



Eliminating Lead From Drinking Water Is a Must. The Question Is How

President Biden aims to replace all lead service lines in the United States — a long overdue undertaking to resolve a legacy of contamination. His initial American Jobs Plan set out to replace all lead lines within 10 years, with an estimated price tag of \$45 billion. If enacted, pending infrastructure legislation would provide a down payment of \$15 billion for the effort.

According to the White House, lead pipes run through an estimated 6 to 10 million homes, plus another 400,000 schools and child care centers. Lead exposure impairs neural development in young children and causes greater risk of kidney failure, stroke, and other health conditions. Disproportionately affecting low-income neighborhoods and communities of color, lead poses both a major public health risk and environmental justice issue.

Although replacement of lead service lines receives bipartisan support, upgrading

the country's aging infrastructure is no easy feat. A lack of data and mapping of old lines means we may not always know exactly how many lead pipes there are — and how much replacing all of them will cost. Furthermore, public water service lines only extend to the edge of private properties, meaning many homeowners own, and are responsible for, a portion of these lead pipes.

Navigating this complex web of policy, infrastructure, and funding will require collaboration between all affected stakeholders: governments, water utilities, households, and more. We ask experts from a range of backgrounds to consider: what is the best way to rapidly replace the country's lead service lines? What should achieving 100 percent replacement look like in terms of strategy, timing, and the amount and structure of funding? And in achieving all of this, how can we ensure that the people most at risk are prioritized?



Ras J. Baraka
Mayor
Newark, New Jersey

“We need full federal funding and a hard deadline to get every lead service line replaced”



Tom Neltner
Chemicals Policy Director
Environmental Defense Fund

EPA must strengthen the Lead and Copper Rule to ban partial lead pipe replacements”



Yvette Jordan
Chairperson
Newark Education Workers
Caucus

“In communities that are most affected by lead — the disenfranchised communities — trust must be earned”



Ronnie Levin
Visiting Scientist and Instructor
Harvard T.H. Chan School of
Public Health

“EPA and the water industry have failed to accept responsibility for controlling lead exposures from public water”



Suzanne Chiavari
Engineering Director
American Water

“Combining utility construction dollars with state revolving loan funds is an effective strategy”



Steve Via
Director of Federal Relations
American Water Works Association

“In practice, lead service line replacement will require funding from multiple sources”

Newark and the Will to Get It Done

By Ras J. Baraka

FOR the United States to quickly eradicate harmful lead in drinking water, we need full federal funding and a hard deadline to get every lead service line pulled and replaced with safer tubing.

I applaud the Biden administration's Infrastructure Investment and Jobs Act, a bill that would provide \$15 billion in dedicated funding for lead service line replacement. This will give America's older cities an opportunity to replace lead pipes to protect the health of residents, especially children.

While lead services lines are found throughout the country, they are mostly clustered in neighborhoods with older homes and multi-family units, and therefore disproportionately impact communities of color. With full federal funding and a mandate for cities to set replacement timetables to qualify for such support, we may soon see the eradication of lead in minority communities — an outcome we have already achieved in Newark.

To date, we have replaced more than 21,000 known lead lines in 30 months, an unprecedented achievement. The project continues to test homes without recorded lead lines to make sure we capture them all.

We did this by developing a strategy, finding the funding, and making it a citywide priority to get our project done. Part of our operational plan included keeping residents informed and asking for their cooperation through community meetings, mailings, and robocalls. We also created an apprenticeship program within the project, providing employment in good union jobs for Newark residents.

When the city's lead levels spiked, we immediately made water filters available to residents as a short-term fix and changed our anti-corrosion system. But from the very beginning, we knew the permanent solution was to replace all lead service lines as quickly as possible. That was our strategy: Get it done as fast as we could, and engage the residents in rebuilding the city's infrastructure. Residents were supportive and part of the process at every turn.

With a \$75 million city bond, we began replacing lead lines in March 2019, with a 10-year plan that asked each homeowner to pay \$1,000 toward construction costs. I was not satisfied with this. We needed to do it faster and for free. Our amazing federal legislators helped by pushing for more resources, including the introduction of the Water Infrastructure Funding Transfer Bill, which provided more flexibility for states to fund infrastructure projects.

The game-changer came in August 2019, when the Essex County Improvement Authority backed a \$120 million bond for us to accelerate the program and eliminate the cost to residents.

