



February 5, 2024

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Via electronic submission

Re: Docket ID #: EPA–HQ–OW–2022–0801; National Primary Drinking Water Regulations for Lead and Copper: Improvements

Dear Administrator Regan,

The Association of Metropolitan Water Agencies (AMWA) welcomes the opportunity to provide feedback on EPA’s proposed revisions to the National Primary Drinking Water Regulation (NPDWR) for lead and copper, also known as the Lead and Copper Rule Improvements (LCRI). AMWA is an organization representing the largest publicly owned drinking water utilities in the United States, and collectively its membership serves more than 160 million people. The association has been involved with the Lead and Copper Rule (LCR) since its inception and values all the work that EPA has done to decrease the risk posed by lead and copper to public health. All along, we have sought a rule that is achievable, practical, and enforceable.

EPA promulgated the LCR Revisions (LCRR) on January 15, 2021, and subsequently announced its intent to further revise the rule prior to the October 16, 2024, compliance date. These proposed revisions ultimately became known as the LCRI. AMWA has several suggestions for how this proposed rule could be improved upon, as well as thoughts on the components the association believes should be retained. The proposed LCRI encompasses a complete reworking of numerous of the provisions included in the LCRR and LCR, and details new requirements that the agency declined to include in previous iterations of the rule.

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AMWA is pleased to submit the attached comment letter for EPA's consideration. If you have any questions, please contact Erica Brown (Brown@amwa.net), AMWA's Chief Policy and Strategy Officer.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Dobbins". The signature is fluid and cursive, with a long horizontal stroke at the beginning.

Tom Dobbins
Chief Executive Officer

Attachment

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**ASSOCIATION OF
METROPOLITAN WATER AGENCIES**

Comments on
National Primary Drinking Water Regulation: Lead and Copper Rule Improvements
Docket ID No. EPA-HQ-OW-2022-0801

February 5, 2024

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Section 1: Introduction

The Association of Metropolitan Water Agencies (AMWA) is pleased to offer these comments on EPA's National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Improvements (LCRI). AMWA acknowledges the consideration EPA has put into the proposed changes to the Lead and Copper Rule (LCR) and recent Revisions (LCRR) and supports EPA's efforts to address the complex issue of eliminating exposure to lead in drinking water. AMWA has been involved with the LCR since its inception and values all the work that EPA has done to decrease the public's exposure to lead through drinking water.

Addressing lead in drinking water is particularly challenging because – unlike most other contaminants – lead is typically not present in drinking water sources, and, therefore, it cannot be removed at the treatment plant. Instead, lead is introduced into drinking water in the distribution system, when treated water passes through buried service lines and premise plumbing containing lead. To minimize the absorption of lead into drinking water, water systems take a variety of measures that make water less corrosive to pipes, decreasing the likelihood that any lead in service lines or household plumbing will be released into the water. Because water systems may not have adequate information on the number and location of lead service lines and cannot control individual residents' premise plumbing, there is no easy solution that can quickly and completely eliminate the problem of lead in drinking water.

The revisions outlined in the LCRI far exceed simply mending the existing regulations and instead effectively upend the LCR. Water systems will need to devote significant time and resources to meet the full lead service line (LSL) replacement goal proposed in the LCRI. However, EPA has incorporated substantial additional requirements beyond this goal, many of which will become impractical once a water system has located and removed its LSLs and galvanized requiring replacement (GRR) lines.

At the root of this proposed rulemaking is the goal of removing 100 percent of lead service lines within 10 years. AMWA aligns wholeheartedly with EPA's shared objective to swiftly identify, remove, and replace lead service lines and agrees that the complete removal of all lead service lines is the ultimate goal. AMWA appreciates EPA's acknowledgment that this objective may not be universally attainable for every water system in the timeframe specified in the proposal. Because of this, we urge the agency to tailor the rule, using AMWA's recommendations in these comments, to allow water systems to primarily focus on this principal goal of removal LSLs. Overloading systems with multiple concurrent requirements can divert essential money, time, and personnel from lead service line replacement efforts.

In order to achieve the primary goal of the LCRI, full lead service line replacement, EPA, in this proposal, seems to equate access to private property with control of the private side of the service line. While AMWA does appreciate EPA recognizing instances in which the private side will not be accessible to the water system, the association cautions EPA against putting water systems in

the untenable position of forcing individual customers to replace their side of the line. The feasibility of ultimately replacing the private side of the line comes down to funding: either the availability of state and federal funds to finance the private side replacement, or the entirety of the costs, in one form or another, falling on the ratepayers.

The immense amount of public notification, education, and outreach requirements included in the proposed rule has the potential to disrupt ongoing programs designed to accelerate LSL replacements by utilities. Such notifications may inadvertently impede the positive momentum generated by utilities actively engaged in these replacement initiatives. One significant concern is the potential to create confusion among customers, particularly those with service lines of unknown material, who may perceive the notification as a cause for alarm or an indication of immediate risks. The public may question the effectiveness of ongoing LSL replacement programs, and the water system's commitment to ensuring safe drinking water might be called into question. The potential setback in progress resulting from public confusion or distrust highlights the delicate balance that water systems must strike in their communication strategies.

Throughout the LCRI preamble, EPA uses anecdotal examples of cities and water systems that were able to identify and remove all LSLs in a short time to reinforce the agency's claim that expedient, full removal is possible. While AMWA applauds these systems for the immense amount of time, resources, and planning that went into these efforts, and their ultimate achievements, these individual examples do not equate to data that justifies a sweeping, national mandate. Applauding the highlighted water systems for their commendable achievements is important, as it recognizes their commitment to addressing lead-related concerns. However, it is equally important to acknowledge the unique circumstances, local contexts, and resources available to each system. Anecdotal evidence, by its nature, tends to focus on specific instances that may not be representative of the broader spectrum of challenges faced by diverse water systems across the nation.

AMWA also believes it is important to note that two major regulations under the Safe Drinking Water Act are expected to be finalized in 2024, including this rule and the National Primary Drinking Water Regulation (NPDWR) for six Per- and Polyfluoroalkyl Substances (PFAS). Each of these proposals carry three-year compliance dates from promulgation. These two rulemakings alone are estimated by EPA to cost up to a combined \$4.8 billion annually to implement. In addition to complying with other regulations, there is a pressing demand for water systems to modernize aging infrastructure, improve customer experiences, and adapt to increasing threats from climate change and extreme weather. The escalating costs of materials and labor, influenced by supply chain disruptions, inflation, and workforce shortages, further compound these challenges.

Publicly owned water systems are not-for-profit agencies that supply drinking water, a crucial and critical human necessity, **at cost** to the public. These water systems must balance the costs it takes to supply clean water and the rates it must charge customers to provide it. Contrary to the claims made by other stakeholders, water systems typically cannot pay for LSL replacement or

any other infrastructure project, treatment process, or maintenance, without the funds coming directly from the ratepayers or from local, state, or federal sources, when available, which is ultimately, financed by the taxpayer. In either case, the general public will ultimately be responsible for footing the bill. Additionally, costs for test pits and investigations which do not result in construction of new infrastructure cannot be capitalized and thus must come from the utility's operating budget.

It is essential to dispel misconceptions and recognize that the financial burden of these increased costs is likely to be disproportionately felt by low-income communities. As water systems strive to meet stringent regulatory requirements and ensure the provision of safe and clean drinking water, the economic realities they face underscore the importance of exploring sustainable funding mechanisms and seeking support from various levels of government. Acknowledging these challenges is pivotal in fostering a nuanced understanding of the financial dynamics involved in the essential task of maintaining and upgrading water infrastructure for the benefit of communities.

AMWA will delve further into each of these topics throughout this comment letter and asks that EPA consider these recommendations and suggestions. In this letter, AMWA also requests clarifications on several aspects of the proposed rule. The association believes our comments will provide EPA with valuable suggestions that, if adopted, will ensure the proposed rule is achievable, practical, and enforceable. We thank you in advance for your consideration.

Section 2: Service Line Replacement

AMWA supports EPA's objective to attain full lead service line (LSL) replacement – not partial – and agrees that the end goal should be the removal of the entire lead service line. AMWA appreciates EPA's acknowledgement of situations where a partial lead service line replacement would be unavoidable. AMWA firmly believes that water systems will need adequate flexibility and resource support to achieve 100% LSL replacement and urges EPA to consider the following before finalizing the rule.

As EPA works to finalize the LCRI, the association urges the agency to allow for flexibilities and refrain from “one-size-fits-all” approaches that will not work at all water systems. While AMWA recommends changes in this letter, a central theme throughout our comments is this: The main goal of the Safe Drinking Water Act is to protect public health via the provision of safe drinking water, and a main component of the LCRI is to remove LSLs, which do not always pose an immediate risk to public health. Any final rule should keep this difference in mind and refrain from concurrent requirements that can spread resources too thinly, diverting essential money, time, and personnel from lead service replacement efforts, with little increased health benefits.

Section 2.1: 10-Year Replacement Timeline

A major component of this proposed rule is the requirement that public water systems (water systems) remove all LSLs and galvanized requiring replacement (GRR) lines within 10 years of the compliance date of the rule. GRRs are galvanized lines that are, or were, ever downstream of an LSL. AMWA emphasizes that any revisions to the LCR must consider the practical challenges faced by water systems seeking to replace all publicly and privately-owned LSLs (See: Appendices A, B, C, and D). While EPA has addressed some of these concerns, of which AMWA is appreciative of, the association continues to highlight obstacles that must be addressed to finalize a rule that water systems and states can fully implement.

AMWA appreciates EPA's acknowledgment that some water systems will be unable to meet the proposed requirement to complete LSLs replacement within 10 years. These include water systems that have over 100,000 known LSLs/GRRs and would be required to replace over 10,000 lines annually, and those with a high proportion (0.039 or 39 replacements per 1,000 households) of LSLs and GRR service lines in their distribution system relative to their total number of households served. AMWA does believe that these thresholds are high, and will affect few systems, but otherwise is pleased to see some avenues for systems that have a heavy burden to lift to replace all lines. AMWA's suggestions for a more appropriate threshold for systems with a high number of lines is explained in this section.

EPA requests comment on if the 10,000 LSLs replaced annually should be the maximum threshold, or if another number such as 8,000 would be more appropriate. To put this into perspective, utilities required to replace 10,000 lines per year would need to conduct approximately 40 LSL replacements daily. The following equation assumes utility crews would work only Mondays through Fridays, not work on federal holidays, and could replace lead lines year-round.

$$10,000 \text{ service lines} / \sim 250 \text{ working days a year} = 40 \text{ lines a day}$$

As currently proposed, AMWA does not believe the replacement rate of 10,000 lines annually will be feasible for several systems. A single crew of workers would likely only be able to replace a couple lines a day, meaning multiple crews would need to be working every day to meet this goal. Water systems located in northern climates, where below-freezing temperatures and winter weather is an issue, could see those days cut by 1/3, or even more, meaning that they would have to replace approximately 60 lines per day to remain on schedule. This is assuming perfect weather the rest of the year, 100% focus on LSL replacement, adequate work crew availability, and other conditions where LSL replacement can take place.

In reality, the number of lines that would need to be replaced daily would be much higher than the estimate of 40 lines a day. Furthermore, a water system would need to coordinate the efforts of work crews, assure all permissions and preparations by homeowners have been acquired, and devote significant financial and time resources to the task of line replacement. These actions would all occur while water systems have a vast number of other priorities that require attention. A lowered threshold would allow water systems to make progress on LSL replacement while also

addressing other public health and system maintenance responsibilities and spreading out limited resources.

EPA has also proposed a threshold ratio of 0.039 annual replacements per household served (39 replacements per 1,000 households). If replacing all LSLs and GRRs causes a system to exceed this ratio, a system is eligible for a deferred deadline. AMWA appreciates EPA's recognition that the quantity *and* density of LSLs can create barriers to replacement plans. While this ratio may not cover many utilities, it does recognize that there are limits to what a water system can accomplish in terms of LSL replacement rates. AMWA would like to emphasize that this rate will leave many water systems below the threshold but still unable to meet the challenges of the replacement requirements. EPA's anecdotal examples of water systems able to meet these rates do not use data that can be scaled to all other water systems.

EPA should shape the rule in such a way that water systems with elevated lead issues will have the resources they need to quickly remove LSLs. Since the presence of an LSL alone does not itself automatically result in an individual drinking water sample exceeding the action level, there should be avenues for water systems that have documented success at controlling lead concentrations within their system, whether through corrosion control or another method, to replace service lines at a rate that does not sacrifice other critical treatment and infrastructure projects.

For example, Cleveland Water is ranked high among the water systems with the largest number of LSLs in the system, but lead levels detected in samples have been below 15 ppb since 1997, and constitutively below 5 ppb since 2009.¹ Cleveland Water would qualify for one of the deferment methods proposed, however, the system will have to divert significant resources toward meeting this replacement goal, even though lead levels are far below the proposed action level. If water systems were able to couple LSL replacement with things like water main replacement, this would present a cost-effective solution that gets LSLs out, but also does not cripple a water system financially.

Easing these thresholds could have increased public health benefits by allowing water systems to evaluate where resources can best be utilized to reduce public health risks from a variety of sources, like PFAS or aging infrastructure. Currently, AMWA members continue to be plagued by ongoing supply chain disruptions, inflation, and workforce shortages². These issues continue to delay critical water treatment and infrastructure work, while simultaneously driving up costs of

¹ Farr, Andrew. (January 29, 2024). *Inside Cleveland Water's Ambitious Lead Service Line Replacement Program*. Trenchless Technology. <https://trenchlesstechnology.com/inside-cleveland-waters-ambitious-lead-service-line-replacement-program/>.

² Association of Metropolitan Water Agencies (AMWA). December 20, 2023. *AMWA comments on availability of products for water infrastructure projects*. https://www.amwa.net/system/files/linked-files/AMWA_EPA_2023%20comments%20on%20products%20for%20water%20infrastructure%20projects.pdf

projects. Easing the thresholds would ensure systems with the highest risk have the materials, labor, and financial assistance to address LSL replacement issues.

While AMWA recognizes, and is extremely encouraged by, examples of cities and water systems that have been able to replace all LSLs in 10 years or less, it is important to acknowledge that many of these instances included either extenuating circumstances or as EPA admits “relatively low number of LSLs (<1,000).” While many systems will have fewer than 1,000 LSLs, EPA cannot ignore the very real challenges that systems with more LSLs will face. EPA cites Flint, Michigan and Newark, New Jersey as examples of cities where LSL replacement has taken less than 10 years. AMWA applauds the efforts of these cities but points out the immense exposure and media these cities received because of elevated lead levels, and as a result, the federal funding these cities received in a timely manner. This resulted in outside funds being made quickly available, and while it streamlined the LSL removal process, it also required lead to be the focus of those utilities, demanding the vast majority of time and resources to address it. Not all cities with LSLs have exceeded the lead action level, and therefore cannot justify this type of response while other pressing updates are needed to address other regulations, aging infrastructure, and other priorities. AMWA would like to reiterate that EPA should include options for systems that do not have elevated lead levels to remove LSLs at a rate that allows them to focus on other public health risks in their system, particularly for systems that might have both PFAS and LSLs.

It seems unfair that EPA would point to exceptional circumstances in which water systems were able to complete LSL replacement in 10 years or less but then proceed to say, “While EPA is aware that some systems completed their service line replacement programs in more than 10 years, EPA does not interpret these examples as conclusive or dispositive evidence that a 10-year deadline is infeasible.”³ AMWA understands a 10-year timeline will be possible for many water systems and does not dispute that they should strive to meet this goal if financially and technically feasible. However, EPA should allow systems with legitimate concerns regarding compliance within 10 years, and those who are able to demonstrate that lead concentrations do not exceed the action level, flexibility with the 10-year timeline.

One member water system in California detailed their efforts to remove LSLs that were installed during the World War II era when copper was unavailable. The water system ramped up efforts to replace these LSLs in the 1990s but was only able to remove approximately 200 per year without adversely impacting other critical work that needed to be done. This underscores the importance of recognizing that replacement is one of many projects water systems must accomplish to protect public health, and EPA must take risk into account when finalizing a regulation, so the agency is not choosing a water systems priority for them without taking other factors into account.

³ Environmental Protection Agency (EPA). (December 6, 2023). Preamble, National Primary Drinking Water Regulations for Lead and Copper: Improvements. <https://www.regulations.gov/document/EPA-HQ-OW-2022-0801-0036>.

Other obstacles that could delay full lead service line replacement can be found in the federal tax code. If a water system attempts to finance the replacement of both the public and private portions of a lead service line with tax-exempt bonds, which are a common and cost-effective infrastructure financing mechanism, it must first navigate the IRS' "private business use test" to certify that a disproportionate portion of the bond issuance would not benefit a private, home-based business.⁴ This process adds months of work and expense to the process, as utilities must document whether each property with a private lead service line is the location of a rental property or a home-based business. Any final LCRI rule must be created with the knowledge that the US tax code currently imposes difficulties on utilities using tax-exempt bonds to pay for private-side lead service line replacement.

AMWA also requests that EPA consider how setting such high thresholds could affect water systems whose primacy agencies accelerate their replacement timelines because EPA has deemed 10,000 LSL replacements a year as feasible. By setting such a high threshold, EPA risks some primacy agencies setting unrealistic, accelerated timelines for some water systems solely because EPA chose an arbitrary maximum yearly replacement that will be difficult, if not impossible, for some water systems to attain. For example, if a system has 10,000 total service lines assigned lead, GRR, or unknown status, a primacy agency could say that EPA has deemed 10,000 replacements a year as feasible and require that system to finish everything in one year. However, as EPA details throughout the preamble, it will take time for identification, obtaining permissions, planning, etc. EPA should caution primacy agencies against accelerating timelines unless a consultation with the water system results in a mutual understanding that it can be accomplished.

Section 2.2: Galvanized Requiring Replacement

AMWA supports the inclusion of galvanized lines downstream of lead service line within the definition of lead service line since galvanized pipe can absorb lead particles; the association believe this designation is the most protective of public health. The current proposed rule defines a GRR line as one that is, or ever was, downstream of an LSL or a service line with an unknown lead status.

AMWA is concerned with the inclusion of "ever was" within the determination of galvanized pipe which is downstream of a lead service line or a pipe of unknown material. This distinction is problematic as water systems may not have specific records for service lines that go back to the initial installation and may be unable to definitively prove or disprove what material may have been upstream of the galvanized line throughout the life of the service line. Additionally, current and long-term employees who are aware of past practices, and have a first-hand account, are able to certify that the water system did not have lead lines preceding galvanized pipes without this

⁴ Office of Representative Dan Kildee. (March 8, 2022). *Kildee Introduces Bill to Help Communities Replace Lead Pipes*. <https://dankildee.house.gov/media/press-releases/kildee-introduces-bill-help-communities-replace-lead-pipes>

information being in historical records. EPA could allow this information to be used by water systems when historical records were not kept.

EPA cites several published studies that document evidence that iron scales in galvanized pipes can act as a sink and source for drinking water lead, and therefore determines all GRRs must be replaced regardless of the length of time that has passed since the LSL was removed. EPA says, “While one stakeholder recommended that galvanized lines that were downstream of an LSL should be classified as non-lead after a period of time, stating that these lines eventually stop being a lead source (USEPA, 2023j), EPA disagrees with this stakeholder.” EPA does not provide adequate reasoning for its disagreement.

Water systems are seeing instances where the LSL was removed many years previously, and current lead concentrations at the galvanized lines are an order of magnitude lower than the proposed action level. While AMWA is aware that EPA in the preamble addresses this, the association believes EPA should reassess this determination and consider the costs and benefits of removing galvanized lines that have not been downstream of an LSL for a prolonged period from the mandatory replacement. It is possible that there are no health benefits of removing GRRs after a certain amount of time since these galvanized lines may not result in elevated lead levels. EPA should consider revisiting state of the science regarding whether GRRs are a source of lead after a period.

For example, the McFadden study from Washington, D.C. cautioned the following:

The fact that substantial lead release from pipe loops and from residential galvanized plumbing after full LSLR continued even after months of exposure indicates that iron scales can be a persistent source of lead over extended periods...However, substantial variation in magnitude of lead release within this data set indicates that the question of whether this phenomenon might result in lead release that persistently exceeds the LCR AL over the long term must be determined on a case-by-case basis. Although these data suggest that any home with galvanized plumbing and historical lead service may potentially be susceptible to a high lead risk, the seven sampled homes with galvanized plumbing provided insufficient statistical significance to quantify that risk for general application. Substantial additional study is required before general guidelines can be developed.⁵

A recent Water Research Foundation study, *Evaluating Key Factors That Affect the Accumulation and Release of Lead from Galvanized Pipes*, suggests a decision tree whereby utilities can classify

⁵ McFadden, M., Giani, R., Kwan, P., and Reiber, S.H. (April 1, 2011). Contributions to drinking water lead from galvanized iron corrosion scales. *Journal AWWA*, 103(4): 76–89. <https://doi.org/10.1002/j.1551-8833.2011.tb11437.x>

their galvanized pipes as “low risk” or “high risk” of lead release based on various factors.⁶ The LCRI should allow water systems with old GRRs to determine whether their site-specific conditions create this phenomenon. As Edwards et. al noted: “This research provides methods for utilities to identify and classify their unique scenario using profile sampling, scale analysis, lead isotope ratios, and element co-occurrence within water samples and pipe scale.” Similar to conducting a corrosion control study, water systems with historical GRRs should be allowed to conduct an investigation to determine whether their GRRs are or are not a source of lead, and therefore whether or not removal is justified from a public health standpoint.

AMWA would like EPA to reconsider its proposal for a galvanized line to be considered a GRR if it is downstream of a lead status unknown service line. The proposed rule would require systems to identify all their unknown service lines by the 10-year deadline for replacement, so water systems will know if their galvanized lines are/were downstream of an LSL by that time. Therefore, in AMWA’s view, this provision is not needed in the definition of GRR and could result in galvanized lines being replaced that don’t need to be, since the unknown upstream may later be classified as non-lead. This will save resources and allow water systems to focus on replacing known LSLs and GRRs.

Section 2.3: Calculating Service Line Replacement Pool

EPA is proposing in the LCRI that water systems calculate their replacement pools at the start of the year by adding up the total number of LSLs, GRRs, and unknowns in their system. At the start of each following year, this replacement pool only changes as water systems identify the composition of their unknown service lines. AMWA seeks further clarification on EPA’s inclusion of unknown service lines as part of the replacement pool. Many systems have many or even a majority of unknown service lines due to the lack of available records, and some water systems’ inventories may include only non-lead and unknown status service lines. While these utilities are likely making significant efforts to identify these unknowns, it is not feasible to expect water systems to have all their unknowns classified after year 1, particularly utilities with thousands of unknown lines.

Since the replacement pool is calculated at the start of each year, some water systems could run into the issue where the number of unknowns in their system will set an unrealistic replacement goal for the year. For example, if a system has 40,000 unknown service lines, with all others classified as non-lead, that system, under EPA’s proposed rule would be required to replace ~4,000 services in the first year (10% annual removal; $40,000 \times 0.10$). If, throughout their efforts, a utility cannot find 4,000 service lines to replace, or finds no lead among the “unknowns,” that first year will result in a less than a 10% replacement rate and could therefore affect their ability to reach 10% in a rolling annual average calculation. Even if said utility exceeded the replacement rate in

⁶ Edwards et al. (2022). Evaluating Key Factors That Affect the Accumulation and Release of Lead from Galvanized Pipes. <https://www.waterrf.org/research/projects/evaluating-key-factors-affect-accumulation-and-release-lead-galvanized-pipes>

the next two years, a 0% replacement in the first year, or in subsequent years, would result in being out of compliance even when the system has not identified any LSLs or GRRs.

Therefore, AMWA recommends EPA include only LSLs and GRRs in the replacement pool calculation. Water systems already need to have all unknowns identified in the 10-year deadline, so the incentive to classify these unknowns is already there. In addition, further incentive is offered by the proposed deferred deadline calculation for the 0.039 ratio that only includes *known* LSL and GRRs. As a system classifies its unknown service lines, it should be required to add any newly identified lead lines to the replacement pool for the following year's 10% calculation.

Section 2.4: Water System Access to the Private Side of the Service Line

EPA, in this proposal, seems to equate access to private property with control of the private side of the service line. AMWA cautions that this assumption is not true for water systems. To understand the difficulties associated with full lead service line replacement, it is important to understand the ownership of service lines that connect water mains to the building inlet of each home served by a water system. Typically, ownership of service lines is shared by a community water system and a customer. The water utility usually owns the portion of the service line from the water main to the curb stop or meter, and the private property owner usually owns the portion of the service line from the property line to the building inlet. The water system is generally unable to access the customer-owned portion of the service line without the customer's permission, nor is the utility under any obligation to replace, or pay for replacement of, the customer portion of a service line. In short, the customer portion of a service line is the customer's private property, akin to premise plumbing inside the home.

This does not mean that water systems are wholly unable to financially aid in the replacement of privately owned lead service lines. Many utilities often offer to replace the customer-owned portion of a service line at cost to the customer, in conjunction with the water system's replacement of the publicly owned portion. Additionally, some utilities and localities have developed plans to fully replace lead service lines without charging customers individually. Some opportunities and challenges of these approaches will be discussed further in these comments.

AMWA requests that EPA clarify in the final rule and develop specific guidance for instances where utilities are barred by state or local statutes from spending certain utility funds on privately-owned service line replacement. Specifically, AMWA is concerned about the implications for homeowners who cannot afford to pay for replacement and whether water systems will be considered "in control" of a privately-owned service line that the water system legally cannot pay to replace. For example, in some states and localities, water systems are barred by statute or regulation from using certain funds for individual customer benefit – including replacing privately-owned sides of a lead service line. In instances where the water system identified a privately-owned side of a service line composed of lead, homeowners may not be able to pay to replace the line but nonetheless want it replaced. AMWA appreciates that EPA included a provision in the

LCRI for water systems to record when local or state authorities do not permit the use of certain funds for individual customer benefit. AMWA is specifically concerned about the implications this potential scenario will have for low-income communities.

AMWA appreciates the proposed provisions in the LCRI allowing a water system to designate a service line as "out of its control" in specific situations; however, AMWA seeks clarification on the consequences once a service line is deemed out of the system's control. For instance, what is required after the 10-year period if systems still have LSLs in their inventory due to refusals from homeowners to replace lines? Are recordkeeping, outreach efforts, monitoring of building ownership, etc., for these LSLs included in the cost-benefit analysis? EPA must provide clear guidance on actions regarding LSLs out of a system's control while ensuring simplicity and streamlining to minimize time and financial burden.

Some water systems may have minimal publicly owned lead portions in their service lines, resulting in LSLs or unknowns being mostly located on the private side. This places water systems entirely dependent on property owners to meet replacement rates and identify unknown compositions. The first-year replacement calculations for these water systems will be particularly challenging, requiring substantial outreach, permission-seeking, planning, and coordination to access the private side or obtain information on service line composition. There is no guarantee of obtaining sufficient approvals, potentially leading to non-compliance with the 10% replacement rate in the first year. This may necessitate additional resources in the subsequent years to maintain compliance with the annual rolling average. The process must not unduly burden water systems, especially considering their concerns about LSLs under their control and other priorities.

Replacing LSLs on the private side involves many instances where people's yards, gardens, foundations, walls, and other private property features could be disturbed. Replacing those lines creates questions as to who is responsible for any damage done during replacement, but also who is responsible a few years down the road if something goes wrong. If a utility can cover the cost of a replacement, but several years later there is an issue with that line, will the customer expect the utility to come back and handle it, free of charge, since they installed it years ago? If not, will this lead to animosity from customers who feel they shouldn't have to pay for their private side at all? EPA should consider this when determining requirements for private side replacement.

While many water systems across the country can and do offer incentives to encourage homeowners to cooperate on LSL replacement projects, in the absence of the enactment of local ordinances that compel homeowners to take action, water systems themselves are extremely limited in their ability to force a homeowner to consent to the replacement of a privately-owned LSL. Any revised rule therefore should not hold water systems responsible for falling short of prescribed replacement targets due to lack of customer cooperation on private-side replacement. EPA must reflect in this rulemaking what it has presented in initiatives like the "Get the Lead Out" event – that LSL replacement is a community-wide effort that will require cooperation and buy-in from community groups and citizens themselves.

Section 2.4.1: Reasonable Effort to Obtain Property Owner Consent

EPA is proposing that a reasonable effort to obtain property owner consent is four outreach attempts using two different communication methods. While AMWA believes this to be excessive, the association insists that EPA not increase this number of communications in its final rule. Water systems already have a multitude of new recordkeeping requirements in this proposed rule; adding more will only increase the burden. If a property owner does not respond after four attempts with two different modes of communications, the odds are the property owner will not respond at all.

Obtaining permissions at all properties within a distribution system will not be as simple as contacting the account holder. This is because the account holder in many cases is not the property owner. It could be that a member of the family owns the home, the property is a rental (address below), or the property is not a primary residence and therefore uninhabited for much of the year. In each of these situations, water systems will have to track down the owners, get contact information, conduct the outreach, and wait for responses. Many of these property owners could be located out of state or even out of country. Water systems will have to use significant resources and time to conduct this outreach.

Section 2.4.2: Rental Properties

AMWA has many concerns regarding the LCRI's implications for water systems' interaction with rental properties. These concerns include substantial difficulties contacting rental property inhabitants and property owners, obtaining permission to replace lines from the property owners, and replacing the LSLs on rental properties. Furthermore, AMWA is concerned that without community support and coordination, occupants of rental units could miss out on benefits of LSL replacement.

In nearly all cases, water utilities require the permission of the property owner to conduct a lead service line replacement on the customer property side. Without adequate support to connect with property owners, which can range from individuals managing a few properties to large organizations with multiple, multi-unit properties, many utilities may not be able fully replace lead service lines where rental residents would benefit. For example, in multi-unit rental buildings, water systems may not have the individual addresses for each occupant or a total count of units. Water systems need substantial resources, time, and support to carry out the provision of LSLR on rental properties, as it will be a significant undertaking for any water system meeting all other provisions included in this proposed rule.

AMWA recommends that EPA provide additional guidance and assistance to help with targeted outreach and mandates to landlords, public officials, and community groups in neighborhoods with high proportions of rental housing served by LSLs. The occupants of rented homes generally lack the authority to initiate or approve private-side LSL replacement work, and therefore could continue to be served by an LSL if a rental property owner is unresponsive to water system

outreach or refuses to allow the water system to conduct LSLR. In developing guidance and support on connecting with rental property owners and community groups, EPA should account for the increased time and resource commitment this will require.

The situation could also arise where a property owner approves a replacement and a water system proceeds to do the work, but a renter was not consulted or disagreed with the approval. This could create unnecessary discomfort for water system employees trying to do their job but could also present dangers to employees as well. These situations highlight the need for EPA to consider additional flexibilities in circumstances where the water system must make decisions that affect the safety of their employees.

Finally, AMWA requests EPA reevaluate whether the agency accurately described “customer” and “consumer” accurately in the LCRI. These terms are not interchangeable. A customer is an account holder who pays a water bill and whose information a utility typically has. A consumer is anyone drinking water from a utility’s distribution system.

