tend to be expensive, recent studies show that communities with nitrate-contaminated groundwater pay, on average, three times the cost for water.¹⁰⁸ Estimates reflect that residents throughout the San Joaquin Valley spend up to 10 percent of their income on water and are often forced to buy bottled water on top of their high monthly water bills.¹⁰⁹ This means that Latinx people in California not only face the greatest health risks for nitrate-contaminated water, they also pay more to receive their poor-quality drinking water. For Latinx immigrants in particular, accessing health care and establishing financial security has always been challenging but is especially true now given the recent heightened attacks on immigrant communities. For example, since 1996, qualified immigrants must wait five years before becoming eligible to enroll in Medicaid. This forces many immigrants to rely on a patchwork of services to receive needed health care. Among non-citizen women of reproductive age, 32 percent are uninsured.¹¹⁰ Among non-citizen women of reproductive age with low-income, 46 percent are uninsured.¹¹¹ Uninsured non-elderly Hispanic and Asian people are less likely than whites to be eligible for coverage because they include larger shares of noncitizens who are subject to eligibility restrictions such as the five-year bar on Medicaid.¹¹² Moreover, immigration law has long sought to minimize immigration into the U.S. by people who would be a "public charge"; the Trump-Pence administration significantly expanded this "public charge" rule to allow for consideration of additional benefits such as food stamps, subsidized housing and certain Medicaid benefits.¹¹³ The administration's escalation of enforcement, detention and deportation practices has also created a climate of fear wherein many immigrants are reluctant to seek out health care or other social services. Additionally, Latinx, AAPI and Black communities may also face political barriers when advocating for, and demanding, improvements to water quality due to structural racism and the recent heightened attacks on immigrant communities.¹¹⁴

Due to Environmental Racism, Communities of Color Experience the Most Severe Impacts of Water Contamination and Deregulation

Like many current disparities in our society, failing water infrastructure and substantial water contamination is most pronounced in communities of color as a result of historical and ongoing environmental racism, particularly policies such as redlining—federally sanctioned unfair lending practices that deny home loans to families of color, especially Black families—and discriminatory land-use patterns.¹¹⁵ At the beginning of the 20th century, racist zoning ordinances and city planning policies created white-centric, suburban communities in “desirable” locations, while “less desirable” land and environments were reserved for both marginalized people and waste products.¹¹⁶ Redlining depressed wealth accumulation for Black people, increased segregation, decimated development in Black and Brown neighborhoods and led to deterioration or underdevelopment of local infrastructure, including water systems.¹¹⁷ Asian Americans have also been subject to a history of discriminatory practices in housing. One example involved city and state governments segregating low-income Asian immigrants into city center neighborhoods, historically known as Chinatowns.¹¹⁸ The location of Chinatowns in city centers have made them the target of multiple generations of central city redevelopment that has destroyed affordable housing, and commercial and institutional spaces where Asian immigrants have traditionally lived and worked.¹¹⁹

What is Environmental Racism?

Environmental racism describes the disproportionate impact of environmental hazards and injustices on people of color.¹²⁰ It includes racial discrimination in environmental policymaking, the deliberate targeting of communities of color for toxic and hazardous waste and industrial facilities, the disproportionate presence of poisons and pollutants in communities of color, patterns of housing segregation, racialized employment patterns and the ways that race permeates zoning, development and bank lending processes in urban areas. Environmental racism also includes the historic exclusion of people of color from mainstream environmental movements, despite the fact that women of color have led the way in responding to climate and environmental threats.

At the same time, federal, state and local governments constructed hazardous waste facilities and landfills predominately in or near communities of color, exposing residents to excessive pollution and contaminating water supplies.¹²¹ Today, the highest polluting factories, warehouses and other facilities are overwhelmingly located in or near non-white neighborhoods and communities with higher poverty rates.¹²² Additionally, regulations aimed at keeping these polluters in check are less likely to be enforced in communities of color — penalties that the EPA applies to polluters are up to five times greater in white communities than they are in communities of color for comparable violations.¹²³

As a consequence of this environmental racism, communities of color today face the most severe impacts of failing water infrastructure in the U.S. They are more likely to live in areas with high rates of water contamination, storm and wastewater overflows and are at increased risk of flooding. Black

people are more than twice as likely as white people to live in homes with substandard plumbing.¹²⁴ Communities of color face myriad health risks caused by this lack of access to clean water, including a heightened risk of developing cancer, gastrointestinal and reproductive health problems.¹²⁵