For a program like ours to succeed, there must be cooperation at every level of government. In our case, EPA solved the mystery of our lead exceedances by determining that our corrosion control system had waned. The New Jersey legislature passed and Governor Phil Murphy signed a law which allowed us to use public money to improve private property, and the Newark Municipal Council adopted an ordinance that allowed us to replace lead service lines without a homeowner's permission.

This was crucial because 75 percent of Newark residents rent their homes, and many live in multi-family units built before the city outlawed lead lines in 1952. Many of these homes have absentee landlords, so tracking them down for permission would have been arduous and time-consuming.

The passage of this ordinance allowed us to replace lead lines block-by-block in an organized manner. We were able to replace as many as 100 lines a day, keeping street closures and parking interruptions to a minimum.

These important shifts in law point to the overriding philosophy of our program, which was — simply put — the will to get it done and give our residents the best drinking water in America.

To date, my administration has invested more than \$190 million in enhancements to our water and sewer system, including upgrades in monitoring technology, filtration, environmental systems, and delivery infrastructure. Most were done before our first lead exceedances, and these upgrades continue today.

This will to get it done must be imposed by leadership. Newark's Water and Sewer Director Kareem Adeem has been a force of nature, pushing his staff and our contractors to complete this project quickly and efficiently, with the least amount of inconvenience to the residents.

Essex County Executive Joe DiVincenzo's willingness to help Newark and use the county's AAA bond rating to secure the \$120 million bond is a great example of governmental mutual aid. So was the quick passage of the infrastructure bill that let us tackle this public health problem head-on.

I hope our story inspires other governments. Full lead line replacement does not have to be an eternal infrastructure nightmare. With federal funding and imposed deadlines, as well as cooperation at all levels of governance, we have the power to eliminate lead exposure for the health and safety of current and future generations.

Ras J. Baraka is the 40th mayor of Newark, New Jersey.

On Advancing Public Health, Justice, and Jobs

By Tom Neltner

In its American Jobs Plan, the Biden administration set an aggressive goal of replacing all of the nation's lead service lines in 10 years. By achieving this important target, we can protect both children's brains and adults' hearts from the harm caused by lead in drinking water. Using estimates from the Environmental Protection Agency, we calculate that the socioeconomic benefits exceed \$22,000 per replaced LSL.

The Environmental Defense Fund has extensive experience advocating for LSL replacement, including serving as a founding member of the Lead Service Line Replacement Collaborative, a group of 28 national public health, water utility, environmental, labor, consumer, housing, and state and local governmental organizations. Based on our experience, I believe success will involve five actions.

First, the administration says that based on EPA estimates, it will take \$45 billion to achieve 100 percent LSL replacement. The American Water Works Association indicates it will cost 33 percent more. The bipartisan Infrastructure Investment and Jobs Act that passed the Senate and awaits approval in the House provides \$15 billion in dedicated funding through State Revolving Funds, with about half as grants and the balance as loans. LSL replacement projects may also apply for traditional SRF opportunities, but they will be less competitive without mandates under the Lead and Copper Rule, a regulation published by EPA that protects consumers from these substances.

Clearly, more funds are needed. Congress must not only finalize

pending legislation but also increase the amount, including providing EPA with funds so the agency can directly support important lead pipe replacement projects where a state SRF is unwilling or unable. If communities do not receive the needed funding, they will have to raise rates to cover the shortfall, making it especially difficult for the many cities that struggle with affordability.

Second, EPA must move quickly to distribute the new dedicated funds to states, using a revised allocation formula based on the number of LSLs in a state. The agency must also help states achieve the twin goals of driving down the average cost to fully replace the lines and prioritizing environmental justice communities that are disproportionately burdened by lead risks. We need to emulate leaders like the investor-owned utility American Water and utilities in Cincinnati, Newark, Lansing, Denver, Green Bay, and Pittsburgh that have focused on both goals with significant success. And we need to question inflated cost estimates by utilities that lack a successful track record of fully replacing LSLs.

Third, EPA must follow the example set by Illinois, Michigan, and New Jersey, states with 25 percent of the nation's LSLs, and strengthen the Lead and Copper Rule to set a timeline to eliminate the lines and ban partial LSL replacements. Partial replacements unfairly force families to choose between paying to replace the portion of the pipe on their property, or risk increased exposure to lead. With federal funding available, the deadline should be 10 years, with a mechanism to handle utilities that need more time on a case-by-case basis.