Section 2.5: Partial Service Line Replacements

AMWA agrees with EPA’s discouragement of partial lead service line replacements in its proposed rule; partial replacements carry few public health benefits and allow lead pipes to remain in the ground. However, a total ban on partial replacements, as some have advocated, is ill-advised as it could interfere with the realities of emergency water main replacement work and planned replacements alike. For example, emergency water main replacement work may offer an opportunity for a water system to simultaneously replace the publicly owned portion of a household’s lead service line in a cheaper manner. Likewise, a planned water main replacement project may result in a new alignment or spacing of the main, necessitating replacement of at least part of a lead service line. Ideally the privately owned portion of the lead line would be replaced at the same time, but a water system’s ability to do so is often contingent upon that customer’s willingness to allow work on his or her property (and, in many cases, for the customer to pay the costs associated with replacing the privately owned portion). Simultaneously replacing LSLs within control on the water system during planned water main projects is also significantly less expensive in the long run. The proposal recognizes that there will be situations where customer consent cannot be quickly obtained, and in those limited cases permits a water system to at least remove the publicly owned portion of a lead service line when the emergency main repair projects or other scheduled infrastructure work has provided an opportunity to do so.

Section 2.6: Inclusion of Lead Connectors and/or Galvanized Service Lines that Were/Are Downstream Lead Connectors Under Mandatory Replacement

EPA requests comment on whether the Agency should include lead connectors or galvanized service lines that are or were downstream of a lead connector as part of mandatory replacement. AMWA agrees with EPA’s approach to not include lead connectors or galvanized service lines

downstream of a lead connector for the reasons EPA states in the preamble, including that "...in many cases connector material records are not available, and field investigating all connector material in the absence of records 'would not be feasible or practical for most systems' as material identification would generally require disturbing pavement and repaving."

Requiring a system to identify every single connector in its distribution system is simply not feasible, and AMWA thanks EPA for recognizing that. The proposed LCRR and LCRI require systems to replace lead connectors as they are encountered. AMWA recommends EPA keep this provision in the final rule to ensure these potential sources of lead are removed as they are uncovered but urges EPA to refrain from including lead connectors and galvanized service line downstream from lead connectors as part of the mandatory replacement requirement.

Section 2.7: Annual Rolling Average

EPA is proposing a three-year rolling average for required replacement rates of LSLs. AMWA prefers that EPA consider using a "cumulative average" to determine a water system's compliance with a mandated percentage target and replacement goal. AMWA is however appreciative that in moving from the LCRR to the proposed LCRI, EPA increased the number of years included in the rolling average from two to three. If EPA does not amend the proposal to include a cumulative average in the final rule, which is AMWA's preference, the association asserts that the number of years should not decrease.

Allowing for a cumulative average will ensure that water systems are given credit for their previous accomplishments and are provided flexibility for the difficulties which may arise through no fault of the system. It is likely that a water system will have more success finding customers who will agree to pay for the replacement of their portion of the service line during the water system's initial outreach efforts. As the water system's replacement program continues, the pool of willing customers will likely diminish as the water system goes through subsequent rounds of outreach to customers who have previously chosen to forgo replacement.

A hypothetical example of how this cumulative average might be implemented with a 10% mandated replacement target is shown in the table below:

Table 1: Hypothetical comparison of cumulative average versus three-year rolling average

Year	Percentage of LSLs Replaced	Cumulative Average Percentage of LSL replaced	Three-Year Rolling Average
1	10	10.00	10.00
2	12	11.00	11.00
3	12	11.33	11.33
4	11.5	11.38	11.83
5	8.5	10.80	10.67
6	12	11.00	10.67
7	6	10.29	8.83
8	10	10.25	9.33
9	10	10.22	8.67
10	8	10.00	9.33

This hypothetical situation could reflect some systems LSL replacement compliance realities. Some water systems may be able to replace more LSLs earlier in the 10-year period if they have completed inventories and the resources needed from sources such as the Bipartisan Infrastructure Law (BIL). Using the cumulative average approach, the above hypothetical system, at the end of the 10 years, would remain in compliance and have a cumulative average of 10% LSL replacement annually. However, under the three-year rolling average approach, starting in year seven, this system would be out of compliance. This alternative approach still allows water systems to work toward 100% in the require time, but would allow for more flexibility in scheduling, as there may be more variability in replacement rates, particularly between the start and end of the replacement period.

As seen with the cumulative average example, allowing for flexibility could lead to the replacement of LSLs at a faster rate, because a water system would know that any additional lines beyond the mandated percentage replaced in one year would still count toward its replacement mandate in future years. Water systems should not be penalized for replacing a larger number of LSLs earlier on in the 10-year period, and the proposed three-year rolling average discourages that.

Section 3: Service Line Inventory and Service Line Replacement Plan

AMWA supports EPA’s goal for lead service line inventories and agrees inventories are a good method for informing the public about the extent and scope of the lead service lines in their community. Information on lead service line locations is also necessary for water systems to target areas for potential lead service line removal in an LSLR plan. AMWA agrees with the agency’s understanding that many systems do not have complete records on LSL locations and would

struggle to quickly obtain this data. With this lack of full data in mind, AMWA appreciates any additional time and flexibilities EPA has provided to water systems to continually update inventories, rather than have a completed (no unknowns) inventory by the compliance date.

Section 3.1: Updating Service Line Replacement Plans

AMWA agrees that any state and local laws and water tariff agreements that could prevent a system from full LSL replacement should be well documented in a water system replacement plan. AMWA asks for further clarifications in the final rule as to what happens when these state or local laws cause delays in or prevent LSL replacement. For water systems in states with ambiguous laws, AMWA also asks that water systems be able to provide opinion from legal counsel demonstrating that state law does not provide enough information to give the system clear authority to use rate revenue, or other available funds, to fund private lead service line replacement. Without express statutory authority, a clear mechanism for how water systems should handle these situations should be laid out clearly in a final rule, and the remedies should neither be overly burdensome nor costly.

Across the nation, many states have ambiguous or altogether no statutory language regarding whether water systems may use revenue from ratepayer funds to fund lead service line replacements. This ambiguity has led many legal counsels of water systems to discourage water systems from using revenue from rates – typically a system’s largest source of funding – to fund private side replacement. In 2019, researchers from the Environmental Defense Fund (EDF) and Harvard Law School reviewed state laws and policies in 13 states with the highest number of LSLs (at the time of publication) and found no explicit barriers to the use of ratepayer funds for lead service line replacement in seven of the 13 states.⁷ However, a lack of explicit legal barriers is not the same as explicit statutory authority. Many water systems are not willing, nor have the financial or legal resources, to risk a legal battle over their ability to fund lead service line replacements. Moving forward with a program that uses ratepayer revenue for replacing the private side of a LSL is an untenable option for utilities that do not have express authority; doing so could go against the advice of utility attorneys or risk lawsuits that could immediately halt a program and cost a water system more in damages or legal fees.

The complexity and uniqueness of each state’s grant of legal authority to water systems for conducting and funding service line replacement on the property owner’s side of the service line (private side replacement) is important for EPA to recognize. It is well established that inspections of private property to determine compliance with laws, codes, regulations, etc. are considered a search of private property and must comply with the requirements of the Fourth Amendment - meaning the inspection must be conducted with consent of the owner/occupant, or pursuant to an administrative inspection warrant.

⁷ Goho., S. A., Saenz, M., & Neltner, T. (2019). “Rates could fund lead pipe replacement in critical states.” https://clinics.law.harvard.edu/environment/files/2019/04/Rates-Fund-LSL-Replacement-States_Harvard_EDF_2019.pdf

In Kentucky, water systems are either special purpose government entities (Special Districts), owned by municipalities, or privately owned. In each case, the rules and authority of the water system vary. For Special Districts, their statutory authority is limited to furnishing a public water supply. Special Districts are regulated by the Public Service Commission, which specifically ends water system ownership at the meter pit located near or at the property line. Furthermore, the Public Service Commission, by statute, limits the scope of how rates can be collected and how funds are dispersed to ensure a particular customer or set of customers do not obtain any special advantage or subject to a disadvantage not experienced by the entire customer base. For private water systems, the authority to enter private property is similarly limited.

Alternatively, Kentucky municipal owned water systems are not regulated by the Public Service Commission and may, depending on the type of municipality it is, have greater latitude under their statutory and constitutional obligations to enter private property, conduct, and fund private side replacement. While some states such as Michigan and Illinois have already addressed these myriad legal authority concerns through legislative action, many states have not and must tackle under their statutory and constitutional framework that provides enumerated protections for citizens on their private property. For each of our members, implementing the proposed rule will require significant legal analysis based on the statutory and legal constraints facing each water system and for many systems where state legislatures have not made a clear mandate or allowance, it could result in numerous legal challenges against the water system.

Furthermore, AMWA is concerned EPA is downplaying the barriers that exist for water systems when a section of the preamble is entitled “perceived barriers,” particularly in relation to using ratepayer funds to conduct private side replacement. EPA intimates that water systems falsely believe they have these barriers and points to some states that do not have prohibitions on funding private side replacement. While some states do have explicit permission to use ratepayer funds and some water systems have developed novel funding methods to fund private replacements, EPA should neither diminish the serious lack of clarity available to water systems and their legal counsels on whether systems may use ratepayer revenue to fund private lead service line replacements, nor should EPA expect every water system to take on the burden of pursuing exhaustive measures of alternative funding or risk legal challenges to fund their replacement programs. Furthermore, that kind of language makes it incredibly difficult for water systems that do encounter legal counsel opinions to not pursue funding private replacement or that have state and local laws that prevent timely LSL replacements to communicate this to the public. This only further erodes the public’s trust in their drinking water utility.

Section 3.2: Lead Connectors

AMWA supports the provision in the proposal for utilities to keep track of *known* lead connectors and appreciates EPA recognizing that the identification of all connectors will not be feasible, particularly for large systems. However, AMWA believes that this information is more

appropriately housed in the materials evaluation, not in the LSL inventory. AMWA also supports the requirement to replace lead connectors as they are encountered. This will ensure lead connectors are not only replaced but are replaced in the most cost-effective way.

AMWA does have concerns with EPA's definition of a connector, specifically with the provision defining them as having a maximum length of two feet. While AMWA understands EPA must provide specificity as to what constitutes a connector, the EPA definition is inconsistent with normal practices at many utilities. For example, the New York City "Rules Governing and Restricting the Use and Supply of Water" definition of gooseneck requires the connector to be between three and five feet in length.⁸ If EPA finalizes the definition of connector as is, every connector in New York City would need to be identified, inventoried, and potentially replaced depending on the composition. Since EPA has stated it does not deem it feasible for this to happen, AMWA recommends redefining the definition of connector to be less than five feet to account for this.

Section 3.3: Non-Lead service Line Validation

EPA is proposing to require water systems to validate a pool of service lines that have been identified as non-lead by any other action besides records review or visual inspection of two points of the line. While AMWA understands the intent behind this requirement, the association has several reservations about it as proposed and recommends two revisions.

First, many systems have already began their customer outreach campaigns to identify the private side of the service line. EPA requiring two visual inspections may be more than what systems have been doing to reach out to customers and having them perform tests (e.g., magnet test, etc.) and/or submit pictures to identify their service line. This may have been done only at one access point. These service lines deemed non-lead from customer validation should not be subject to further validation as they have already done the outreach to the customer, and further outreach will be lost in the immense amount of other public education and notification requirements included in this proposed rule.

Second, AMWA encourages EPA to develop a flexible timeline for validation requirement, if retained in the final rule. AMWA agrees with EPA's decision to not include service lines identified as non-lead using record reviews in the validation pool. AMWA understands why EPA would want to validate certain other methods used to determine non-lead status, but questions whether this validation process being conducted during the first seven years is the best use of water system and the public's resources. As mentioned previously in this comment letter, the main goal of this rule is removing sources of lead through LSL replacement. Simultaneously requiring the validation of service lines already deemed non-lead takes precious time and resources away from a utility

⁸ Title 15 Chapter 20; Rules of the City of New York, Rules Governing and Restricting the Use and Supply of Water. <https://www.nyc.gov/assets/dep/downloads/pdf/about/water-and-sewer-forms/rules-of-the-city-of-new-york/title-15-rules-city-of-new-york-chapter-20.pdf>.

that wants to focus on known LSL replacement. If a validation requirement is retained in the final rule, a timeline should be developed to let water systems concentrate on removing known LSLs first before spending the extra time and resources on validation requirements. AMWA recommends having the validations be due post-removal of all other known LSLs and GRRs.

Section 3.4: Unknown Identification Timeline

AMWA agrees with EPA's decision to not establish a quicker deadline for all unknowns to be classified prior to the 10-year replacement compliance date. This will allow systems to focus more time and resources on replacing known LSLs and GRRs and identifying unknowns as quickly as possible. This decision provides the type of flexibility that must be incorporated throughout this rule, as not all systems are the same. For this reason, EPA should retain in the final rule the absence of a provision to complete all unknown classification before the 10-year replacement deadline.

AMWA would like to take the opportunity to point out that water systems will be significantly limited in their ability to identify the composition of privately owned portions of service lines. In some cases, the water system will be completely dependent upon individual property owners' willingness to cooperate with requests to inspect the line or otherwise document a line's composition. Should any individual property owner not agree to this review, the water system would have to classify the privately owned portion of the line as an "unknown" material and include it within the system's lead service line inventory and replacement calculations. EPA must also make it clearer what happens after the 10-year replacement period if unknowns still exist in an inventory due to the refusal or non-response of a property owner and not the water system.

AMWA agrees that a privately owned portion of a service line whose composition is unable to be determined due to lack of cooperation or response by the property owner, should be considered "unknown" in the water system's inventory. However, AMWA believes this line should be excluded from calculations used to develop system's lead service line replacement goals. This exclusion would recognize that if the lack of property owner cooperation is the only impediment to identifying the composition of the line, no reasonable assumption can be made about the line's composition; including the line in the system's replacement calculations could artificially inflate the system's required 10 percent replacement rate.

Section 4: Tap Sampling

As EPA states in the preamble, tap sampling is used to evaluate corrosion control treatment (CCT) performance rather than to assess human exposure to lead and copper in drinking water. AMWA urges EPA to keep this in mind as it revises the rule. These tap samples are important information for water systems to evaluate their corrosion control efficacy but are not necessarily representative of the water flowing to most homes in the service area. These samples often represent the most vulnerable locations to lead and are used to optimize CCT to prevent further corrosion of lead in drinking water. AMWA has comments on several of EPA's proposed provisions including

revisions to the tap sampling protocol and the use of tap sampling results for certain public education requirements.

Section 4.1: Tiered Sampling System

EPA is proposing the following revised tiered structure to better detect sites at a higher risk of elevated leads levels:

- Tier 1 sampling sites are single-family structures with premise plumbing made of lead and/or are served by a lead service line.
- Tier 2 sampling sites are buildings, including multiple-family residences, with premise plumbing made of lead and/or served by a lead service line.
- Tier 3 sampling sites are sites that are served by a lead connector. Tier 3 sites are also sites served by a galvanized service line or containing galvanized premise plumbing that are identified as ever being downstream of a lead service line or lead connector in the past. Tier 3 for community water systems only includes single-family structures.
- Tier 4 sampling sites are sites that contain copper pipes with lead solder installed before the effective date of the State's applicable lead ban. Tier 4 for community water systems only includes single-family structures.
- Tier 5 sampling sites are sites that are representative of sites throughout the distribution system. In this case, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

EPA has included sites with premise plumbing made of lead in tiers 1 and 2, and galvanized premise plumbing in tier 3. AMWA cautions that many water systems do not know the composition of premise plumbing at many of, or any of, the properties (e.g., single-family structures, multiple family residences, etc.) within their distribution system. AMWA requests clarification, and agrees with this interpretation, that this addition does not require water systems to inventory premise plumbing composition. If the information is readily available, then AMWA would agree this would represent sites that are at risk of elevated lead, but the association would like to emphasize a premise plumbing inventory should not be a requirement of this rule.

Water systems typically do not survey beyond the meter or examine what is in the basement where the meter is located. This material is not always representative of the household premise plumbing, and therefore could be inaccurate without further inspection that water systems do not, and should not (as its private property), have access to. Some homes, particularly in states like Florida, do not have basements and therefore meters are outside the home, so a water system would never be able to examine the composition of the premise plumbing.

Some water systems have expressed concern that sites served by a lead connector, tier 3, are automatically deemed higher priority than those that may contain a service line with lead solder, tier 4. Sites solely served by a lead connector could be included in tier 4 if there are not also galvanized pipes downstream (tier 3).

Section 4.2: Sampling for Corrosion Control Treatment (CCT) Efficacy

EPA specifically asks for comment on “whether samples from non-LSL sites that have higher lead concentrations than samples from LSL sites should be included and whether these higher values should replace lower values from LSL sites in the 90th percentile calculation.” AMWA has two major concerns with this concept if it were to be incorporated into the final rule.

The first concern is that this would disincentivize water systems from generating more than the minimum data required. Large water systems may voluntarily collect samples from thousands of locations (as opposed to 100 or less samples collected pursuant to required monitoring). Any provision that would direct water systems to switch the highest samples out for required monitoring would pose a tremendous burden and could possibly cause many large water systems to cease offering voluntary sampling to customers. This sampling method as proposed would change tap sampling from assessing CCT efficacy to assessing the highest values of lead regardless of cause.

The second concern is that in instances where there is not an LSL, elevated lead levels would likely be a result of lead solder or brass fixtures with high lead content in premise plumbing. Not only do water systems lack control or jurisdiction over premise plumbing, but this would also not be an overall indication of CCT effectiveness. In many instances, premise plumbing contains a lot of particulate matter, which is not necessarily reflective of a system’s CCT.

Section 4.3: Addition of First Liter Sample

EPA is proposing that systems must take first- and fifth-liter samples for lead from LSL sites and use the higher to calculate the 90th percentile lead level. In the preamble, EPA explains that samples from various liters have not conclusively pointed to which number liter has resulted in the most elevated lead levels. Because of this variability, it is impossible to really predict how this change will affect water systems except that it will be extremely likely to increase the number of samples that exceed the action level.

It has long been assumed that the first liter draw is more reflective of premise plumbing and the fifth liter is more reflective of the service line. While this is still debated, the first liter is clearly comprised of water that is in the plumbing closest to the faucet or fixture used to take the sample. As mentioned above, elevated lead from premise plumbing is not necessarily indicative of CCT effectiveness. Additionally, water systems have zero jurisdiction or control over premise

plumbing. If elevated levels are a result of premise plumbing, a system will consistently exceed the action level, resulting in a water system having to constantly notify its customers and further eroding the public's trust in drinking water.

CCT optimization will not always impact elevated lead levels caused by premise plumbing, and water systems must balance changes to CCT with other risk trade-offs, such as disinfection byproducts formation and nutrient pollution. AMWA will go into more detail about CCT in Section 6 of the comment letter, but the purpose of sampling for lead at the specified locations above is to evaluate sites most likely to have elevated leads levels, which can assist in assessing CCT efficacy. Additionally, these samples are taken after a six-hour stagnation period, which is meant to capture the water with the most contact time with pipes, and therefore highest concentrations. It is important to note that these samples are not at all representative of the water individuals drink throughout the day. EPA is using these samples as justification for system-wide public notification and education requirements when these samples do not reflect the general lead concentrations of the system. These public notification requirements center on health effects, but this action level is not a health-based requirement.

Section 5: Lead Action and Trigger Levels

As stated in section 4, the lead and copper action levels were designed to reflect a water system's CCT efficacy, which in turn limited the amount of water systems that needed to complete a detailed demonstration of its CCT installation. The action level (AL) serves a different purpose than a maximum contaminant level (MCL) in that an exceedance of an action level triggers a response, not an MCL violation. These required responses to AL exceedances have included optimizing CTT, replacing lead service lines, and educating/notifying the public. The action level for lead is not synonymous to an MCL, since what is being measured is not exposure to lead, but the efficacy of corrosion control.

EPA has proposed the elimination of the trigger level and lowering the action level from 15 parts per billion (ppb) to 10 ppb – in which a water system is in exceedance if the 90th percentile concentration is greater than this value. AMWA agrees that both a trigger and action level created more confusion, and eliminating the trigger level does reduce some of that confusion. However, AMWA would like to point out some concerns related to lowering the action level from 15 ppb to 10 ppb to measure CCT efficacy and identify systems most at risk of elevated lead levels.

EPA's tiered sampling pools are designed to find the places most likely to have the highest lead levels and are not at all representative of the entire system. This process enables water systems to find areas where lead pipes/lead sources are present and determine if a system's CCT is preventing leaching of lead. Selected sites are places where the highest levels are lead in a system are expected and are not reflective of the water most consumers in a service area drink daily. Therefore, AMWA urges EPA to consider how exceedances of this action level impact the public's trust and perception of its drinking water.

EPA has proposed to require water systems to remove 100% of LSLs over the next 10 years, essentially eliminating a significant source of lead exposure and a major reason for implementing CCT in that time. Water systems will be working toward this goal each year, with the expectation that action level exceedances would decrease as LSLs are replaced. If action level exceedances do not decrease, the next likely lead source could be the premise plumbing, of which water systems have no jurisdiction over and, as mentioned in Section 4, is not necessarily indicative of CCT efficacy. As EPA also states in the preamble, even a system with optimized CCT could be at risk of continually exceeding this action level. Decreasing the action level will initially result in more utilities exceeding the level and having to spend time and resources looking at their CCT rather than out replacing LSLs. EPA should ease burdens from these additional requirements to facilitate LSL replacement so that water systems can focus time, money, and other resources on replacement goals rather than other provisions that will be less impactful once the LSLs are gone.

EPA is concurrently proposing that water systems sample the first and fifth liter after a six-hour stagnation period. It is unclear exactly how many water systems this new requirement will impact in terms of lead action level exceedances, but as EPA states in the preamble, it will generally increase the number of utilities that exceed the lead action level. Doing both first- and fifth-liter sampling and lowering the action level at the same time compound each other and could lead to many systems exceeding the action level after the first sampling period. While EPA should not make decisions based solely on how many systems would be affected, it should consider that this action level was designed to be reflective of CCT efficacy and is not a health-based standard. Additionally, it is unlikely that customers are drinking water of the highest concentrations found in the 90th percentile samples, as they are not consuming the first draw or even the fifth liter of water once the day's activities using water have progressed. AMWA is concerned that having many water systems exceed this action level could result in widespread panic or worry for every consumer, rather than just those at risk for elevated lead levels.

Alternatively, EPA could implement one of the provisions it has proposed, i.e. the 1st and 5th liter, and consider proposing a change to the action level until after the agency has seen how this addition affects exceedances, or vice versa. The last thing EPA should want is members of the public panicking and avoiding drinking water because a utility exceeds the action level when the actual lead concentrations in their home drinking water may be nowhere near 15 or even 10 ppb. Once all LSLs are replaced, the available legal avenues for both EPA and water systems to safeguard the public from lead become significantly limited. Therefore, it becomes imperative for this rule to center its focus on the comprehensive replacement of LSLs.

EPA requests comments on further lowering the action level to 5 ppb. AMWA is extremely concerned that this action level will be unattainable for many systems, even with optimized CCT, and asks EPA to not decrease the action level further in the final rule. An action level of 5 ppb will exacerbate the issues AMWA outlined above. EPA has proposed a sampling protocol that searches for the highest instantaneous levels of lead in a system after a long stagnation period. EPA has not

provided data that demonstrate that this action level will be achievable for water systems while also keeping in compliance with other EPA regulations.

Section 6: Corrosion Control Treatment (CCT)

The original LCR included CCT as one of four treatment techniques used to reduce lead and copper in drinking water. CCT methods include alkalinity/pH adjustment or the use of corrosion inhibitors. Many water systems across the country are already optimizing CCT in a way that reduces lead leaching in plumbing material to the lowest extent possible.

Section 6.1: CCT Feasibility

EPA requests comment on the determination that a CCT treatment technique is feasible and prevents known or anticipated adverse health effects to the extent feasible. While water systems are currently deploying CCT to try and ensure action level exceedances are reduced, AMWA would like to point out that even systems with optimized CCT currently collect samples that exceed the action level.

In this proposal, EPA eliminates the trigger level, lowers the action level, and revises sampling protocols by including the first- and fifth-liter samples, which are all expected to increase the number of action level exceedances water systems encounter. EPA does not provide analysis on how all these changes will affect action level exceedances beyond saying stating they will likely increase; therefore, EPA has not demonstrated that CCT can feasibly be used to keep systems from exceeding the 90th percentile lead and copper levels. AMWA reiterates its claim from section 5 that implementing only one of these provisions during this rulemaking would ease burdens on water systems and allow EPA time to thoroughly research how these requirements would affect water systems.

Currently, it is unclear what happens in situations where a wholesale provider supplies water to other systems, and at least one of those systems does not have its own treatment facility. If the wholesaler supplies to its own customers and does not have an action level exceedance, or it provides to multiple other systems and only one of them has an action level exceedance, who is responsible? It is not feasible for a wholesaler to alter CCT that works for all its other customers and/or its own customers, but not for one of its buyers if the system it sells to does not have its own treatment facility. EPA must make it clear what happens in this situation and recognize that a wholesaler cannot tailor CCT to one buyer.

While many systems are using CTT, EPA must refrain from being overly prescriptive in the final rule. CCT is not a one-size-fits-all approach, and water systems must have some flexibility to enact treatment that best meets unique needs. As AMWA has emphasized throughout this comment letter, EPA should be allowing water systems to focus on LSL removal, while easing burdens of concurrent requirements.

Section 6.2: Repeated Re-Optimization After Action Level Exceedances

EPA is proposing that systems that have re-optimized once and continuously meet optimal water quality parameters would not be required to re-optimize again after subsequent action level exceedances. AMWA agrees that if EPA maintains the CCT optimization requirements for the first action level exceedance, it should not continue to do so for any exceedances that follow. Re-optimization often takes extensive study and review, and drinking water systems need to be focusing on other aspects of the rule.

As EPA proposes a lower action level and revised sampling protocols, it will become increasingly difficult for water systems to make changes to treatment without encountering other simultaneous compliance issues. Water chemistry in drinking water treatment is a delicate balance. Alterations to treatment should not be made hastily or without adequate data to demonstrate that there will not be unintended consequences.

One method of CCT is adding additional orthophosphate, which can lead to adverse outcomes, such as increased disinfection byproducts and negative environmental impacts in surface waters. Specifically, the addition of phosphates to drinking water can lead to increased nutrient loads to surface waters, resulting in eutrophication and harmful algal blooms. In fact, EPA in 2019 issued a variance for Denver Water for the system's phosphorous discharges to nearby surface waters, citing Denver Water's plan to remove 100% of LSLs⁹. As removal is a central provision in this proposed rule, EPA should focus less on CCT requirements and more on providing assistance and support to water systems for LSL removal.

Section 6.3: Delaying Optimized CCT Until After All LSLs/GRRs are Replaced in Five Years

EPA is proposing to allow a system with a lead action level exceedance to defer installing or re-optimizing CCT if the system can replace 100 percent of its LSLs and GRR service lines within five years of the date the system first exceeds the action level. AMWA agrees that a system that is focusing on LSL replacement should be able to forgo this requirement. AMWA does recommend using a similar three-year or cumulative average for this 20% replacement calculation. A system could still remove 100% of LSL/GRRs in 5 years even if it's replacing an average of 20% of lines, rather meeting 20% or more yearly.

Additionally, AMWA asks for more clarification on what happens when a utility has replaced all the LSLs and GRRs in its system and has identified all unknowns, but, due to refusals from

⁹ EPA. (December 20, 2019). Approval of variance decision pursuant to the Safe Drinking Water Act; Alternative treatment technique for national primary drinking water lead and copper regulations for Denver Water. <https://www.federalregister.gov/documents/2019/12/20/2019-27487/approval-of-variance-decision-pursuant-to-the-safe-drinking-water-act-alternative-treatment>

property owners, still have LSLs or GRRs in their inventory that cannot be replaced. AMWA believes water systems should not be held accountable for property owners' refusal to allow water systems to replace privately-owned lines. Additionally, water systems should not be punished if they are barred by state or local statute or attorney recommendations from using ratepayer funds to replace privately-owned LSLs and therefore cannot replace a line a property owner cannot or will not finance. If an LSL is out of the control of a water system, the system should still be eligible for this deferment.

Section 7: Public Education

AMWA appreciates that the proposed rule makes great strides in ensuring timely public notification of testing results that indicate elevated levels of lead in the system. Transparency and education of risk are an important part of a drinking water system's communication strategies. While AMWA recognizes public education and communication as critical components of consumer service, AMWA asks EPA to carefully consider the purpose of public education as a component of the treatment technique requirements of the LCRI. AMWA believes the purpose of the public education is to educate customers in a utility's service area, particularly those with LSLs and GRRs, that they can take steps to reduce potential exposure to lead in water from either LSLs or premise plumbing. There is a critical need to balance providing enough timely and specific education for consumers without sharing too much or too frequently to cause consumers to ignore messages. In this section, AMWA offers suggestions to ensure effective communications to consumers.

Section 7.1: Public Education Feasibility

EPA requests comment on whether "the proposed determination that the public education treatment technique is feasible and prevents known or anticipated adverse health effects to the extent feasible." AMWA believes that EPA mischaracterizes "treatment technique" in this request for comment by describing public education as one of the components of a "treatment technique" required for an elevated action level. AMWA believes that the overall treatment technique, which combines optimized corrosion control, lead service line replacement and galvanized line requiring replacement, is "infeasible" as proposed, which we have discussed throughout these comments.

Regarding public education provisions in the LCRI specifically, the proposed rule includes timelines and deadlines that are currently infeasible for many water systems. EPA includes multiple forms of public education in multiple situations that could overwhelm customers, either causing undue panic, or resulting in communications being ignored as they are too frequent and repetitive.

For example, 88FR85067 (§141.84(h)) of the proposed rule, *Protocols for notification and mitigation for partial and full-service line replacements*, requires written notice "to the owner of the affected service line, or the owner's authorized agent, as well as non-owner occupants." It is

unclear how a utility would identify an “owner’s authorized agent,” and it is unclear to AMWA which party EPA is referring to in this section. Additionally, this requirement could be impossible or unduly burdensome to fulfill in several instances, including:

- The property owner (landlord) does not pay the water bill and is not part of the utility’s recordkeeping for any number of reasons; and
- The non-owner occupant does not pay the bill and is not known by the utility (such as multi-unit properties with a single meter).

EPA also proposes to require water systems to repeat certain notification upon change of property ownership. This requirement is not feasible as many water systems do not become notified of ownership changes. Under this rule as proposed the burden falls upon the water system to somehow track property ownership in addition to its other obligations. EPA should not require water systems to track property sales, especially as it proposes a myriad of other public notification requirements that will reach customers to provide information on lead.

Section 7.2: Capacity of Water Systems to Conduct all the Required Public Education Activities in 30 days

AMWA believes that requirements for systems to conduct the required public education within 60 to 90 days following a lead AL exceedance is more realistic particularly as the list of required education activities is long, and coordination with states will need to occur. This coordination includes the initial notification by the primacy agency to the utility that an exceedance has occurred, prompting the public education requirements, and AMWA assumes that the notification by the state to the utility is when the clock would begin.

EPA is proposing that water systems must conduct public education activities within 60 days of the end of the tap sampling period in which the action level exceedance occurs, regardless of whether the exceedance is a consecutive one or not. These education activities include several activities that will require internal coordination and approvals, which in larger, more complex organizations would take more time and include the following:

- Delivering written materials to each bill paying customer and delivering to multifamily dwellings either to each unit or posted in conspicuous location.
- Communicating with customers most at risk - doing so by contacting the local health agencies and other organizations listed in the proposed rule.
- Including the information, no less often than quarterly, on each water bill for as long as the system exceeds the action level.
- Post the information to the water system website.
- Submit a press release to media outlets.
- Three additional activities from the following list:
 - Public service announcement;

- Paid advertisements;
- Public area information displays;
- Emails to customers;
- Public meetings;
- Household deliveries;
- Targeted individual customer contact;
- Direct material distribution to all multifamily homes and institutions;
- Contact organizations representing plumbers and contractors; or
- Some other method approved by the state.

