Advocates

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Testimony of Environmental Advocates NY

Before the New York State Senate Health Committee and Housing Committee Hearing on the Lead Poisoning Crisis

November 30, 2021 Albany, New York

Environmental Advocates NY appreciates the opportunity to submit testimony to the State Senate Health and Housing Committees on how to achieve a lead-free New York. Lead poisoning has harmed too many generations of New Yorkers, especially children, and strained our education and healthcare systems. Bold action is needed to swiftly remove all sources of lead exposure. Our testimony will focus on the dangers posed by lead in drinking water and the state-level policies needed to expedite the replacement of each and every lead service line (LSL) in New York State.

LSLs have caused water crises and public health disasters across the US, mos notably in Flint, Michigan and Newark, New Jersey. But LSLs are not limited to cities outside New York. An estimated 360,000 of these dangerous pipes are buried underground and delivering water to homes and businesses in our state, causing contamination and disproportionately harming low-income communities and communities of color. Without state action to remove and replace 100% of LSLs, a water crisis similar to the magnitude of Flint and Newark may occur in our state as well.

New York now has a once-in-a-generation opportunity to get the lead out of drinking water. Thanks to the passage of the Infrastructure Investment and Jobs Act, our state is about to receive an unprecedented amount of investment, possibly over \$500 million, from the federal government to remove LSLs. But this funding is not enough to eliminate all of New York's lead pipes, and many questions of implementation will be left to our state government.

To ensure that every New Yorker can turn on their tap and trust that the water coming out is safe to drink, we urge the State Legislature to:

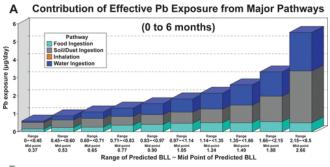
- 1. Increase state grant funding for LSL replacement, ensuring that local governments can affordably dig up every LSL in their systems;
- 2. Require water utilities to quickly develop comprehensive service line inventories and ensure those inventories are fully accessible to the public; and
- 3. Accelerate equitable LSL replacement, prioritizing the communities most harmed by the lead poisoning crisis.

Health Hazards of Lead in Drinking Water

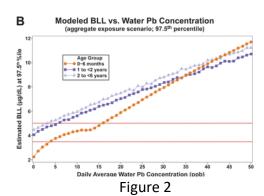
There is no safe level of lead exposure. The US Environmental Protection Agency (EPA) has established a Maximum Contaminant Level Goal of 0 parts per billion (ppb) for lead in drinking water, defined as the level below which there is no known or expected risk to health. The American Academy of Pediatrics has recommended an enforceable standard of 1 ppb be set for lead in school drinking water to fully protect human health.

Even low levels of exposure to this harmful neurotoxin can cause permanent damage to the human body, including decreased cognitive function, developmental delays, and behavioral problems. Other harmful health effects include heart and kidney disease, fetal miscarriages, and premature birth. More severe exposure can result in seizures, coma, and even death.³

Infants and pregnant women are especially sensitive to lead in drinking water. Formula-fed infants can receive 40-60% of their lead exposure from drinking water.⁴ A 2017 study by EPA scientists concluded that a substantial proportion of the blood level levels (BLLs) of infants aged 0-6 months comes from water ingestion (Figure 1).⁵ In addition, for the most at-risk children exposed to numerous sources of lead, levels of lead in drinking water as low as 5 ppb can cause an infants' BLL to exceed the Center for Disease Control's Blood Lead Reference Value of 3.5 micrograms per deciliter (Figure 2).⁶







¹ US EPA, "Basic Information about Lead in Drinking Water," https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

² American Academy of Pediatrics, "Prevention of Childhood Lead Toxicity," 2016,

https://publications.aap.org/pediatrics/article/138/1/e20161493/52600/Prevention-of-Childhood-Lead-Toxicity.

