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## **Water Contamination Ruining the Nation: How the Lead Water Crisis Disproportionately Affects Children of Color**

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## Water Contamination Ruining the Nation: How the Lead Water Crisis Disproportionately Affects Children of Color



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March 22, 2021 by Annissa Allen-Gore (<https://gguelj.org/author/aallenmy-ggu-edu/>)

*"There can be no keener revelation of a society's soul than the way in which it treats its children." – Nelson Mandela*



*Photo by mrjn Photography ([https://unsplash.com/@\\_mrjn\\_esf?utm\\_source=unsplash&utm\\_medium=referral&utm\\_content=creditCopyText](https://unsplash.com/@_mrjn_esf?utm_source=unsplash&utm_medium=referral&utm_content=creditCopyText)) on Unsplash ([https://unsplash.com/photos/YpZ2cj4s0oo?utm\\_source=unsplash&utm\\_medium=referral&utm\\_content=creditShareLink](https://unsplash.com/photos/YpZ2cj4s0oo?utm_source=unsplash&utm_medium=referral&utm_content=creditShareLink))*

(<https://www.nelsonmandelachildrensfund.com/news/nelson-mandela-quotes-about-children>)

Amidst the chaos of COVID-19, racial injustice, and the recent election, many people have long forgotten about America's drinking water crisis in places like Flint, Michigan, Washington, D.C. and Newark, New Jersey. Yet polluters and pollution continue to be found in communities of color at disproportionate rates (<https://www.theatlantic.com/politics/archive/2018/02/the-trump->

administration-finds-that-environmental-racism-is-real/554315/?/), underscoring the ongoing issue of environmental racism that often sidelines the needs of cities with large populations of Black people and other people of color. Now many children in these communities are suffering from the long-lasting effects of lead exposure (<https://www.cdc.gov/niosh/topics/lead/health.html>). It is therefore critically important to bring renewed attention to the scope of this problem in order to protect our children and create a better future for generations to come.

Lead contamination of drinking water continues to impact children in communities of color. This article provides an overview of the key laws and regulations designed to prevent toxic lead exposure, identifies important factors that have limited the effectiveness of these laws, and makes recommendations concerning possible solutions. Additionally, this article explores the progress being made by efforts to protect children in hot spots like Flint, Michigan and Newark, New Jersey, and identifies resources for people in other communities that may be facing similar issues due to aging infrastructure.

### How Does the EPA Ensure Drinking Water is Safe?

The Safe Drinking Water Act (SDWA) (<https://www.epa.gov/sdwa/overview-safe-drinking-water-act>) of 1974 gives the EPA the power to create national health standards for drinking water; and the EPA, the various public water systems, and the states all share responsibility for making sure that these standards are met. Specifically, states (<https://www.law.cornell.edu/cfr/text/40/141.82>) are responsible for reviewing the levels of lead in tap water samples and approving corrosion control treatment options recommended by water system agencies. States may also designate an alternative corrosion control treatment option that is identified in CFR §141.82(c)(1) (<https://www.law.cornell.edu/cfr/text/40/141.82>).

Under CFR § 141.82(i) (<https://www.law.cornell.edu/cfr/text/40/141.82>), the EPA's Regional Administrator may review any treatment (<https://www.law.cornell.edu/cfr/text/40/260.10>) decisions made by a State and issue federal treatment determinations if they find that: (1) a State has failed to issue a treatment (<https://www.law.cornell.edu/cfr/text/40/141.82>) determination by the applicable deadlines contained in § 141.81 (<https://www.law.cornell.edu/cfr/text/40/141.81>); (2) a State has abused its discretion in a substantial number of cases or in cases affecting a substantial population; or (3) the technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

In addition, the Lead and Copper Rule (LCR) (<https://www.epa.gov/dwreginfo/lead-and-copper-rule>), first issued by the EPA in 1991, requires water system operators to install and maintain optimized corrosion (<https://www.law.cornell.edu/cfr/text/40/141.80>) control treatment, source water treatment, lead service line replacement, and to provide public education (<https://www.law.cornell.edu/cfr/text/40/141.85>) concerning the risks associated with lead contamination. Optimized corrosion control treatment (<https://www.law.cornell.edu/cfr/text/40/141.2>) is defined as "corrosion control treatment that minimizes the lead and copper concentrations at users' taps while insuring [sic] that the treatment does not cause the water system to violate any national primary drinking water regulations."