AMWA generally agrees with EPA that the time it takes to develop materials, coordinate with state primacy agencies, and carry out the delivery of materials would be extremely difficult if not impossible in 30 days. Even 60 days can be difficult depending on the activities chosen from above and the delivery method. Therefore, AMWA recommends that EPA keep the timeline at 60 days and consider raising it to 90 days.

Individuals whose drinking water testing results were elevated are already getting notified of this through other proposed provisions, and EPA has also proposed to require water systems to offer supplemental tap sampling for customers served by LSLs, GRRs, or unknowns. Most individuals whose drinking water test results reveal elevated lead levels will have already been notified prior to this proposed public outreach protocol because compliance sampling is based on sites most at risk of elevated lead concentrations and utilities must inform customers of sample results sooner than they report system-wide exceedances.

AMWA is concerned that this increased amount of public notification will lead to customers either becoming desensitized to communications from the water system, or that it will deter them from consuming tap water entirely. When people receive the same information over and over, the message loses its urgency. This has implications far beyond the LCRI. Consider that under this rule proposal, customers could potentially receive in one year (two sampling periods), from this one proposed requirement alone:

- Two direct mail deliveries;
- Four water bills with the information;
- Two emails;
- Two targeted individual customer contacts; and
- Several printed or television notifications.

Consumers could start to ignore communications from the water systems. Public notification is important, but EPA should not require water systems to overwhelm customers with dozens of contacts a year when fewer could be more effective and, therefore, more protective of public health.

Importantly, action level exceedance outreach comes in addition to various other public outreach requirements in the LCRI. There are notifications of service line material, notifications for failing to meet the replacement rate, compliance tap sampling results, supplemental monitoring results, notification of a service line disturbance, and required language and information in consumer confidence reports. EPA should re-evaluate the number of outreach materials that are required and create a more condensed and streamlined approach to reduce the amount of communication materials customers receive while still being provided this information.

EPA should refrain from imposing too many public outreach requirements that are overburdensome without any public health gain. For example, as proposed, constant notification of action level exceedances may not be very effective since this entails multiple forms of communication that would reach the same customers in several times. EPA could keep this requirement for the first lead action level exceedance, but if a system continues to have lead action level exceedances, reduce the number and frequency of materials that need to go out.

Section 7.3: Capacity of Water Systems to Provide Individual Tap Sampling Results in Three Days

EPA is proposing that water systems provide consumer notices of individual tap sampling results within three calendar days of obtaining them, regardless of whether those results exceeded the action level. EPA requests comment on whether this is feasible, or if a longer time frame is needed (e.g., three business days, seven calendar days, 14 calendar days).

One major uncertainty is whether both lead and copper samples apply to this three-day time frame, as EPA does not specify a timeframe in the “copper” section of the “Individual Notification of Tap Sample Results” portion of the preamble. The preamble simply says, “EPA is proposing to require water systems to provide consumer notice of an individual’s copper tap sampling results,” and adds that lead and copper sampling results can be combined into one single notice if both sample results are available. AMWA requests EPA make it clear if the three-day window applies to both lead and copper sample results and suggests EPA make it clear throughout the proposed rule which provisions apply to lead and which apply to copper. The most direct way EPA can address this is by developing a table that includes each provision in rows and whether the provisions apply to lead, copper, or both in columns.

Regarding the timeframe, AMWA is concerned that a three-calendar day notice is infeasible. For example, many AMWA members indicated they batch samples to be run on Thursdays, and often receive sample results Friday afternoon. If the following Monday was a holiday, or an observed holiday that fell over the weekend, water systems would potentially be out of compliance with this notice, as they would not be able to send notices until the following Tuesday. AMWA suggests five business days as an adequate turnaround time that will ensure timely delivery of results in a realistic timeframe for water systems. If EPA is adamant that the provision stays three days, AMWA urges the agency to consider changing it to three business days. While this is not the

association's first preference, three calendar days is not feasible given standard five-day work week schedules that many water system laboratories and offices follow.

AMWA would like to emphasize that this time frame is not dependent on whether the samples exceed the action level or not. Therefore, this incredibly short turnaround time will have very little public health benefit, as most samples will likely be below the action level. In addition, the water system already must provide many public education and outreach materials to households at risk of elevated lead levels. Sites that must be sampled include those with LSLs and other situations where elevated lead might occur, but these households would already be aware of these risks through other communication materials. Consequently, a five-business day notice of results is sufficient and would account for times when a three-calendar day turnaround is not possible.

Section 7.4: Types and Timing of Outreach Activities Proposed for Failing to Meet LSL Replacement Rate

EPA is proposing to require outreach activities for systems that fail to meet the mandatory service line replacement rate. Systems serving over 3,300 individuals would be required to do one of many activities at least once in the year after failing to meet the replacement rate, and annually after that, until the rate is reached, or all LSLs, GRRs, and unknowns are identified. The list of activities is below:

- Conduct a townhall meeting;
- Participate in a community event to provide information about the service line replacement program;
- Contact customers by phone, text message, email, or door hanger; or
- Use another method approved by the State to discuss the service line replacement program and opportunities for replacement.

Alternatively, if a system fails to meet the mandatory replacement rate, systems would be required to conduct at least two of the following activities:

- Send certified mail to customers and persons served by LSLs or GRR service lines;
- Conduct a social media campaign;
- Conduct outreach via the media including newspaper, television, or radio; and/or
- Visit targeted customers (*e.g.*, customers in areas with lower service line replacement participation rates) to discuss the service line replacement program and opportunities for replacement.

While AMWA does not dispute that notification may be necessary in this case, the association again emphasizes the sheer amount of public education and notification requirements included in this proposed rule and cautions EPA against diluting the message of LSL replacement. EPA should also consider how successful water systems have been using public education to promote and

obtain public support for voluntary lead service line replacement programs. If every provision in the proposed rule results in some sort of notification or outreach, the messages could potentially lose meaning, cause consumer confusion, or negatively affect utility communication for current programs that have occurred outside of EPA's proposed regulatory construct.

AMWA also requests clarification as to when a water system stops providing notice of failure to meet the replacement rate. AMWA asks EPA to clarify what it means by, "The water system must conduct the activity in the year following the deadline for calculating the rolling average *and annually thereafter until the water system meets the replacement rate...* [emphasis added]." Does this mean if the system meets a 10% replacement in the following year, regardless of its rolling average over the past three years, it is able to terminate the annual notices? AMWA believes this should be the case, as a system that returned to replacing at or over 10% of LSLs (or meeting the cumulative average replacement rate that AMWA advocates for in these comments) should be relieved of this requirement to reduce public notifications.

EPA describes examples in the preamble of how community outreach events and activities are consistent and able to achieve high levels of success, with examples from the American Water Works Association, LSL replacement collaborative, and Clean Water Fund. AMWA would like to point out that community partnerships are successful when they are able to be tailored to individual localities, and not with overly prescriptive steps and language provided from a national standpoint. Generally, these example programs achieved success following persistent, hard work with many partners working together. Allowing water systems the flexibility and ownership of outreach activities could result in increased partnerships with local community groups, as water systems will have more time and resources to devote to these efforts. Ultimately, water system community needs are unique, and public outreach and education cannot be viewed with a one-size-fits-all approach.

Section 7.5: Notification of a Service Line Disturbance

EPA is proposing to require water systems that cause a disturbance to an LSL, GRR service line, or unknown service line to notify persons at the connection and provide them with information to reduce lead exposure from this disturbance. In addition, water systems must provide pitcher filters or point of use devices and replacement cartridges to last 6 months. This provision is triggered by "actions that result in a shut off or bypass of water to an individual service line or a group of service lines, or other actions that cause a disturbance...such as undergoing physical action or vibration that could result in pipe-scale dislodging and associated release of particulate lead." Some examples of disturbances covered under this provision that EPA includes in the preamble are replacement of an inline water meter, a water meter setter, or connector.

AMWA supports customer notification when the water system conducts work that would result in a significant disturbance to a line, such as the replacement of a water main or connector. EPA has

covered disturbances due to LSL/GRR placement in a different section of this proposed rulemaking.

Additionally, while pitcher filters may be warranted in some cases, AMWA does not believe pitcher filters are always necessary (e.g., in instances like water meter replacements). Some AMWA members do thousands of water meter replacements a year and providing pitcher filters would be costly and at times difficult given limited availability. Some disturbances may only require other actions, like an aggressive flushing protocol, that could similarly reduce risks to lead exposure from the disturbance. AMWA addresses pitcher filter availability in section 8.2 of this comment letter but emphasizes to EPA that provisions that require making pitcher filters available could put strains on a water system's ability to obtain them. To maintain availability and the cost-effectiveness of pitcher filters, EPA should require their distribution only in times they are needed, not in circumstances where other, less costly, options will produce the same result.

Section 7.6: Increased Frequency of Public Education Requirements

EPA requests comment on whether additional public outreach and education requirements should be included to incentivize LSL replacement. Specifically, EPA asks if water systems that have LSLs, GRRs, and/or unknowns five years after the compliance date for the LCRI should be required to increase frequency of the notification of service line materials from annual to every six months.

AMWA does not believe that water systems should have to increase frequency of the notification of service line materials from annual to every six months after the compliance date. Water systems should be encouraged to focus efforts on LSL/GRR replacement efforts rather than ramping up notification requirements just as water systems are running out of time to complete service line replacement plans. Increasing the notification of service line material from annual to every six months would not provide any further protection to public health. The information would not be changing, and customers would have already received it five times previously (the first five years of compliance). Customers would likely be annoyed with multiple mailings and other forms of communication repeatedly including the same information. Furthermore, EPA does not point to a solid collection of research supporting that increased communication notices improve consumer outcomes and actions.

EPA does not need to include more "incentives" for water systems to complete their LSL/GRR replacement in the required compliance period. This implies that the proposed requirement to replace LSLs/GRRs in 10 years is somehow not enough to incentivize water systems to remove LSL/GRRs. AMWA members want to reduce consumer exposure to lead and protect public health, so to imply that they need further incentive to do so undermines the immense amount of work many water systems have already accomplished toward this goal. Implying water systems need "incentives" to comply with regulations only serves to communicate to the public that water systems do not have their best interest in mind.

EPA should use communication techniques that highlight its partnerships with water systems, support water system's efforts toward LSL replacement, and recognize that public water systems take all possible actions to provide the best quality drinking water to their consumers. AMWA asks EPA to rethink some of the language it uses in the preamble, and in other publicly available materials, that may inaccurately or unintentionally imply otherwise.

Section 7.7: Streamlining Public Education Requirements

EPA is seeking comment on additional ways to streamline public education and associated certification requirements. AMWA is significantly concerned with the time and resources that water systems will have to dedicate to the public education and outreach requirements and urges EPA to streamline processes and ease burdens associated with these requirements.

EPA should refrain from having water systems supply customers with the same information too often. This happens when water systems must continually notify customers of their service line material, notify certain customers that may continually get their tap sampled due to their service line composition, include comprehensive information in consumer confidence reports, and provide annual notifications based on action level exceedances or failure to meet the replacement rate. These public outreach protocols also include reaching people through numerous methods of communication for the same notification requirement.

Since EPA intends to finalize revisions to the Consumer Confidence Report (CCR) rule by March 2024, the agency should assess how these revisions will also impact a water system's communications strategy. Water systems must plan and devote additional resources to compliance with this upcoming rule, including the potential to have to supply CCRs twice a year. AMWA recommends EPA use the CCR rule to streamline some of the public notification and education requirements included in this proposal based on what the agency includes the final rule.

An example where EPA's public notification requirements can be viewed as overly prescriptive can be found in § 141.85 (a):

(a) Content of written public education materials — (1) Community water systems and non-transient non-community water systems. Water systems must include the following elements in written materials (e.g., brochures and pamphlets) in the same order as listed in paragraphs (a)(1)(i) through (vii) of this section. In addition, language in paragraphs (a)(1)(i), (ii), and (vii) of this section must be included in the materials, exactly as written, except for the text in brackets for which the water system must include system-specific information. States may approve changes to the content requirements if the State determines the changes are more protective of human health. Any additional information presented by a water system must be consistent with the information in paragraphs (a)(1)(i) through (vii) of this section and be in plain language that can be understood by the general public. Water systems must submit a copy of all written public

education materials to the State prior to delivery. The State may require the system to obtain approval of the content of written public education materials prior to delivery.

This requirement as proposed in the LCRI will result in a dense text (language in paragraphs (a)(1)(i), (ii), and (vii) of this section that be included in the materials, exactly as written) that is not widely read, which would increase the risk of exposure rather than decreasing it. The proposed rule language does not seem to give any indication that context can be added, e.g., graphics on service lines, explanation of what a service line is, etc., since all information must be included “as written” and “in the same order as listed in paragraphs (a)(1)(i) through (vii) of this section.” Any changes, including adding graphics or additional information, must be approved by the state. If this needs to happen for every communication, will the states have the capacity to turn these materials around in a timely manner? Will these brochures be helpful to customers if they contain only text with no graphics? If information must be put in order, what is the correct order to place the information in a three-column brochure (is it left column, top to bottom then center column top to bottom, or is it top left to top right then bottom left to bottom right)? These are the questions that will remain if EPA retains these overly prescriptive requirements for public education, notification, and outreach in the final rule.

AMWA believes it is not EPA’s intent to discourage the public from drinking tap water. However, many actions EPA is proposing in the LCRI may inadvertently do that. Additionally, the alternatives to tap water – particularly tap water that is in compliance with current EPA regulations – are not demonstrably better, or in fact could be worse, for public health. Bottled water alternatives to tap water are also more expensive than tap water. AMWA is concerned that the inclusion of the line, “There is no safe level of lead in drinking water,” at the beginning of the mandatory lead health effects language will erode public trust in drinking water systems, because it is impossible for a water system to certify that there is absolutely “no” lead in the water provided to customers. This is particularly worrisome in cases where water systems have replaced 100% of its LSLs/GRRs but still have very low levels of lead in tap samples due to components in premise plumbing. EPA should consider contextualizing this statement to say something along the lines of, “The goal is to reach undetectable levels of lead in drinking water and remove all lead service lines.”

Section 8: Additional Requirements for Systems with Multiple Lead Action Level Exceedances

EPA is proposing to require additional actions be taken by systems with multiple lead action level exceedances, specifically three or more in a five-year rolling period. Systems that fall into this provision would be required to conduct at least one more outreach activity every six months until the water system no longer meets the criteria for multiple lead action level exceedances. Additionally, water systems would be required to make pitcher filters available to all consumers within 60 days of having met this criteria.

Section 8.1: Definition of Multiple Lead Action Level Exceedances

EPA's proposed requirements for water systems that exceed the lead action level three or more times in a five-year period will create many compliance issues. To start, EPA has not provided an analysis of how many systems are going to be triggered under this proposed requirement. The agency proposed to remove the trigger level, reduce the action level, and include first- and fifth-liter draw for sampling, and there is not an accurate estimation of how many water systems will be impacted. Since these proposed actions are assumed to increase the number of action level exceedances, we could see the unfortunate situation where, 18 months after the compliance date (three monitoring periods), countless water systems could have three consecutive action level exceedances, triggering these additional requirements. These water systems would then be required to issue notices to customers every six months for the next 3.5 years (the remainder of the five-year rolling period), even if the system subsequently comes into compliance with the action level through future sampling.

EPA should not create a situation in which a system must continue telling the public it has an action level exceedance for 3.5 years if the water system is not actually exceeding the action level during that time. Even further, the action level exceedance is not a health-based indicator. If a water system can reduce lead exposure to customers and not have any more action level exceedances, they should not have to needlessly worry the public with the false notion that the water isn't safe. EPA should allow systems to stop these public notifications after two consecutive monitoring periods (one year) without a lead action level exceedance.

The lead action level is meant to be reflective of a system's CCT. If a system has optimized its CCT once and is within the specified range of water quality parameters, then a system no longer needs to re-evaluate its CCT. If a system cannot optimize its CCT anymore to reduce lead levels further, then this constant public education should not be in effect. EPA should not require water systems to notify the public of exceedances if there is nothing it can do to further optimize its CCT. Instead, water systems should be allowed to focus on the goal of removing LSLs and not diverting resources away from this with unnecessary public education requirements. It is incredibly difficult for a water system to focus on LSL replacement while simultaneously developing several public notification and outreach plans.

AMWA agrees that an initial notice of the first exceedance may be warranted, however, EPA must remember the action level is not a health-based limit. Sample pools are derived from the places where lead levels are most likely to be elevated, so action level exceedances are not necessarily representative of a water system's overall drinking water quality. Additionally, individuals with LSLs/GRRs are already receiving information on ways to reduce lead with the requirement to notify customers of service line materials. EPA is piling on notifications that are redundant in some situations and create unnecessary burdens for water systems and the public who receives them.

Section 8.2: Providing Filters to all Consumers After Multiple Lead Action Level Exceedances

EPA has proposed that, in the event of three action level exceedances in a five-year rolling period, water systems must make pitcher filters and six months' worth of replacements available to *all consumers* – not only those with documented lead service lines, or service lines of unknown composition. One of AMWA's biggest concerns with this proposed provision is the unlikely availability of the number of filters this requirement will force water systems to procure and/or have on hand in the event of multiple action level exceedances. For example, in a city like New York City (NYC), the NYC Department of Environmental Protection (DEP) provides drinking water to approximately 8.5 million people within the city. If this system were to have three action level exceedances in the first 18 months from the compliance date, or three monitoring periods, then the city would have to make filters available to all 8.5 million residents. Even if only a fraction of consumers in NYC made the effort to procure these filters, the city would still need to have millions on hand to meet the potential demand. In addition, they must do this every six months for the remainder of the five-year rolling period, meaning for a total of seven monitoring periods. EPA in its cost benefits analysis estimates only 20% of consumers will request filters¹⁰. Even with this likely low estimate, NYCDEP would need to provide almost 12 million filters and/or replacements over that 3.5-year period following three lead action level exceedances.

While NYC is one of the largest examples, this will be true for every water system. Not only is the sheer number of filters this provision could require infeasible, but to supply these within 60 days following the third lead action level exceedance would be impossible. One AMWA member indicated that they have been waiting four months to obtain just 500 filters. The large number of filters that would need to be acquired quickly by several water systems would drive up costs and leave some water systems waiting months, or even years, to get the amount they need in stock. After the first three monitoring periods, there will likely be many water systems struggling to procure the number of filters needed to supply to all interested consumers if they had an action level exceedance each period.

EPA must drastically reduce the number of filters that are required to be distributed in these circumstances. At the very least, EPA should reduce it to just those with LSLs, GRRs, or unknowns. EPA even insinuates that this is what should be in the proposed rule in figure 23 of the preamble. In the "Proposed LCRI" column it reads "Systems with multiple ALEs must make filters available to all customers with service lines of known or potential lead content." In this table, the delivery to all consumers is listed under "other options considered." However, pitcher filters should not be a blanket requirement and may be beneficial in situations mutually agreed upon between a water system and its primacy agency. The term "potential lead content" could be used for classifying unknowns as "potentially lead" or "not likely lead" to better allocate resources to

¹⁰ EPA. (2023b). Economic Analysis for the Proposed Lead and Copper Rule Improvements.

service lines that are likely to include lead. EPA is again trying to apply a one-size-fits-all approach to situations where this is not feasible.

AMWA urges EPA to refrain from provisions that take away resources from LSL and GRR replacement activities. Removing LSLs is a more effective way of reducing lead exposure in most cases than providing pitcher filters and also addresses the root problem (a more permanent solution). One study suggests that these pitcher filters do not always work properly, and in some instances the pitcher filter treated water still exceeds the 10 ppb action level of lead¹¹. This study underscores the importance of EPA letting water systems focus on LSL replacement rather than spending precious time and resources acquiring and distributing pitcher filters.

Section 9: Lead Sampling in Schools and Child Care Facilities

AMWA recognizes that the presence of lead in the drinking water of schools and licensed childcare facilities is an issue of the highest concern to the public. While virtually all lead that is present in the drinking water of these facilities comes from premise plumbing, we understand that school officials and parents may look to their local water systems for guidance in identifying the scope of lead contamination in the water of a given school or licensed childcare facility building. AMWA believes that water systems should be willing to help school officials carry out water quality testing, upon request, as water systems have no authority to enforce mandatory testing requirements on schools and childcare facilities.

Section 9.1: Previous Non-Regulatory Efforts to Promote School Testing

In 2019, AMWA was a signatory with EPA and other federal agencies and water sector stakeholders to a memorandum of understanding (MOU) on “Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities.”¹² As part of this MOU, AMWA and EPA agreed “to facilitate actions that reduce children’s exposure to lead from drinking water at schools and child care facilities.” Agreed-upon actions included “encourag[ing] schools and child care facilities to” test their drinking water for lead, and “encourag[ing] the drinking water community to assist schools and child care facilities in their efforts to understand and reduce lead exposure from drinking water.”

¹¹ Jeannie M. Purchase, Rusty Rouillier, Kelsey J. Pieper, and Marc Edwards. (2021). Understanding Failure Modes of NSF/ANSI 53 Lead-Certified Point-of-Use Pitcher and Faucet Filters. *Environmental Science & Technology Letters*, 8(2), 155-160. DOI: 10.1021/acs.estlett.0c00709

¹² EPA. (2019). *MOU on Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities between EPA, AMWA, and others*.
https://www.epa.gov/sites/default/files/201910/documents/mou_reducing_lead_in_drinking_water_in_schools_final.pdf

Additionally, in 2018 EPA published a revised manual entitled *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: A Training, Testing, and Taking Action Approach*.¹³ According to EPA, this 3Ts manual “is intended to serve as a resource to help schools and child care facilities implement a voluntary program for reducing lead in drinking water.”¹² The manual recommends that schools and child care facilities follow a prescribed “2-step sampling procedure”¹² when testing individual outlets.

Both the MOU and 3Ts manual recognize that local school officials are primarily responsible for testing the quality of their buildings’ drinking water, but AMWA appreciates that public drinking water systems are in a unique position within their communities to provide guidance and facilitate effective testing. However, while local water systems should be available to help individual schools and licensed childcare centers carry out water testing and understand the results, AMWA has concerns that the proposed rule promotes unrealistic expectations and goes too far in transferring the responsibility for school testing onto individual water systems.

Section 9.2: List of School and Child Care Facilities

EPA is proposing to require water systems to compile and submit to the state a list of all schools and childcare centers within the service area. The process, as described, is challenging for several reasons. Particularly, in the case of large metropolitan water systems, a comprehensive and accurate list of all schools and licensed childcare facilities in the system’s service area will number in the thousands.

For example, Greater Cincinnati Water Works, a water system serving more than 240,000 residential and commercial accounts, provides water to roughly 400 schools and an estimated 1,000 licensed childcare centers. While that system currently carries out a program to assist these facilities with lead testing, it reports that identifying licensed childcare facilities for testing is a significant challenge, in part because the precise number of such facilities is always in flux as licensed childcare centers open and close regularly within the city. Similarly, most water systems would have no existing inventory of such schools and facilities, so it would be a tremendous exercise to initially develop such a list. Under the proposed rule, this exercise would have to be repeated every five years as water systems would be required to “submit a revised list” of school and licensed childcare facilities to the state.

AMWA recommends EPA instead allow water systems the option to instead communicate with the local educational or regulatory agencies charged with operation or oversight of the community’s schools and licensed childcare facilities. Even if the final rule does not include the requirement to test a certain percentage of facilities each year, AMWA believes that outreach to schools and licensed childcare facilities about opportunities for testing could be more successful –

¹³ EPA. (2018). *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: A Training, Testing, and Taking Action Approach*. <https://www.epa.gov/system/files/documents/2021-07/epa-3ts-guidance-document-english.pdf>.

particularly in metropolitan communities that may host hundreds of different schools – if coordinated through local educational or regulatory oversight agencies.

Under AMWA’s alternative approach, a water system would have the option to provide the appropriate regulatory agencies with a notice about the opportunity to have schools and licensed childcare facilities tested for lead in drinking water by the water system. A water system utilizing this option should further request the agency to share this information with each school or licensed childcare facility. This agency could also provide a representative list of such facilities that should be tested each year if EPA maintains certain quantified testing requirements in the final rule.

Section 9.3: Testing Requirements

EPA is proposing to retain most of the LCRR requirements for water systems to conduct public education and sample in schools and childcare facilities. Water systems must notify elementary schools and childcare facilities that they are eligible to be sampled for lead by the water system and for the first five years sample 20 percent annually of all elementary schools and childcare facilities. Secondary schools must also be notified of the availability of lead testing annually.

AMWA understands the importance of identifying elevated lead levels at schools and childcare centers. However, the proposed rule makes the mistake of designating water systems as the appropriate entity to compel schools and licensed childcare facilities to carry out testing to detect lead in the water of their buildings. In attempting to encourage schools and childcare facilities to test their water for lead, the proposal charges water systems with the task, while also holding water systems accountable for a school or childcare facility’s compliance. Because the Safe Drinking Water Act includes no authority for EPA to require schools and childcare facilities to test their water for lead – unless that school or childcare facility is itself a non-transient non-community water system – it is patently unfair for the proposed rule to create a school and childcare facility testing regime that is only enforceable against community water systems. This lack of authority is precisely why EPA has worked with the Department of Education, Department of Health and Human Services, and several other federal agencies to create the MOU noted above.

AMWA therefore believes that the final rule should eliminate all annual school and childcare facility testing benchmarks, and only require water systems to assist in the testing of a school or childcare facility’s water when requested to do so by that facility. AMWA does appreciate EPA’s recognition that water systems will likely not get responses from all facilities and that this should not be counted against the system’s 20 percent annual goal. AMWA members have reported immense difficulties in obtaining sufficient engagement from schools and childcare centers. Having flexibility in this area will ensure utilities are not held responsible for things outside of their control. While AMWA appreciates EPA allowing nonresponse and refusals to count toward the 20 percent, the entire provision adds to the immense records water systems must develop and state primacy agencies must review.

AMWA proposes another approach to identifying and interacting with schools and licensed childcare facilities that should be more aligned with the testing process highlighted in the MOU and the 3Ts manual. Primarily, AMWA believes that rather than requiring water systems to attempt to conduct testing in 20 percent of schools and 20 percent of licensed child care facilities in the system's service area each year, the final rule should require water systems to conduct outreach to local schools and licensed child care facilities to make them aware of the water system's availability to carry out water testing in a school or licensed child care facility upon request.

This approach is justified based on EPA's own data. In the preamble to the proposed LCRR, EPA stated that the amount of testing conducted under the "upon request" option "is highly dependent on the percentage of facilities that request to participate in the sampling program." EPA goes on to estimate that only five percent of schools and licensed childcare facilities would volunteer for a sampling program offered by a community water system. However, the mandatory 20 percent testing program would be equally dependent on schools positively responding to outreach from the water system, and there is no reason to think that the response rate under one scenario would dramatically differ from the other. In each case, the water system would have to alert schools and licensed childcare facilities to the opportunity for testing, and school or facility administrators would have to agree to allow the testing to occur.

It is therefore unclear how the agency would expect every water system to achieve a mandate to conduct testing at 20 percent of schools and 20 percent of licensed childcare facilities each year. A higher level of participation on the part of schools and licensed childcare facilities cannot be expected simply because of a mandate. So, following EPA's own assumptions, even if a water system was required to attempt to test 20 percent of schools in a year, only a small subset of those schools will agree to the testing.

An "upon request" school and licensed childcare facility testing program should be consistent with the MOU and the 3Ts manual, while also establishing a recurring pattern of communication between local school and water system officials. Under this option, water systems should be required to periodically conduct outreach to schools and licensed childcare facilities, encouraging them to take advantage of the option to have water system officials test their facility's water for lead. With time, schools and licensed childcare facilities will come to know that they have an opportunity for their local water system to assist with the testing of their water, while water systems will be relieved from (as the rule currently proposes) spending significant resources attempting to attain participation from 20 percent of schools and 20 percent of licensed child care centers on an annual basis. AMWA strongly believes that this is the most practicable and beneficial approach and encourages EPA to incorporate the "upon request" school testing structure into the final rule.

This would reduce burdens on water systems that would have to keep track of outreach attempts, and ensure the system either tested, or received no response/refusal, from 20 percent of facilities. Both options involve water systems providing education to facilities and offering to test for lead, and both options completely rely on the school or childcare facility to be responsive. The

alternative AMWA supports here includes the bonus of reducing burdens on water systems while still being protective of public health.

Section 9.4: Sampling Protocol

AMWA appreciates that the school and licensed childcare facility testing procedures outlined in the proposal reflect many of those recommended in the 2018 3Ts manual.¹² It is, however, not clear why the proposed rule requires samples to be collected from five different locations in schools and two different locations in licensed childcare facilities. AMWA requests further information as to how these sample locations were determined. Furthermore, the 3Ts manual recommends that a school collect a subsequent 250 ml “30-second flush sample” if the initial test results indicate elevated levels of lead. This second test is recommended “to determine if the lead contamination results are from the fixture or from interior plumbing components,” but this step is absent from the testing requirements of the proposed rule. To help ensure that schools nationwide are receiving consistent testing advice and assistance from EPA and their local water systems, AMWA suggests amending the school testing procedures in the proposed rule to conform with the recommendations in the 3Ts manual.

Section 9.5: Waivers

EPA is proposing to allow states to exempt water systems from the school and daycare facility sampling requirements if said facilities are sampled for lead in drinking water under a state or local law or program that meets the frequency requirements for elementary schools, childcare facilities, and secondary schools, and includes the associated sampling protocol requirements. States may also issue a waiver for samples taken at school and childcare facilities sampled between January 1, 2021, and the compliance date of this rule.

AMWA appreciates EPA’s willingness to provide the option for waivers of these testing requirements and asks the agency to simplify and maintain waivers in the final rule. AMWA is concerned that the intricate sampling protocol that EPA has constructed for this rule will result in other state or local programs not qualifying for this waiver because they developed a different sampling protocol. EPA includes specific locations and number of samples that must be taken at facilities that are not based on any protocols in the 3Ts manual (the manual details possible sampling sites but does not define what a representative sampling protocol would entail), and therefore existing programs may not qualify water systems for waivers. AMWA requests that EPA make this protocol simpler and more streamlined, or at the very least, allow other state and local testing programs that have their own protocols to still qualify a water system for a waiver.

EPA proposes that only school sampling programs conducted between January 2021 and the compliance date of the rule are eligible for waivers. We recommend EPA broaden this date. In California, all water systems were required to conduct sampling from all schools in their service area. Sampling was completed during 2018 – 2019. The 3Ts protocols and analytical methods were

used, and there have been no changes in plumbing codes related to lead-free materials between 2017 and 2021. There is no reason not to count this large sampling effort as the first round, and then offer “as requested” sampling moving forward. Therefore, AMWA recommends that EPA allow for any water system that has conducted sampling in 2017 or later, using the 3Ts protocol, to be eligible for waivers.

Again, AMWA appreciates that the proposed rule strives to promote water testing at schools and licensed childcare facilities, and we maintain our support for the MOU and 3Ts manual outlining how to best accomplish this goal. We further believe that water systems can and should actively engage with local schools, licensed childcare facilities, and the local regulatory agencies that oversee them to make certain that the owners and administrators of these facilities are informed of opportunities for assistance in testing their water for lead. The above suggestions will provide for an implementable rule that facilitates school and childcare facility testing while simultaneously reducing burdens on water utilities.