³ ATSDR, "What Are Possible Health Effects from Lead Exposure?,"

https://www.atsdr.cdc.gov/csem/leadtoxicity/physiological effects.html.

⁴ Pittsburgh Water and Sewer Authority, "Important Information about Lead in Your Drinking Water," https://apps.pittsburghpa.gov/pwsa/PWSA_Lead_Brochure.pdf.

⁵ Zartarian et al., "Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making," Environmental Health Perspectives, 2017, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5915183/.

⁶ Centers for Disease Control and Prevention, "Blood Lead Reference Value,"

https://www.cdc.gov/nceh/lead/data/blood-lead-reference-value.htm.

This evidence shows the need to eliminate lead in drinking water simultaneously with other sources of lead exposure, including lead paint. While lead paint is a primary source of exposure for many children, additional lead present in drinking water can push BLLs to even higher and more dangerous levels. Because lead paint and LSLs are both more common in older housing stock, the communities most at risk of lead paint are also the communities most at risk of experiencing lead in drinking water contamination.

Background on Lead Service Lines

Service lines are pipes that carry drinking water from the water mains under city streets to the internal plumbing in homes and other buildings. EPA and the NYS Department of Health (DOH), the agencies charged with regulating lead in drinking water, define an LSL as "a service line made of lead which connects the water main to the building inlet and any lead appurtenances connected to the lead service line." EPA estimates that LSLs contribute between 50-75% of the total amount of lead in a building's drinking water, making these pipes the greatest contributors of lead in drinking water.

It is impossible to fully prevent lead from leaching from LSLs into drinking water. Wherever LSLs are present, contamination will occur. A change in water temperature, chemistry, and flow rate can all corrode LSLs and cause lead to entering drinking water. In addition, physical disruption of LSLs, including from street construction, can dislodge flakes of lead from the LSL which then contaminate the water.

New Yorkers living in older housing stock, especially housing constructed before 1945, are at greater risk of having an LSL. Historically, lead was used because it was less expensive than iron, could more easily be bent around existing structures without leaking, and allowed more durable connections to stiffer pipes that expand/contract with temperature. New York City prohibited the installation of new LSLs in 1960, and the US Environmental Protection Agency (EPA) prohibited service lines from containing more than 8% lead in 1986. In 2014, EPA mandated that all plumbing cannot contain more than 0.25% lead.

LSLs are also more common in smaller housing stock, such as single-family homes and two-flat apartment buildings. Lead is a soft and malleable material which will buckle if large volumes of water flow through it. This prevented the use of LSLs at most skyscrapers, schools, and other large buildings with high water usage.

⁷ NYS DOH, "Public Water Supply Regulations," https://regs.health.ny.gov/content/section-5-11-definitions.

⁸ AWWA Research Foundation, "Contribution of Service Line and Plumbing Fixtures to Lead and Copper Rule Compliance Issues," 2008, https://archive.epa.gov/region03/dclead/web/pdf/91229.pdf.

⁹ Corrosion control, a process of adding chemicals to drinking water in order to coat service lines and prevent lead leachage, is extremely difficult to operate correctly and is not fully effective. While it can be an important interim measure for dealing with elevated levels of lead, corrosion control is not a long-term solution.

¹⁰ Minnesota Department of Health, "Assessment of Eliminating Lead in Minnesota Drinking Water," 2019, https://www.health.state.mn.us/communities/environment/water/docs/leadreport.pdf.

Because most urban cores have high numbers of LSLs, low-income communities and communities of color are more likely to have an LSL serving their homes. These are the New Yorkers who can least afford to pay several thousand dollars to have this threat to their drinking water removed.

Extent of Lead Service Lines in New York State

New York has one of the highest totals of LSLs in the nation. In 2016, the American Water Works Association estimated that there are 360,000 LSLs across the state. Based on this estimate, New York is believed to rank fourth among all fifty states when judged by the number of LSLs. This is unsurprising given the age of our state's housing stock. Figure 3 displays LSL estimates in several major New York cities.