Fourth, utilities need to immediately set a goal of fully eliminating LSLs and manage their distribution systems with that goal in mind. There is no need to wait for a revised Lead and Copper Rule to force the issue. They know enough about

which neighborhoods have LSLs to get started right away to train crews from those communities to replace the lead pipes and drive costs down safely and efficiently. These efforts can take place while simultaneously developing a comprehensive service line materials inventory. To support the effort, they must recognize that full LSL replacement serves a public good and, where necessary, use rates paid by customers to replace lead pipes without cost to individual property owners or residents.

Finally, community leaders, especially elected officials and public health agencies, need to support programs to eliminate both lead pipes and lead-based paint hazards so we can truly have lead-safe housing for all — without income, racial, or ethnic disparities. Key opportunities include engaging community-based organizations — Denver Water is a model here — and integrating online maps that show the likelihood of a home having either lead pipes or lead-based paint. Other effective strategies include tailoring communications so folks understand the risk from all sources of lead that threatens children's brains and adults' hearts.

For thirty years, the country has tried to manage LSLs through corrosion control, replacing lead pipes only as a last resort. Proactive LSL replacement needs to be an integral part of any program, with optimized corrosion control managing other sources of lead in drinking water, such as solder and brass.

No one buys or rents a home because they wanted a lead pipe. No water system wants lead pipes either. LSLs are a legacy from decades ago that the nation needs to eliminate. Rather than assign blame and waste limited resources, it's time to get LSLs out as efficiently, safely, equitably, and quickly as possible.

Tom Neltner is chemicals policy director at the Environmental Defense Fund.

A National Challenge, A Local Imperative

By Yvette Jordan

WHEN President Biden vowed to take the bold step of including lead service line replacement in the bipartisan infrastructure deal, I was elated. If enacted, this will serve to eliminate lead from the nation's drinking water system. We all know that clean water is a human right, but we are equally aware that this is not happening in many low-income communities. As we look toward strategies to achieve this foundational goal, we must first focus on the integrity of government, equity among communities, and cost factors that might avoid or mitigate incomplete measures.

Let's agree to not act like an ostrich and bury our collective head in the sand by studying this issue forever. We cannot continue to live in a country that repeatedly ignores violations of the Safe Drinking Water Act. Communities cannot afford the time wasted when local officials analyze what would be the best way to attack this problem without taking action. There are a number of ways to identify lead service lines, but the use of predictive modeling through tools such as artificial intelligence may be the most expedient. By beginning with environmental justice communities that are already overburdened by a myriad of inequities, we will be able to expedite solutions to a host of challenges they face daily.

As an educator in an urban community in Newark, New Jersey, I am acutely aware of the trials many of my students and their families face. A recent op-ed in *The Hill* by Dr. Mona Hanna-Attisha and Erik D. Olson reminds us of the negative

impacts of lead exposure and the economic sense it makes to invest \$45 billion in this effort. I have witnessed the deleterious effects of lead exposure in many forms in my classroom. The developmental delays are significant. Lead in water is a silent interloper in communities that are already overwhelmed with societal ills. We can and must do better.

While the plan to remove LSLs within 10 years may seem like a lofty goal to some, I submit that we can push to be proactive and complete it sooner. Local politicians and communities can work together to identify LSLs, and plan and execute their removal. By using Newark as a national model, we can see that holistic lead remediation is possible. Community pressure, coupled with the political will of all local partners, allowed the removal of over 22,000 LSLs within two years. That is unprecedented.

Education and information dissemination are imperative in this effort to help all those affected by lead contamination in water. Since toxic water is often tied to unsafe housing and cognitive delays, we must support those who are most vulnerable to lead exposure. This includes aggressive campaigns to notify at-risk community residents of LSL removal plans in several languages, media campaigns, and door-to-door efforts, among other actions to notify the public of the government's intention to remediate the problem.

But this is not enough. There must be an inclusive plan to regularly inform the constituency of the schedule and plan to fully replace the lines. We must also implement a plan to educate the public about lead exposure and removal; in short, we must train the trainers. In communities that are most affected by lead — the disenfranchised communities — trust must be earned. That requires EPA and local governments to partner with communities in efforts that meet them where they live. Consider how expeditious and

telling it would be if communities were trained to partner with governments and educate each other, as well as advocate for their right to clean water.