Water system operators are also required (<https://www.law.cornell.edu/cfr/text/40/141.86>) to test for lead contamination, pursuant to CFR § 141.86 (<https://www.law.cornell.edu/cfr/text/40/141.86>), by collecting tap water samples from targeted sampling pools to determine the *lead action level* of the water in the system. The "action level" (<https://www.law.cornell.edu/cfr/text/40/141.2>) is the concentration of lead in water. The EPA's current standards (<https://www.law.cornell.edu/cfr/text/40/141.80>) provide that the lead action level is exceeded when the amount of lead in

more than ten percent of collected tap water samples is greater than fifteen parts per billion (ppb) or 0.015 milligrams per liter. Importantly, CFR § 141.84(a) (<https://www.law.cornell.edu/cfr/text/40/141.84>) provides that any water system (<https://www.law.cornell.edu/cfr/text/40/141.84>) that exceeds the lead action level must be replaced. When public water systems do not comply with lead standards, water agencies must also notify (<https://www.law.cornell.edu/cfr/text/40/141.85>) affected parties of the increased risk (<https://www.law.cornell.edu/cfr/text/40/141.85>) of harm to children, including adverse impacts on brain development.

Currently, the EPA does not have a program that oversees pipeline replacements, but they do have the Drinking Water State Revolving Fund (<https://www.epa.gov/ground-water-and-drinking-water/funding-lead-service-line-replacement#:~:text=Over%20the%20years%2C%20EPA%20has,for%20the%20fiscal%20year%202019.>) (DWSRF), which provided the states with 1.126 billion dollars in loans towards lead service line replacements in the 2019 fiscal year. Until the October 4, 2020 deadline, states were also able to transfer funds from their Clean Water State Revolving Fund (<https://www.epa.gov/ground-water-and-drinking-water/funding-lead-service-line-replacement#:~:text=Over%20the%20years%2C%20EPA%20has,for%20the%20fiscal%20year%202019.>) (CWSRF) to their DWSRF to address lead related threats to public health. The CWSRF funds (<https://www.epa.gov/ground-water-and-drinking-water/funding-lead-service-line-replacement#:~:text=Over%20the%20years%2C%20EPA%20has,for%20the%20fiscal%20year%202019.>) "must be used for DWSRF eligible lead related projects and must be used for loans with principle forgiveness, negative interest rates, and/or grants."

According to a 2019 article published in the Atlantic (<https://www.theatlantic.com/health/archive/2019/09/millions-american-homes-have-lead-water/597826/>), the drinking water crisis in cities such as Flint, Michigan was caused by corroded lead pipes that range from 50 to 100 years old, and water treatment plants that are still using "World War I era" treatment technology that may not always prevent corrosion. Between 2015 and 2018, around 5.5 million Americans (<https://www.theatlantic.com/health/archive/2019/09/millions-american-homes-have-lead-water/597826/>) were still being exposed to lead in drinking water from water systems that exceeded the EPA's lead action level of 15 ppb. As illustrated below, common sources of lead in drinking water (<https://www.epa.gov/ground-water-and-drinking-water/infographic-lead-drinking-water>) include: faucets, galvanized pipes, lead goose necks, lead service lines, and copper pipes with lead solder.

Source: EPA ([https://www.epa.gov/sites/production/files/2017-08/documents/epa\\_lead\\_in\\_drinking\\_water\\_final\\_8.21.17.pdf](https://www.epa.gov/sites/production/files/2017-08/documents/epa_lead_in_drinking_water_final_8.21.17.pdf))