Municipality	Estimated Number of LSLs	
Buffalo	40,000 ¹³	
Rochester	25,000 ¹⁴	
Syracuse	15,000 ¹⁵	
Albany	14,000 ¹⁶	
Newburgh	3,000 ¹⁷	

Figure 3

We do not know exactly how many LSLs are still buried underground in New York. It is difficult to calculate a precise figure because many water utilities do not know how many LSLs are in their system or where they are located. Most water utilities have never conducted an analysis of their written records to develop an inventory of the service lines in their system. To our

¹¹ Cornwell et al., "National Survey of Lead Service Line Occurrence," 2016, http://media.mlive.com/news_impact/other/jaw201604cornwell_pr.pdf.

¹² NRDC, "Lead Pipes are Widespread and Used in Every State," https://www.nrdc.org/lead-pipes-widespread-used-every-state.

¹³ Carolyn Berndt, "Buffalo is Ready to ROLL to Replace Old Lead Water Lines," National League of Cities, 2021, https://www.nlc.org/article/2021/07/27/buffalo-is-ready-to-roll-to-replace-old-lead-water-lines/.

¹⁴ Senator Charles E. Schumer, "Infrastructure Bill Press Release," 2021,

https://www.schumer.senate.gov/newsroom/press-releases/schumer-reveals-bipartisan-infrastructure-deal-will-bring-vital-funding-needed-to-address-rochesters-25000-lead-pipes-and-accelerate-lead-pipe-removal-3x-faster-standing-in-front-of-a-high-lead-water-home-schumer-reveals-over-15-billion-to-help-eliminate-lead-pipes_ensure-rochester-children--families-get-the-clean-drinking-water-they-deserve.

¹⁵ James Mulder, " NY grant to help Syracuse homeowners replace lead water pipes," Syracuse Post Standard, 2019, https://www.syracuse.com/health/2017/12/lead_pipes.html.

¹⁶ Rick Karlin, "14,000 lead pipes carry Albany's drinking water. The city wants to replace them." Albany Times Union, 2021, https://www.timesunion.com/news/article/14-000-lead-pipes-carry-Albany-s-drinking-water-16411320.php.

¹⁷ Dino Grandoni, "Biden Hopes to Dig Up Lead Water Pipes. This City Wants His Help," Washington Post, 2021, https://www.washingtonpost.com/climate-environment/2021/05/15/biden-hopes-dig-up-nations-lead-water-pipes-this-city-wants-his-help/.

knowledge, New York City, Syracuse, and Rochester are the only cities in the state that have created publicly accessible service line inventories.

An analysis of written records, while essential, is just the first step in determining the true number of LSLs in a water system. What records do exist may be incomplete, inaccurate, or outdated, given that some documents can be over 100 years old. For example, New York City, even after completing a service line inventory, still does not know the material composition of over 230,000 service lines in its system, many of which could be made of lead (Figure 4).¹⁸ Physical inspections may then become necessary to determine the service line material.

Borough	Number of Potential LSLs	Number of Service Lines of Unknown Material	Number of Non-Lead Service Lines
Brooklyn	37,327 (13.4%)	93,027 (33.4%)	147,948 (53.1%)
Bronx	18,983 (20.9%)	19,675 (21.7%)	52,169 (57.4%)
Manhattan	5,826 (13.3%)	14,325 (32.6%)	23,736 (54%)
Queens	66,703 (19.9%)	67,338 (20.1%)	201,538 (60%)
Staten Island	8,678 (6.9%)	40,577 (32.4%)	75,191 (60.1%)
Totals	137,517 (15.7%)	234,942 (26.9%)	500,582 (57.3%)

Figure 4

It is therefore likely that LSL totals across the state are being underestimated, and that the more water utilities investigate the service line materials in their systems, the more LSLs they will find. There is an urgent need for more rigorous data collection and transparency by water utilities, who are not required to provide any information about estimated LSL totals to DOH or other agencies. Finding out exactly how many LSLs are present in New York is critical to planning efforts to achieve 100% LSL replacement.

