



**ASSOCIATION OF  
METROPOLITAN  
WATER AGENCIES**

**LEADERS IN WATER**

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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,”<sup>ii</sup> 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.<sup>ii</sup>

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.<sup>iii</sup>

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<sup>iv</sup>. 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.

<b>Year</b>	<b>Percentage of LSLs Replaced</b>	<b>Cumulative Average Percentage of LSLR</b>	<b>Two-Year Rolling Average</b>
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<sup>v</sup>, and 16,000 in Baltimore<sup>vi</sup>. 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](mailto:schlea@amwa.net).

Sincerely,



Diane VanDe Hei  
Chief Executive Officer

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

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

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

<sup>iii</sup> 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](https://library.municode.com/wi/madison/codes/code_of_ordinances?nodeId=COORMAWIVOIICH11--19_CH13PUWASUSY_13.18LEWASELIRE).

<sup>iv</sup> 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>

<sup>v</sup> 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>

<sup>vi</sup> 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/>