#### Health Effects of Lead and the Surge in Special Education

Babies, young children, and pregnant women face the greatest health risks (<https://www.law.cornell.edu/cfr/text/40/141.85>) from lead exposure. "Lead is stored in the bones (<https://www.law.cornell.edu/cfr/text/40/141.85>) and can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development." As of 2017, data ([https://www.aacap.org/aacap/families\\_and\\_youth/facts\\_for\\_families/fff-guide/Lead-Exposure-In-Children-Affects-Brain-And-Behavior-045.aspx#:~:text=Exposure%20to%20lead%20can%20have,delayed%20growth%2C%20and%20hearing%20loss.](https://www.aacap.org/aacap/families_and_youth/facts_for_families/fff-guide/Lead-Exposure-In-Children-Affects-Brain-And-Behavior-045.aspx#:~:text=Exposure%20to%20lead%20can%20have,delayed%20growth%2C%20and%20hearing%20loss.)) reported by the Center for Disease Control indicated that 6% of all 1-2 year old children and 11% of Black children between the

ages of one and five had toxic levels of lead in their blood. According to a study by the National Institute of Health (NIH) (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4675165/>), there is no safe level of lead exposure for young children. Extremely high levels of lead in a child's blood can cause severe symptoms such as "convulsions, coma, and even death (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4675165/>)." Substantially smaller traces of lead in a child's blood can cause (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4675165/>) anemia, colic (<https://www.mayoclinic.org/diseases-conditions/colic/symptoms-causes/syc-20371074>), swelling of the brain, and kidney damage.

The NIH report also found that exposure to lead during childhood may have the strongest effects on brain development and function (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4675165/>). As a result, child survivors (<https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health#:~:text=Health%20effects%20of%20lead%20poisoning%20on%20children&text=At%20high%20levels%20of%20exposure,mer>) of lead poisoning may develop irreversible intellectual disabilities and behavior disorders. Additionally, lead exposure has been connected to reduced IQ (<https://www.who.int/news-room/fact-sheets/detail/Lead-poisoning-and-health#:~:text=Health%20effects%20of%20lead%20poisoning%20on%20children&text=At%20high%20levels%20of%20exposure,mer>) reduced attention span, increased antisocial behavior and irritability ([https://www.aacap.org/aacap/families\\_and\\_youth/facts\\_for\\_families/fff-guide/Lead-Exposure-In-Children-Affects-Brain-And-Behavior-045.aspx#:~:text=Exposure%20to%20lead%20can%20have,delayed%20growth%20C%20and%20hearing%20loss,](https://www.aacap.org/aacap/families_and_youth/facts_for_families/fff-guide/Lead-Exposure-In-Children-Affects-Brain-And-Behavior-045.aspx#:~:text=Exposure%20to%20lead%20can%20have,delayed%20growth%20C%20and%20hearing%20loss,)) and reduced (<https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health#:~:text=Health%20effects%20of%20lead%20poisoning%20on%20children&text=At%20high%20levels%20of%20exposure,mer>) levels of educational attainment. Lead exposure during childhood has also been linked to behavioral problems (<https://www.epa.gov/sites/production/files/2015-05/documents/biomonitoring-lead.pdf>), including "conduct disorders, increased risks of juvenile delinquency and antisocial behaviors, higher total arrest rates, and arrest rates for violent crimes in early adulthood."

According to a recent article (<https://www.edweek.org/teaching-learning/in-flint-schools-overwhelmed-by-special-ed-needs-in-aftermath-of-lead-crisis/2019/08>), the EPA estimates that about a half-million child-care facilities and 98,000 public schools in the U.S. are not regulated under the SDWA. As of 2019, the number of special education students in Flint, Michigan (<https://www.edweek.org/ew/articles/2019/08/28/special-ed-concerns-loom-large-after-flint.html>) has increased by 56% since the water crisis began, and this is just a preview of what could happen to other schools across the country.

Source: Corey Mitchell, Education Week (<https://www.edweek.org/teaching-learning/in-flint-schools-overwhelmed-by-special-ed-needs-in-aftermath-of-lead-crisis/2019/08>)

(<https://www.edweek.org/ew/articles/2019/08/28/special-ed-concerns-loom-large-after-flint.html>)

Unfortunately, the crisis in Flint was just the tip of the iceberg of an issue that is far more widespread than most people recognized. Other cities with aging water systems, including Washington D.C. and Newark, New Jersey, are now also facing lead exposure crises of alarming proportions. And like Flint, whose population is 54% Black and African American (<https://data.census.gov/cedsci/profile?g=1600000US2629000>), many of these cities are also home to large communities of color. From 2016 to 2019, water systems found in continuous violation of the law were 40% more likely (<https://www.nrdc.org/media/2019/190924>) to be located in communities of color. In addition, small water systems (<https://www.law.cornell.edu/cfr/text/40/141.2>) were responsible for more than 80% (<https://www.nrdc.org/media/2019/190924>) of all drinking water violations, and these were also more likely to serve low-income and vulnerable populations. Because communities of color face a disproportionate risk of exposure to contaminated drinking water, it's clear that the nation's drinking water laws do not protect (<https://www.nrdc.org/media/2019/190924>) everyone equally.