Extent of Lead in Drinking Water Contamination in New York State

LSLs are causing contamination across the state and will continue to harm New Yorkers if they remain in place. Our knowledge of lead levels detected in drinking water comes largely from monitoring conducted under EPA's Lead and Copper Rule (LCR), the nation's primary lead in drinking water regulation.

Under the LCR, each water utility is required to sample a number of homes in their system for lead at a frequency determined by DOH. Water utilities exceed EPA's action level when more than 10% of their samples exceed 15 ppb. Upon an exceedance, water utilities are required to notify the public and take action to reduce their lead levels. Importantly, water utilities are not required to replace LSLs so long as fewer than 10% of their samples exceed 15 ppb during subsequent monitoring.

¹⁸ NYC Open Data, "Lead Service Line Coordinates," https://data.cityofnewyork.us/Environment/Lead-Service-Line-Location-Coordinates/bnkq-6un4.

It is important to note that 15 ppb is not a health-based standard and does not convey any information about whether water is "safe" to drink. There is no safe level of lead in drinking water; EPA's action level was set in 1991, 30 years ago, and is severely out of date. In recognition of this fact, Figure 5 depicts not only the number of water utilities in New York with more than 10% of samples exceeding 15 ppb between 2018 and 2020, but also the number of water utilities exceeding 5 ppb, the standard that the US Food and Drug Administration has set for bottled water. Strikingly, over half of New Yorkers were served by water systems that detected lead below the action level but still at significant concentrations.

90 th Percentile Level, 2018- 2020	Number of Water Systems in New York State	Total Population Served
Above 15 ppb	62	156,359
Above 5 ppb	363	11,512,212 ¹⁹

Figure 5²⁰

These results, moreover, are almost certainly an underestimate of the amount of lead contamination across New York State due to significant flaws in the LCR's current monitoring protocols:

- Use of non-LSL sampling sites. The LCR only requires 50% of a water utility's sampling
 sites to have an LSL, even though LSLs are the greatest contributor to lead in drinking
 water. This allows water utilities to avoid having some of their samples come from the
 most at-risk homes.
- 2. Use of 1st draw samples. The LCR only requires water utilities to collect samples from the first liter of water that comes out of a home's tap. Recent science, however, has demonstrated that sampling the fifth liter of water provides a more accurate reading of a homeowner's exposure to lead. The fifth liter captures the water sitting stagnant in the LSL, which can contain elevated levels of lead.
- 3. Improper sampling procedures. The LCR does not prohibit water utilities from removing faucet aerators, which can collect lead over time, or flushing a home's pipes before collecting the sampling. Both techniques minimize the real amount of lead a homeowner is exposed to.
- 4. Infrequency of sampling. Some water utilities are allowed to monitor for lead as little as once every three years, allowing potential contamination to fly under the radar for a long period of time. DOH does not make public which water systems are on which testing schedule.

¹⁹ This total includes the 8,271,000 New Yorkers served by the New York City drinking water system.

²⁰ Kristi Pullen Fedinick, " Millions Served by Water Systems Detecting Lead," NRDC, 2021, https://www.nrdc.org/resources/millions-served-water-systems-detecting-lead.

When considered in isolation, sampling is an unreliable metric for judging a water system's risk of lead in drinking water. Sampling results can help agency staff locate immediate and acute water quality problems, but because lead levels can fluctuate so drastically, a system might exceed the action level one quarter and register as non-detect the next, despite the same risks from LSLs in the system. The best indicator of the long-term risk of lead exposure is the presence of an LSL. The presence of an LSL is straightforwardly a threat to clean drinking water.