As I stated in an article that I co-wrote with NRDC Chief Science Officer Dr. Kristi Pullen-Fedinick in May 2020 ([nrdc.org/experts/kristi-pullen-fedinick/covid-context-lead-water](https://www.nrdc.org/experts/kristi-pullen-fedinick/covid-context-lead-water)), lead can rob a community of its economic potential. It increases the need for social and educational services, and severely impacts the ability of a community to grow and thrive. Our president has proposed a sweeping change to the status quo. When this infrastructure bill is realized, the impact on the disenfranchised, as well as our nation as a whole, will be great.

Furthermore, if we analyze the data from EPA and note the intersection of SDWA violations with communities of color, we will acknowledge that these communities must be identified and acted upon first for LSL replacement. Strict oversight of violations and implementation of safe LSL removal and replacement will bring this plan to fruition.

\$45 billion is a start; some experts believe that it will cost \$60 billion. We must begin by recognizing that this is not a red or blue state issue, but a necessity for everyone to have a basic human right: clean water to drink. As Frederick Douglass stated, "Power concedes nothing without a demand. It never did and it never will." People are beginning to understand what that means. The government needs to meet their demand for clean water with the full removal and replacement of LSLs in a swift and timely manner.

Yvette Jordan is a high school history teacher and environmental justice activist. She serves as the chairperson of Newark Education Workers Caucus (NEW Caucus) in Newark, New Jersey.

The Time to Lead on Lead Is Now

By Ronnie Levin

REPLACING all lead pipes in the United States is compelling, but complicated. Lead pipes are the single greatest contributor to elevated tap water lead levels, or WLLs. Though not the only source of lead in public and private plumbing, where present such pipes usually dwarf the contributions from other lead sources.

The health impact alone compels us to replace lead pipes. Lead is toxic to everyone, although not all Americans have the same lead exposures. For most Americans currently, lead in drinking water probably poses the greatest exposure risk, weighing particularly heavily on low-income communities and communities of color. Even the typically low levels of lead in U.S. tap water can affect the blood lead levels of local children — that is, slightly higher WLLs translate to slightly higher pediatric blood lead levels. These levels are not benign. Research shows that even in communities where drinking water meets federal and state requirements, higher WLLs are associated with poorer outcomes in, as diverse examples, dialysis patients and children's performance in school.

Lead's adverse impacts are evident at even the lowest levels. Effects are detectable at every level measured, and no threshold has yet been determined. Children aren't the only ones at risk — for example, there's also no threshold for lead's impact on the blood pressure of pregnant women or older men. For many of these effects, the dose-response relationship is non-linear, showing a steeper slope at lower exposures. This means that the lower lead concentrations in drinking water that serves the general population cause greater damage, not less.

Maintaining public infrastructure also provides a compelling reason to replace pipes. Except in Chicago, which mandated the installation of lead service pipes until the federal ban in 1986, most lead pipes in the United States date to the Victorian era, when cities were expanding rapidly to accommodate the Industrial Revolution. Public water systems serving burgeoning urban centers chose to install higher-grade lead pipes because they would last longer. Those lead pipes are now 100 years old and far beyond their useful lives. The American Society of Civil Engineers estimates that in the United States, a water main break occurs every two minutes. ASCE also estimates that over 20 percent of the water leaving a water treatment plant never reaches a customer due to leaking pipes. Beyond addressing public health, lead pipe replacement would also improve critical public assets.

However, these compelling arguments are complicated by costs and questions of who will assume responsibility. There are an estimated 6 to 13 million lead pipes buried in U.S. cities. Replacing them costs on average \$3,000-5,000 each; again, Chicago is the outlier, with an estimated cost of \$25,000 per pipe. Cities that have replaced all their lead pipes, such as Lansing, Michigan, and Madison, Wisconsin, reduced their unit costs through improvements in technology and productivity. Currently, over 100 cities in at least 13 states have committed to replacing all their lead pipes.

Remediation is complicated further by a lack of data on the number of lead pipes that exist. In a recent national survey, only 10 states could estimate how many lead pipes they have. More alarmingly, almost half of states — 23 — admitted that they still don't know the location or number of lead pipes in their jurisdiction. (This, despite the fact that the 1991 Lead and Copper Rule required water utilities to assess the materials within their systems, in-

cluding lead pipes.) States must first commit to finding the lead pipes that exist before they can begin to replace them.