#### Lack of Protection in Communities of Color

Environmental Justice issues are pervasive in communities of color across the United States and its territories. For example, before Hurricane Maria (<https://www.nbcnews.com/news/latino/puerto-rico-sees-more-pain-little-progress-three-years-after-n1240513>) in 2017, 97.2% of Puerto Rico (<https://www.nrdc.org/experts/kristi-pullen-fedinick/whats-your-water->



updated-analysis) was served by systems that violated the LCR. Additionally, an independent study by Jersey Water Works found that children with lower socioeconomic statuses (<https://www.jerseywaterworks.org/wp-content/uploads/2019/10/JWW-Lead-Report.pdf>) who live in older cities are more likely to be exposed to lead poisoning. Similar inequities have been found in studies of air pollution as well. According to one recent article (<https://www.theatlantic.com/politics/archive/2018/02/the-trump-administration-finds-that-environmental-racism-is-real/554315/?/>), the EPA found that people of color and people in poverty are exposed to more fine particulate matter (<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>) in the air they breathe than people living above poverty. In particular, the National Center for Environmental Assessment found (<https://www.theatlantic.com/politics/archive/2018/02/the-trump-administration-finds-that-environmental-racism-is-real/554315/?/>) that Black people are exposed to approximately 1.5 times more particulate matter than White people; and Latinx people are exposed to 1.3 times more particulate matter than White people. This disparity (<https://www.theatlantic.com/politics/archive/2018/02/the-trump-administration-finds-that-environmental-racism-is-real/554315/?/>) in exposure to particulate matter was linked to racial segregation, and highly segregated communities of color tended to suffer from higher levels of exposure.

Many of the water systems (<https://www.theatlantic.com/health/archive/2019/09/millions-american-homes-have-lead-water/597826/>) for drinking water in large cities across the U.S. have exceeded the federal lead *action level*. Among these, three case studies, in particular, illustrate the challenges faced by communities attempting to respond to this crisis: Flint, Michigan, Washington, D.C., and Newark, New Jersey.

#### Is Settlement Money Enough for Flint, Michigan?

In 2014, the City of Flint abruptly switched its water supply from Detroit Water and Sewage Department to water from the Flint River treated by the Flint Water Service Center to save money.[1] Shortly after, residents started to complain about the water's odor and color, and residents were told to boil their water.[2] In 2015, Flint officials collected water samples and tested them for lead content, and the amount of lead found was three times more than the levels from the prior fifteen years.[3] Researchers discovered the treated water from the Flint River corroded lead pipes.[4] The EPA finally stepped in January 2016 when they announced that they would continue to oversee Flint's efforts and service line replacement program.[5]

In 2017, a federal judge approved a settlement agreement (<https://www.npr.org/sections/thetwo-way/2017/03/28/521786192/judge-approves-97-million-settlement-to-replace-flints-water-lines>) for \$97 million which allocated \$87 million towards the city's service line replacement program. The agreement (<https://www.npr.org/sections/thetwo-way/2017/03/28/521786192/judge-approves-97-million-settlement-to-replace-flints-water-lines>) required authorities to examine water service lines for at least 18,000 households and replace lead and galvanized steel pipes with copper pipes (<https://flintpipemap.org/map>) within three years. According to the City of Flint (<https://www.cityoffl.int.com/2020/08/13/city-of-flint-launches-final-push-to-get-the-lead-out-service-line-replacement-project-set-to-finish-by-nov-30-2020/>), the service line replacement program is over 90% complete, and the program was scheduled to be completed by November 30, 2020. The program was not completed by the City's deadline, but 9,912 (<https://www.cityoffl.int.com/gettheleadout/>) lead service lines in homes have been replaced and less than 500 ([https://www.ooskanews.com/story/2020/12/progress-replacing-deadly-flint-lead-pipes\\_180417](https://www.ooskanews.com/story/2020/12/progress-replacing-deadly-flint-lead-pipes_180417)) homes remain.