Ultimately, there are fundamental flaws in the LCR's approach to regulating lead in drinking water. First, the LCR relies on sampling to identify lead exposure threats, and not the presence of LSLs. Second, where lead is detected, the LCR is largely reactive, intervening only when water quality has reached a crisis level. It is not intended to prevent a crisis from developing in the first place. Second, even when water quality has reached a crisis level, the LCR does not facilitate the replacement of LSLs, the actual source of contamination. Over the last three decades, extremely few of our nation's estimated 10-13 million LSLs have been dug out of the ground.²¹ Our nation's official policy has been to manage lead in drinking water, rather than to eliminate it.

Lead Contamination Case Study

New York communities such as Amsterdam,²² Ilion,²³ and Newburgh,²⁴ all exceeded the EPA action level between 2018 and 2020. Newburgh in particular shows how LSLs and lead in drinking water exacerbate environmental injustices. A quarter of Newburgh's 28,000 residents live in poverty, and three quarters of the city's population is Black or Hispanic.²⁵ 62% of Newburgh's housing stock was built before 1940, and an estimated 3,000 LSLs are still delivering water to residents' homes.²⁶

Newburgh residents have been exposed to a myriad of toxic pollutants, worsening health impacts from lead exposure. In 2016, Newburgh discovered that firefighting foam from a nearby Air National Guard base had for decades seeped into Washington Lake, its drinking water source, contaminating the lake with the toxic chemical PFOS. The city responded by switching their drinking water source to the Catskill Aqueduct.

²¹ NRDC, "Lead Pipes are Widespread and Used in Every State," https://www.nrdc.org/lead-pipes-widespread-used-every-state.

²² Jason Subik, "Lead level in water still an issue in Amsterdam," The Recorder, 2020, https://www.recordernews.com/news/local-news/178666.

²³ Donna Thompson, "Ilion Residents Warned of High Lead Levels of Water," Times Telegram, 2020, https://www.timestelegram.com/story/news/2020/10/05/ilion-reports-high-lead-levels-found-drinking-water/3623869001/.

Mid Hudson News, "High levels of lead found in some Newburgh city drinking water," 2018,
 https://midhudsonnews.com/2018/12/03/high-levels-of-lead-found-in-some-newburgh-city-drinking-water/.
 Dino Grandoni, "Biden Hopes to Dig Up Lead Water Pipes. This City Wants His Help," Washington Post, 2021,
 https://www.washingtonpost.com/climate-environment/2021/05/15/biden-hopes-dig-up-nations-lead-water-pipes-this-city-wants-his-help/.

²⁶ Leviticus Fund, "Newburgh Housing Report," 2021, https://leviticusfund.org/wp-content/uploads/2021/06/Working-Paper-I Newburgh-Housing-Needs-Assessment.pdf.

The Catskill Aqueduct's water chemistry, however, differed significantly from that of Washington Lake, and the change accelerated LSL corrosion across the city. In 2016, after the switch, Newburgh detected lead as high as 150 ppb, ten times higher than EPA's action level. The city detected levels as high as 170 ppb in 2017.²⁷ It wasn't until 2018, however, that more than 10% of the 39 homes that the city sampled for lead exceeded 15 ppb, causing an EPA action level exceedance and public notification.

Despite the exceedance, Newburgh was not required to conduct any LSL replacements nor were they provided much financial help to do so. Newburgh did receive a \$500,000 grant from DOH for LSL replacement, but this small amount of funding only allowed the city to replace about 90 LSLs. The city has a long list of residents desperate to have their LSLs dug out of the ground, but without state and federal support, the city does not have the financial means to get enough work crews out on the street. The result is that Newburgh residents are forced to keep living with lead pipes and worrying about toxic exposure when they turn on the tap.

Recent Federal and State Action to Remove LSLs

The public outcry over the water crises in Flint and Newark, in particular, galvanized new action to eliminate LSLs and lead in drinking water at both the state and federal levels. The crises shone a light on the failures of our nation's current lead in drinking water regulations, and the need to eliminate LSLs before people become sick, not after.