Section 10: Compliance Dates

EPA proposes an LCRI compliance date of three years following rule promulgation. Additionally, EPA proposes that systems comply with the LCR until this date, except for the following provisions included in the LCRR that will go into effect October 16, 2024:

- The initial LSL inventory;
- Notification of service line material;
- Associated reporting requirements; and
- Tier 1 public notification for a lead action level exceedance.

In section 2 of this comment letter, AMWA highlighted the formidable challenge, if not impossibility, of achieving a 100% Lead Service Line (LSL) replacement for certain water systems. The period between promulgation and compliance is crucial, affording systems limited time to initiate planning, preparation, and, in some cases, execution of necessary requirements within this condensed time frame. EPA has solicited comments on the possibility of shortening this period; AMWA does not support a shorter timeframe. This timeframe is critical for systems facing difficulties due to their state having a "no more stringent than clause" concerning EPA regulation. These systems in particular require time to allocate resources and gear up for compliance with this rule within the three-year timeframe.

EPA also requests comment on if there are any other LCRR provisions besides those listed above for which the October 16, 2024, date should be retained. AMWA agrees with EPA that allowing states and water systems this time to focus on preparing to comply with these provisions is necessary “because of the significant level of effort required by water systems to plan for compliance with LCRI, coupled with the complexity of the LCRR.” AMWA agrees with EPA’s determination that its focus on its LSL replacement accelerator initiative and other technical

assistance programs will be more effective than implementing LCRR provisions that will be replaced in just a few short years. AMWA asks EPA to give water systems as much time in between promulgation and compliance as possible, but no less than three years.

AMWA is very concerned about the potential scenario where the LCRI is not promulgated before the LCRR's compliance date. After the LCRI public comment period, ending on February 5, 2024, EPA has approximately five months for reading, analyzing, and incorporating edits from the submitted public comments, followed by roughly 90 days of review usually taken by the Office of Management and Budget (OMB). This brief window poses a challenge for EPA to promulgate the rule while incorporating meaningful public input, particularly as its LCRI proposal is significantly more complex than the LCRR it would replace. AMWA recommends delaying the LCRR's compliance date to prevent potential confusion. Otherwise, water systems will need to prepare for LCRR compliance until confirmation that the LCRI is finalized, utilizing valuable time and resources leading up to October 2024.

Section 11: Economic Analysis and Affordability

An accurate and comprehensive economic analysis is essential for the public and regulatory agencies to fully understand the financial impacts of agency actions. As individuals across the country continue to struggle financially, EPA should account for the massive financial implications a rulemaking of this nature will have on the public, particularly on vulnerable communities. Because publicly owned water systems are not-for-profit agencies, any substantial costs associated with this rulemaking will unfortunately be the responsibility of the ratepayers, or in the event of local, state, and federal funding, the taxpayers.

Public water systems are financed primarily through ratepayer funds, so the costs of new rulemakings are passed off nearly completely to each water system's population. In some cases, public water systems may receive funding from a limited pool of federal financial support in the form of low-interest loans and grants. In rare cases, public water systems may receive funds from unique or limited state or local taxes or other programs. This limit on available funds outside of rates means that in nearly all cases, public water systems must pass off the costs of new rulemakings to ratepayers. When a system passes on new required costs to ratepayers, low-income and other economically disadvantaged households face the highest disproportionate burden.

Moreover, costs from new rulemakings come in addition to greater concerns about water affordability in the United States. American water infrastructure requires billions of dollars to maintain adequate infrastructure, prepare for climate change resilience, and protect public health. EPA's 7th Drinking Water Infrastructure Needs Survey and Assessment¹⁴ report to Congress estimated that drinking water systems alone will need \$625 billion to replace pipes, upgrade treatment plants, improve storage tanks, and enhance other critical assets to ensure the public

¹⁴ EPA. (September 2023). Drinking Water Infrastructure Needs Survey and Assessment 7th Report to Congress. https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSAs_September2023_Final.pdf

health, safety, and economic well-being of communities. These costs do not include any proposed rulemakings and will ultimately be passed on to all ratepayers but will be felt most severely by those with limited incomes. Furthermore, in April 2023, AMWA was one of five water sector organizations that released a report¹⁵ including a first-of-its-kind needs assessment that found that many as 21.3 million households nationwide may have trouble paying their water and wastewater bills now; this figure does not account for water systems adhering to the LCRI.

EPA is estimating that this rulemaking will cost between approximately 2.1 (3 percent discount rate) and 3.6 (7 percent discount rate) billion dollars annually. The agency estimates that these costs will accrue over a 35-year period. In the preamble, EPA says it does not capture the costs of compliance after this period but does account for future benefits occurring after this date.

Section 11.1: Overall Costs

AMWA is concerned with the cost increases that will result from transitioning from the LCRR to the much more complex LCRI framework. EPA is aware that absent additional funding from the federal government, the overall costs for the rule and removal of all LSLs will primarily be borne by thousands of water systems, and by extension, their ratepayers. As the largest publicly owned water utilities that will have the most LSLs of all the utility population size categories, AMWA members will by-and-large experience the highest overall costs. Many commenters outside of the water sector community suggest that water utilities should “pay” for lead service line replacement – however, these commenters neglect to acknowledge that without additional grant funding, this payment ultimately is built into the rates – or in rare cases, taxes or other fees – which fund the operations of a water system.

EPA recognizes the need for federal funding and other grant money to help water systems pay for the cost of replacing LSLs. Despite that acknowledgement, EPA is greatly underestimating the costs of implementing this rule. Therefore, AMWA encourages EPA to reconsider its cost estimates in the final rule, particularly in light of continued inflation and known escalation in water system treatment and materials cost as noted in AMWA’s May 30, 2023, comments to EPA on the proposed PFAS national primary drinking water regulations (NPDWR).¹⁶ In all likelihood, the increased demand for materials and labor from this rulemaking and others like PFAS will drive up already increasing costs, putting further strain on how far water system’s resources can go. Additional requirements like those from Build America, Buy America (BABA) will only exacerbate the issues.

¹⁵ Low-Income Water Customer Assistance Program Assessment. (April 20, 2023).

<https://www.amwa.net/publication/low-income-water-customer-assistance-program-assessment>

¹⁶ AMWA. (May 30, 2023.) AMWA comments on PFAS National Primary Drinking Water Regulations.

<https://www.amwa.net/testimonycomments/amwa-comments-proposed-pfas-national-primary-drinking-water-regulation>.

The sheer cost of this rulemaking is like no other EPA has proposed in recent years. Looking toward the future, this rulemaking and the PFAS NPDWR are set to be finalized this year, with a three-year compliance period ending in 2027 as proposed. In total, water systems nation-wide can expect costs to increase \$2.87 to \$4.8 billion a year to comply with both the LCRI and the PFAS NPDWR, both of which EPA aims to finalize in 2024. In reality, these costs will not be borne evenly among water systems, and some with large numbers of LSLs and concentrations of PFAS above the MCL will see astronomical increases in cost of compliance. At a time when the Administration has focused on environmental justice, it seems antithetical to ignore the reality that such rules will impose enormous costs onto water systems, which will have to increase customer rates to fund compliance with these rules. Even further, these two proposed rules are not the only actions that water systems need to invest in.

A more refined and accurate cost analysis/estimate would help inform future budget requests by the White House, in particular to support President Biden's goal of 100% removal of LSLs and assist appropriators in Congress, who have the ability to provide the level of support water systems need.

Section 11.2: HRCCA/Economic Analysis for the Proposed Rule

EPA's methodology in its proposal falls short of the best practices its 2010 Guidelines for Preparing Economic Analyses.¹⁷ Specifically, EPA neglected to consider all the opportunity costs of its proposal. *Per EPA's Guidelines for Preparing Economic Analyses*, the social costs of a rule represent the total burden that a regulation will impose on the economy. Social costs are defined "as the sum of all opportunity costs incurred as a result of a regulation where an opportunity cost is the value lost to society of any goods and services that will not be produced and consumed as a result of a regulation."¹⁸

EPA's analysis underestimates the costs of the rule in several ways, including not accounting for the social cost of carbon dioxide (SC-CO₂). Additionally, in EPA's 2023 Proposed Rule: New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units the Regulatory Impact Analysis includes an appendix with economy-wide modeling results.¹⁹ EPA finds that including these additional costs for the social cost of carbon increases the social cost of the rule by 35 percent. This is a significant amount and should be accounted for in the cost analysis for this rulemaking. In the preamble, EPA includes many non-quantified, non-monetized benefits but neglects to include opportunity costs that will be associated with the provisions in this proposal.

¹⁷ EPA. (2010). Guidelines for Preparing Economic Analyses. Chapter 8: Analyzing Costs. <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

¹⁸ Ibid.

¹⁹ EPA. (2023, May 5). https://www.epa.gov/system/files/documents/2023-05/FRL-8536-02-OAR%20111EGU%20NPRM%2020230504_Admin.pdf.

As with EPA's analysis under the proposed PFAS NPDWR, for the LCRI cost analysis, EPA did not quantify real market costs that are affecting the water utility community, such as the near-term additional costs water systems face due to scarcity in the labor force and supply chain constraints; the opportunity costs associated with periods of time required to remove LSLs and GRRs; site restoration, time to distribute, etc.; and the economy-wide general equilibrium (GE) effects as the regulation shifts resources from consumption of other goods and services to very specific capital investments.

EPA modeled the GE effects of a \$100 million regulation in different sectors of the economy to measure how higher prices and capital shifts affected the entire economy.²⁰ For the water sector, the report found the economy-wide reduction in consumption is 15 to 18 percent. In other words, the social costs of a regulation in the water sector are expected to be 15 to 18 percent higher than the engineering costs.

EPA includes about five pages of cost components that water systems will incur each step of the way as it implements the requirements of this proposed rule. When calculating this total, a pivotal first step is knowing approximately how many systems will be triggered into these requirements. So far, EPA has not been able to show that it has an accurate number. For example, without knowing how many systems will be triggered by a lowered action level and the inclusion of first- and fifth-liter sampling, EPA cannot provide an accurate estimate of costs associated with this rulemaking.

Many of the costs EPA does estimate have an incredibly wide range based on the amount of assumptions EPA makes. EPA pieces together a long line of unknowns of what will happen when new requirements of this proposed rule are finalized. If the agency must make so many assumptions, it would make sense to perform additional data and information collection to close these gaps. EPA should not be imposing enormous costs on the public if it has not done the research and information collection needed to provide an accurate cost analysis. The amount of financial strain EPA is teeing up for water systems could have unintended consequences. Water systems will need to prioritize projects in order to stay in compliance, and potentially put off important projects that could have negative implications on public health and safety.

Section 11.3: Annualized costs not representative of compliance timeframe

EPA's cost analysis annualizes the costs of the critical components of the rule – including LSL and GRR replacement, filter provisions, public notifications, and others – over 35 years. In reality, these costs will be borne over a much shorter time frame as the rule lays out a framework to have most of the proposed rule's major requirements done in 10 years. Therefore, it is extremely misleading to say it will \$2.1-\$3.6 billion annually (\$73.5-\$126 billion over 35 years). If most of

²⁰ Marten, A. L., Garbaccio, R., and Wolverton, A. (2018). Exploring the General Equilibrium Costs of Sector-Specific Environmental Regulations. <https://www.epa.gov/environmental-economics/exploring-general-equilibrium-costs-sector-specific-environmental>.

the work to comply with this proposed rule occurs in the first 10 years, water systems could potentially see costs of \$7.35 to \$12.6 billion dollars annually for the first 10 years.

While water systems may incur debt service for LSL replacement, for which the overall costs can be spread according to bond terms, the vast majority of other components are operational costs that will be incurred in the first 10 years after the compliance date, not 35 years. EPA must do more to communicate this to the public, as stretching these costs over 35 years deceives the public into thinking this rule is less costly annually than it is. EPA must address this discrepancy in the final rule.

In the case of delivering filters in particular, the useful life for those filters is much shorter than the 10-year timeframe after the compliance date that AMWA anticipates the vast majority of costs occurring (and certainly not 35 years). Pitcher filters have a lifespan of much less than 10 years and the proposed rule requires water systems to provide pitcher filter cartridges that last only six months. EPA then annualizing these costs over the next 35 years is misleading, as the amount of pitcher filters that will need to be distributed will likely severely decrease as the 10-year deadline approaches and many water systems are near completion of their LSL replacement plans.

Section 11.4: Cost of Orthophosphate Removal and Clean Water Act (CWA)/ Safe Drinking Water Act (SDWA) Connection

In the economic analysis, EPA estimates an annual cost of \$4.2 to \$5.9 million for the addition of orthophosphates as a form of CCT. However, this estimation significantly underestimates the efforts required to prevent potential harm to waterways from increased nutrients, such as phosphates. The EPA's assumption of negligible costs associated with wastewater removal of nutrients is flawed, as any expenses incurred will ultimately be shouldered by the same ratepayers funding the proposed rulemaking.

A pivotal aspect of the Clean Water Act (CWA) involves reducing nutrient pollution, and the EPA has allocated substantial resources toward achieving this objective. States, mandated by the Clean Water Act, must develop total maximum daily loads (TMDLs) for all waters identified on their Section 303(d) list of impaired waters. A notable example is the collaborative effort among states within the Chesapeake Bay watershed, working jointly to reduce nutrient pollution and address issues like eutrophication. The introduction of orthophosphates poses a challenge to these ongoing goals, and the EPA must acknowledge the associated costs of mitigating these adverse consequences.

Moreover, EPA regulates nutrient pollution through the National Pollutant Discharge Elimination System (NPDES) permitting. The costs linked to nutrient removal at wastewater treatment plants should be considered, as these financial burdens will be borne by the same ratepayers responsible for covering the expenses of the LCRI. It is imperative for the EPA to recognize, in the final

rulemaking, the substantial costs associated with mitigating nutrient pollution and not overlook the considerable efforts undertaken by its own agency to address this environmental concern.

Section 11.5: Feasibility

A major component of regulating something under the Safe Drinking Water act (SDWA) is determining when actions are feasible. The term “feasible” is defined as “mean[ing] feasible with the use of the best technology, treatment techniques and other means which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration).”²¹ The last piece, “taking cost into consideration,” is an extremely important, often seemingly forgotten, portion of this definition.

Assigning a timeline to 100% LSL replacement automatically increases the price tag of this rulemaking. Time sensitive actions often cost more money, cause increasing demand, and create shortages of necessary materials and labor. If water systems were allowed more flexibility with the timeline of LSL replacement, costs would ultimately go down and these systems would be able to couple other projects with replacement, cutting on costs to excavate and pay crews to do the work. The massive price tag of this rulemaking has been deemed “feasible” by the Administrator, but neglects to provide any assurance for disadvantaged and underserved communities that will be forced to foot the bill for these efforts. AMWA asks EPA to take into consideration some of the recommendations the association has included throughout this comment letter to reduce the financial burdens this rulemaking will have.

EPA also seems to look at this rulemaking through a singular lens. The LCRI is far from the only significant rulemaking EPA is considering now. This year, EPA also intends to finalize the PFAS NPDWR that it estimates will cost ratepayers \$770 million to \$1.2 billion. Even further, other estimations of the cost of that rulemaking are 3-6 times higher.^{22,23} Meanwhile, EPA is intending to utilize, or already is using, SDWA to revise the Microbial and Disinfection Byproduct (MDBP) rules,²⁴ revise the Consumer Confidence Report (CCR) rule,²⁵ regulate perchlorate in drinking

²¹ 42 U.S.C. § 300g-1(b)(4)(D).

²² American Water Works Association. (2023 March 7). WITAF 56 Technical Memorandum. PFAS National Cost Model Report. <https://www.awwa.org/Portals/0/AWWA/Government/2023030756BVFfinalTechnicalMemoradum.pdf?ver=2023-03-14-102450-257>.

²³ AMWA. (2023). AMWA comments on PFAS NPDWR. <https://www.amwa.net/testimonycomments/amwa-comments-proposed-pfas-national-primary-drinking-water-regulation>.

²⁴ EPA. (July 24, 2023). Potential revisions of Microbial and Disinfection Byproducts Rules. <https://www.epa.gov/dwsixyearreview/potential-revisions-microbial-and-disinfection-byproducts-rules>.

²⁵ EPA. (April 5, 2023). National Primary Drinking Water Regulations: Consumer Confidence Report Rule Revisions. <https://www.regulations.gov/document/EPA-HQ-OW-2022-0260-0015>.

water,²⁶ and implement the Unregulated Contaminant Monitoring Rule (UCMR 5).²⁷ Complying with all of these proposed and finalized rules will add significant costs to water systems planning, operations, and maintenance. Outside of SDWA, EPA is taking actions through other authorities that will also financially impact water systems: designating PFOA, PFOS, and additional PFAS as hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),^{28,29} amending the Risk Management Program regulations,³⁰ and Clean Water Act worst case discharge planning,³¹ to name a few.

In addition, our economic development has simply outpaced our capacity for workers to fill open positions. There simply haven't been enough people born to fill the jobs that are being created. The idea that the "market will correct" and support the existing labor/workforce concerns with LCRI is simply unfounded when you consider the findings and data included in *The Demographic Drought: Bridging the Gap in Our Labor Force*.³²

While AMWA recognizes the importance of many of these actions, the association seeks to illustrate to EPA the importance of implementing requirements in a cost-effective and less burdensome way. These proposed and intended rulemakings listed above are but a snapshot of some of the current actions EPA is taking, and AMWA is concerned the compounded costs of all of them are going to make compliance with EPA regulations infeasible.

Section 11.6: Affordability

Despite the much appreciated \$50 billion dollars of federal investment in the water sector from recent legislation, our country's water infrastructure still requires billions more to maintain adequate infrastructure, prepare for climate change resilience, and protect public health. The American Society of Civil Engineers' (ASCE) Failure to Act study³³ found that the U.S. water

²⁶ EPA. (January 5, 2024). Perchlorate in Drinking Water. <https://www.epa.gov/sdwa/perchlorate-drinking-water>.

²⁷ EPA. (February 1, 2024). Fifth Unregulated Contaminant Monitoring Rule. <https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule>.

²⁸ EPA. (September 6, 2022). Comprehensive environmental Response, Compensation, and Liability Act Hazardous Substances: Designation of Perfluorooctanoic Acid. <https://www.regulations.gov/document/EPA-HQ-OLEM-2019-0341-0001>.

²⁹ EPA. (April 13, 2023). Addressing Per- and Polyfluoroalkyl Substances in the Environment. <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0922-0001>.

³⁰ EPA. (August 31, 2022). Accidental release prevention requirements: risk management programs under the Clean Air Act; Safer Communities by Chemical Accident Prevention. <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0003>.

³¹ EPA. (March 28, 2022). Clean Water Act Hazardous Substance Worst Case Discharge Planning. <https://www.regulations.gov/document/EPA-HQ-OLEM-2021-0585-0001>.

³² ESMI. (2021). *The Demographic Drought*. <https://lightcast.io/resources/research/demographic-drought#Download>.

³³ American Society of Civil Engineers. (2021). 2021 Report: Economic impacts of status quo investment across infrastructure systems. <https://infrastructurereportcard.org/the-impact/failure-to-act-report/>.

sector in 2021 needed over \$400 billion to meet engineering standards, and these costs will only increase with additional treatment, climate change, and inflation. The existing water system financing model assumes that most of the money for addressing local water supply issues, whether that issue is aging infrastructure, water quality, lead pipes, cybersecurity, or water supply reliability, can be dealt with largely with local resources (i.e., customer water rates, or other local funding mechanisms). Given the large funding gap needed without the LCRI, it is essential that the EPA adequately assess costs in its final rulemaking and create the NPDWR with accurate estimates.

As stated in section 11.3, over the 35-year period, this rulemaking can expect to cost a total of \$73.5-\$126 billion. This far exceeds the \$15 billion allocated for LSL replacement funds in the Bipartisan Infrastructure Law (BIL) of 2021. Therefore, AMWA is concerned that an EPA requirement for water systems to carry out full lead service line replacements would represent a massive unfunded mandate for communities that do not receive BIL funding. These communities would likely have to turn to increased customer water rates to cover these replacement costs, which could be expected to disproportionately impact low-income customers. The overwhelming majority of water systems are limited to grants, loans, and user rates to cover the costs of providing drinking water service, and federal funds to date alone will not cover the full costs.

Customer bills will not only be impacted by rising operating expenses due to inflation but also higher interest rates that accompany periods of higher inflation. AMWA conducts a biennial survey of its members on financial trends, and a 2022 analysis by Raftelis Financial Consultants indicated that “on average, utilities are projecting to increase rates by almost 5% per year over the next five years. This increase is 37% higher than the expected future increases reported in the 2020 survey (4.94% compared to 3.6%) and 25% higher than expected future increases reported in the 2018 survey (4.94% compared to 3.94%), indicating that while future expected rate increases are anticipated to be on average fairly moderate, these increases are also anticipated to be higher than in previous years.”³⁴

Community water systems face additional challenges in their authority to increase rates and in their ability to assist low-income customers most affected by increased rates. AMWA represents publicly owned drinking water utilities, which are often governed by boards or other elected officials that may restrict the degree to which utilities can increase rates or whether they may establish lower rates for low-income customers. In other cases, publicly owned utilities may require voter permission to authorize funding for major infrastructure projects. The LCRI must recognize the unique challenges faced by water utilities in acquiring and distributing funds to replace lead service lines and recognize potential increased water rates as an intended consequence of funding lead service line replacement.

³⁴ Sapone, P. and Craley, R. of Raftelis. (January 25, 2024). What AMWA’s INSIGHT Survey tells us about inflation’s impact on water utilities. <https://www.raftelis.com/insight/what-amwas-insight-survey-tells-us-about-inflations-impact-on-water-utilities/>.

Section 12: Conclusion

AMWA thanks EPA for the opportunity to provide input on these long-awaited revisions to the Lead and Copper Rule. AMWA's members are public health leaders in their communities, and the protection of their customers is their highest priority. While AMWA supports many of the ambitious requirements under this proposal, the concerns outlined in these comments highlight the multitude of complications which could hinder the implementation of this rule. EPA must work to resolve the components of this rule that have placed unrealistic expectations on water systems, particularly those which hold water systems accountable for achieving benchmarks which may be outside of their control. Requiring water systems to meet standards that rely significantly on the cooperation of schools, licensed child care centers, and homeowners may set up water systems to fail through no fault of their own, despite making their best effort to comply.

The association believes that our comments will help the agency ensure the final rule is achievable, practical, and enforceable. AMWA is appreciative of EPA's efforts to bring this proposal to fruition and looks forward to working with EPA to best protect the health of the millions of people that depend on their local water systems for safe and reliable drinking water.

Appendix A

AMWA Comments on National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions



February 12, 2020

The Honorable David P. Ross
Assistant Administrator
Office of Water
Environmental Protection Agency

Re: Docket ID: EPA-HQ-OW-2017-0300, *National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions*

Dear Assistant Administrator Ross,

The Association of Metropolitan Water Agencies (AMWA) is an organization representing CEOs and general managers of the largest publicly owned drinking water systems in the United States. Any changes to national primary drinking water regulations will significantly impact our members. AMWA appreciates the opportunity to comment on the Environmental Protection Agency's proposed rule, *National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions* (EPA-HQ-OW-2017-0300).

The association has been involved with the Lead and Copper Rule since its inception and values all the work that EPA has done to decrease the risk of lead and copper to public health. The proposed revisions are an important next step and AMWA appreciates EPA's efforts to update the rule. Due to the importance of this rulemaking, AMWA is pleased to submit the attached comments for EPA's consideration. If you have any questions, please contact me at 202-331-2820 or Stephanie Hayes Schlea (schlea@amwa.net), AMWA's Director of Regulatory and Scientific Affairs.

Sincerely,

Diane VanDe Hei
Chief Executive Officer

Attachment

cc: Jennifer McLain, Director, Office of Ground Water and Drinking Water;
Eric Burneson, Standards and Risk Management Division Director, OGWDW

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Introduction

The Association of Metropolitan Water Agencies (AMWA) is pleased to offer these comments on EPA's National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions. AMWA acknowledges the thought and hard work that EPA has put into the proposed revisions to the Lead and Copper Rule and supports EPA's efforts to address this complicated issue. AMWA has been involved with the Lead and Copper Rule since its inception and values all the work that EPA has done to decrease the public's exposure to lead through drinking water. We were pleased to identify a number of strengths in the proposed rule, but we also encourage EPA to make a number of changes to improve its clarity and the ability of water systems to implement and comply with the rule's requirements.

Among the strengths of the rule is the new requirement for water systems to complete an inventory that specifies the composition, if known, of public and privately owned service lines connected to the distribution system. While many water systems will face challenges in accurately determining the makeup of some service lines – particularly those on private property – on balance it is important and worthwhile for water systems to document what materials are in the service lines that deliver water to their customers. Once an inventory is completed, we agree that all water systems serving more than 100,000 people should make their inventories available to the public online. Our comments include several constructive suggestions to improve the inventory requirements, but overall we welcome its addition to the Lead and Copper Rule.

AMWA appreciates that the proposal avoids setting unattainable mandates such as a deadline for the replacement of all lead service lines nationwide. Compliance with such a mandate would take decades, cost billions of dollars, and would prevent water systems from allocating their limited budgets to other projects and initiatives that may deliver greater public health benefits. However, the rule also empowers individual homeowners to compel their water system to replace the publicly owned portion of a lead service line when the homeowner simultaneously replaces their privately owned lead line. AMWA has a number of suggestions to make this process as seamless as possible, but giving homeowners a pathway to have their water system replace a lead service line connected to their property is one of the most important new features in the proposed rule.

AMWA also agrees with steps the proposal takes to discourage partial lead service line replacements – such replacements carry few public health benefits and allow lead pipes to remain in the ground. But a total ban on partial replacements, as some would advocate, is ill-advised and not feasible. For example, emergency water main replacement work may offer an opportunity for a water system to simultaneously replace the publicly owned portion of a household's lead service line. Likewise, a planned water main replacement project may result in a new alignment or spacing of the main, necessitating replacement of at least part of a lead service line. Ideally the privately owned portion of the lead line would be replaced at the same time, but a water system's ability to do so is often contingent upon that customer's willingness to allow work on his or her property (and, in many cases, for the customer to pay the costs associated with replacing the privately owned portion). The proposal recognizes that there will be situations where customer consent cannot be quickly obtained, and in those limited cases

permits a water system to at least remove the publicly owned portion of a lead service line when the emergency main repair projects or other scheduled infrastructure work has provided an opportunity to do so.

AMWA further appreciates that the proposed rule would not require water systems to cover costs associated with the replacement of privately owned service lines, though they would retain the option to do so. While some water systems are able to subsidize private-side replacement, the ability of many others to do so is legally questionable or banned outright. In fact, a 2017 University of North Carolina Environmental Finance Center report commissioned by AMWA and other water sector organizations found that the laws of three states expressly prohibit water systems from using ratepayer funds on initiatives that benefit specific customers, and laws in at least 19 others make the practice highly questionable.¹ A mandate in the Lead and Copper Rule for a water system to pay the cost of replacing a privately owned portion of a lead service line would therefore leave many water systems in the position of either violating the rule, or violating state or local laws barring the use of ratepayer dollars for infrastructure projects that benefit individual residents. The proposed rule wisely avoids this scenario.

However, other parts of the proposed rule fall short of recognizing that any successful effort to address lead in drinking water must be the result of collaboration and cooperation between water systems and their customers. AMWA has strong concerns with aspects of the proposed rule that would penalize water systems for failing to achieve full service line replacement targets that can only be met with the cooperation of individual property owners.

We have also identified a number of shortcomings with portions of the proposed rule related to testing water in school and child care facilities. These deficiencies include the failure to recognize that significant numbers of school administrators and licensed child care center employees may very well not respond at all to water system outreach regarding water testing opportunities – in which case AMWA believes a water system should not be penalized for failing to meet an arbitrary testing target proposed by the rule. As a signatory on EPA’s Memorandum of Understanding on Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities, AMWA agrees with EPA’s prioritization of protecting our children from lead exposure and applaud EPA for taking further steps to accomplish this goal. However, EPA has not considered crucial aspects and restrictions related to the proposed rule and risks holding water systems out of compliance for reasons outside of their control.

AMWA’s comments offer suggestions on these and several other areas of the proposed rule which we believe should be improved. These include:

- The definition of “lead service line” (Section 141.2)
- 24-hour notification following a 90th percentile lead action level exceedance (Section 141.80(h)(3))

¹ Navigating Legal Pathways to Rate-Funded Customer Assistance Programs: A Guide for Water and Wastewater Utilities. https://efc.sog.unc.edu/sites/default/files/2018/FINAL_Pathways%20to%20Rate-Funded%20CAPs.pdf.

- Find-and-Fix (Section 141.82(j))
- Lead service line inventory and replacement requirements (Section 141.84)
- Customer-initiated lead service line replacement (Section 141.84(d)(3)-(5))
- Provision of filters to customers (Sections 141.84 and 141.86)
- Public education and monitoring requirements (Section 141.85)
- Monitoring for lead in schools and licensed child care facilities (Section 141.92)

Finally, our comments offer several suggestions on portions of EPA’s economic analysis accompanying the proposal that we believe require additional consideration.

Beyond these components, we believe further explanation and clarification is necessary for Sections 141.81 and 141.82 of the proposed rule, which govern when a water system would have to install or re-optimize corrosion control treatment based upon the 90th percentile results of tap water monitoring. Based on our reading of the proposal, a water system with corrosion control treatment that exceeds the lead trigger level of 0.010 mg/L at the 90th percentile – but not the action level of 0.015mg/L – would have to study and re-optimize its corrosion control. This would effectively make the trigger level the new standard at which a water system would have to take further action related to corrosion control – leaving the action level somewhat less relevant. We therefore request that EPA more fully explain its reasoning for having corrosion control changes contingent upon a trigger level exceedance rather than an action level exceedance.

Overall, AMWA believes our comments will provide EPA with valuable suggestions which, if adopted, will ensure the proposed rule is achievable, practical, and enforceable. We thank you in advance for your consideration.

Lead service line definition (Section 141.2)

Summary:

- EPA’s proposed definition for “lead service line” is imprecise and should be modified to ensure that the agency’s intention is clear, and the definition can be implemented throughout the rule.
- AMWA is concerned with the inclusion of “ever was” within the determination of galvanized pipe which is downstream of a lead service line or a pipe of unknown material. This distinction is problematic as water systems may not have specific records for service lines that go back to the initial installation, and may be unable to definitively prove or disprove what material may have been upstream of the galvanized line throughout the life of the service line.

- AMWA suggests a revised definition of “lead service line” that provides clarity that a galvanized service line that is not otherwise considered a lead service line, and that is downstream of a lead gooseneck, pigtail, or connector, will not be considered a lead service line. AMWA also suggests allowing a water system to use tools such as water system records, city codes, and building records to draw a reasonable conclusion about whether a galvanized service line is likely to have been connected to a lead line at some point in the past, and use this information to determine whether that galvanized line is to be treated as lead.
- EPA should include more information within the preamble, including visual representations, to better inform the public, regulating entities, and water systems as to the classification of the different real-world scenarios these entities might find when working with service lines.

Comments:

AMWA appreciates EPA’s attempt to better clarify what constitutes a lead service line under this rule. The proposed language improves upon the definition used in the current Lead and Copper Rule, as seen below. AMWA also supports the addition of galvanized lines downstream of lead pipe to the definition of lead service line due to the fact that galvanized pipe can absorb lead particles, as this designation is the most protective of public health.