According to updates published on the City of Flint (<https://www.cityoffl.int.com/2020/08/13/city-of-flint-launches-final-push-to-get-the-lead-out-service-line-replacement-project-set-to-finish-by-nov-30-2020/>) website, current testing shows that the water quality in the City of Flint has stabilized. As of December 9, 2020, the most recent test results (<https://www.cityoffl.int.com/2020/12/09/city-of-flint-successfully-fulfills-water-testing-requirements-more-than-one-month-ahead-of-schedule/>) of homes (and businesses where lead service lines still are used) were 6 parts per billion. This is a huge achievement, but the city needs to get the levels down to zero ppb and maintain that level in order to ensure that the children of Flint will no longer be permanently harmed by lead contamination.

Flint also announced a settlement agreement (<https://www.michigan.gov/ag/0,4534,7-359--537235--,00.html>) of \$600 million to Flint's residents in August 2020. Eighty percent of the settlement fund (<https://www.michigan.gov/ag/0,4534,7-359--537235--,00.html>) will be paid to children that were minors when they were first exposed to the water from the River; however, it is unclear how that money will fix the permanent cognitive and behavioral damage caused to Flint's children. Flint government officials cannot throw money at the problem and expect to end systemic racism in their community. In addition to giving the citizens of Flint the money, all of the state and city officials and companies responsible for the drinking water violations should be held accountable for their actions or lack thereof.

#### Dangerous Pipe Replacement Method in Washington, D.C.

Currently, about 64% of students in D.C. (<https://dcschoolreportcard.org/state/99999-0000>) are Black and 20% are Latino, and 47% are considered at risk in terms of socioeconomic status. The extent of the water contamination problem in D.C. has been estimated as twenty to thirty times (<https://wtop.com/dc/2016/04/flint-d-c-s-drinking-water-crisis-even-worse/>) greater than Flint in regard to the amount of people exposed to lead poisoning, but not many people outside of D.C. are aware of the problem. Some, including Virginia Tech Professor, Marc Edwards, accused the city and the EPA of covering up ([https://www.washingtonpost.com/local/dcs-decade-old-problem-of-lead-in-water-gets-new-attention-during-flint-crisis/2016/03/17/79f8d476-ec64-11e5-b0fd-073d5930a7b7\\_story.html](https://www.washingtonpost.com/local/dcs-decade-old-problem-of-lead-in-water-gets-new-attention-during-flint-crisis/2016/03/17/79f8d476-ec64-11e5-b0fd-073d5930a7b7_story.html)) the contamination, but one reason why most people have no idea that D.C. had a lead contamination problem a decade before Flint is because environmental issues in Black communities are often not widely publicized. For example, most people only knew about Flint because the issue went viral on social media (<https://www.the74million.org/article/the-poisoned-kids-of-flint-michigan-a-social-media-timeline-of-an-unraveling-man-made-disaster/>), and afterwards the news began reporting on the issue nationwide.

The D.C. Water and Sewer Authority (D.C. Water) first discovered that there were dangerous levels (<https://wtop.com/dc/2016/04/flint-d-c-s-drinking-water-crisis-even-worse/>) of lead in D.C.'s drinking water in 2000. However, this information was not widespread. Residents were not warned about the dangers of the unfiltered water until 2004 (<https://wtop.com/dc/2016/04/flint-d-c-s-drinking-water-crisis-even-worse/>), and subsequently water and health officials finally gave filters and blood tests to residents. In 2009, a class action suit was filed against D.C. Water.[6] The complaint alleges that D.C. Water "downplayed the seriousness of the lead contamination of its water." [7] One resident explained that she received a letter from D.C. Water informing her that the lead levels in her water tested "higher than federal action level," but the letter failed to explain if that was good or bad, which left the resident confused.[8]

To remedy the problem, D.C. started partial service line replacements

([http://app.oig.dc.gov/news/PDF/release10/OIG%20Final%20Report%20No.%2018-1-04LA%20--%20DC%20Water%20Procedures%20for%20Monitoring%20Lea...\\_pdf](http://app.oig.dc.gov/news/PDF/release10/OIG%20Final%20Report%20No.%2018-1-04LA%20--%20DC%20Water%20Procedures%20for%20Monitoring%20Lea..._pdf)) in 2008. Partial line replacement