In 2019, the Trump EPA proposed the first major revisions to the LCR since the establishment of the rule in 1991. The revisions include some modest improvements, including strengthening sampling procedures and for the first time requiring water utilities to develop an LSL inventory. But the revisions failed to establish a timeline for water utilities to achieve full LSL replacement. In fact, the revisions extend the amount of time water utilities have to replace LSLs when they have sustained exceedances of the EPA action level.

Fortunately, the Biden administration has decided to put the proposed revisions on hold while it conducts a review on whether any adjustments should be made. A decision from the Biden EPA is expected this December. The announcement will have major implications for which policies New York will still need to adopt to fully protect public health.

The Biden administration also secured a landmark achievement with the passage of the federal Infrastructure Investment and Jobs Act in November. The bill includes \$15 billion over 5 years

²⁷ City of Newburgh, Annual Water Quality Reports, https://www.cityofnewburgh-ny.gov/196/Water-Quality-Reports.

²⁸ US EPA, "Reference Guide for Public Water Systems: LCR Comparison," 2020, https://www.epa.gov/sites/default/files/2020-12/documents/reference guide for pwss 12.21.20.pdf.

for LSL replacement.²⁹ Though the bill includes less than the \$45 billion necessary to replace all of our nation's estimated 10-13 million LSLs, this is by far the most significant investment in LSL replacement ever made by the federal government.³⁰

New York will likely receive over \$500 million of the total funding, presenting our state with an enormous opportunity to start down the path towards 100% LSL replacement and, if properly implemented, further environmental justice. 49% of the \$15 billion will be in the form of grants or principal forgiveness loans (the decision between the two is left to each state), and 51% in the form of loans. The funding will be administered through the Drinking Water State Revolving Fund, and does not require any state matching funds to access.

Fortunately, New York has gained experience facilitating LSL replacement over the last several years. In 2017, state lawmakers created the Clean Water Infrastructure Act, which in turn created the Lead Service Line Replacement Program (LSLRP). The LSLRP, administered by DOH, provides grants to local governments to dig up the full length of LSLs at no cost to either the local government or the homeowner. This ensures that homeowners who are struggling to pay the bills, often in low-income communities and communities of color, aren't faced with an additional financial burden, a crucial component of environmental and economic justice.



Figure 6 – An LSL replacement in Newburgh funded by DOH's LSLRP

²⁹ Scott Berry, "Bipartisan Infrastructure Package Achieves Historic Investments, But More Is Needed," US Water Alliance, 2021, http://uswateralliance.org/resources/blog/bipartisan-infrastructure-package-achieves-historic-investments-more-needed.

³⁰ NRDC, "Lead Pipes are Widespread and Used in Every State," https://www.nrdc.org/lead-pipes-widespread-used-every-state.

The Lead Service Line Replacement Program has so far awarded \$30 million to 44 municipalities in all corners of the state. Current funding has only allowed a small fraction of our state's estimated 360,000 LSLs to be replaced. As of 2019, the program had replaced 200 LSLs, and to date it has replaced approximately 2,000 LSLs.³¹ Moreover, it is currently unclear how much these replacements are benefiting environmental justice communities. There are no requirements that awardees target replacements in neighborhoods most burdened by lead poisoning, and DOH does not track where replacements take place. As New York plans to implement federal LSL replacement funding, it needs to develop more robust program oversight to ensure that funding is being used as efficiently and equitably as possible.

Statewide Policies Needed to Achieve Full LSL Replacement

Replacing LSLs shouldn't be seen as a cost, but rather as a win-win for public health and the economy. The Minnesota Department of Health estimates that for every \$1 that is spent on LSL replacement, \$10 worth of economic and health benefits are created.³² The Environmental Defense Fund estimates that every lead service line replaced yields an estimated \$22,000 in reduced cardiovascular disease deaths.³³ LSL replacements have the potential to create thousands of union jobs paying prevailing wage and keep dollars circulating in local communities.