Climate Change is Adding Pressure on our Water Systems

Climate change has and will continue to add additional stressors to water systems in the U.S., the harmful consequences of which will also primarily impact communities of color. Black and Latinx communities disproportionately live in low-lying flood zones and other vulnerability zones located near “industrial facilities that manufacture chemicals, treat water or wastewater, produce bleach, generate electric power, refine petroleum and produce pulp or paper.”¹²⁶ Natural disasters cause wastewater treatment sites and toxic facilities to lose power and release gallons of contaminants into floodwaters, poisoning the water supply for communities of color.¹²⁷ For example, during and in the aftermath of Hurricane Katrina, numerous contaminated sites and facilities near low-income communities and communities of color in Louisiana flooded and contaminated neighborhoods with toxic materials, creating a major public health threat.¹²⁸ This was exacerbated by significant shortcomings in both federal and state-level climate emergency preparedness and response, gaps that reflect, among other things, ongoing environmental racism.

Moreover, according to a recent United Nations report, climate change and its effects will have a disproportionate impact on women, as they are more likely than men to be affected in times of intense storms, drought, food insecurity and increased disease.¹²⁹ For example, as climate change makes certain cities or even regions less habitable, women will often bear the burden of trying to relocate their families; as industries like agriculture change at a fundamental level, women’s livelihoods are more likely to be negatively impacted; and climate change adaptation and mitigation practices are less likely to reach women.¹³⁰ For women of color — who already experience environmental racism and economic insecurity, along with gender and racial discrimination — climate change will further compound these intersecting oppressions.

Responding to this crisis will require not only improving access to clean water and affordable, comprehensive health care for communities of color, but also investing in bigger structural solutions to pervasive challenges like housing segregation and community disinvestment.

Policy Solutions for Increasing Access to Safe Drinking Water and Improving Reproductive and Overall Health

Access to clean water is a human right recognized by the United Nations. It is a public health issue that is deeply connected to maternal and reproductive health. It is also a reproductive justice issue in that it shapes people's ability to choose if and when to parent, as well as their right to live and raise children in safe and healthy communities. Policymakers in the United States should take action to ensure and protect access to clean, safe, and affordable water. The following policy recommendations are steps that policymakers should take to work towards water and reproductive justice for all.

- **Partner with Indigenous Leaders:** American Indian and Alaska Native communities face especially severe and dire water conditions. Native communities' access to clean water is compounded by the unique ways that environmental racism plays out in their history and lives – from forced removal and legal frameworks that transferred land away from tribal nations to inadequate fulfillment of the federal trust responsibility to protect and provide for the well-being of tribes. The particular challenges Native communities face in accessing clean water – as well as the long history of Native people leading in the fight for environmental justice – calls for a much deeper discussion than the authors of this brief can provide. Inclusion and centering of Native people is critical in addressing these harms and in crafting the policy solutions that aim to increase access to safe drinking water and improve reproductive and overall health.¹³¹
- **Ensure access to a full range of reproductive health services, including abortion care, for all people:** Access to clean water is one key step in achieving reproductive justice for all. However, policymakers must also take immediate action to end other barriers to accessing reproductive health care by ensuring equitable health coverage and care and by addressing systemic racism in health care systems. This includes addressing the myriad systemic barriers that cause racial health disparities and eliminating gaps in immigrant women's ability to access affordable, comprehensive health care.
- **Increase infrastructure investment to replace lead pipes and reduce water contamination:** After decades of systemic racism in housing, finance and community investment, it is often communities of color who face the most dire issues with lead pipes, failing water systems and water contamination. Federal and state entities should make equitable infrastructure investments to replace lead pipes, protect vital water sources and improve public water systems to reduce contamination.
- **Strengthen water standards for harmful toxins, such as lead and nitrates, and ensure that water standards are based on science and evidence:** The EPA and state water regulating bodies should work to strengthen drinking water standards for many chemical contaminants so water providers can better identify unsafe contaminants and work to eliminate them. For instance, recent studies have shown that the EPA's rule on safe lead concentrations in drinking water, which sets limits at 15 parts per billion (ppb), fails to protect children. A recent analysis by EPA scientists found that that water lead concentrations in the 3.8 to 15 ppb range may put a formula-fed infant at risk of elevated blood lead levels.¹³²
- **Stop the rollback of policies that protect our water:** Under the Trump-Pence administration, the EPA has been actively rolling back water regulations.¹³³ In the midst of a clean water access crisis in the U.S. and the ongoing and worsening impacts of climate change, this is unconscionable. Water standards need to be strengthened, not erased.