However, as currently written, the circumstances when a service line is considered a lead service line is still not entirely clear. As this definition informs all other parts of this rule, it is critical that the definition be as clear and detailed as possible.

Present Lead and Copper Rule definition:

Lead service line means a service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

Definition in proposed rule:

Lead service line means a service line made of lead, which connects the water main to the building inlet. A lead service line may be owned by the water system, owned by the property owner, or both. For the purposes of this subpart, a galvanized service line is considered a lead service line if it ever was or is currently downstream of any lead service line or service line of unknown material. If the only lead piping serving the home or building is a lead gooseneck, pigtail, or connector, and it is not a galvanized service line that is considered an LSL the service line is not a lead service line.



AMWA suggests the following language as a substitute:

Lead service line means a service line, which connects the water main to the building inlet, comprised in any part of lead, excluding a service line where the sole component of lead is either a lead gooseneck, pigtail, or connector. A lead service line may be owned by the water system, owned by the property owner, or both.

For the purposes of this subpart, a galvanized service line is considered a lead service line if it is currently, or is known or likely to have been in the past, downstream of a lead service line or service line of currently unknown material. If the only lead known, presently or in the past, to be upstream of a galvanized service line is either a lead gooseneck, pigtail, or connector, then the galvanized line is not considered a lead service line. If a galvanized line is downstream of a service line of unknown material, the galvanized line shall no longer be considered a lead service line if the upstream unknown material is subsequently determined to be nonlead, unless the galvanized line is otherwise determined likely to have been downstream of a lead service line in the past.

The above language maintains the majority of EPA’s intent while providing a clearer and more defensible definition. The language is also consistent with the language used to categorize service lines for purposes of an inventory in Section 141.84.

The most significant change within the suggested language involves the replacement of text regarding if the portion of the service line upstream of a galvanized line “ever was” lead, or an unknown material. The “ever was” standard is problematic because if a water system does not have a complete record for a service line that dates back to the initial installation, it would not be able to definitively prove or disprove what material may have been upstream of the galvanized line throughout the life of the service line – even if the galvanized line is known to currently not be downstream of a lead line. AMWA therefore suggests allowing a water system to use other tools such as other related water system records, city codes, and building records to draw a reasonable inference about whether a galvanized service line was or was not likely to have been connected to a lead line at some point in the past. If this review leads to a conclusion that the galvanized line was likely to have been downstream of a lead line at some point in the past, the galvanized line should presently be considered lead. Conversely, if the review concludes that the galvanized line was unlikely to have been downstream of lead in the past, it should not count as lead in the system’s present-day inventory. We will discuss this process further in our comments on lead service line inventory and replacement requirements.

AMWA’s revised definition also provides clarity that if a galvanized service line is not otherwise considered a lead service line, and is downstream from a lead gooseneck, pigtail, or connector, that galvanized line will continue to not be considered a lead service line.

Finally, AMWA also believes that it would be beneficial to have additional information included in the preamble so as to better describe the different scenarios that water systems may experience

in their own distribution systems. As seen in the table below, under the proposed definition it appears there are, at minimum, sixteen different configurations that a service line could have. This configuration determines whether the service line is considered lead under the inventory, if it may be included in a water system's sampling pool, and if the line would count towards a water system's replacement goal or three percent mandated replacement rate. AMWA suggests EPA include the table below within the preamble. This table will also help with the language used to categorize service lines for purposes of an inventory in Section 141.84.

PUBLIC	PRIVATE	INVENTORY STATUS	COMPONENTS NEEDING REPLACEMENT	INCLUDED IN TIER 1 SAMPLING POOL	COUNTS TOWARD REPLACEMENT GOAL/RATE
L	L	L	B	Y	Y
L	NL	L	P	Y	Y
L	U	L	PR	Y	Y
L	G	L	B	Y	Y
G	L	L	R	Y	Y
G	NL	NL	NR	N	N
G	U	L	DN	N	D
G	G	NL	NR	N	N
U	L	L	PR	Y	Y
U	NL	L	DN	N	D
U	U	L	DN	N	D
U	G	L	DN	N	D
NL	L	L	R	Y	Y
NL	NL	NL	NR	N	N
NL	U	L	DN	N	D
NL	G	NL	NR	N	N

L = lead G = galvanized U = unknown NL = nonlead/galvanized Y = yes
 P = public R = private B = both sides NR = no replacement needed N = no
 DN = determination of unknown(s) needed before decision to do replacement D = depends on status of identified unknowns
 PR = determination needed to decide if one or both components need replacing

24-hour notification following a 90th percentile lead action level exceedance (Section 141.80(h)(3))

Summary:

- AMWA recognizes that the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016 amended the Safe Drinking Water Act to add a "lead action level exceedance" to the list of events after which a water system must give notice to persons

served by the system. In the case of a lead action level exceedance “that has the potential to have serious adverse effects on human health as a result of short-term exposure,” the Safe Drinking Water Act, as amended by the WIIN Act, requires EPA to issue regulations to require a notice to “be distributed as soon as practicable, but not later than 24 hours, after the public water system learns of the ... exceedance.”

- AMWA does not believe that every 90th percentile lead action level exceedance necessarily poses serious adverse human health effects as a result of short-term exposure but acknowledges EPA’s finding that it would be difficult for the agency to delineate between lead action level exceedances that meet this threshold, and those that do not.
- AMWA also believes that EPA should take all steps practicable to avoid mandating expedited public notifications about exceedances that may unnecessarily alarm the public or undermine their confidence in the quality of their drinking water.
- AMWA is confident that EPA could fulfill the congressional mandate of the WIIN Act and appropriately focus expedited exceedance alerts by targeting those alerts to households that, based upon information uncovered through a water system’s lead service line inventory, are known to receive their water through lead service lines or service lines of unknown material.

Comments:

Section 141.80(h)(3) of the proposed rule would require any water system that exceeds the lead action level at the 90th percentile to “notify the public in accordance with the public notification requirements in Subpart Q” of the National Primary Drinking Water Regulations. In practice, this would require a Tier 1 public notification under the Public Notification Rule for any 90th percentile lead action level exceedance, meaning that water systems would have to notify all customers within 24 hours of learning of the exceedance. While we agree that the public should be promptly notified of water quality conditions that may pose severe and acute human health risks, the rule should avoid unnecessarily alarming members of the public (such as those whose homes are not served by lead service lines) who are not expected to be significantly impacted by an exceedance. AMWA believes this is an achievable objective.

AMWA understands that EPA’s proposal for public notification following a lead action level exceedance must abide by the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016 (P.L. 114-322). That law amended the Safe Drinking Water Act to require a notice to “be distributed as soon as practicable, but not later than 24 hours, after the public water system learns of the ... exceedance,” provided that the exceedance “has the potential to have serious adverse effects on human health as a result of short-term exposure.”

No statutory notice distribution timeframe applies in the case of a lead action level exceedance that does not have the potential to have serious adverse effects on human health as a result of

short-term exposure. In that case, the Safe Drinking Water Act directs EPA to issue a regulation to prescribe the “manner, frequency, form, and content” of such notice after taking “into account the seriousness of any potential adverse health effects that may be involved” (See SDWA Sec. 300g-3(c)(2)(A)).

EPA contends in the preamble to the proposed rule (page 61710) that it “cannot define the subset of [action level] exceedances that could result in serious adverse health effects due to short-term exposure.” As a result, the proposed rule “would require Tier 1, 24 hour notification” through methods outlined in the Public Notification Rule anytime a water system exceeds the lead action level at the 90th percentile. These methods include notices through broadcast media, posting at conspicuous locations throughout the service area, hand delivery to persons served, or other methods approved by the state.

While AMWA acknowledges that EPA would face a difficult task in separating those 90th percentile action level exceedances that present serious adverse health effects from those that do not, requiring a 24-hour notification of all customers following a 90th percentile lead action level exceedance goes far beyond the congressional directive and would not be ideal in several respects. First, unlike an MCL violation with the potential to carry serious human health effects in the short term, all users of the water system would not necessarily be equally vulnerable to health effects related to a lead action level exceedance. Instead, sampling results indicating an action level exceedance by the water system would have the most relevance to the health of customers who are served by lead service lines. It is then reasonable to prioritize this universe of customers for the fastest notification following an action level exceedance.

A community-wide 24-hour notification following a 90th percentile action level exceedance, utilizing mechanisms such as broadcast media or hand-delivery, would certainly capture all households that are served by lead service lines. But in the case of metropolitan water systems this broad notification would also capture perhaps tens or hundreds of thousands of households without lead service lines that are less likely to experience elevated lead levels regardless of the results of the community’s tap sampling. Notifying these customers with an urgent communication within 24 hours of obtaining the lead sampling results could lead them to avoid their drinking water unnecessarily, or otherwise cause alarm even though their own water quality is unlikely to be affected. This would likely undermine the public’s confidence in their drinking water and runs counter to the Safe Drinking Water Act’s direction for EPA to “take into account the seriousness of any potential adverse health effects that may be involved” when setting the form, frequency, and manner of the required notice.

AMWA’s recommended alternative approach to customer notification following a lead action level exceedance:

AMWA envisions a modified notification approach that maintains compliance with the requirements of the Safe Drinking Water Act as amended by P.L. 114-322. In short, AMWA recommends that the rule’s requirement to distribute notification to customers within 24 hours of

learning of a lead action level exceedance at the 90th percentile be limited to those households served by a lead service line (including a galvanized line downstream of a lead service line), or a service line of unknown material.

This approach would be made possible by the lead service line inventory that would be required under Section 141.84 of the proposed rule. That provision would require water systems to “develop and maintain a publicly accessible inventory of lead service lines and service lines of unknown materials in its distribution system.” With that inventory in hand, a water system would have a readily accessible list of customers to promptly notify in the event of a lead action level exceedance.

The proposed rule also includes several other scenarios where a water system would be required to deliver a targeted communication specifically to customers served by lead service lines, or service lines of unknown material. For example:

- Section 141.85(e) would require water systems to annually “provide notification to all customers with a lead service line or a service line of unknown material informing them they have a lead service line or a service line of unknown material.” This annual notice would have to be delivered to these customers by mail or another method approved by the state, indicating that water systems would need to maintain a database of contact information for this subset of households.
- Section 141.85(f) would further require that all water systems that exceed the lead trigger level of 0.010 mg/L at the 90th percentile “must provide customers that have a lead service line information regarding the water system’s goal-based lead service line replacement program and opportunities for replacement of the lead service line.” This required notice, which would have to be delivered via mail (or another method approved by the state) within 30 days of the end of the monitoring period within which the trigger level was surpassed reiterates the necessity of water systems to maintain a database of contact information for households served by lead service lines.
- Section 141.85(g) would require water systems that fail to meet their annual lead service line replacement goals to conduct outreach to the public utilizing at least two methods from a prescribed list of options. One such option (found in clause (1)(iii)) is to “send certified mail to customers with lead service lines to inform them about the water system’s goal-based lead service line replacement program and opportunities for replacement of the lead service line.”

Based on these requirements, it is clear that to ensure compliance with the proposed rule water systems would need to maintain a database that includes contact information for households with lead service lines, or service lines of unknown material. With this database available, a water system would have the ability to initiate a targeted notification to these customers within 24 hours of learning of a lead action level exceedance at the 90th percentile. AMWA therefore recommends that EPA give water systems the option of distributing the required notification

within 24 hours of learning of a lead action level exceedance to only those households that are served by lead service lines, or service lines of unknown material.

Even with the ability to target distribution of this notice to customers most likely to be affected, AMWA believes the WIIN Act mandate will impose a substantial burden on water systems. To use the example of a water system that learns of its 90th percentile exceedance on a Friday afternoon, the system would be in violation if it distributed the required notice to customers the following Monday. However, unlike EPA's proposed notice to residents of individual households where tap samples were collected, AMWA recognizes that the WIIN Act does not give EPA flexibility to alter the timeline of when a notice following an exceedance must be distributed.

However, EPA does have a degree of flexibility on how to interpret the WIIN Act mandate. Section 300g-3(c)(2)(C)(i) of the Safe Drinking Water Act, as amended by the WIIN Act, provides that the notice about exceedances with the potential to have serious adverse effects on human health as a result of short terms exposure must "be distributed as soon as practicable, but not later than 24 hours, after the public water systems learns of the ... exceedance." The law does not necessarily require that this notice be in the hands of customers within 24 hours. Therefore, in the case of a water system that aims to meet its WIIN Act notification obligation by issuing a targeted communication to customers served by lead service lines or service lines of unknown material, EPA should consider a water system to be in compliance with this requirement if it begins the process of distributing the notice to relevant customers within 24 hours of learning of the exceedance. Steps that may fulfill this requirement could include initiating printing of a letter to be mailed to customers, or (in the case of customers for whom the water system has electronic contact information) sending them the notice electronically. After initiating the process of printing letters for mail distribution, the water system would be expected to complete distribution as soon as practicable in order to remain in compliance with the statutory deadline.

In this scenario, it is important to remember that the samples themselves would have been collected at least several weeks prior to the moment at which the water system learned of its action level exceedance at the 90th percentile. After such an amount of time, there would be a minimal difference from a public health perspective of whether a customer actually received the notice within 24 hours of the water system learning the result, or a few days later.

AMWA's recommendation and compliance with the WIIN Act:

AMWA's recommendation to target lead action level exceedance notices to customers who are served by lead service lines would be consistent with the congressional mandate of the WIIN Act. Under Section 300g-3(c)(2)(C) of the Safe Drinking Water Act, as amended by the WIIN Act, EPA's regulations must "specify notification procedures for [each MCL violation or lead action level exceedance] that has the potential to have serious adverse effects on human health as a result of short-term exposure." While the proposed rule aims to achieve compliance with this

mandate by treating all lead action level exceedances as Tier 1 public notification events that “reach all persons served” by the system, the statutory language allows greater flexibility – as long as water systems provide distribution to those individuals with the potential to suffer serious adverse health effects as a result of short-term exposure “as soon as practicable, but not later than 24 hours” after learning of the exceedance.

AMWA believes that the portion of a water system’s customer base most likely to be at risk of incurring serious adverse health effects as a result of short-term exposure following a lead action level exceedance at the 90th percentile are those customers who receive their water through a lead service line. Customers who are found (via the water system’s service line inventory) to not be served by lead service lines have a much lower potential to experience adverse health effects as a result of levels of lead measured in water that spur an action level exceedance. The WIIN Act therefore does not require water systems to expedite a notice about an action level exceedance to these customers. While AMWA believes that the water system’s entire service population should be made aware of a 90th percentile exceedance following the conclusion of the monitoring period (or another time period EPA identifies after taking into account the seriousness of any potential adverse health effects to the general population), neither statutory nor public health objectives necessitate all customers to receive a notice about a 90th percentile lead action level exceedance at the same time as customers who do in fact receive their water through a lead service line.

AMWA understands that there may be hesitation on the part of some water systems to divide their post-exceedance public notification in this manner, so the final rule should allow the option for a water system to distribute its notice to the entire service population, as the rule currently proposes. In fact, some water systems may find it preferable to simply utilize broadcast media to broadly deliver this notice to the public, and the final rule should not restrict them from doing so. But because ensuring compliance with other aspects of the proposed rule will require water systems to maintain databases of contact information for households with service lines made of lead and/or unknown materials, these databases could also be utilized to begin distribution of a required notification within 24 hours of a water system learning of a lead action level exceedance. This would quickly and directly get the information to the households where it is most needed, without alarming other customers with an expedited notice that may not be relevant.

Find-and-Fix (Section 141.82(j))

Summary:

- AMWA agrees with the proposed rule’s intent to encourage water systems to identify the cause when high levels of lead are detected at an individual tap sampled as part of required monitoring activities.

- AMWA also agrees with the proposal’s limitation of Find-and-Fix requirements to only those samples taken pursuant to the monitoring program under Section 141.86 and not to other samples that may be voluntarily collected by water systems through customer-requested drinking water lead testing programs.
- AMWA objects to EPA’s requirement that all new water quality parameter testing sites identified under these provisions be permanently added to a water system’s catalog of sites. This is unnecessary and is not a constructive use of limited resources.
- AMWA strongly objects to EPA’s suggestion that adjustments to a water system’s corrosion control treatment should be carried out based on a single sample that is above the action level. In some cases, an elevated level of lead discovered in an individual sample may often relate to lead coatings or other factors that are unique to the specific sampling site, and beyond the control of the water system.
- Requiring a water system to make corrosion control changes due to only one or a small number of individual samples exceeding the action level could actually expose the public to elevated lead levels and corresponding public health risks and provide limited benefits.
- Should EPA proceed with requiring corrosion control adjustments following a single sample exceedance, AMWA makes the following suggestions:
 - The final rule must include greater clarity about EPA’s vision for adjustments to “localized” corrosion control, as neither the rule nor the preamble define this term or explain how a water system would implement it.
 - AMWA questions whether “six months after the end of the monitoring period in which the site exceeded the action level” is enough time for a water system to make an informed and scientifically justified decision on changes to corrosion control treatment without the possibility of jeopardizing public health.
 - EPA should ensure that the proposed rule only requires a water system to make a single determination of whether adjustments to corrosion control treatment are necessary, following a round of required monitoring activities. EPA should further ensure that adequate time and resources are available to study and decide upon any adjustment to corrosion control treatment. As currently drafted, the proposed rule suggests that a water system would have to make a separate determination on potential corrosion control changes for each individual sample that detects lead in a home’s water above the action level.

Comments:

AMWA understands that the “Find-and-Fix” provision in Section 141.82(j) would go beyond the Lead and Copper Rule’s current requirements, which direct water systems to notify individual customers of the sampling results from their taps within 30 days. The proposed rule, in addition to requiring water systems to deliver a notification within 24 hours to individual customers whose water was found to have lead exceeding the action level, would also require water systems to take steps to identify and rectify underlying issues that may have contributed to elevated lead levels measured in an individual customer’s tap, and to determine whether system-wide corrosion control changes are necessary. AMWA generally agrees with EPA’s intent to encourage water systems to assist in uncovering the cause of elevated lead levels in individual homes, but has significant concerns regarding the agency’s proposal for water systems to consider changes to their corrosion control based solely on a small number of individual tap samples that exceed the action level.

We also note that Section 141.82(j) would only require steps outlined in the Find-and-Fix procedure “when a tap sample site exceeds the lead action level *under monitoring conducted under Section 141.86*” (emphasis added). We interpret this to mean that Find-and-Fix requirements would not apply to any tap samples voluntarily collected by a water system outside of monitoring required under Section 141.86, but urge EPA to confirm this interpretation. If the Find-and-Fix process were to apply to all samples collected by a water system – both voluntarily and pursuant to monitoring requirements – it would create a strong disincentive for community water systems to perform voluntary sampling for customers. In the case of large water systems that may voluntarily collect samples from thousands of locations (as opposed to 100 or less samples collected pursuant to required monitoring), directing the water system to attempt to identify the cause of each and every individual high sampling result encountered would pose a tremendous burden, and would likely cause many large water systems to cease offering voluntary sampling to customers at all. We therefore encourage EPA to clearly reiterate that the Find-and-Fix process would only apply to samples conducted pursuant to Section 141.86 monitoring.

While AMWA appreciates EPA’s effort to develop the Find-and-Fix process, we believe components of the proposed requirements could lead to redundant analysis and reporting exercises. Further, we harbor strong concerns about requiring the consideration of corrosion control changes when a water system has not exceeded a 90th percentile threshold.

Requirements of the proposed rule:

Section 141.82(j) would require water systems to take a number of steps “when a tap sample site exceeds the lead action level under monitoring” conducted pursuant to Section 141.86. These steps include:

- Sampling at a new water quality parameter site on the same size water main in the same pressure zone and located within one half mile of the original sampling location, within

five days of receiving the original sampling results;

- Collecting a follow-up sample at the original sampling location, within 30 days of receiving the sampling results; and
- Evaluating the results of monitoring “to determine if either localized or centralized adjustment of the optimal corrosion control treatment ... is necessary.” If a water system determines that changes to corrosion control are necessary, it would have to make this recommendation to the state “within six months after the end of the monitoring period in which the site[s] exceeded the action level.”

Concerns with the proposed rule:

AMWA has several concerns with the proposal. First, as written this complete process appears to be required each time that “a [singular] tap sample exceeds the lead action level.” This means that water systems would have to make repeated, separate determinations on whether changes to corrosion control treatments are necessary. For example, consider a water system that had five sites exceed the action level in a given round of testing. Not only would that system have to conduct five additional samples at new or nearby water quality parameter sites within five days, and at the five original sampling locations within 30 days, but it would also have to make five separate determinations of whether adjustments to optimal corrosion control treatments are necessary to address each case. Each of these five determinations would have to be submitted to the state, and then the water system would have to separately act on any state requirements for each. These determinations would come in addition to evaluations of corrosion control treatment that the proposed rule would require all community water systems to carry out every three-to-five years as part of their sanitary surveys. This process would be redundant and could lead to conflicting recommendations regarding a community’s corrosion control treatment.

Even more importantly, we do not believe it is appropriate to require a water system to consider or implement changes to its systemwide corrosion control treatment when its sampling results do not exceed a 90th percentile level -- which possibly indicates a widespread shortcoming in corrosion control effectiveness. Although AMWA reiterates its earlier request for additional information regarding EPA’s proposal to use a 90th percentile exceedance of the new trigger level, rather than the action level, as the point at which a system must study and re-optimize corrosion control, the association strongly believes that consideration of corrosion control changes at either of these 90th percentile figures is far more appropriate than requiring such consideration in response to a Find-and-Fix investigation of a small number of individual tap samples that exceed either level.

As proposed, even a single tap sample result that exceeds the action level could prompt a water system to consider or implement systemwide corrosion control changes. This could prompt adjustments that have unintended consequences elsewhere in the distribution system and expose the public to elevated lead levels and corresponding public health issues. Simply put, corrosion

control adjustments should only be made in response to data demonstrating that current corrosion control is deficient throughout the distribution system, and not in response to a small number of samples where other, household-specific factors may have influenced the results.

We question the feasibility of requiring sampling at a “new water quality parameter site that is on the same size water main in the same pressure zone and located within a half mile of the location with the action level exceedance within 5 days of receiving the sample results.” It will take time for a water system to identify such an appropriate testing site, make contact with the property owner, and carry out the test. In particular, it may take much more than five days for a property owner to respond to a water system’s initial outreach and make their property available for testing. The five-day timeframe – from the point of obtaining the initial results to carrying out another test at another nearby location – may therefore be unrealistic.

Additionally, the proposal seems to direct a water system to establish a new permanent water quality parameter testing site nearby to each sampling site that was found to exceed the action level of 0.015mg/L. “Step 1” as explained in paragraph (1) following the discovery of an individual sample that exceeds the action level simply states that a water system “shall sample at a *new* water quality parameter site that is on the same size water main in the same pressure zone and located within a half mile of” where the high sample was taken (emphasis added). Section 141.87(g) of the proposed rule later states that this “new” water quality parameter site must be permanently added to the system’s catalog of water quality parameter testing sites pursuant to Section 141.82(j). This is problematic as water systems could end up with an abundance of new permanent water quality parameter testing sites simply because they are near a monitoring location where a single sample above 0.015mg/L was collected at some point in the past. Over time this would lead to an irrational, unwieldy, and unnecessary number of water quality parameter testing sites. AMWA does not believe that this is a practical or beneficial use of a water system’s limited resources.

In terms of making decisions about changes to corrosion control treatment, identifying new or optimized corrosion control treatment often requires a study involving pipe loops or jar tests that can take several months to prepare, carry out, and analyze. We therefore question whether “six months after the end of the monitoring period in which the site exceeded the action level” is enough time for a water system to make an informed and scientifically justified decision on changes to corrosion control treatment.

Finally, AMWA seeks greater clarity on what EPA means when it refers to “localized corrosion control treatment.” This term is not defined in the proposed rule or the preamble, yet water systems would be directed to explore it as an option in response to individual samples collected that test above the action level. While in theory a water system could potentially add small chemical feed stations in various locations throughout its distribution system to supplement phosphate levels in certain neighborhoods, in practice this would be extremely challenging to plan, implement, operate, and maintain. Failure to contain the “localized treatment” to its intended zone could result in variable water quality in surrounding areas that destabilizes lead

coatings and results in lead releases. AMWA recommends that the proposed rule should focus on evaluations of possible system-wide corrosion control adjustments.

AMWA's suggested alternative approach:

As an alternative, AMWA recommends that the Find-and-Fix portion of the final rule clearly articulate a process that follows these guidelines:

- Each tap sample collected as part of monitoring conducted pursuant to Section 141.86 that exceeds the lead action level should trigger one-time follow-up testing from the same sample site, and at a nearby site in the same water pressure zone.
- For each individual tap sample collected as part of monitoring conducted pursuant to Section 141.86 that exceeds the lead action level, the water system should determine whether there is a remedy unique to that site, such as an aggressive flushing routine for the service line, replacement of premise plumbing or service lines, or flushing nearby portions of the distribution system. A water system should not be required to carry out any remedy that is beyond its control (such as the replacement of premise plumbing or the privately owned portion of a lead service line), the water system's responsibilities under Find-and-Fix should end once any site-specific remedies are identified and shared with the property owners.

Again, AMWA reiterates its objection to EPA's proposal that could lead to adjustments to a water system's corrosion control treatment based on a single sample that is above the action level. Instead, we believe that either an exceedance of the 90th percentile trigger level or 90th percentile action level should be the point at which a water system must consider adjustments to its corrosion control treatment. But if EPA nevertheless proceeds with the proposed requirement to consider corrosion control adjustments when the water system has not exceeded one of these 90th percentile levels, AMWA has the following suggestions to make the requirement as workable as possible:

- When a round of monitoring conducted pursuant to Section 141.86 discovers one or more individual tap samples that exceed the lead action level for which a remedy unique to the site is not identified, a water system should be required to conduct an analysis of the sampling results to identify any patterns that could indicate a deficiency in the system's corrosion control treatment.
- This analysis should include data points that reflect voluntary lead sampling conducted by the water system, in addition to data collected through required monitoring.
- Based on this analysis, the water system should be given adequate time – at least one year after the conclusion of the monitoring period – to make a single determination of whether there is a deficiency in the system's corrosion control treatment that requires adjustment.

- If a corrosion control adjustment is determined to be necessary, the system shall submit the recommendation to the state. If a state approves the water system's recommendation – or specifies an alternative approach – it should be implemented on a timeline mutually agreed to by the state and the water system.

AMWA believes the above-stated approach is consistent with the framework of the proposed rule, but streamlines the process by having a water system first attempt to identify property-specific factors that could cause elevated lead levels, before considering adjustments to corrosion control treatment. Only if property-specific fixes cannot be identified would a water system have to dialogue with the state about potential broader corrosion control changes. Just as importantly, AMWA's suggestion eliminates the uncertainty in the current proposal that could force water systems to repeatedly consider an overlapping series of changes to corrosion control practices for each sampling site found to have an elevated lead level, but recognizes that all proposed corrosion control adjustments should be carefully studied, vetted, and communicated to customers prior to implementation.

Lead service line inventory and replacement requirements (Section 141.84)

Summary:

- *Lead Service Line Inventories:*
 - AMWA supports EPA's goal for lead service line inventories and appreciates the flexibility the agency has included by allowing for a wide variety of informational resources to create the inventories.
 - AMWA urges EPA to recognize that some water systems are very likely to have no lead service lines in their distribution networks, even if they have a number of lines of unknown composition. The rule should attempt to reduce burdens for these systems where possible.
 - AMWA supports EPA's alternative for including specific addresses with lead service lines rather than location identifiers and supports the requirement for water systems serving greater than 100,000 persons to make their inventories available online.
- *Lead Service Line Replacement:*
 - AMWA supports EPA's objectives for full lead service line replacement (not partial) and agree that the end goal should be for the entire lead service line to be

removed. We also appreciate EPA's understanding that partial lead service line replacements will, at times, be necessary when doing emergency repairs, routine maintenance, and capital improvement projects if the customer is unable or unwilling to replace their portion of the service line.

- AMWA is supportive of water systems developing lead service line replacement plans.
 - AMWA has concerns that the provisions within the proposed rule regarding lead service line replacement are not realistic and fail to recognize the significant limitations created by the most common scenario of a shared ownership of the service lines.
 - AMWA appreciates and supports EPA's decision that water systems will not be expected to cover the costs of replacing the customer's portion of a lead service line.
 - EPA should consider using a "rolling average" over multiple years to determine a water system's compliance with the mandated three percent target or replacement goal, rather than determining compliance on an annual basis.
- *Customer-initiated lead service line replacement:*
 - AMWA supports empowering homeowners to initiate full lead service line replacements.
 - The proposed 45-day timeline for a water system to replace the public portion of a lead service line following a customer's notification of intent to replace the privately owned portion of a lead service line may not be achievable for water systems because of factors such as work crew availability, seasonal work limitations, and long-term infrastructure planning.
 - The final rule should promote a collaborative process through which customers and water systems can work together to replace lead service lines on a mutually agreeable schedule that is unencumbered by artificial deadlines.

Lead service line inventories

AMWA supports EPA's goal for lead service line inventories and agree that this is a crucial step for informing the public as to the extent and scope of the lead service lines within their community. Information on lead service lines is also important to water systems in order to target those areas for potential lead service line removal.

AMWA applauds the flexibility EPA has included within this proposal regarding inventories. AMWA agrees with the agency's understanding that many systems do not have complete records and would struggle to quickly obtain this data. With this in mind, the proposed rule would provide water systems with three years, after the final rule date, to complete these inventories, and would allow water systems to initially meet this requirement by completing a records search.

Within this section of the rule, EPA requires water systems to review sources of information including:

- Plumbing codes, permits, and records in the files of the building department(s) which indicate the service line materials used to connect water system- and customer-owned structures to the distribution system;
- Water system records, including distribution system maps and drawings, historical records on each service connection, meter installation records, historical capital improvement or master plans, and standard operating procedures;
- Inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and
- Any resource required by the State to assess service line materials for structures built prior to 1989.

AMWA supports and appreciates EPA's allowance of the above examples of records for determining the identity of the material used for service lines. This is especially important for lines listed as "unknown" as it allows water systems to reasonably infer the material of a given service line based on reliable data about similar homes and/or structures built around the same time. In particular, we applaud the proposed rule's flexibility in allowing states to identify (in the case of structures built prior to 1989) additional resources that water systems may draw upon to identify the composition of service lines. Some water systems, for example, have reported success in identifying service line materials through water quality tests conducted at particular properties. While such methods may not be practical in every situation, we appreciate that the proposed rule would give states the ability to allow them when appropriate.

AMWA understands EPA's decision to classify unknown service lines as lead until determined to be otherwise so that a water system may have a "complete" inventory even if it lacks sufficient records for every service line within its distribution system. AMWA appreciates that EPA is not proposing to require water systems to identify service lines outside of their normal operations and agrees with EPA's assessment in the preamble that "excavating test pits can be expensive and may disturb lines, resulting in lead release" (page 61696). AMWA supports water systems that take the initiative to go beyond these parameters in order to more quickly identify the unknown lines within their distribution system but is appreciative of EPA's understanding that this will not be feasible for every water system.

Consideration of systems unlikely to have lead service lines:

We believe the rule should go further to recognize that some systems very likely do not have any lead service lines in their distribution networks, even if their inventory includes a number of lines of unknown composition. For example, one AMWA member in North Carolina has never found a lead service line in its distribution system and has no evidence to indicate that lead service lines were ever present in the past. However, under the proposal, if the system's inventory was not able to positively identify the composition of every individual line, those remaining unknown lines would all be classified as lead, and would be the basis of calculations to develop this system's replacement rate. Using these unknown lines to calculate a lead service line replacement rate, in the absence of any present or historical evidence suggesting lead in the system, is illogical.