(<https://www.nrdc.org/experts/valerie-baron/getting-lead-out-dc-drinking-water>) means that only part of the lead pipe is

replaced, and the remaining portion is fused to another type of metal. This replacement method is dangerous

(<https://www.nrdc.org/experts/valerie-baron/getting-lead-out-dc-drinking-water>) because the pipes will corrode over time and again cause elevated levels of lead in the water. The District Council finally passed a law

(<https://code.dccouncil.us/dc/council/laws/22-241.html>) prohibiting partial service line replacements in 2018 because the practice exacerbated the problem.

A March 2020 study

([https://www.edf.org/sites/default/files/u4296/LeadPipe\\_EnvironJustice\\_AU%20and%20EDF%20Report.pdf](https://www.edf.org/sites/default/files/u4296/LeadPipe_EnvironJustice_AU%20and%20EDF%20Report.pdf)) by the Environmental Defense Fund and American University analyzed D.C.'s full lead service line replacement program that started in 2009. That study

([https://www.edf.org/sites/default/files/u4296/LeadPipe\\_EnvironJustice\\_AU%20and%20EDF%20Report.pdf](https://www.edf.org/sites/default/files/u4296/LeadPipe_EnvironJustice_AU%20and%20EDF%20Report.pdf)) revealed that that the lead service line replacements in D.C. had a disproportionate impact on communities of color and low-income households because the programs facilitated access to line replacement among wealthy households while leaving low-income families unable to afford pipeline replacements.

In addition, a 2019 report released by D.C. Water ([https://www.dewater.com/sites/default/files/LCR\\_report\\_Jul-Dec\\_2019.pdf](https://www.dewater.com/sites/default/files/LCR_report_Jul-Dec_2019.pdf)) showed that most homes are now testing at safer rates, but one household tested at 209 ppb of lead on the first

draw, which is far above the *lead action level* of fifteen ppb. These studies show that D.C. needs to properly replace all lead pipelines in the District to expeditiously protect public health.

Filters and Bottled Water Used Like Bandages in Newark, New Jersey

Another major city facing a lead pipe crisis is Newark, New Jersey. Like Flint and Washington, the majority of impacted residents are members of communities of color – according to the Newark Board of Education (<https://www.nps.k12.nj.us/info/>), about 46.6% of Newark schoolchildren are Black and about 44.4% are Latino. In 2018, Natural Resources Defense Council

(<https://www.nrdc.org/sites/default/files/settlement-agreement-newark-20210126.pdf>) (NRDC) and Newark Education Workers Caucus (Plaintiffs) filed suit against the City of Newark, the Mayor of Newark, Ras Baraka, and Newark Department of Water and Sewer Utilities (Defendants) for violations of the SDWA and LCR. Such violations

(<https://www.nrdc.org/sites/default/files/newark-complaint-20191025.pdf>) include failure to maintain optimal corrosion control treatment (<https://www.law.cornell.edu/cfr/text/40/141.80>) and failure to complete LCR public education

(<https://www.law.cornell.edu/cfr/text/40/141.85>) requirements. The NRDC's complaint

(<https://www.nrdc.org/sites/default/files/newark-complaint-20191025.pdf>) alleges that the NJEP also reported that lead

levels ([https://www.nrdc.org/sites/default/files/complaint\\_for\\_injunctive\\_and\\_declaratory\\_relief.pdf](https://www.nrdc.org/sites/default/files/complaint_for_injunctive_and_declaratory_relief.pdf)) in some residents' homes were 1,350 ppb and 1,420 ppb. Plaintiffs requested injunctive and declaratory relief

(<https://www.nrdc.org/sites/default/files/newark-complaint-20191025.pdf>), and Defendants responded by announcing that they would provide water filters to certain Newark residents.