Ensuring safe drinking water also requires corrosion control treatment, effective monitoring, and enforcement. Lead is a corrosion by-product; utilities must control corrosion while waiting for pipe replacement funds and to control lead from other plumbing sources. Monitoring tells water utilities how much lead is leaching into water. The fiasco in Flint, Michigan, taught us that enforcement oversight is necessary.

This brings us to the biggest complication: EPA's and the water industry's failure to accept responsibility for controlling lead exposures from public water. Flint got national headlines, but Flint is not unique. In 2015 and 2016, *USA Today* and the Natural Resources Defense Council both found that thousands of public water systems serving millions of Americans in all 50 states had lead violations. EPA's own audits documented that over 90 percent of lead violations are not reported by states. Protecting U.S. public drinking water should be a responsibility shared by EPA, state oversight agencies, and local water utilities. But the behavior of those three entities mirrors the three monkeys: see nothing, hear nothing, say nothing. Without newspaper coverage and one valiant pediatrician, we never would have known what happened in Flint.

The Biden infrastructure bill, if passed, will provide a down payment for these efforts, but it won't fund replacing all U.S. lead pipes. And it won't ensure lead-safe public drinking water. Only a committed coalition of federal, state, and local leaders can ensure that — ones willing to take responsibility and act. The time for the buck to stop is *now*.

Ronnie Levin retired after 37 years working as a scientist for EPA. Since 2017, she has been a visiting scientist and instructor at the Harvard T.H. Chan School of Public Health.

Commitment and Purpose at All Levels

By Suzanne Chiavari

OUR nation's water and wastewater infrastructure is essential to public health and safety, environmental protection, and community growth. American Water appreciates the Biden administration's recognition of the need to invest in our country's water systems, and its focus on lead service line replacement, or LSLR.

American Water has been a leader in developing practices for addressing lead in drinking water systems for many years. As the country's largest and most geographically diverse investor-owned water utility, we regularly plan for the future and invest in renewing our systems' infrastructure. Our future includes leveraging new applied technologies to enhance services related to water quality, water pressure, energy efficiency, and water efficiency. Lead pipe must not be a part of that future.

What will it take to accelerate LSLR programs across the country? It will take commitment and tenacity of purpose at all levels to overcome barriers. American Water knows that addressing the issues around lead in drinking water, including removing lead service lines, is a shared responsibility. This includes customers, regulators, health officials, and water utilities, among others.

We have direct experience in answering this question. Since 2017, we have replaced about 29,000 lead lines across our service areas. Beyond financial resources, we also need to recognize that this undertaking requires skilled tradespeople, excellent communicators, safety-focused contractors, and effective construction project managers. Many water utilities possess such talents and are well

positioned to drive successful LSLR programs. Individual homeowners across the country cannot do this on their own.

On a federal level, EPA's revised Lead and Copper Rule includes a number of important improvements over the existing LCR and should accelerate future replacement programs. However, to achieve an impact level closer to 100 percent, all utilities with lead service lines — not just mandated utilities — would need to implement replacement programs.

Funding Drinking Water State Revolving Loan Fund programs, which were established under the Safe Drinking Water Act, is also key to accelerating the elimination of lead pipes. All water systems should have access to these programs, regardless of ownership type, and state programs should work to eliminate other perceived barriers that may exist. Even so, these programs are neither robust nor comprehensive enough to reach every utility with lead. Additional tools are needed if lead service lines are to be quickly eliminated across the country.

Combining utility construction dollars with state revolving loan funds is an effective strategy to accelerate this work and make a broader impact. American Water has worked with numerous state public utility commissions, consumer advocates, state and local representatives, and other stakeholders to drive solutions that allow this work to be funded within utility infrastructure replacement programs. Note that our utility LSLR programs are not driven by a LCR regulatory requirement, since we already comply with water quality standards. Rather, they are driven by a desire to serve the long-term interest of our customers and the communities they live in, and help advance the elimination of lead service lines in areas where they still exist.

Experience in multiple states has shown us that constructive regulatory practice can support LSLR programs. Legislation in Indiana and Pennsylva-

nia serves as a notable example. These states identify customer lead service line replacements as improvements eligible for inclusion in infrastructure cost recovery mechanisms for rate-making purposes. Another example can be found in Virginia, where American Water uses a combination of utility construction dollars and funding from a program established by the Virginia Department of Health. The department's Drinking Water State Revolving Loan Fund program provides limited funding specifically designed to accelerate the removal of lead pipes for both public and private portions.