In such limited circumstances, AMWA believes the rule should allow water systems to certify to the state that they do not currently have, and are never believed to have had, lead service lines anywhere in the distribution system. Upon approval by the state, these water systems should be allowed to draw a reasonable conclusion that lead is not currently present among their service lines of unknown composition, and the system's replacement rate should be calculated as if there is no lead currently present. However, if subsequent evidence demonstrates the presence of lead currently or in the past, all of the water system's unknown service lines should be treated as lead for the purposes of calculating the system's replacement rate.

Identification of privately owned service lines:

AMWA believes that the final rule must also recognize that water systems will be significantly limited in their ability to identify the composition of privately owned portions of service lines. In some cases, the water system will be completely dependent upon individual property owners' willingness to cooperate with requests to inspect the line or otherwise document what it is made of. Should any individual property owner not agree to this review, the water system would have to classify the privately owned portion of the line as an "unknown" material and include it within the system's lead service line inventory and replacement calculations. This would subsequently trigger additional reporting requirements for water systems under other sections of the rule.

AMWA agrees that a privately owned portion of a service line whose composition is unable to be determined due to lack of cooperation or response by the property owner, should be considered "unknown" in the water system's inventory. However, AMWA believes this line should be excluded from calculations used to develop system's lead service line replacement goals. This scenario recognizes that, if the lack of property owner cooperation is the only impediment to identifying the composition of the line, no reasonable assumption can be made about what the line is made of, and so including the line in the system's replacement calculations could artificially inflate the system's required three percent replacement rate, in the event of an action level exceedance.

AMWA appreciates and agrees with EPA's decision to allow a service line of unknown material to be removed from the number of lead service lines required to be replaced each year should the water system exceed the action level, if the service line is determined or reasonably inferred to be non-lead.

Treatment of galvanized lines:

As stated in our discussion of the proposed definition of a "lead service line," AMWA has concerns with EPA's inclusion of galvanized lines that ever were downstream of a lead service line. This would seemingly mandate that water systems without records dating back to the original installation of a galvanized line would be required to treat the line as lead and include the service line within the water system's replacement schedule and goals. AMWA requests that EPA allow water systems to utilize data such as building records and plumbing permits pertaining to the neighborhood surrounding the line in question to draw a reasonable conclusion about the history of a given service line upstream of a galvanized line. For example, if a neighborhood was constructed at a date after a community or water system is known to have ceased installation of lead service lines, but the water system does not have specific records detailing the material that was upstream of galvanized lines in the neighborhood at the time of installation, the water system should be allowed to draw a reasonable conclusion that those upstream lines are not likely to be lead. In cases where a water system makes such a good faith determination, AMWA suggests allowing the water system to remove this galvanized line from its lead service line inventory. If the water system subsequently obtains new information indicating that the galvanized line had in fact previously been downstream of a lead service line, then the line shall be restored to the system's lead service line inventory.

Public identification of homes with lead service lines:

EPA's proposal seeks comment on whether publicly accessible lead service line inventories pertaining to customer-owned portions should include only a "location identifier" such as a street or intersection, as opposed to an exact street address. In most cases, AMWA supports including exact street addresses for customer-owned portions of lead service lines within publicly accessible inventories. It is important to consider that the rule proposes to include both the public and privately owned side of a lead service line within the definition of the term, and individuals will incur the same health effects whether lead that enters their drinking water does so via the public or privately owned portion of the service line connecting their home to the water main. A primary purpose of the publicly available inventory is to inform both current and potential homeowners and tenants about the risks associated with having a lead service line, and omitting specific addresses from this dataset would leave potential homeowners and tenants unable to make fully informed decisions about whether to reside in that property. Conversely, including the specific address data in the publicly available information would encourage homeowners and landlords to take action to address their privately owned lead service line, particularly before

putting their home up for rent or sale. Over time, this will prod progress toward the larger objective of replacing lead service lines nationwide.

When considering the publication of individual addresses within lead service line inventories, it is important to note that a service line of unknown material will be classified as “unknown” in the inventory, even though the water system would be required to count that unknown line as lead for the purposes of calculating its service line replacement rate. So, there is little risk that a property served by a service line of unknown material – which in reality is not lead – would be publicly misidentified in the inventory as being served by lead.

AMWA understands that including this information about privately owned portions of lead service lines in the publicly available inventory may raise privacy concerns. However, public real estate databases presently include a wealth of information about the characteristics of private homes, such as the square footage, number of bedrooms and bathrooms, whether a basement is finished, and roofing and siding materials. Moreover, federal law requires home sellers to disclose the known presence of lead paint in the home prior to the sale. If a water system has information about the presence of lead in the privately owned portion of a property’s service line, making it available alongside information about the materials on the publicly owned side of the service line is consistent with this other publicly available information.

AMWA does recognize that a public disclosure of a lead service line may make it more difficult to sell or rent certain properties. But we do not believe that the sale or rental of a home – particularly to a new owner or tenant who may have small children – should be facilitated through the suppression of information that could affect the health of the new owner or tenant. Other sections of the proposed rule provide new mechanisms to enable individual homeowners to work with water systems to replace lead service lines, so AMWA would encourage homeowners concerned about the public disclosure of their lead service line to pursue this replacement opportunity. AMWA also supports EPA’s requirement for water systems serving greater than 100,000 persons making their inventories available online. Making this information easily accessible helps educate the public and increase transparency.

We are aware that some states have laws that may prohibit water systems and other governmental entities from publicly disclosing the addresses of their customers. For example, a water system in Colorado that publishes an inventory that allows individuals to look up customer addresses could potentially be in violation of the Colorado Open Records Act. In situations where the disclosure of specific street addresses could violate similar state or local laws, the rule should give the state agency the option to waive the street address publication requirement and allow water systems to use location identifiers as an alternative.

Lead service line replacement

AMWA supports EPA’s objectives for full lead service line replacement (not partial) and agree that the end goal should be for the entire lead service line to be removed. AMWA appreciates

EPA's acknowledgement of situations where a partial lead service line replacement would be unavoidable. In general, AMWA supports avoiding partial replacements and agrees with the Science Advisory Board's assertion that partial replacements "have not been shown to reliably reduce drinking water lead levels and may even increase lead exposure in the short-term" (page 61697). However, emergency repairs, routine maintenance, and normal capital improvement work should not be impeded due to customers being unwilling or unable to replace their portions of the service line.

Replacement plan guidelines:

AMWA is supportive of water systems developing lead service line replacement plans. However, AMWA is concerned that the proposal could allow states to impose a goal replacement rate in the event of a trigger level exceedance that is greater than the three percent annual replacement rate that would apply in the event of an action level exceedance. Some individual water systems may wish to develop lead service line replacement plans that set targets above the three percent threshold, but the final rule should specify that a state may not require a replacement plan to include a goal replacement rate that exceeds the three percent target of the action level replacement rate.

Paying for private lead service line replacement:

AMWA supports the component of the proposed rule specifying that water systems will not be expected to cover the costs of replacing the customer's portion of a lead service line. As previously discussed, many water systems are prohibited by state law or local ordinance from using ratepayer dollars to carry out an infrastructure project that benefits a particular private party, so these systems would be unable to comply with a federal mandate requiring them to fund the replacement of privately owned portions of lead service lines. However, water systems generally may offer to arrange for the replacement of privately owned lead service lines, as long as the customer ultimately covers the cost. In these cases, the water system may offer customers extended repayment plans or other financing aids to reduce the customer's burden. Additionally, through Section 2105 of the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016 (P.L. 114-322) Congress authorized grant funding that may be used by water systems for "providing assistance to low-income homeowners to replace lead service lines." Through fiscal year 2020 Congress has appropriated nearly \$45 million for these grants, so AMWA hopes that EPA will soon begin seeking applications for these funds so communities can begin to offer this important assistance to their low-income ratepayers.

Inability to achieve replacement rate or goals:

AMWA has concerns with water systems being able to meet both the replacement goals for passing the trigger level and the three percent mandated by triggering the action level. AMWA

requests that EPA include language stating that there may be scenarios in which a water system may not be able to meet the goal or mandated replacement level for reasons completely beyond the system's control. For example, because the entire – public and private – lead service line must be replaced to count toward the replacement mandate following an action level exceedance, in some circumstances a water system would be completely reliant on a customer to act to replace their private side in order for the replacement to count. In particular, customers who may be unable to afford replacing their portion of the service line or who may choose to not have their side replaced regardless of cost would prevent water systems from achieving their replacement goals or mandates. AMWA would also like to highlight that even water systems which may be able to cover the cost of replacement may still struggle getting buy-in from all customers as some will still choose to forgo replacement.

Use of rolling average when determining replacement compliance:

AMWA recommends that EPA consider using a “rolling average” for determining a water system's compliance with the mandated three percent target or replacement goal. It is likely that a water system will have more success finding customers who will agree to pay for the replacement of their portion of the service line during the water system's initial outreach efforts. As the water system's replacement program continues, the pool of willing customers will likely diminish as the water system goes through subsequent rounds of outreach to customers who have previously chosen to forgo replacement. A scenario which may occur could see a water system replacing five percent of their lines the first few years followed by a significant drop to one or two percent in its final years as the system struggles to find participants.

Allowing for a rolling average will ensure that water systems are given credit for their previous accomplishments and are provided flexibility for the difficulties which may arise through no fault of the system. Allowing for this flexibility could lead to the replacement of lead service lines at a faster rate, because a water system would know that any additional lines beyond three percent replaced in one year would still count toward its replacement mandate in future years (when various circumstances could cause a system to fall short of the three percent target). In other words, if a rolling average were not taken into account, a water system would have no incentive, from a regulatory compliance standpoint, to keep replacing lines in a single year after reaching the three percent figure. The rolling average would allow the system to focus on removing the greatest number of lines feasible, regardless of how many lead service lines have already been replaced in a given year.

AMWA also suggests that EPA include criteria for determining when a water system has made a good faith effort to replace the required percentage of lead service lines but was unable to do so due to factors outside of the water system's control. In these circumstances, water systems should not be considered to have violated their replacement mandate, particularly if the mandate would have been achieved had each customer who declined to replace a private lead service line actually done so. As part of this provision, EPA should define what type of outreach to a

customer is sufficient to demonstrate that the water system made a good faith effort to encourage replacement of the private lead service line.

As an example to highlight the complexities of these mandates, one AMWA member reports that it no longer has any lead service lines on the public side and therefore is entirely dependent on customers agreeing to pay for and schedule the replacement of their portion of the service line. This could make achieving a three percent replacement rate, or similar replacement goal, each year increasingly difficult as a water system's replacement program progresses. Because the water system would be limited to working with a shrinking pool of customers – many of whom that have declined earlier offers to coordinate the replacement of their lead service line – it will become progressively challenging for a water system to convince enough of these remaining customers to agree to private side replacement in a given year. Allowing for flexibility, a rolling average, and a well-defined threshold for when a water system has made a good faith effort will ensure that water systems are not considered out of compliance for circumstances beyond their control.

Customer-initiated lead service line replacement

AMWA applauds provisions in the proposed rule that would allow individual homeowners to request a water system to replace the publicly owned portion of a lead service line connecting to their property following, or in conjunction with, the customer-initiated replacement of the private portion of that same service line. This process will empower individual customers to compel replacement of the entire service line serving their home – provided they are willing to finance the cost of replacing the privately owned portion of the line (though in some circumstances the water system may be able to assist with covering this cost as well).

Notification of a customer's intent to replace private lead service line:

AMWA has serious reservations about the proposal's stated process for steps that a water system must follow when notified of a customer's intent to replace his or her portion of a lead service line. According to Section 141.84(d)(3) of the proposal (emphasis added):

When a water system is notified by the customer that he or she *intends* to replace the customer portion of the lead service line the water system has 45 days from the day of their notification to conduct the replacement of the system-owned portion.

AMWA believes it is misguided to set a timetable for replacement of a publicly owned portion of a lead service line based upon the date that a customer notifies the water system of his or her plans to replace their privately owned portion. A customer's mere statement of intent has no bearing upon the date on which the privately owned portion of the service line might actually be replaced, and does not necessarily indicate that such work may be imminent or ever carried out. Conceivably, a customer could notify a water system of a vague intent to replace the private

portion of the service line at an undetermined date in the future. Or a customer could submit this notification to the water system and subsequently not follow through with the private-side replacement. In either case, the clock for the public-side replacement would begin ticking on the day that the customer provided the initial notification, thus requiring the water system to complete replacement of the public-side portion within 45 days. This could lead to situations where a water system is required to carry out a partial lead service line replacement, either because the customer did not follow through with the private-side replacement, or failed to schedule it within the inflexible 45 day window offered to the water system. Such an outcome would clearly run counter to the intent of the rule.

Should any deadline for public-side lead service line replacement be included in the final rule, at minimum it should specify that the window within which the public line must be replaced shall not begin until the customer demonstrates to the water system that he or she has obtained a plumbing permit to allow replacement of the private side of the lead service line to proceed.

But even with such a requirement, forcing the public-side replacement to be completed on an arbitrary timeline would not be ideal for a number of reasons. AMWA does agree, as is proposed in the rule, that water systems should make a good faith effort to coordinate simultaneous replacement of both the public and privately owned portions of a service line following a notification of intent by the customer. AMWA therefore recommends that the final rule promote a collaborative process for customer-initiated service line replacements that is based upon this concept. We suggest the following:

1. When a customer notifies a water system of his or her intent to replace the privately owned portion of a lead service line, the water system should offer to arrange replacement of both the public and privately owned portions of the lead service line (though the customer may be required to pay for costs associated with the private-side replacement). If the customer agrees to coordinated replacement arranged by the water system, the water system shall work with the customer to identify a mutually agreeable work date that is as early as practicable based upon factors such as seasonal considerations, work crew availability, and long-term infrastructure planning.
2. When a customer notifies a water system of his or her intent to replace the privately owned portion of a lead service line, but rejects the water system's offer to coordinate work to replace both the public and privately owned portions of the lead service line, the water system shall attempt to ascertain the date on which the customer plans to replace the privately owned portion.
 - a. If the customer fails or refuses to provide such date, the customer shall not be considered to have provided a valid notification that triggers action by the water system under the rule. No further action should be required by the water system.
 - b. If the customer does provide an estimated private-side replacement date that is in the future, the water system shall subsequently contact the customer on or about

that date to verify that the planned private-side replacement has in fact occurred.

- i. If the customer fails or refuses, in response to this query from the water system, to confirm replacement of the private-side line, then the customer shall not be considered to have provided a valid notification that triggers action by the water system under the rule. No further action should be required by the water system.
- ii. If the customer confirms replacement of the private-side line to the water system, then the water system should proceed to plan replacement of the publicly owned portion of the service line as if the customer had notified the water system of his or her replacement of the private-side line on the date of such replacement.

The final rule should require a water system to maintain records that log its interactions with customers related to the coordinated replacement of lead service lines, and these records should be made available upon request to the state. Water systems should not be required to separately report on each interaction with a customer to the state.

Notification that a customer has already replaced the private lead service line:

AMWA has similar concerns about language in the proposed rule governing the process a water system would follow when notified by a customer that he or she had previously (within the past three months) replaced the privately owned portion of their lead service line. Section 141.84(d)(4) of the proposed rule states:

When a water system is notified by the customer that he or she has replaced the customer-owned portion and that replacement has occurred within the previous three months, the water system must replace its portion within 45 days of the date of their notification.

AMWA recommends replacing the proposed rule's 45-day deadline for public-side replacement by the water system with a more flexible timeline that recognizes the many variables that could come into play to affect the feasibility of replacement projects. For example, consider a customer that independently replaces the private-side portion of his or her lead service line on October 1. The customer could then notify the water system of this replacement on December 31 – just within the three-month window that triggers mandatory public-side replacement under the proposed rule. Then, under the proposed rule, the water system would be required to complete the public-side replacement of that lead service line within 45 days of receiving that notification, which would put the deadline in mid-February. This would cause the disturbance of lead within the public side of the service line four-and-a-half months after the customer originally replaced his or her portion of the service line, and would require the water system to carry out the replacement in the middle of winter when such work may not be feasible in some climates.

Rhode Island's Providence Water, for example, is under a city mandated moratorium on routine service line work between December and March each winter due to the lack of availability of paving materials during these months. The hard timelines in the proposed rule fail to account for these practical considerations.

AMWA suggests a simpler and more workable alternative. If a customer notifies a water system that he or she replaced the privately owned portion of a lead service line within the previous three months, then the water system shall determine whether, based upon factors such as seasonal considerations, work crew availability, and long-term infrastructure planning, it would be feasible to replace the publicly owned portion of that lead service line within three months of the date on which the customer replaced their privately owned side (This three-month timeframe is based upon the reasoning explained on page 61698 of the preamble to the proposed rule, which suggests that public-side service line replacements that occur more than three months after a private-side replacement should not be prioritized "because the elevated lead levels associated with partial LSLR would be expected to have subdued").

1. If the water system determines that replacement of the publicly owned portion within three months of such date is feasible, then the replacement shall be carried out as early as practicable.
2. If the water system determines that replacement of the publicly owned portion within three months of such date is not feasible, then the water system shall still replace the publicly owned portion if requested to do so by the customer. But the water system may assign this replacement a lower priority than other replacement projects that have been or may be scheduled to occur:
 - a. In conjunction with a customer's notification of intent to replace his or her privately owned lead service line, or
 - b. Within three months following a customer's independent replacement of a privately owned lead service line.

AMWA proposes to assign a lower priority to these replacement projects because it is preferable for customers and water systems to work together to replace entire service lines concurrently, or at minimum replace the public side within three months of replacement of the private side so as not to re-disturb lead in the line. Projects that cannot be completed within this three-month timeframe should not take precedence over other replacement projects on which the water system may be coordinating other customers elsewhere in the community.

As was recommended above, AMWA believes that the final rule should require a water system to maintain records that log its interactions with customers who have reported that they have replaced their privately owned portion of their lead service line, and these records should be made available upon request to the state.

In summary, AMWA believes it is important for customers and water systems to work cooperatively to replace lead service lines, and customers should have the ability to initiate the complete replacement of lead service lines supplying water to their homes – provided they are willing to cover any necessary costs associated with the private-side replacement. Our recommendations are intended to build on the framework in EPA’s proposed rule to ensure a system of customer-initiated replacements is workable for all parties involved.

Filter requirements (Sections 141.84 and 141.86)

Summary:

- AMWA has significant concerns with EPA’s proposed mandates for water systems to provide pitcher filters and three months’ worth of filter cartridges to customers whenever work is carried out on the public or private portion of a lead service line.
- The proposed rule’s definition of “pitcher filter” in Section 141.2 explains that a qualifying filter must be “certified to remove lead in accordance with applicable standards established by the American National Standards Institute [ANSI].” However, ANSI itself does not “establish” standards, so this could lead to confusion about which filters do in fact comply with the definition.
- AMWA has concerns about the availability of sufficient supplies of certified filters to meet EPA’s many mandates within the proposed rule.
- AMWA asks that EPA grant state agencies the ability to allow water systems to offer customers other options, in addition to pitcher filters, to address lead issues in the near term. Because of the limited supply and limited capacity of pitcher filters, they may not be the best option for some households, and some water systems may therefore wish to provide customers with other alternatives.
- AMWA requests that EPA expand on the agency’s reasoning for requiring water systems to provide pitcher filters and cartridges when “disturbing” lead service lines through normal maintenance and operational activities such as meter replacement and requests that the agency provide data showing the cause for concern for lead exposure via these activities and why an aggressive flushing regime is insufficient to address these concerns.
- AMWA asks EPA to clearly articulate what it envisions as an acceptable “pitcher filter tracking and maintenance system.”

Comments:

AMWA understands and is appreciative of the public health protection goals that EPA is attempting to achieve through providing pitcher filters to customers in conjunction with lead service line replacement work or disturbances. However, we have significant concerns about the efficacy of mandates for water systems to provide these filters under other varying circumstances. When considering these scenarios, EPA should be cognizant of the fact that it is extremely challenging for a water system to persuade customers to use pitcher filters correctly, even when provided with the appropriate instructions and resources. In many cases, it may be preferable for water systems to direct customers to carry out an aggressive flushing regime, both because those directions may be easier for many customers to follow, and because flushing could achieve similar results to filter usage.

Uncertainty about the definition of “pitcher filter”:

Secondly, we believe the proposed rule’s Section 141.2 definition of “pitcher filter” is unclear, specifically in reference to which filters are properly “certified” to remove lead from drinking water. The proposed rule’s definition of “pitcher filter” is as follows:

Pitcher filter means the filtration insert for water pitchers that removes lead in drinking water, and that is certified to remove lead in accordance with applicable standards established by the American National Standards Institute.

We question the meaning of the proposed definition’s reference to applicable standards “established” by ANSI. According to its website, ANSI “facilitates the development of American National Standards (ANS) by accrediting the procedures of standards developing organizations.”² In turn, those accredited organizations (such as NSF International and the Water Quality Association) “work cooperatively to develop voluntary national consensus standards.”

Another section of ANSI’s website states plainly that the organization “itself does not develop standards.”³ The proposed rule’s reference to “applicable standards *established* by” ANSI is therefore unclear at best and inaccurate at worst, and invites questions about the universe of filters that are covered by the definition. AMWA recommends that the definition be amended to read as follows:

Pitcher filter means the filtration insert for water pitchers that removes lead in drinking water, and that is certified to remove lead in accordance with applicable standards established by an organization accredited for that purpose by the American National Standards Institute or any other accrediting body deemed appropriate by the Administrator.

² https://www.ansi.org/standards_activities/domestic_programs/overview?menuid=3

³ https://www.ansi.org/about_ansi/faqs/faqs

AMWA's proposed definition would make clear that a qualifying pitcher filter could be certified to any relevant standard established by a standard-setting body accredited by ANSI, rather than ANSI itself, thus eliminating a potential source of confusion. Moreover, AMWA's definition would give EPA the authority to recognize lead removal standards developed by a body whose accreditation comes from an appropriate organization other than ANSI. This would instill flexibility within the definition, should ANSI ever be renamed or cease to exist, and is consistent with the administrative requirements of the National Technology Transfer and Advancement Act of 1995, as discussed in Section VIII(J) of the preamble (page 61740). Here, EPA notes that the agency's "approved monitoring and sampling protocols generally include voluntary consensus standards developed by agencies such as [ANSI] *and other such bodies wherever EPA deems these methodologies appropriate for compliance monitoring*" (emphasis added).

Availability of sufficient quantities of filters:

Even under a "pitcher filter" definition that clarifies the scope of organizations that may certify drinking water filters appropriate for the removal of lead, AMWA has serious questions about whether water systems will be able to procure sufficient quantities of certified filters when necessary – particularly on short notice. For example, in April of 2016 an AMWA member in Kentucky determined that approximately 500 lead-removing pitcher filters were needed based on the number of water main projects that were planned and which could be anticipated to potentially involve the replacement of a lead service line. The water system ordered the pitchers along with two replacement cartridges for each, but could only find one supplier able to meet this volume. Ultimately, it took two months for the water system to receive the order.

EPA should provide flexibility within the rule to account for these possible difficulties in obtaining sufficient quantities of certified filters and refrain from declaring water systems out of compliance for factors outside of their control. One way to do this would be to grant state agencies the authority to allow water systems to make alternative arrangements if ample quantities of such certified pitcher filters are not readily available when needed. Alternative arrangements could include providing customers with other types of filters that are certified to be effective at removing lead from drinking water or instructing customers to complete an aggressive flushing regime when undertaking activities other than lead service line replacement. In seeking an alternative arrangement, a water system could be required to demonstrate to the state agency that it is unable to procure the number of certified filters that are needed, and to suggest an alternative approach.

AMWA has further concerns with the capacity of pitcher filters to meet the drinking water needs of a customer's household. Currently, the largest pitcher filter certified by NSF International is 11-cups. EPA should allow for variations in acceptable alternatives that would mitigate lead issues, such as large "blue bottle" dispensers or other bottled water, for homes that have needs beyond what is capable using a pitcher filter. AMWA suggests that EPA allow state agencies to determine these acceptable alternatives.

Provision of filters following the disturbance of lead service lines:

AMWA has significant concerns with the subsection (e)(5)(ii) of Section 141.85, which would require water systems to provide pitcher filters and three months of replacement cartridges to customers served by a lead service line following “the replacement of the water meter or gooseneck, pigtail, or connector.” As stated above, there are already concerns with availability of sufficient inventories of certified filters. Expanding the mandates for water systems to provide filters for these normal operational and maintenance activities would exacerbate this issue further. Water meter replacement, for example, typically consists only of shutting off water for a short time and replacing the meter without any cutting of the pipe itself. That same AMWA member in Kentucky referenced above changes approximately 10,000 meters, around 12 percent of the total number of meters in its system, every year. A requirement to provide pitcher filters and three months of replacement cartridges after every meter replacement would amount to a significant cost burden on this water system even if it were able to procure a sufficient number of filters and cartridges.

AMWA requests that EPA provide data on the exposure of dissolved or particulate lead when “disturbing” lead service lines through these normal operational and maintenance activities and further expand on the agency’s reasoning for requiring water systems to provide pitcher filters to their customers under these circumstances. As these activities do not involve any cutting of the pipe, AMWA is not aware of a cause for concern for a significant increase in lead exposure that could not be alleviated by providing homeowners with clear instructions to properly execute the flushing of their pipes. If water systems are required to provide filters under these circumstances it would significantly increase their resource needs.

Finally, AMWA believes that EPA must define a “pitcher filter tracking and maintenance system” under the proposed rule. Each lead service line replacement plan completed pursuant to Section 141.84(b) of the proposed rule would have to include such a system, but neither the proposed rule nor the preamble offers any insight as to what precisely constitutes an acceptable system. AMWA therefore requests that EPA provide guidance which clearly states what the agency envisions to be a proper pitcher filter tracking and maintenance system, and articulate a system that is minimally burdensome on water systems.

Public education and supplemental monitoring requirements (Section 141.85)

Summary:

- AMWA agrees that individual household tap sample results that exceed the lead action level should be shared with the home’s occupants in an expedited manner but believes

that 24 hours after learning of the results is unnecessarily restrictive. Two business days is more workable for several reasons.

- When an individual home's tap sampling results do not exceed the lead action level, we agree with EPA that an urgent delivery of the results is not necessary. The proposed requirement to notify the customer within 30 days of receiving results that do not indicate an exceedance – consistent with the timeframe required in the current rule – is appropriate.

Comments:

AMWA appreciates that the proposed rule makes great strides in ensuring timely public notification of testing results that indicate elevated levels of lead in the system, but we would like to share our feedback and recommendations on several aspects of the proposal.

Section 141.85(d)(2)(ii): 24-hour notification of an individual household when a sample collected from the household exceeds the action level:

AMWA agrees that water systems should notify the occupants of a household whose tap sample results exceed the lead action level of 0.015 mg/L in an expedited manner. Furthermore, it is appropriate for subsection (d)(4)(ii) to require this targeted notice be delivered to an individual household by phone, electronic means, or another method approved by the state. Because the water system will have had to coordinate with the occupants of that household to arrange for the tap monitoring to take place, it should not pose a challenge for a water system to obtain electronic or phone contact information for that household to use in the event that the building's sample results exceed the action level.

However, the proposed mandate for this notice to be delivered within 24 hours of when a water system learns of the tap monitoring results leaves unreasonably little flexibility for the varying circumstances that a water system might face. For example, if a water system learned of a home's tap monitoring results on a Friday afternoon, but did not notify that home's residents until the following Monday morning, that system would be in violation of the rule. Especially considering that individual tap samples would have been collected at least several weeks prior to when a water system learned of the results, an inflexible 24-hour notification deadline is not necessary.

AMWA recommends that the final rule direct water systems to notify the residents of individual households whose sample exceeded the action level as soon as practicable, but not later than two business days, after the system learns of the individual household results. This will still deliver the notice to households in an expedited manner but avoid an unreasonably strict timeframe on the notice's distribution.

Section 141.85(d)(2)(i): 30-day notification of an individual household when a sample collected from the household does not exceed the action level:

We also agree with EPA's stance that a less urgent notification timeline is appropriate when an individual home's tap sample results do not exceed the action level. We believe that notification of these results within 30 days, by mail or another method approved by the state, as proposed in the rule, is appropriate. We further anticipate that a homeowner would be told to expect a notice from the water system within 24 hours (or two business days, as we recommend) of the system receiving the results should they indicate a level of lead above the action level. Therefore, a homeowner who does not hear from the water system within a few days of the expected results should be able to infer that their home's water tested below the action level – well ahead of the 30-day notification deadline that applies in that circumstance.

Monitoring for lead in schools and licensed child care facilities (Section 141.92)

Summary:

- AMWA believes that school and licensed child care facility administrators should pursue the testing of drinking water within their facilities. Local water systems should be willing to assist in carrying out this testing when requested.
- The Safe Drinking Water Act provides EPA with no authority to broadly regulate the water testing practices of schools or licensed child care facilities, and local water systems have no ability to demand access to such facilities for the purpose of carrying out water quality testing. The proposal therefore errs in attempting to hold water systems responsible for achieving school and child care facility testing targets.
- AMWA supports the proposed rule's alternative option of requiring water systems to aid the testing of the water in local school and licensed child care facilities upon request, and we oppose the proposed requirement for water systems to meet a target of testing 20 percent of schools and 20 percent of licensed child care facilities in the service area each year.
- School and licensed child care center testing procedures should match EPA's recommended testing procedures in its *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities* manual, and must recognize that any testing carried out by water systems in school or child care facilities will be the result of a collaborative process.

- Should EPA proceed with requiring water systems to meet a 20 percent target for testing schools and licensed child care facilities each year, we recommend clarifying how water systems may achieve compliance with this target, describing what actions are required when schools do not respond to outreach about testing, giving water systems the option to utilize local educational departments to serve as liaisons between water systems and individual school facilities, and ensuring that testing is a fully collaborative effort between water systems and facility officials. If a school or child care center already operates its own water testing program that is at least as stringent as the proposed rule, a water system should not be required to pursue duplicative testing.

Comments:

AMWA recognizes that the presence of lead in the drinking water of schools and licensed child care facilities is an issue of concern to the public. While virtually all lead that is present in the drinking water of these facilities comes from premise plumbing, we understand that school officials and parents may look to their local water systems for guidance in identifying the scope of lead contamination in the water of a given school or licensed child care facility building. AMWA believes that water systems should be willing to help school officials carry out desired water quality testing, upon request.

However, the proposed rule makes the mistake of designating water systems as the appropriate entity to attempt to compel schools and licensed child care facilities to carry out testing to detect lead in the water of their buildings. In attempting to encourage schools and child care facilities to test their water for lead, the proposal charges water systems with the task, while also holding water systems accountable for a school or child care facility's compliance. In reality, because the Safe Drinking Water Act includes no authority for EPA to require schools and child care facilities to test their water for lead - unless that school or child care facility is itself a non-transient non-community water system - it is patently unfair for the proposed rule to create a school and child care facility testing regime that is only enforceable against community water systems.

AMWA therefore believes that the final rule should eliminate all annual school and child care facility testing benchmarks, and only require water systems to assist in the testing of a school or child care facility's water when requested to do so by that facility. Those who wish for EPA to go further in requiring water quality testing in schools and child care facilities should encourage Congress to give the agency that authority directly.