In July 2019, the EPA (<https://www.epa.gov/nj/newark-drinking-water#:~:text=Since%20July%202019%2C%20EPA%20has,Newark%2C%20when%20the%20filters%20are>) stepped in to help the New Jersey Department of Environmental Protection (NJDEP) and the City of Newark determine if the water filters provided by Newark were reducing lead in tap water to levels of 10 ppb or below. Later, in November 2019, Newark released a study (<https://static1.squarespace.com/static/5ad5e03312b13f2c50381204/t/5dd70e112421805afa68ebd9/1574374964737/Newark-of-Use+Filter+Study+-+Aug-Sept+2019+Final.pdf>) regarding the filters distributed between August and September 2019. According to the study (<https://static1.squarespace.com/static/5ad5e03312b13f2c50381204/t/5dd70e112421805afa68ebd9/1574374964737/Newark-of-Use+Filter+Study+-+Aug-Sept+2019+Final.pdf>), "[a]pproximately 34,000 faucet-mount style and 1,000 pitcher-style filters were provided to residents in the Pequannock Gradient with suspected lead service lines or older homes with suspected lead solder in copper indoor plumbing." The study (<https://static1.squarespace.com/static/5ad5e03312b13f2c50381204/t/5dd70e112421805afa68ebd9/1574374964737/Newark-of-Use+Filter+Study+-+Aug-Sept+2019+Final.pdf>) revealed that the success rate for faucet mount filters was 97.9% and 88.9% for pitchers after 5 minutes of "flushing" (running the water).

As of October 24, 2019, the NJDEP reported that Newark's lead levels ([https://www.nrdc.org/sites/default/files/complaint\\_for\\_injunctive\\_and\\_declaratory\\_relief.pdf](https://www.nrdc.org/sites/default/files/complaint_for_injunctive_and_declaratory_relief.pdf)) at 37 ppb at the 90th percentile, which exceeded the levels reported for other similarly sized or larger cities. Newark's data since July 1, 2019 "showed samples ([https://www.nrdc.org/sites/default/files/complaint\\_for\\_injunctive\\_and\\_declaratory\\_relief.pdf](https://www.nrdc.org/sites/default/files/complaint_for_injunctive_and_declaratory_relief.pdf)) at 9,140 parts per billion, 2,730 parts per billion, 842 parts per billion, 440 parts per billion, 281 parts per billion, and many more well above the action level." Below is a map of Newark showing the test results in different areas of the city.

Source: NRDC (<https://www.nrdc.org/experts/erik-d-olson/newarks-bottled-water-plan-denies-thousands-safe-water>)

After their initial investigation (<https://www.nrdc.org/experts/erik-d-olson/newarks-bottled-water-plan-denies-thousands-safe-water>) showed that some filters were not decreasing the lead in their drinking water to safe levels, EPA ordered Newark and the State to provide residents of Newark with bottled water. Governor Phil Murphy then announced (<https://www.nrdc.org/experts/erik-d-olson/newarks-bottled-water-plan-denies-thousands-safe-water>) a bottled water program on August 14, 2019. However, the bottled water program (<https://www.nrdc.org/experts/erik-d-olson/newarks-bottled-water-plan-denies-thousands-safe-water>) is only available in certain parts of the city to about 30,000 residents. In September 2019, Newark released a new ordinance (<https://static1.squarespace.com/static/5ad5e03312b13f2c50381204/t/5dafo7f6e298021e8365cf82/1571751926771/LSLR+Orc>) establishing a new pipe replacement program and prohibited the use of lead service lines in Newark. Newark officials continue to promise residents that the water is unaffected in the eastern parts of the city, but research (<https://www.nrdc.org/experts/erik-d-olson/newarks-bottled-water-plan-denies-thousands-safe-water>) says otherwise.

Last year, the NRDC (<https://www.nrdc.org/sites/default/files/settlement-agreement-newark-20210126.pdf>) and Newark Education Workers Caucus settled their lawsuit against the City of Newark in March 2020. The settlement agreement (<https://www.nrdc.org/sites/default/files/settlement-agreement-newark-20210126.pdf>) stipulates that Newark will commit to using their best efforts to complete the pipeline replacement program, continuing their filter distribution program, holding town hall meetings, and providing free water lead testing to residents. Newark and the NJDEP (<https://www.nrdc.org/sites/default/files/settlement-agreement-newark-20210126.pdf>) share the responsibility of working with the EPA to ensure that these stipulations are met by December 31, 2021.