With unprecedented momentum at the federal level, New York should seize the opportunity to eliminate LSLs once and for all. There are specific policies that our state can adopt to put us on the path towards 100% LSL replacement:

1. Increase state grant funding for LSL replacement. The total cost to replace all of New York's conservatively estimated 360,000 LSLs is at least \$1 billion (the most efficient LSL replacement programs can keep the cost per LSL replaced as low as \$3,600). Even the hundreds of millions of dollars on the way from the federal government will not fully meet this need. Moreover, the majority of the IIJA funding will come in the form of loans, which on their own will be inaccessible to many already debt-burdened local governments. State grant funding can leverage these loan dollars and make them more accessible to disadvantaged communities.

To access both state and federal funds, water utilities should be required to present plans of how their replacements programs will prioritize and benefit the communities most harmed by the lead poisoning crisis, and how they will utilize the most efficient construction techniques (such as replacing all LSLs on a given street at once).

³¹ NYS DOH, "A Statewide Plan for Lead Service Line Replacement," 2019, https://www.health.ny.gov/environmental/water/drinking/lslrp/docs/lslrpreportfinal.pdf.

³² Minnesota Department of Health, "Assessment of Eliminating Lead in Minnesota Drinking Water," 2019, https://www.health.state.mn.us/communities/environment/water/docs/leadreport.pdf.

³³ Tom Neltner, "Every lead service line replaced yields an estimated \$22,000 in reduced cardiovascular disease deaths," Environmental Defense Fund, 2020, http://blogs.edf.org/health/2020/02/20/lslr-reduced-cardiovascular-disease-deaths/.

- 2. Require water utilities to quickly develop comprehensive service line inventories and ensure those inventories are fully accessible to the public. EPA's revisions to the LCR requires water utilities to create LSL inventories, but there are significant shortcomings to their proposal. New York should:
 - a) require the development of inventories on a faster than the 3-year EPA timeframe (such as 6 months);
 - require reporting of each service line material type in the system, rather than EPA's three categories of lead, unknown, and not lead. Other material types include PVC, etc.;
 - c) require water utilities to annually update their inventories; and
 - d) require DOH to compile all inventories into a publicly accessible, GIS database.
- 3. Accelerate equitable LSL replacement, prioritizing the communities most harmed by the lead poisoning crisis. New York must quickly start planning for the significant infusion of federal LSL replacement funds it is about to receive. To fully protect public health and further environmental justice, any LSL replacement conducted in New York should adhere to certain policies. The State Legislature can:
 - a) Prohibit LSL replacement costs from falling on the homeowner. Struggling New Yorkers cannot afford to pay several thousand dollars to replace an LSL.
 - b) Require full LSL replacements, including any connector pipes like lead goosenecks and pigtails, as well as any galvanized pipes. Partial LSL replacements should be completely prohibited, given that they can actually increase levels of lead in drinking water and leave a source of contamination in place.
 - c) Require water utilities to replace LSLs when responding to any service line leaks or conducting water main upgrades. The costs of these replacements will be substantially lower since the street will already be dug up.
 - d) Provide water utilities explicit authority to use public funds to replace privatelyowned portions of LSLs. This will ease the process of ensuring full LSL replacements, and not partial replacements, occur.
 - e) Provide water utilities explicit authority to replace LSLs without the consent of the building owner. Tenants should not have to continue to be exposed to lead in drinking water because their absentee landlord does not provide consent for a replacement to occur.
 - f) Require the use of copper pipes to replace LSLs. PVC pipes may leach chemicals into drinking water or permit contaminants to leach from the groundwater.

Conclusion

Thank you for the opportunity to testify today. I look forward to working with your committees and the State Legislature to protect public health from lead in drinking water and end the environmental injustice of lead exposure.

Sincerely,

Robert Hayes Director of Clean Water Environmental Advocates NY