Previous efforts to promote school testing:

In 2019 AMWA was a signatory along with EPA and other federal agencies and water sector stakeholders to a memorandum of understanding on "Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities." As part of this MOU, AMWA and EPA agreed "to

facilitate actions that reduce children’s exposure to lead from drinking water at schools and child care facilities.” Agreed-upon actioned included “encourag[ing] schools and child care facilities to” test their drinking water for lead, and “encourag[ing] the drinking water community to assist schools and child care facilities in their efforts to understand and reduce lead exposure from drinking water.”

Additionally, in 2018 EPA published a revised manual entitled *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: A Training, Testing, and Taking Action Approach*. According to EPA, this *3Ts* manual “is intended to serve as a resource to help schools and child care facilities implement a voluntary program for reducing lead in drinking water.” The manual recommends that schools and child care facilities follow a prescribed “2-step sampling procedure” when testing individual outlets.

Both the MOU and *3Ts* manual recognize that local school officials are primarily responsible for testing the quality of their buildings’ drinking water, but AMWA appreciates that public drinking water systems are in a unique position within their communities to provide guidance and facilitate effective testing. However, while local water systems should be available to help individual schools and licensed child care centers carry out water testing and understand the results, AMWA has concerns that the proposed rule promotes unrealistic expectations and goes too far in transferring the responsibility for school testing onto individual water systems.

Details of the proposed rule:

Section 141.92 of the proposed rule directs each water system to:

1. “[C]ompile a list of schools or licensed child care facilities served by the system”;
2. Contact such schools or licensed child care facilities; and
3. Deliver “notification that the water system *will be conducting* sampling for lead at the facility” (emphasis added).

The process as described is challenging for several reasons. Especially in the case of large metropolitan water systems, a comprehensive and accurate list of all schools and licensed child care facilities in the system’s service area will number in the thousands. For example, Greater Cincinnati Water Works, a water system serving more than 240,000 residential and commercial accounts, provides water to roughly 400 schools and an estimated 4,000 licensed child care centers. While that system currently carries out a program to assist these facilities with lead testing, it reports that identifying licensed child care facilities in particular for testing is a significant challenge, in part because the precise number of such facilities is always in flux as new licensed child care centers open within the city, and others close. Similarly, most water systems would have no existing inventory of such schools and facilities, so it would be a tremendous exercise to initially develop such a list. Under the proposed rule, this exercise would

have to be repeated every five years as water systems would be required to “submit a revised list” of school and licensed child care facilities to the state.

We are also concerned that the proposed rule includes an unnecessarily adversarial requirement that water systems “notify” a public school or licensed child care facility that the water system “will be conducting sampling for lead at the facility.” A water system has no legal basis upon which to demand entrance to a school or licensed child care facility, including for the purpose of conducting testing pursuant to the Lead and Copper Rule. Any water system that conducts testing of school or licensed child care facility water as proposed by the rule would have to do so with the cooperation of the facility’s ownership or management, so a water system’s initial communication with the facility about the opportunity for testing should not come in the form of a notice that the testing “will” take place.

AMWA’s suggested alternative approach:

AMWA proposes another approach to identifying and interacting with schools and licensed child care facilities that should be more comfortable for all parties involved, and more in line with the school-led testing process highlighted in the MOU and the 3Ts manual. Primarily, AMWA believes that rather than requiring water systems to attempt to conduct testing in 20 percent of schools and 20 percent of licensed child care facilities in the system’s service area each year, the final rule should adopt EPA’s proposed alternative of requiring water systems to conduct outreach to local schools and licensed child care facilities to make them aware of the water system’s availability to carry out water testing in a school or licensed child care facility upon request.

This approach is justified based on EPA’s own data. In the preamble to the proposed rule (page 61732), EPA states that the amount of testing conducted under the “upon request” option “is highly dependent on the percentage of facilities that request to participate in the sampling program.” EPA goes on to estimate that only five percent of schools and licensed child care facilities would volunteer for a sampling program offered by a community water system. However, the mandatory 20 percent testing program would be equally dependent on schools positively responding to outreach from the water system, and there is no reason to think that the response rate under one scenario would dramatically differ from the other. In each case, the water system would have to alert schools and licensed child care facilities to the opportunity for testing, and school or facility administrators would have to agree to allow the testing to occur.

It is therefore unclear how the agency expects that water systems would achieve a mandate to conduct testing at 20 percent of schools and 20 percent of licensed child care facilities in a given year. A higher level of participation on the part of schools and licensed child care facilities cannot be expected simply because of a target imposed upon water systems, so following EPA’s own assumptions even if a water system was required to attempt to test 20 percent of schools in a year, only a small subset of those schools will agree to the testing.

An “upon request” school and licensed child care facility testing program should be consistent with the MOU and the *3Ts* manual, while also establishing a recurring pattern of communication between local school and water system officials. Under this system, water systems should be required to periodically conduct outreach to schools and licensed child care facilities, encouraging them to take advantage of the option to have water system officials test their facility’s water for lead. With time, schools and licensed child care facilities will come to know that they have an opportunity for their local water system to assist with the testing of their water, while water systems will be relieved from (as the rule currently proposes) spending significant resources attempting to attain participation from 20 percent of schools and 20 percent of licensed child care centers on an annual basis. AMWA strongly believes that this is the most practicable and beneficial approach and encourages EPA to incorporate the “upon request” school testing structure into the final rule.

Additionally, AMWA appreciates that the school and licensed child care facility testing procedures outlined in subsection (b) of Section 141.92 reflect those recommended in the *3Ts* manual, in so far as requiring a 250 ml first-draw sample following a stagnation period of between 8 and 18 hours. It is less clear why the proposed rule would require samples to be collected from five different locations in schools and two different locations in licensed child care facilities, as the *3Ts* manual does not recommend that schools conduct any particular number of samples in a building. Furthermore, the *3Ts* manual recommends that a school collect a subsequent 250 ml “30-second flush sample” if the initial test results indicate elevated levels of lead. This second test is recommended “to determine if the lead contamination results are from the fixture or from interior plumbing components,” but this step is absent from the testing requirements of the proposed rule. To help ensure that schools nationwide are receiving consistent testing advice and assistance from EPA and their local water systems, AMWA suggests amending the school testing procedures in the proposed to conform with the recommendations in the *3Ts* manual.

In sum, the “upon request” option should ensure that school and licensed child care center administrators are made aware of opportunities to receive assistance with water testing consistent with EPA’s *3Ts* manual. It will relieve water systems of attempting to meet an arbitrary target of completing tests in 20 percent of such facilities each year when the actual participation rate among these facilities is projected to be much lower. However, the final rule should also specify that if more schools and licensed child care centers request testing assistance in a given year than a water system can accommodate, the system should prioritize carrying out tests in elementary schools and licensed child care centers that serve young children. This prioritization would be appropriate because younger children would be most at risk of experiencing negative health effects as a result of exposure to lead in drinking water.

AMWA’s second alternative:

While we believe that the above recommendations are preferable, AMWA has additional suggestions should EPA proceed with its proposed framework of requiring water systems to

pursue testing in 20 percent of schools, and 20 percent of licensed child care facilities, in the service area each year. While we oppose this option, AMWA has a number of suggestions to make it as workable as possible.

Rather than requiring every water system to identify and individually contact 20 percent of all schools and 20 percent of all licensed child care facilities within its service area each year, AMWA recommends that the rule should allow water systems the option to instead communicate with the local educational or regulatory agencies charged with operation or oversight of the community's schools and licensed child care facilities. Even if the final rule does not include the requirement to test a certain percentage of facilities each year, AMWA believes that outreach to schools and licensed child care facilities about opportunities for testing could be more successful – particularly in metropolitan communities that may host hundreds of different schools – if coordinated through local educational or regulatory oversight agencies.

Under AMWA's alternative approach, a water system would have the option to provide the appropriate regulatory agencies with a notice about the opportunity to have individual school and licensed child care facilities tested for lead in drinking water by the water system. A water system utilizing this option should further request the agency to share this information with each school or licensed child care facility, or compile a representative list of such facilities that should be tested in a given year (making up at least 20 percent of such facilities in the water system's service area).

There are several benefits to this approach. First, local educational or regulatory agencies would be expected to have up-to-date lists of schools and licensed child care facilities that fall under their oversight readily available – or at least more easily available than a water system could produce through its own research. AMWA expects that these regulatory agencies will have open and ongoing lines of communication with individual school facilities, so a notice or directive about water quality testing may be more well received from the school or licensed child care facility's oversight agency, as opposed to if it was received in the form of a "cold call" from the water system. The local educational agency would essentially act as a liaison between the water system and individual facilities, likely doing more to increase participation by facilities than the water system could achieve alone.

Additionally, as is suggested above, if a water system chooses to contact individual schools and licensed child care facilities directly, the rule should require notification that the facility has an opportunity to have its drinking water voluntarily tested by the water system, not that the water system "will be conducting sampling" at the facility. This approach respects the right of the facility to decline participation, but lays the groundwork for a collaborative testing effort.

Aside from the mechanics of how schools and licensed child care facilities are identified and contacted, AMWA believes a rule that requires water systems to test in at least 20 percent of such facilities must be clear about how achievement of that standard will be calculated. The proposed rule is lacking in several respects. Subsection (c)(1) states that each year a water system will be required to annually collect samples until 20 percent of such facilities "have been

sampled or have declined to participate.” AMWA understands this to mean that a water system has met its school testing obligation in a given year once the sum of the number of schools tested by the water system, and the number of schools declining testing, reaches 20 percent of the number of schools in the service area. However, we urge EPA to make this explicitly clear to give water systems full confidence that they do not need to pursue additional “replacement” schools to test in a given year following a decline from a school that was originally invited to receive testing.

Also concerning is the lack of recognition in the proposed rule of circumstances where a school or licensed child care facility offers no response to a water system’s outreach about the opportunity for lead testing. Given the thousands of individual schools and licensed child care facilities that water systems may have to contact to achieve compliance with the rule, it is reasonable to expect that a substantial number of these will not respond to a communication from the water system. However, a nonresponse is not the same as an explicit decline, which is addressed in the proposed rule and which AMWA believes would count toward the water system’s 20 percent target. If a water system does not receive a response from a facility to its initial communication and a follow-up within a reasonable amount of time, AMWA believes the rule should specify that this nonresponse should be treated as a decline, and also count toward the water system’s 20 percent target in a given year. The rule should direct a water system to document when it has not received a response to outreach to particular identified facilities, and to make such records available to state regulators when requested to do so.

If testing at a particular school or licensed child care facility demonstrates a low or nondetectable level of lead during one round of testing, the final rule should include a mechanism for that facility to either:

- Receive a lower priority for testing in subsequent rounds, compared with facilities that demonstrate higher levels of lead in their initial testing; or
- Be removed from future testing rounds, if that facility has removed all lead bearing plumbing components from the premises.

In other words, after the first five-year cycle of testing of all school and licensed child care facilities is completed, later cycles should prioritize testing in schools and licensed child care facilities that were previously found to have elevated lead, before additional rounds of testing are carried out in schools that were found to not have elevated lead levels initially. Similarly, schools that are found to have very low or no detectable levels of lead in their initial tests, and which have removed all lead bearing plumbing components from their building, should be removed from the pool of locations for future rounds of water system testing. Just as the proposal recognizes that non-transient non-community water systems may wish to achieve compliance with the rule by removing all of their lead bearing plumbing components, it is reasonable to conclude that an individual school that has taken this action does not require assistance from a community water system to conduct future screenings for lead in its water supply.

Finally, the rule should better address procedures to follow when a state or community already has in place an equivalent law or regulation that requires testing of water in schools and licensed child care facilities. Subsection (d) addresses “Alternative School Sampling Programs” this way (emphasis added):

If a Local or State law or regulations require schools and licensed child care facilities to be tested, by *either the school or the water system*, in a way that is at least as stringent [as the proposed rule], the *water system* may execute that program to comply with the requirements of this section.

In this construct, the proposed rule suggests that a water system should take over execution of an already existing school and licensed child care center testing regime that is currently carried out by school or facility officials, in order for the water system to maintain compliance with the rule. But if state or local regulations require a school to conduct its own testing, these regulations would not be superseded by the proposed rule. Regardless of whether a water system stepped in to “execute” the testing program, state or local regulations may still require school officials to directly carry out tests as well. This scenario would lead to duplicative water testing conducted by both the school and by the water system.

To avoid these complications, we agree with the proposed rule’s specification that compliance with the rule may be achieved through an existing water-system-administered testing regime in schools and licensed child care centers that it is at least as stringent as the rule. However, if a qualifying school or licensed child care center testing regime is already required to be carried out by schools or local educational agencies, the rule should give the local water system the option to certify this fact to the state agency.

Again, AMWA appreciates that the proposed rule strives to promote water testing at schools and licensed child care facilities, and we maintain our support for the MOU and 3Ts manual outlining how to best accomplish this goal. We further believe that water systems can and should actively engage with local schools, licensed child care facilities, and the local regulatory agencies that oversee them to make certain that the owners and administrators of these facilities are informed of opportunities for assistance in screening their water for lead.

But we also must recognize the limits of the Lead and Copper Rule, particularly that both EPA and local drinking water systems lack the authority to compel any school or licensed child care facility to submit to testing of the water on their property. The rule must therefore encourage a collaborative approach between water systems, individual facilities, and educational agencies, and AMWA believes this can best be accomplished through water system testing in schools and licensed child care facilities that occurs “upon request” by a facility administrator, following outreach from the water system. However, we believe that our above suggestions would make the rule as workable as possible should EPA choose to proceed with its proposed requirement that water systems attempt to meet a minimum testing threshold each year.

Economic Analysis

AMWA has comments on two of EPA’s assumptions and conclusions within the “Economic Analysis for the Proposed Lead and Copper Rule Revisions” included in the docket: the estimated average number of schools and child care facilities served by each community water system, and the frequency of corrosion control changes made as a result of the Find-and-Fix policy.

Estimated number of school and child care facilities:

AMWA believes that EPA’s estimated average number of K-8 (public and private), secondary schools (public and private), and child care facilities per water system may be too low to accurately capture the true cost of implementing the proposal’s school and child care facility testing requirements. We have already expressed concerns about the efficacy of mandating water systems to meet prescribed school and child care center testing targets, but our concerns are exacerbated because the economic analysis appears to offer little help in identifying precisely what it would cost for a water system to meet such a mandate. To better illustrate this problem, AMWA has developed the following table which includes both the estimated numbers provided by EPA within the economic analysis and multiple examples provided by AMWA’s membership.

Table 1. Comparison of EPA’s estimated average number of schools K-8 (public and private), secondary schools (public and private), and child care facilities per water system and actual estimated figures from five AMWA members. EPA data was collected from exhibits 5-53, 5-54, and 5-55 from section 5.3.1.5.2 of EPA’s Economic Analysis for the Proposed Lead and Copper Rule Revisions – Number of Schools and Child Cares. For the purposes of comparison, EPA’s numbers for K-8 and secondary schools (both public and private) were combined in order to better align with the figures given by AMWA’s members.

Water System	Population Served	Estimated Number of K-12 Public and Private Schools	Estimated Number of Child Cares Facilities
<i>EPA Estimate</i>	100,000 – 1 million	100.6	610
<i>EPA Estimate</i>	1 million +	831.8	5,044.5
<i>AMWA Member A</i>	255,750	104	121
<i>AMWA Member B</i>	324,238	62	Unknown
<i>AMWA Member C</i>	975,400	400	4,000
<i>AMWA Member D</i>	~ 1 million	300-400*	800-900
<i>AMWA Member E</i>	~ 8.3 million	1,866	2,227

* Private schools not included in this figure.

Table 1 demonstrates that these values have a large amount of variation, making it difficult to make an informed generalization about a typical number of schools and child care facilities in a community of a given size. However, AMWA believes these figures show that EPA’s

methodology for determining the cost of implementing this requirement of the proposed Lead and Copper Rule is consistently lower than figures provided by AMWA members. In particular, the estimates of the number of schools for a population served of 100,000 – 1 million appears to be problematic.

With EPA's use of ranges, it can be inferred that if a water system's service population falls within the middle of that range, say 550,000, it would be expected to serve approximately 100 schools. AMWA Member A's population served falls far below the middle of this range at 255,750 but is still above EPA's derived number at 104 schools. Similarly, although AMWA Member C is at the top of the 100,000 – 1 million range, a total number of schools which is four times greater than EPA's estimate seems far out of range for this analysis to be accurate and useful in determining the costs of implementing testing in schools.

Although EPA's estimate for water systems serving 1 million or more would be expected to be skewed due to the large variation in population served above this level, at 8.3 million served AMWA Member E's number of 1,866 schools is more than double EPA's estimate and therefore, again, raises questions about the reliability of EPA's figures. Given our other concerns about holding water systems responsible testing water quality in schools and child care facilities, our lack of confidence in the data purported to demonstrate the cost of such a mandate strengthens our belief that any school and child care testing program should only be carried out at the request of individual facilities.

Another factor to consider is the enormous variation within the numbers of child care facilities between systems, regardless of size. AMWA Member E's service population of 8.3 million would appear to be on the higher end of water system size but their estimated number of child care facilities at 2,227 is far below EPA's estimate of 5,044. AMWA believes this showcases not only the difficulty water systems might have in developing inventories of licensed child care facilities within their communities, but also the difficulty in EPA's ability to determine the true cost of implementing this provision.

Corrosion control changes resulting from Find-and-Fix:

We also have questions about another portion of EPA's economic analysis. In section 5.3.2.3 Find-and-Fix (page 5-139), EPA appears to assume that water systems will adjust the pH levels, at one or more entry points, in response to a single sample result that falls above the action level. EPA has previously indicated that it viewed corrosion control treatment adjustments based on Find-and-Fix to be a rare occurrence, but this section of the economic analysis suggests otherwise. As has been previously stated, EPA's suggestion that adjustments to a water system's corrosion control treatment should be carried out based on a single sample that is above the action level risks disrupting water quality, destabilizing lead coatings, and threatening public health as a result of lead releases. Any adjustments to corrosion control should be carefully vetted in order to avoid unintended consequences.

As we previously recommended, AMWA urges EPA to remove this requirement from the Find-and-Fix language to avoid these consequences. If EPA maintains this requirement within the rule, AMWA reiterates our previous suggestion that water systems should first attempt to identify property-specific factors that could be the cause of a single action level exceedance before considering adjustments to corrosion control treatment. Only if a property-specific fix cannot be found should a water system have to dialogue with the state agency about potential broader corrosion control changes.

Conclusion

AMWA thanks EPA for the opportunity to provide input on these critical and long-awaited revisions to the Lead and Copper Rule. AMWA's members are public health leaders in their communities and the protection of their customers is their highest priority. We reiterate our support for lead service line inventories and the ability of individual customers to compel a water system to replace a publicly owned lead service line connected to their property. We also express our appreciation that the proposal avoids setting unattainable mandates such as a deadline for the replacement of all lead service lines nationwide, a total ban on partial lead service line replacements, and a requirement for water systems to cover the cost of replacement for the private side of the service line.

While AMWA supports many of the ambitious and vital requirements under this proposal, the concerns outlined in these comments highlight the multitude of complications which could hinder the implementation of this rule. EPA must work to resolve the components of this rule that have placed unrealistic expectations on water systems, particularly those which hold water systems accountable for achieving benchmarks which may be outside of their control. Requiring water systems to meet standards that rely significantly on the cooperation of schools, licensed child care centers, and homeowners may set up water systems to fail through no fault of their own, and despite making their best effort to comply.

The association believes that our comments will help the agency ensure the final rule is achievable, practical, and enforceable. AMWA is appreciative of all the work EPA has done to bring this proposal to fruition and looks forward to working with EPA to best protect the health of the millions of people that depend on their local water systems for safe and reliable drinking water.

Appendix B

AMWA Comments Lead and Copper Rule: Virtual Engagements



**ASSOCIATION OF
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July 30, 2021

The Honorable Radhika Fox
Assistant Administrator
Office of Water
U. S. Environmental Protection Agency

Via regulations.gov

Re: Docket ID: [EPA-HQ-OW-2021-0255](#), Lead and Copper Rule: Virtual Engagements

Dear Assistant Administrator Fox,

The Association of Metropolitan Water Agencies (AMWA) is an organization representing the largest publicly owned drinking water utilities in the United States. AMWA appreciates the opportunity to comment on the Environmental Protection Agency’s (EPA) continued work to address the public health risks of lead in drinking water. The association has been involved with the Lead and Copper Rule (LCR) since its inception and values all the work that EPA has done to decrease the risk posed by lead and copper to public health. All along, we have sought a rule that is achievable, practical, and enforceable. AMWA was generally supportive of the revised LCR that was finalized in January, but we agree that it is imperative to ensure that any federal regulations consider affordability and equity, and provide specific consideration for at-risk communities.

We recognize that the Biden administration’s American Jobs Plan has proposed spending \$45 billion in federal dollars to “replace 100% of the nation’s lead pipes and service lines,”¹ and we appreciate efforts to direct additional federal resources toward this worthy goal. However, any further revisions to the LCR must only be made in the context of current statutory and spending realities – where EPA has only relatively modest resources to direct toward offsetting the cost of lead service line (LSL) replacement.

Since EPA has made the determination to reconsider aspects of the revised LCR promulgated on January 15, 2021, AMWA has a number of suggestions for how this rule could be improved upon, as well as thoughts on the components the association believes should be retained.

During recent public discussions about the LCR, much attention has been paid to the fact that the rule would not mandate the replacement of every public and privately-owned LSL nationwide.

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EPA's June 16, 2021 final rule that delayed the effective date of the revised LCR until December noted that the rule "fails to require ... public water systems to replace all of their lead service lines." However, we continue to believe that any further revisions to the rule must take into account the practical challenges faced by water systems seeking to replace *all* publicly and privately-owned LSLs. Aside from the considerable cost factors and accompanying implications for water affordability for low-income ratepayers, a binding mandate on water systems to replace "all" public and privately-owned LSLs would encounter the obstacle of individual homeowners who may refuse to allow access to their property to replace their privately-owned LSL. If even a single homeowner among thousands does not consent to the replacement of their LSL, then the utility would not have abided by a mandate for full LSL replacement. And the experience of AMWA members is that a significant portion of customers typically decline the chance to have their privately-owned LSL replaced, even when the cost is partially or fully subsidized.

Local water systems and their communities also face differing circumstances and competing priorities. If EPA were to require water systems to replace all LSLs by a defined deadline, the agency would effectively be deciding, for each and every water system in the nation, that the removal of lead lines is the most important water infrastructure investment above all others to protect public health in a community. But water systems and communities must actually balance a variety of competing priorities such as addressing per- and polyfluoroalkyl substances (PFAS), the need to strengthen infrastructure to withstand the effects of climate change and extreme weather, cybersecurity risks, and the development of new drinking water sources in the face of long-term drought. As these communities often have limited resources, a revised LCR with an inflexible LSL removal mandate would require water systems to put these competing priorities aside – even if they pose the most pressing threats to public health and utility sustainability.

In addition, equity concerns would arise if EPA were to require water systems to cover the cost of replacing the private, customer-owned portion of every LSL, possibly including not only residential homes but also schools, daycares and businesses where children might be present. This would cause a disproportionate impact on low-income communities because the rate-paying base would be funding the replacement of all the LSLs and local water systems would have to broadly increase water rates to compensate this need. Although the increase in water bills would be *equal* across ratepayers within the community, it would not be *equitable* as low-income households would be paying a larger portion of their income to fund replacements across the water system's entire service area, which will include higher income households that are impacted less by the subsequent increase in water bills.

With these considerations in mind, AMWA has multiple suggestions for any LSL replacement program that EPA may put into place via additional revisions to the Lead and Copper Rule:

1. As EPA and public water systems work together to lower exposures to lead in drinking water, we must keep other public health considerations in mind. For example, a common corrosion control method for lead is to add orthophosphate to a system's drinking water.

Adding additional orthophosphate can have unintentional consequences such as increased disinfection byproducts and environmental impacts from increased phosphorus loads.

2. AMWA strongly supports individual utility efforts to remove their LSLs as quickly as possible and agrees that the complete removal of LSLs is a worthy goal. However, as outlined above, AMWA would harbor deep reservations about any proposal that would require public water systems to eliminate all LSLs by a firm deadline. Any federal replacement mandate must reflect the reality that a community's LSLs are often jointly owned by the water system and thousands of individual homeowners. Convincing all customers to agree to replace their LSLs can be a significant challenge. Without this customer consent, full replacement of LSLs is impossible.

We understand that some stakeholders have pointed to communities like Newark, New Jersey and Madison, Wisconsin, as examples of cities that have made great progress toward the near-total replacement of LSLs. AMWA also applauds the efforts of these communities and their residents, but we must be clear about what has enabled their success: local city ordinances that require individual homeowners to replace, or allow replacement of, their privately-owned LSLs or else face fines or even jail time.

For example, Chapter 16:23 of Newark's city code required private property owners to either replace their private LSL at their own expense within 90 days of passage of the ordinance, or sign up for the city's LSL replacement program. Individual property owners were also required to allow the city to access their property to carry out a LSL replacement, and homeowners who are in violation could be fined up to \$1,000 or sentenced to jail time or community service of up to 90 days.ⁱⁱ

Similarly, Chapter 13.18 of Madison's code of ordinances required city homeowners to immediately replace all previously known "lead customer-side water service lines," and to replace any newly-discovered such lines within one year. City residents who fail to comply with this mandate face fines of up to \$1,000 per day.ⁱⁱⁱ

The fact that two of the communities that have had the most success in fully replacing LSLs have only done so by compelling residents to cooperate with this effort under threat of fine or imprisonment is telling. It not only shows that full LSL replacement cannot be achieved by local water systems alone, but also demonstrates that any full LSL replacement mandate included in a revised LCR would be likely to fail unless each city and town nationwide implemented a similar ordinance to enforce compliance on the part of homeowners. And given evidence presented by stakeholders that LSLs are primarily concentrated in minority and low-income communities, the widespread implementation of penalty-based LSL replacement ordinances could carry national implications for equity and social justice. The goal of 100% LSL replacement must be considered in the context of these factors, so

AMWA urges EPA to thoughtfully consider the ramifications of a revised LCR that prioritizes full replacement above all else.

3. While many water systems across the country can and do offer incentives to encourage homeowners to cooperate on LSL replacement projects, water systems themselves are extremely limited in their ability to force a homeowner to consent to the replacement of a privately-owned LSL. Any revised rule therefore should not hold water systems responsible for falling short of prescribed replacement targets due to lack of customer cooperation on private-side replacement. EPA must understand that LSL replacement is a community-wide effort that will require cooperation and buy-in from community groups and the citizens themselves.
4. In this same vein, EPA should use this additional time for public input to survey the willingness of homeowners to replace the privately owned portions of the service lines. Many water systems report that the homeowner resistance they experience is typically related to a homeowner's reluctance to pay for the private-side replacement, and we have demonstrated that the most successful local LSL replacement initiatives were backed by city ordinances requiring individual customers to comply. However, the motivations of customers who decline to replace or allow replacement of LSLs often go beyond just concerns about cost to also include reasons such as the customer not seeing the need to replace the line. This may be because the customer has no children, or the customer's reluctance to have their gardens torn up. EPA should therefore use this opportunity to quantify the scope of this problem of reticent homeowners.

The agency should look to engage both homeowner associations and individuals directly and utilize public polling to obtain a clear picture of how willing typical homeowners are to spend thousands of dollars on replacing their portion of a LSL, absent a binding mandate to do so.

5. After further consideration of the revised LCR, AMWA members voiced concerns regarding how the LCR would impact renters. The occupants of rented homes generally lack the authority to initiate or approve private-side LSL replacement work, and therefore could continue to be served by a LSL if the landlord is unresponsive to water system outreach on this topic. This highlights another equity issue that must be addressed as Black and Hispanic Americans account for a lower percentage of homeowners compared to non-Hispanic White Americans^{iv}. AMWA applauds EPA's work under the revised LCR to address this by expanding notifications to occupants, rather than just homeowners. The association recommends that EPA consider renters in any new revisions and look to providing additional guidance to help with targeted outreach to landlords, public officials, and

community groups in neighborhoods with high proportions of rental housing served by LSLs.

6. AMWA continues to support the requirement for water systems to develop LSL replacement plans. Assuming any final LCR would maintain the requirement to replace LSLs once a water system has exceeded the action level or trigger level, it is good practice to have a plan already in place to allow for expediency when launching the program after the requirement is triggered.
7. AMWA continues to agree that EPA should discourage partial LSL replacements as such replacements carry few public health benefits and allow lead pipes to remain in the ground. However, AMWA urges EPA to maintain a water system's ability to conduct partial replacements in specific circumstances such as an emergency water main replacement or a planned water main replacement project which results in a new alignment or spacing of the main, necessitating replacement of at least part of a LSL.

Ideally, the privately-owned portion of the lead line would be replaced at the same time, but as noted above, a water system's ability to do so is often contingent upon that customer's willingness to allow work on their property (and, in many cases, for the customer to pay the costs associated with replacing the privately-owned portion). The final LCR revisions recognized that there will be situations where customer consent cannot be quickly obtained, and in those limited cases permits a water system to at least remove the publicly owned portion of a LSL when emergency main repair projects or other scheduled infrastructure work has provided an opportunity to do so.

8. AMWA urges EPA to maintain the final rule's decision to not require water systems to cover costs associated with the replacement of privately-owned service lines, but still retain the option to do so. As mentioned above, while some water systems are able to subsidize private-side replacement, the use of ratepayer funds and/or capital funds for private replacements may be legally questionable or banned outright by state and/or local law.
9. AMWA implores EPA to consider using a "cumulative average" to determine a water system's compliance with a mandated percentage target or replacement goal, rather than determining compliance on an annual basis. While the final rule attempted to incorporate this suggestion by moving to a two-year rolling average, this does not fully relieve the issue at hand.

Allowing for a cumulative average will ensure that water systems are given credit for their previous accomplishments and are provided flexibility for the difficulties which may arise through no fault of the system. It is likely that a water system will have more success finding customers who will agree to pay for the replacement of their portion of the service line during the water system's initial outreach efforts. As the water system's replacement program continues, the pool of willing customers will likely diminish as the water system goes through subsequent rounds of outreach to customers who have previously chosen to forgo replacement.

An example of how this cumulative average might be implemented with a 3% mandated replacement target is shown in the table below. Note that the ten-year timeframe chosen for this example is arbitrary and not meant to suggest a preferred timeline in which LSLs should be replaced but is only meant to help visualize the concept of a cumulative average total throughout the life of the LSL replacement program.

Year	Percentage of LSLs Replaced	Cumulative Average Percentage of LSLR	Two-Year Rolling Average
2025	5%	5%	5%
2026	6%	5.5%	5.5%
2027	4%	5%	5%
2028	3%	4.5%	3.5%
2029	2%	4%	2.5%
2030	1%	3.5%	1.5%
2031	7%	4%	4%
2032	2%	3.75%	4.5%
2033	6%	4%	4%
2034	1%	3.7%	3.5%

This hypothetical scenario would have the water system out of compliance with a mandated 3% yearly mandate, as well as a two-year rolling average. However, after ten years, this system would have replaced 45% of their LSLs versus 30% under the 3% yearly mandate.

As seen above, allowing for flexibility could lead to the replacement of LSLs at a faster rate, because a water system would know that any additional lines beyond the mandated percentage replaced in one year would still count toward its replacement mandate in future

years (when various circumstances could cause a system to fall short of the three percent target). In other words, if a cumulative average were not taken into account, a water system would have no incentive, from a regulatory compliance standpoint, to keep replacing lines in a single year after reaching the three percent figure. The cumulative average would allow the system to focus on removing the greatest number of lines feasible, regardless of how many LSLs have already been replaced in a given year.