To make LSLR programs efficient, it is better to focus available dollars directly on funding replacements as opposed to creating elaborate programs that drive up administrative costs. Customer loan programs may initially sound attractive, but they can be costly due to customer credit issues, defaults, and the difficulty in enacting property liens. Efforts are better directed to finding solutions at the local and state levels that can help streamline LSLR programs. These actions could include bundling construction contracts, and streamlining processes for street opening permits and plumbing permits, just to name a few options.

American Water holds water quality and safety paramount. We take critical steps during the water treatment process to reduce the potential for lead to leach from pipes into the water. We are well aware that it will take time to reach 100 percent replacement, and note that there are other actions that utilities take to reduce the potential risk from lead service lines. Our experience shows that achieving these goals will require commitment and tenacity of purpose by all stakeholders involved, and leveraging the expertise and leadership of utilities will be key to this success.

Suzanne Chiavari is engineering director for treatment and asset resiliency at American Water.

Following the Path From Flint

By Steve Via

SINCE the failures in Flint, Michigan, several years ago, the American Water Works Association has adopted a policy that “encourages communities to develop a lead reduction strategy that includes identifying and removing all lead service lines over time,” recognizing that “as long as there is lead in contact with drinking water, some risks remain.”

The goal of replacing all lead service lines — on both public and private property, and in their entirety — is achievable. However, it cannot be accomplished without recognizing that a collaborative, societal approach is necessary, and federal funding is going to be an important factor.

This is true for several reasons. First, lead service lines are not uniformly distributed across the United States. Rather, they are locally abundant in communities, or portions of communities, that developed before copper and plastic pipes became the service line materials of choice. Thus, the burden of lead service line replacement will be much greater for some communities.

Second, full lead service line replacement in older urban settings can be very expensive. The U.S. Environmental Protection Agency has illustrated a range of replacement costs per line from \$1,959–6,024, but in some urban centers, utilities have found that typical replacement costs will total more than \$20,000 per line.

It appears that the next iteration of the Lead and Copper Rule will require replacement of lead service lines on both public and private property. It may also mandate replacement of portions of pipes that

are entirely or partially made of lead, and require replacement of galvanized pipe preceded by lead pipe. This expanded definition of what constitutes a lead service line will likely result in a higher estimate of lead pipes nationwide. Although many water systems have not yet completed inventories, previous estimates from AWWA and EPA suggested between 6 and 10 million lead service lines remain. We can anticipate that those figures — and the total cost of lead service line replacement — will grow.

Whether the typical replacement cost is \$4,500 or \$10,000, few households are immediately prepared to take on a significant share of the cost of replacement. Households with lower incomes may face a disproportionate share of these costs, since they more often occupy older housing stock that is more likely to have lead service lines.

Federal funding can soften the financial blow of lead service line replacement for low-income households, as well as when the costs of replacement are being shared by all customers — by the broader community. The availability of a federal funding subsidy also helps overcome the legal barrier in some states where public funds cannot be used for improvements to individual properties.

It is not clear how much federal funding will be made available at the time this article is published. But there is little prospect that the amount will be sufficient to completely fund the replacement of all lead service lines across the United States. In practice, lead service line replacement will require funding from multiple sources, including higher water rates, additional fees, community investment, and homeowner payments, even if there is a substantial federal contribution.

There is broad agreement among many different interests that, despite the cost, getting lead service lines out once-and-for-all is worth the effort. The goal of full replacement of

all lead service lines is being championed by a coalition of more than 28 organizations, the Lead Service Line Replacement Collaborative. The collaborative’s materials, first released in 2017 (lslr-collaborative.org), were funded in part by Pisces and Springpoint Partners, but primarily accomplished with sweat equity from the member organizations. They highlight the key steps communities need to embrace in order to advance lead service line replacement.

The cost of lead service line replacement impacts communities and households in very different ways. A January/February 2017 article in this magazine authored by AWWA CEO David LaFrance, “The Path From Flint,” spoke to the hurdles individual communities face, such as significant amounts of capital investment required. Other challenges involve the need for improvements on both public and private property, and large-scale, collaborative planning, including the development of a much more complete accounting of where lead service lines are.

For all its warts, the Lead and Copper Rule, with its focus on corrosion control, has led to very low lead levels in water for most Americans. The planned replacement of lead service lines is the right next step in risk reduction. Achieving the goal of a future without lead in contact with water will require decades of work, but funding from Congress is critical in accelerating that process.

Steve Via is director of federal relations at American Water Works Association.