- Enforce federal standards on toxins in water:** The federal government should enforce the standards it sets for drinking water. Water should be tested more frequently, and violations of safe drinking water standards should be consistently and effectively enforced. Under the Trump-Pence administration, clean water enforcement actions have drastically decreased, emboldening polluters and worsening our national water crisis.¹³⁴
- Make polluters pay for clean-up of harmful chemicals:** When it comes to cleaning up existing toxins and harmful chemicals in our drinking water, the polluters, not communities, should foot the bill. Polluters might be the federal government, the military or corporations.
- Ensure water affordability and end water shutoffs:** Too often, families struggling to make ends meet lose access to clean drinking water because they cannot pay their water bills. Water affordability standards must be defined to ensure that: 1) every person can pay for drinking water and sanitation without sacrificing another basic, essential human need — such as food, health care, housing, transportation, education and emergency communications; 2) no person is denied access to basic water and sanitation services based on ability to pay, age, disability, gender or race; and 3) drinking water and sanitation must not comprise more than 2.5-4% of monthly income for people living with low incomes.¹³⁵ The federal government should work to uphold these water affordability standards for state and local utilities, and should establish and fund a consumer assistance program so people do not lose water access.¹³⁶
- Require regular water tests at all public schools:** A 2018 GAO report found that an estimated 41 percent of school districts, serving 12 million students, had not tested for lead in school drinking water in 2016 or 2017.¹³⁷ The federal government should take steps to make sure all schools are testing their drinking water and are transparent about the results. When there is a lead problem, both federal and state governments should provide funds for remediation efforts.
- Federal and state governments should regulate PFAS and other newly discovered water pollutants:** PFAS are currently unregulated chemicals, despite having known detrimental health impacts. The federal government should take steps to eliminate PFAS from consumer products and curb the use of PFAS in industry and firefighting. States should take steps to set safe limits on PFAS in drinking water.¹³⁸ Additionally, the Federal government should implement additional efforts to carefully regulate chemicals like atrazine, disinfection byproducts, arsenic and perchlorate — common water contaminants known to adversely impact reproduction, fertility and pregnancy outcomes.
- Mandate disclosure of contaminants in water:** Currently, most people do not know that contaminants such as PFAS, atrazine and perchlorate are in their water. The EPA and state and local governments should require utilities to test water supplies frequently using a method that detects these contaminants and disclose the results publicly.¹³⁹



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¹³³ Makowski, E. (2019, September 16). Trump Administration Overturns Clean Water Regulation. *The Scientist*. Retrieved 26 May 2020, from <https://www.the-scientist.com/news-opinion/trump-administration-overturms-clean-water-regulation--66429>; Hollis, A. (2020, March 30). *While You Were Focused on COVID-19, EPA Gave Polluters Free Rein, Threatening At-Risk Communities*. Union of Concerned Scientists Blog. Retrieved 26 May 2020, from <https://blog.ucsusa.org/adrienne-hollis/while-you-were-focused-on-covid-19-epa-gave-polluters-free-rein-threatening-at-risk-communities>; Goldman, G. (2020, March 4). *The Trump EPA Is Restricting EPA Science. It's Somehow Worse Than We Expected*. Union of Concerned Scientists Blog. Retrieved 26 May 2020, from <https://blog.ucsusa.org/gretchen-goldman/the-trump-epa-is-restricting-epa-science-its-somehow-worse-than-we-expected>

¹³⁴ Gallay, P. (2019, July 9). *Doing Less With Less at EPA: Environmental Enforcement Has Plummeted in the Era of Trump. Here's What We Can Do About It*. American Bar Association. Retrieved 26 May 2020, from https://www.americanbar.org/groups/environment_energy_resources/publications/trends/2018-2019/july-august-2019/doing-less-with-less/

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¹³⁸ Sierra Club Gender, Equity and Environment Program. (2018, August). *PFAS Action Kit 2018* (p. 2). Retrieved 26 May 2020, from <https://www.sierraclub.org/sites/www.sierraclub.org/files/program/documents/Web%20PFAS%20toolkit.pdf>

¹³⁹ Sierra Club Gender, Equity and Environment Program. (2018, August). *PFAS Action Kit 2018* (p. 2). Retrieved 26 May 2020, from <https://www.sierraclub.org/sites/www.sierraclub.org/files/program/documents/Web%20PFAS%20toolkit.pdf>