## Recommendations

Currently, all levels of government, including the Biden Administration, need to step up to ensure that lead poisoning becomes a thing of the past for cities like Flint, D.C. and Newark. The water crisis in our urban communities is severe and ongoing – and too many residents, people of color, and children are paying the price. More action is needed to help cities eliminate this problem and to increase testing and public awareness. There are several steps that lawmakers and agencies can take to improve the level of protections and provide resources for pipe replacement.

First, lawmakers should lower the lead action level because 15 ppb is too high since even small amounts of lead (<https://www.mottchildren.org/posts/your-child/lead-poisoning>) can harm a child's development. At the current level, action is often taken too late, and residents are forced to live with contaminated water until pipes are finally replaced properly. Soon other lead contaminated cities may see a spike in the amount of special education students in their school districts, if they are not already. Throwing money at the problem cannot make up for the damage being done to Black and Brown children's futures. Intervention must start sooner, and that can only be done if the lead action level is lowered.

Second, the EPA should intervene sooner by creating a National Pipeline Replacement Task Force. The EPA should not wait for states to make mistakes before getting involved. The pipeline task force can provide oversight for yearly treatment testing and monitoring, and make sure replacements are done right the first time. Congress should also act to ensure that adequate funding is available to assist cities with pipe replacement programs and interim measures to protect children.

Ultimately, increasing public awareness should be a priority for the Biden Administration and agencies at all levels of government. An EPA Pipeline Replacement Task Force can inform the public about the dangers of lead on a larger scale, and the Task Force can have commercials showing everyone the health effects of lead, similar to commercials that discourage cigarette smoking. But first, Congress should lower the lead action level so that intervention can start sooner. Together these solutions would be a step towards protecting our children.

If you or someone you know needs help with lead poisoning, pipe replacement or environmental violations, here are some useful resources:

State and Local Childhood Lead Poisoning Prevention Programs: <https://www.cdc.gov/nceh/lead/>  
(<https://www.cdc.gov/nceh/lead/programs/default.htm>)  
(<https://www.cdc.gov/nceh/lead/programs/default.htm>)  
(<https://www.cdc.gov/nceh/lead/programs/default.htm>)

D.C.: <https://doee.dc.gov/service/leadlinereplacement> (<https://doee.dc.gov/service/leadlinereplacement>)

Newark: <https://www.newarklead serviceline.com/replacement> (<https://www.newarklead serviceline.com/replacement>)

Flint: <https://www.cityoffl.int.com/2020/08/13/city-of-flint-launches-final-push-to-get-the-lead-out-service-line-replacement-project-set-to-finish-by-nov-30-2020/> (<https://www.cityoffl.int.com/2020/08/13/city-of-flint-launches-final-push-to-get-the-lead-out-service-line-replacement-project-set-to-finish-by-nov-30-2020/>)

How to Report Environmental Violations: <https://echo.epa.gov/report-environmental-violations> (<https://echo.epa.gov/report-environmental-violations>).

By working together, we can ensure that children in all communities will have access to safe drinking water as soon as possible.

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[1] Erin M. Hodgson, *Thirsty for Justice: How the Flint Water Crisis Highlights the Insufficiency of the Citizen Suit Provision of the Safe Drinking Water Act*, 44 S. Ill. U. L. J. 347, 357 (2020).

[2] *Id.*

[3] *Id.*

[4] *Id.* at 358.

[5] *Id.* at 359.

[6] Complaint at 1, *Parkhurst v. D.C. Water & Sewage Authority*, No. 0000971-09, 2009 WL 434772 (D.C. Super. 2009).

[7] *Id.* at 3.

[8] *Id.*

< COVID-19: Enough About Humans, What About the Animals? (<https://gguelj.org/covid-19-enough-about-humans-what-about-the-animals/>)



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Annissa is a third-year law student at Golden Gate University School of Law. Originally from New Jersey and graduated magna cum laude from the illustrious Howard University with a Bachelor of Science in Sports Management. Annissa taught middle school and high school special education for two years prior to attending law school. Annissa is a graduate of the prestigious Honors Litigation Program (1st Summer Trial and Evidence Program) at Golden Gate University School of Law. In addition, Annissa successfully litigated two cases at the Golden Gate University Women's Employment Rights Clinic, and was a McCarthy Institute research fellow during her first year. Annissa currently serves as the treasurer of the Intellectual Property and Privacy Law Association.

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