10. AMWA requests that any LSL replacement mandate recognize the unique situation posed by long-term vacant housing. Some cities are home to tens of thousands of vacant housing units, some of which may be connected to the water main through LSLs even though the water has been shut off for many years. For example, there are approximately 103,000 vacant housing properties in Detroit^v, and 16,000 in Baltimore^{vi}. A broad LSL replacement mandate that does not take vacant housing into account could require these communities to spend millions of dollars on LSL replacement work on properties that are unlikely to be occupied in the foreseeable future, and which therefore pose no risk of human exposure to lead in drinking water. AMWA recommends that abandoned housing units be included in a water system's LSL inventory, but that they be left out of replacement calculations and work efforts until the point at which water service is restored to any such property.
11. AMWA continues to support the components of the final LCR revisions that empower individual members of the public to direct their community water system to work with them on a timely replacement of the public and privately-owned portions of a LSL serving their property. This way, any individual homeowner could ensure that their water system work with them to fully remove their home's LSL, regardless of any replacement schedule or plan otherwise being followed by the utility.

Beyond LSL replacement, AMWA has numerous suggestions for how the agency may improve upon the rule as was finalized on January 15, 2021.

1. Lead Service Line Definition and Inventories:

AMWA continues to believe that one of the strengths of the revised LCR was the new requirement for water systems to complete an inventory that specifies the composition, if known, of public and privately-owned service lines connected to the distribution system. While many water systems will face challenges in accurately determining the makeup of some service lines – particularly those on private property – AMWA agrees that is important and worthwhile for water systems to document the composition of the service lines that

deliver water to their customers. Once an inventory is completed, we also continue to agree that all water systems serving more than 100,000 people should make their inventories available to the public online. However, it is not practical for utilities to visually confirm the composition of potentially hundreds of thousands of individual service lines in the near term, so it is appropriate for initial inventories to rely on utility records and other similar sources. AMWA agrees that after this initial records search utilities should generally work to improve upon these inventories in order to positively identify service lines of unknown composition.

AMWA encourages EPA to retain water systems' ability to use tools such as water system records, city codes, and building records to draw a reasonable conclusion about whether a service line is likely to be lead. However, EPA should more clearly define what will be considered a good faith effort on the part of the water system to determine that a service line is lead or non-lead. AMWA feels this concern is most prevalent when discussing EPA's direction to consider whether a galvanized pipe "ever was" downstream of a LSL or a pipe of unknown material.

AMWA continues to believe this "ever was" standard is problematic as water systems may not have specific, uninterrupted records for service lines that date back to the initial installation. The water system may therefore be unable to definitively prove or disprove what material may have been upstream of the galvanized line throughout the life of the service line.

If a water system uses the tools mentioned above and concludes that the galvanized line was likely to have been downstream of a lead line at some point in the past, the galvanized line should presently be considered lead. Conversely, if the review concludes that the galvanized line was unlikely to have been downstream of lead in the past, it should not count as lead in the system's present-day inventory.

In cases where a water system makes such a good faith determination, AMWA suggests allowing the water system to remove this galvanized line from its LSL inventory. If the water system subsequently obtains new information indicating that the galvanized line had in fact previously been downstream of a LSL, then the line should be restored to the system's LSL inventory.

AMWA would also like to highlight an additional example that the association believes has not been addressed in the previous LCRs. AMWA members have reported that, while their water system has never encountered a LSL within their service area, they do not have definitive records dating back to the installation of their lines to prove that there are no LSLs at all. As stated above, water systems have tight budgets and must use their resources in ways that best benefit their communities. EPA should better explain how far a utility should

have to go to determine whether a line is lead. Under the current rule, a utility that lacks records suggesting the presence of a lead line, and which have never encountered a lead line in their maintenance or capital construction work, is unable to definitively “prove a negative” that they have no LSLs.

This may be even more apparent after water systems have consolidated, such as by a larger system incorporating a smaller one into its service area. If those smaller systems do not have detailed records in place, it now falls onto the larger water system to correct this issue, particularly in regards to LSLs. In instances where property records are incomplete, to definitively prove that a given pipe is not lead, water systems could be forced to expend large amounts of resources attempting to identify service line materials using disruptive and labor-intensive methods such as potholing, digging test pits, or otherwise inspecting individual homes. Funds expended on these exercises could be better used to replace LSLs that are already known to exist or other necessary public health projects. EPA must weigh the costs and the benefits of each action towards the overall public health of the community.

AMWA believes there should be flexibility in such situations and a standard at which a water system can reliably say a service line is or is not lead without necessarily requiring water system staff to set eyes on the line. In these circumstances, where LSLs are not documented or discovered in a water system, additional physical exploration for LSLs should not be required.

2. Testing in schools and child care facilities

AMWA appreciates that the rule finalized by EPA recognized that water systems may only conduct testing in schools and child care centers after consent has been obtained from facility administrators. We believe that any revised rule should continue to avoid penalties for water systems that make good faith efforts to offer testing to schools and child care centers, but do not receive sufficient positive responses. However, AMWA still has concerns regarding EPA’s requirement to test all schools and child care centers within five years of the rule’s compliance date.

AMWA appreciates EPA’s recognition that water systems will likely not get responses from all facilities and that this should not be counted against the system’s goals under any final rule. AMWA members have reported immense difficulties in obtaining sufficient engagement from schools and child care centers. Having flexibility in this area will ensure utilities are not held responsible for things outside of their control.

Additionally, multiple AMWA members have voiced concerns over the ability to collect samples after a sufficient stagnation period, as it can be difficult to time when schools have

before and after-hours activities. For example, a water system may have to carry out the testing in a school early on a Monday morning before classes begin – a schedule that may not be accommodating for staff of either the water system or the school. EPA should include workable best practices for obtaining these samples as part of any guidance documents created to help water systems implement this provision.

3. *Find-and-fix*

AMWA continues to agree with the agency's intent to encourage water systems to identify the cause when high levels of lead are detected at an individual tap sampled as part of required monitoring activities. If implemented appropriately, this requirement can help prevent continued exposures from identified materials such as LSLs and interior plumbing or fixtures. However, any rule should make it clear that water systems are not responsible for any premise plumbing or fixtures located inside the home as this is outside of a water system's control.

AMWA encourages EPA to retain the rule's provision which limits Find-and-Fix requirements to only those samples taken pursuant to the monitoring program under Section 141.86 and not to other samples that may be voluntarily collected by water systems through customer-requested drinking water lead testing programs. Large water systems may voluntarily collect samples from thousands of locations (as opposed to 100 or less samples collected pursuant to required monitoring), and any provision that would direct water systems to attempt to identify the cause of each and every individual high sampling result encountered would pose a tremendous burden and could possibly cause many large water systems to cease offering voluntary sampling to customers at all.

We appreciate EPA's acknowledgement that the LCR revisions' requirement for adding water quality parameter (WQP) sites for *every* find-and-fix follow-up was excessive and instead laid out a maximum number of WQP sites for systems so to prevent a never-ending growing list. AMWA believes WQP sites should only be added when the water quality at that location is significantly different from that found throughout the rest of the system. The association encourages EPA to maintain a provision limiting the amount of WQP sites that can be added, as well as consider clarifying situations in which it would be appropriate to add an additional site.

AMWA continues to strongly object to EPA's suggestion that water systems should consider adjustments to their corrosion control treatment based on a single sample that is above the action level. In some cases, an elevated level of lead discovered in an individual sample may often relate to lead coatings or other factors that are unique to the specific

sampling site, and beyond the control of the water system. Requiring a water system to make corrosion control changes due to only one or a small number of individual samples exceeding the action level could provide limited benefits and actually expose the public to other public health risks such as elevated disinfection byproducts and microbial issues due to disruption of the pipe biofilms.

Finally, AMWA implores the agency to focus resources on developing guidance documents in a timely manner as the implementation of this rule will be a large undertaking. EPA should work with stakeholders, such as public drinking water systems, to help inform the development of these documents. The agency has highlighted in previous discussions with AMWA that guidance for LSL inventories will be one of the first documents that EPA will work to develop. The association supports this prioritization, and AMWA would again like to emphasize our members' hopes to help inform this critical guidance.

Thank you for the opportunity to expand upon the comments we provided last year after EPA formally proposed revisions to the LCR. We continue to believe each of these comments and suggestions should be addressed in the interest of ensuring a revised rule remains achievable, practical, and enforceable, and equitable. If you have any questions about these comments, please contact Stephanie Hayes Schlea, AMWA's Director of Regulatory and Scientific Affairs, at schlea@amwa.net.

Sincerely,



Diane VanDe Hei
Chief Executive Officer

cc: Jennifer McLain, Director, Office of Ground Water and Drinking Water

ⁱ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>.

ⁱⁱ City of Newark, NJ, Title XVI Health, Sanitation, and Air Pollution, Chapter 16:23 Mandatory Replacement of Lead Service Line, <https://ecode360.com/36709585>.

ⁱⁱⁱ Madison, Wisconsin Code of Ordinances, Chapter 13.18 Lead Water Service Line Replacement, https://library.municode.com/wi/madison/codes/code_of_ordinances?nodeId=COORMAWIVOIICH11--19_CH13PUWASUSY_13.18LEWASELIRE.

^{iv} U.S. Department of Commerce. (April 27, 2021). Quarterly Residential Vacancies and Homeownership, First Quarter 2021. <https://www.census.gov/housing/hvs/files/currenthvspress.pdf>

^v Blanco, E. C. (2020, September 1). *As Michigan Makes Progress on Vacant Homes, Detroit's Vacancies Have Skyrocketed*. Next City. <https://nextcity.org/daily/entry/michigan-makes-progress-on-vacant-homes-detroits-vacancies-have-skyrocketed>

^{vi} Scott, A. (2020, July 8). *Why can't Baltimore solve its vacant housing problem?* Marketplace. <https://www.marketplace.org/2020/07/08/why-cant-baltimore-solve-vacant-housing-problem/>

Appendix C

AMWA Comments on Environmental Justice Considerations for the Development of the Proposed Lead and Copper Rule Improvements



November 15, 2022

Dr. Jennifer L. McLain
Director, Office of Ground Water and Drinking Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20004

Re: EPA-HQ-OW-2022-0801 Environmental Justice Considerations for the Development of the Proposed Lead and Copper Rule Improvements (LCRI)

Dear Dr. McLain,

The Association of Metropolitan Water Agencies (AMWA) welcomes the opportunity to provide feedback on environmental justice considerations related to the development of EPA’s anticipated Lead and Copper Rule Improvements (LCRI). AMWA is an organization representing the largest publicly owned drinking water utilities in the United States, and collectively its membership serves more than 160 million people. Our members represent diverse metropolitan areas and have long been working to identify and replace lead service lines in their service areas. The association has been involved with the Lead and Copper Rule since its inception and offered substantive comments during development of the Lead and Copper Rule Revisions (LCRR) that were published on January 15, 2021.¹ We value the work that EPA has done to decrease the risk of lead and copper to public health while prioritizing environmental justice.

Approximately 10 million publicly and privately owned lead pipes and service lines presently deliver drinking water to American households. Last year, the Biden Administration announced its intention to “use every tool at its disposal to eliminate all lead service lines” in the next 10 years, including by “encouraging full lead service line replacement and strongly discouraging

¹ Comments on behalf of the Association of Metropolitan Water Agencies. National Primary Drinking Water Regulations: Proposed Lead and Copper Rule Revisions. February 12, 2020.
<https://www.amwa.net/testimonycomments/comments-regarding-epas-proposed-lead-and-copper-rule-revisions-epa-hq-ow-2017>

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partial replacement.”² EPA subsequently concluded an ongoing review of the LCRR and announced its intention to “immediately begin development” of further revisions that would be known as the LCRI. Among the revisions that EPA intends to propose as part of the LCRI are requirements that “would result in the replacement of all LSLs as quickly as is feasible.”³

In light of these objectives, AMWA reiterates its support for advancing public health and environmental justice. Additionally, AMWA asks the EPA to recognize, consider, and address the potential hurdles associated with full lead service line replacements should they be mandated as part of a proposed LCRI rule, and to provide support for community water systems to address these challenges. We summarize these potential complications below.

Service line ownership

To understand the difficulties associated with full lead service line replacement, it is important to understand the ownership of service lines that connect water mains with the premise plumbing in each home served by a water system. Typically, service lines are partially owned by a community water system and partially owned by the customer. The water utility usually owns the portion of the service line from the water main to the curb stop or meter, and the private property owner usually owns the portion of the service line from the property line to the building inlet. The water system is generally unable to access the customer-owned portion of the service line without the customer’s permission, nor is the utility under any obligation to replace, or pay for replacement of, the customer portion of a service line that fails.

This does not mean that community water systems are wholly unable to aid in the replacement of privately owned lead service lines. Many utilities often offer to replace the customer-owned portion of a service line at cost to the customer, in conjunction with the water system’s replacement of the publicly owned portion. Additionally, some utilities and localities have developed plans to fully replace lead service lines without charging customers individually. Some opportunities and challenges of these approaches will be discussed further in this letter.

Impacts on drinking water affordability

EPA estimates that full lead service line replacement has an average cost of \$4,700, ranging from \$1,200 to \$12,300 per line replaced.⁴ Using EPA’s estimate of an average replacement cost per

² FACT SHEET: The Biden-Harris Lead Pipe and Paint Action Plan, December 16, 2021.

<https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/16/fact-sheet-the-biden-harris-lead-pipe-and-paint-action-plan/>

³ Environmental Protection Agency. Review of the National Primary Drinking Water Regulation: Lead and Copper Rule Revisions (LCRR). 86 FR 71574. December 17, 2021.

<https://www.federalregister.gov/documents/2021/12/17/2021-27457/review-of-the-national-primary-drinking-water-regulation-lead-and-copper-rule-revisions-lcrr>

⁴ Chapter 5: Economic Analysis. Lead and Copper Rule Revisions. Docket Number EPA-HQ-OW-210-0300.

<https://www.regulations.gov/document/EPA-HQ-OW-2017-0300-0001>

line of \$4,700 and an assumption of 10 million lead service lines in the United States, fully replacing all lead service lines in the country could cost roughly \$47 billion. This \$47 billion sum far exceeds the \$15 billion worth of lead service line replacement funds included in the Bipartisan Infrastructure Law (BIL) of 2021, thus requiring community water systems to turn to other sources of funding to cover the costs of full lead service line replacement.

Therefore, AMWA is concerned that an EPA requirement for water systems to carry out full lead service line replacements would represent a massive unfunded mandate for communities that do not receive BIL funding. These communities would likely have to turn to increased customer water rates to cover these replacement costs, which could be expected to disproportionately impact low-income customers. Water utilities are limited to grants, loans, and user rates to cover the costs of providing drinking water service, and federal funds to date alone will not cover the full costs.

Since utilities must cover the costs of a litany of other challenges, including aging infrastructure, changing state and federal regulations, climate change, and supply chain disruptions, they must turn to a limited pool of federal grants and loans and increased customer rates to fund major infrastructure projects. Utility customer rate setting authority ranges significantly by locality and states, but when necessary to increase rates, many utilities must increase customer rates for all customers. Increased customer rates disproportionately impact low-income customers, who must spend a larger portion of their income on their water bill than higher income customers.

Community water systems face additional challenges in their authority to increase rates and in their ability to assist low-income customers most affected by increased rates. AMWA represents publicly owned drinking water utilities, which are often governed by boards or other elected officials that may restrict the degree to which utilities can increase rates or whether they may establish lower rates for low-income customers. In other cases, publicly owned utilities may require voter permission to authorize funding for major infrastructure projects. The LCRI must recognize the unique challenges faced by water utilities in acquiring and distributing funds to replace lead service lines and recognize potential increased water rates as an intended consequence of funding lead service line replacement.

Legal constraints on authority to replace lead service lines

Further considerations regarding the LCRI are the legal and logistical complications of replacing lead service lines held by property-owners. As described above, the task of fully replacing lead service lines is often complicated because ownership of each household's service line is split between the community water system (which generally owns the portion from the water main to the property line) and the private homeowner (who typically owns the portion from the property line to the building inlet). Community water systems are generally unable to access or replace a privately owned lead service line without the permission of the property owner.

The challenge of obtaining property owner permission to fully replace a lead service line should not be downplayed, and EPA's announcement to pursue the LCRI acknowledged that

communities like Newark, New Jersey “have shown that full LSLR can be equitably achieved *when there is both a regulatory requirement and a commitment to prioritize funding*” (emphasis added).⁵

It is worth exploring Newark’s regulatory requirement in more detail. In 2019, the city’s code was amended to require private property owners to either replace their privately owned lead service lines at their own expense within 90 days of passage of the ordinance, or sign up for the city’s lead service line replacement program. Individual property owners were also required to allow the city to access their property to carry out a lead service line replacement. A property owner who violated this ordinance could be fined up to \$1,000 or sentenced to jail time or community service of up to 90 days.⁶

The fact that Newark could only achieve so much success in fully replacing lead service lines by compelling residents to cooperate with this effort under threat of fine or imprisonment is telling. It not only shows that full lead service line replacement cannot be achieved by local water systems alone, but also demonstrates that any full lead service line replacement mandate included in the LCRI would be likely to fail unless each city and town nationwide implemented and enforced a similar ordinance to compel the cooperation of property owners. Given stakeholder comments cited by EPA that “low-income people and communities of color are disproportionately served by” lead service lines, the widespread implementation of penalty-based lead service line replacement ordinances could similarly disproportionately threaten these communities with fines or jail time. The goal of fully replacing all lead service lines nationwide must be considered in the context of these factors, so AMWA urges EPA to thoughtfully consider the ramifications of an LCRI that prioritizes full replacement above all else.

Other legal obstacles at the state and federal level can further complicate full lead service line replacement efforts. For example, as of 2017 the laws of three states expressly prohibited water systems from using ratepayer funds on initiatives that benefit specific customers, and laws in at least 19 others made the practice highly questionable.⁷ This would pose significant challenges to any federal mandate that would require community water systems to fully replace, and pay for the replacement of, the publicly and privately owned portions of lead service lines.

Other obstacles to full lead service line replacement can be found in the federal tax code. If a water system attempts to finance the replacement of both the public and private portions of a lead service line with tax-exempt bonds, which are a common and cost-effective infrastructure financing mechanism, it must first navigate the IRS’ “private business use test” to certify that a

⁵ Environmental Protection Agency, December 17, 2021.

⁶ City of Newark, NJ, Title XVI Health, Sanitation, and Air Pollution, Chapter 16:23 Mandatory Replacement of Lead Service Line, <https://ecode360.com/36709585>

⁷ University of North Carolina Environmental Finance Center. Navigating Legal Pathways to Rate-Funded Customer Assistance Programs: A Guide for Water and Wastewater Utilities. <https://www.amwa.net/publication/navigating-legal-pathways-rate-funded-customer-assistance-programs-2017>

disproportionate portion of the bond issuance would not benefit a private, home-based business.⁸ This process adds months of work and expense to the process, as utilities must document whether there is a home-based business at each property with a private lead service line to be replaced. Any draft LCRI rule must be created with the knowledge that the US tax code currently imposes difficulties on utilities using tax-exempt bonds to pay for private-side lead service line replacement.

The LCRI must further consider the difficulty community water systems may face in acquiring permission to replace lead service lines on rental properties, where some of a utility's most vulnerable customers may live. In nearly all cases, water utilities require the permission of the property owner to conduct a lead service line replacement on the customer property side. Without adequate support to connect with landlords, which can range from individuals managing a few properties to large organizations with multiple, multi-unit properties, many utilities may not be able fully replace lead service lines where rental residents would benefit.

Community distrust in tap water

Finally, AMWA asks that the forthcoming LCRI recognize the racial disparities in trust in tap water utilities and consider how that may inform the support needed for water utilities to replace lead service lines in private homes. A recent Value of Water Campaign poll, for example, found that respondents of color (i.e., people of all races and ethnicities other than non-Hispanic Whites) were less likely to say their pipes were safe (69%) compared to white respondents (87%).⁹ These statistics bring to light the fact that already existing community concerns about water infrastructure safety may hinder water utilities' ability to access and replace service lines on private property. It is possible that communities with lower trust in their water infrastructure may also not fully trust a utility's ability to properly replace a lead service line and in turn opt out of the replacement; therefore, it is important that the EPA consider and prepare for these potential concerns.

An additional complicating factor of lead service line replacement is that residents may refuse a utility access to replace a service line for several reasons, including home water disruption, concerns about costs, or loss of landscaping. Alternatively, utilities may have to juggle how to cover costs of disruptions to properties caused by replacement, introducing the possibility that only homeowners who can afford to make aesthetic improvements after service line replacement agree to replacement. Regardless of homeowner decisions, to ensure order and community trust, utilities will have to invest administrative time and effort to oversee respecting private homeowners' decisions, further driving costs of lead service line replacement.

⁸ Kildee Introduces Bill to Help Communities Replace Lead Pipes. March 8, 2022.

<https://dankildee.house.gov/media/press-releases/kildee-introduces-bill-help-communities-replace-lead-pipes>

⁹ Value of Water Campaign. American Support for Investments in Water Infrastructure.

<http://thevalueofwater.org/sites/default/files/Value%20of%20Water%20Poll%202022%E2%80%94Key%20Poll%20Findings.pdf>

Conclusion

AMWA supports the EPA in its mission to advance environmental justice and public health. We similarly support individual utility efforts to remove their lead service lines as quickly as possible, and agree that the complete removal of lead service lines is a worthy goal. However, achieving this critical milestone will be a complex process. The agency must recognize the various affordability, legal, and community trust challenges as it considers environmental justice in the development of the LCRI. We appreciate the opportunity to comment and ask that the agency fully consider and address the challenges associated with lead service line replacement. If you have any questions about this letter, please contact Brian Redder, AMWA's Manager of Regulatory and Scientific Affairs at redder@amwa.net or Jessica Evans, AMWA's Government Affairs Associate at evans@amwa.net.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Dobbins". The signature is fluid and cursive, with a long horizontal stroke at the end.

Thomas Dobbins
Chief Executive Officer

cc: Radhika Fox, Assistant Administrator, EPA Office of Water
Eric Burneson, EPA Office of Ground Water and Drinking Water

Appendix D

AMWA Comments on the Federalism Consultation for Lead and Copper Rule Improvements



December 13, 2022

Dr. Jennifer McLain
Director, Office of Ground Water and Drinking Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20004

Re: EPA-HQ-OW-2022-0813, Federalism Consultation on Lead and Copper Rule Improvements

Dear Dr. McLain,

The Association of Metropolitan Water Agencies (AMWA) welcomes the opportunity to provide input on EPA’s forthcoming proposed rulemaking, the Lead and Copper Rule Improvements (LCRI). AMWA is an organization representing the largest publicly owned drinking water utilities in the US, and collectively its membership serves more than 160 million people. AMWA was generally supportive of the LCR Revisions (LCRR) but continues to urge EPA to consider the challenges associated with identifying and replacing lead service lines in future regulation.

Last year, the Biden Administration announced its intention to “use every tool at its disposal to eliminate all lead service lines” in the next 10 years, including by “encouraging full lead service line (LSL) replacement and strongly discouraging partial replacement.”1 EPA subsequently concluded an ongoing review of the LCRR and announced its intention to “immediately begin development” of further revisions that would be known as the LCRI. Among the revisions that EPA intends to propose as part of the LCRI are requirements that “would result in the replacement of all LSLs as quickly as is feasible.”2

AMWA reiterates its full support for advancing public health by reducing public exposure to lead. Additionally, AMWA asks the EPA to recognize, consider, and address the potential

1 FACT SHEET: The Biden-Harris Lead Pipe and Paint Action Plan, December 16, 2021. https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/16/fact-sheet-the-biden-harris-lead-pipe-and-paint-action-plan/
2 Environmental Protection Agency. Review of the National Primary Drinking Water Regulation: Lead and Copper Rule Revisions (LCRR). 86 FR 71574. December 17, 2021. https://www.federalregister.gov/documents/2021/12/17/2021-27457/review-of-the-national-primary-drinking-water-regulation-lead-and-copper-rule-revisions-lcrr

BOARD OF DIRECTORS

Table with 6 columns: PRESIDENT, VICE PRESIDENT, TREASURER, SECRETARY, CHIEF EXECUTIVE OFFICER. Lists names and organizations of board members.

hurdles associated with full LSL replacements should they be mandated as part of a proposed LCRI rule, and to provide support for community water systems (CWS) to address these challenges. We summarize these potential complications in our comments below, split into sections matching EPA's Federalism Consultation meeting slides.

Identifying and Replacing Lead Service Lines

AMWA continues to believe that any further revisions to the rule must consider the realities on the ground, namely, the practical challenges faced by water systems seeking to replace all publicly and privately-owned LSLs. These challenges are detailed in the attached comments previously submitted by AMWA on July 30, 2022 on the Lead and Copper Rule virtual engagements. Aside from the considerable cost factors and accompanying implications for water affordability for low-income ratepayers, a binding mandate on water systems to replace "all" public and privately-owned LSLs would meet the obstacle of individual homeowners who may refuse access to their property to replace their privately-owned LSL. The experience of AMWA members is that a significant portion of customers typically decline the chance to have their privately-owned LSL replaced, even when the cost is partially or fully subsidized, often due to distrust or apprehension in government.

CWS and their communities also face differing circumstances and competing priorities. If EPA were to require water systems to replace all LSLs by a defined deadline, the agency would effectively be deciding, for each water system in the nation, that the removal of lead lines is the most important water infrastructure investment above all others to protect public health in a community. Realistically, water systems and communities must balance a variety of competing priorities such as addressing PFAS, the need to strengthen infrastructure to withstand the effects of climate change and extreme weather, cybersecurity risks, and the development of new drinking water sources in the face of long-term drought. As these communities often have limited resources, a revised LCR with an inflexible LSL removal mandate would require water systems to put these competing priorities aside – even if they pose the most pressing threats to public health and utility and community sustainability.

AMWA also asks EPA to consider the following situation related to galvanized [pipe] requiring replacement service lines (GRRSL). Currently, GRRSL are defined as "a galvanized service line is ***or was at any time*** downstream of a lead service line or is currently downstream of a 'Lead Status Unknown' service line [emphasis added]."³ For utilities that identified LSLs many years ago and removed them, they will have to treat customer-side galvanized lines formerly connected to LSLs as though they are lead. EPA should consider, using the most up-to-date science, that these GRRSL are no longer a source of lead after a period of time as supported by the data.

AMWA also urges EPA to consider the state of the workforce currently in the country. Many AMWA members struggle to find and secure individuals trained and capable of completing LSL

³ 40 CFR Part 141 Subpart I; <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-141/subpart-I>

replacement and related work. Some states require specific qualifications, like being a licensed plumber, for those replacing LSL. This severely limits the ability of CWS to be proactive in quickly replacing LSLs. EPA should prioritize increased opportunities for training and workforce development to address this important issue.

In addition, there are equity and environmental justice concerns associated with full LSL replacement that AMWA previously detailed in November 15, 2022 comments to EPA on environmental justice considerations in development of LCRI, also attached to this letter. Any increase in water rates due to LSL replacement would have a disproportionate impact on low-income communities. Although the increase in water bills would be equal across ratepayers within the community, it would not be equitable as low-income households would be paying a larger portion of their income to fund replacements across the water system's entire service area, which will include higher income households that are impacted less by the subsequent increase in water bills. EPA cannot expect that funds already appropriated will be enough to complete the entirety of LSL replacement, meaning the remainder of those costs will fall to the public.

AMWA is also concerned that the varying definitions of disadvantaged communities in states and across the federal government will exclude larger utilities, with service areas including pockets of these communities, from being eligible for certain LSL replacement funds. AMWA urges EPA to maximize the opportunities for states and municipalities to use funds in a way that delivers the most benefit to low-income households and communities. Additionally, EPA should consider difficulties with communicating to customers who previously have replaced their own LSLs, at great cost to themselves, that others will now have access to full replacement costs.

Tap Sampling and Compliance

It's critical that any revisions to the LCR do so with the mindset of minimizing burdens on CWS and their customers. Many CWS already struggle to get customers to participate in tap water sampling, some even offering incentives and discounts on water bills to conduct sampling. Increasing the amount of work associated with sampling will only deter more individuals from participating.

EPA claims the first liter of water sampled from a tap represents issues from premise plumbing. While there are instances this may not be the case, any proposed rule should make it clear that water systems are not responsible for any premise plumbing or fixtures located inside the home, as this is outside of a water system's control. By testing both these samples, it will only increase the number samples reaching the action/trigger levels, prompting public notifications that typically cause panic and worry among residents and cost CWS significant resources.

Reducing Rule Complexity

AMWA suggests EPA not take large actions in this rulemaking, and instead use the data acquired from LCRR implementation to make an informed decision during the next Six-Year

Review. Many CWS are still preparing for elements of the LCRR, like the LSL inventory, and the notion of major changes happening right as the compliance date nears has led to much confusion over what needs to be done now and in the future. The LCR is not the only major rulemaking EPA is currently undergoing, and CWS must weigh changes associated with LCRI, PFAS regulation, and MDBP revisions, all coming together around the same time.

AMWA strongly suggests EPA keep the action level at 15 ppb. Lowering the action level, in addition to potentially including both 1st and 5th liter draws for sampling, will only increase the number of samples that require action, including public notification which will be a substantial burden on states. Increasing the number of samples that require action will divert resources away from other issues that may have larger public health consequences. Instead of lowering the action levels, AMWA urges EPA to develop and promote guidance documents that help CWS and the public understand the importance of lead testing, how to properly conduct lead testing at home, and resources available to reduce lead exposure.

Having two similar parameters, like the action and trigger levels, seems to have created some confusion as to how they differ and what is specifically required of each of them. If a sample exceeds both levels, triggering both actions, the costs and time associated would be substantial. Additionally, the action level requires replacement of the LSL, so CWS should not have to evaluate their corrosion control technique (CCT) if the source of lead was removed.

The association continues to oppose actions that require changing a system's CCT based on a single sample that is above the action level. In some cases, an elevated level of lead discovered in an individual sample may often relate to lead coatings or other factors that are unique to the specific sampling site, and beyond the control of the water system. Requiring a water system to make corrosion control changes due to only one or a small number of individual samples exceeding the action level could provide limited benefits and expose the public to other public health risks such as elevated disinfection byproducts and microbial issues due to disruption of the pipe biofilms.

Conclusion

AMWA strongly supports individual utility efforts to remove their LSLs as quickly as possible and agrees that the complete removal of LSLs should be the ultimate goal. However, as outlined above, AMWA harbors deep reservations about any proposal that would require public water systems to eliminate all LSLs by a firm deadline for the reasons detailed in this letter. Any federal replacement mandate must reflect the reality that a community's LSLs are often jointly owned by the water system and thousands of individual homeowners. Convincing all customers to agree to replace their LSLs can be a significant challenge for reasons ranging from disinterest to disillusionment and distrust of government. Without this customer consent, or a change in local laws, full replacement of LSLs is impossible.

Dr. Jennifer McLain

December 13, 2022

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Overall, the LCRI should make minimal changes to the current rule. EPA should collect data over the next few years to do a comprehensive assessment during the next Six-Year Review to identify areas that will be most effective in reducing lead exposure to the public. AMWA appreciates the opportunity to comment and asks that the agency fully consider and address the challenges associated with LSL replacement. If you have any questions about this letter, please contact Brian Redder, AMWA's Manager of Regulatory and Scientific Affairs at redder@amwa.net.

Sincerely,



Thomas Dobbins
Chief Executive Officer

Attachments

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