Testimony of

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before the

New York City Council
Committee on Environmental Protection, Resiliency, and Waterfronts

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Good Morning, Chair Gennaro and members of the Committee on Environmental Protection, Resiliency, and Waterfronts. I am Rohit T. Aggarwala, Commissioner of the Department of Environmental Protection (DEP). I am joined today by several of my DEP colleagues, including Deputy Commissioner of the Bureau of Water Supply Paul Rush, Director of Project & Business Operations Management for the Bureau of Water and Sewer Operations Janet Aristy to discuss the very important topic of Lead Service Lines in New York City.

This is a detailed and complex topic, so I want to make sure that everyone understands a few key takeaways from my testimony. First, New York City tap water is safe, healthy, and delicious; people should not hesitate to drink NYC water. Second, the federal Environmental Protection Agency (EPA) is issuing a new Lead and Copper Rule revision that will require all lead service lines to be replaced, regardless of whether lead is found in that building's water or not; this is not a decision that New York City has made. Third, there are at least 130,000 lead service lines in New York City, and we estimate the full number is roughly 150,000. We estimate that replacing all of the lead service lines will cost about $2 billion. These service lines are privately owned; they are part of the building. Some of them are in low-income neighborhoods; some of them are in high-income neighborhoods. We have been working to identify grants and other funding to help homeowners replace lead service lines, but we do not expect ever to have full funding to pay for all of these private replacements. Further, while the Federal government has made funding available, that funding is something like one-tenth the total need across the country and New York State places limits on what we can receive. The bottom line is that while we will of course maximize external funding, we cannot expect all the funding we need to come from somewhere else.

1. What has changed about lead?

Our current focus on lead service lines stems from the EPA's recent determination that there is no safe level of lead in drinking water. This is not universally applied; for example, the US Food and Drug Administration permits a lead level of 5 ppb in bottled water.[1] EPAs mechanism for this is the Lead and Copper Rule (LCR), which sets maximum permissible levels of lead and lays out requirements to minimize contaminant levels. The original lead and copper rule went into effect in 1991. DEP has a long record of compliance with the rule.

The LCR has been revised twice in recent years. It was revised in 2021. Those revised standards go into effect this year. Further revisions were made in 2023, creating the Lead and Copper Rule Improvements (LCRI),

which are expected to go into effect in 2027. These newest standards are the most stringent yet. We are focused on how to meet those standards.

The LCRI also sets new testing requirements and a lower "lead action level," which is the lead value that triggers action requirements by the water utility. Under the new rules, compliance testing will focus on buildings with known lead service lines; use water sitting in the service line for at least 6 hours; and have a new, lower standard of 10 parts per billion, down from 15 parts per billion. With this approach, it is likely that New York City – and, we expect, all cities with any lead service lines – will exceed the action level.

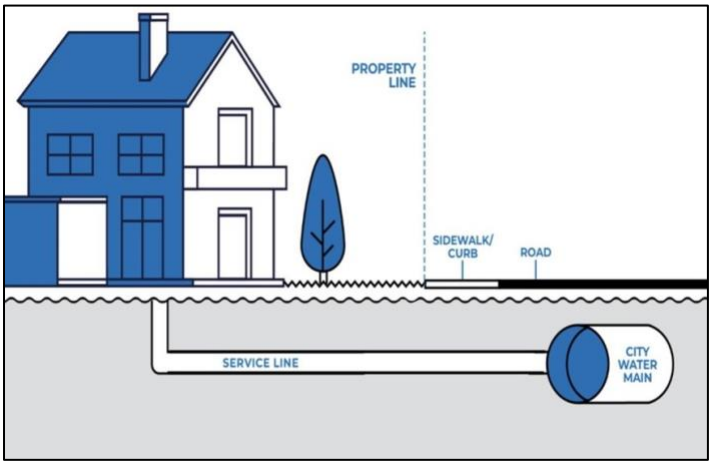
If we do, the new EPA requirement will oblige DEP to notify ALL residents in the entire city, even those who do not have a lead service line, that lead levels have exceeded the action level. This will likely cause confusion and distrust in NYC water, even among residents who face no lead exposure whatsoever.

Further, the LCRI will now also require every city to develop a plan to remove lead service lines, regardless of whether water quality testing shows elevated levels of lead in tap water. Replacing all privately-owned lead service lines has not been a requirement before, so we are working now to develop this plan. The legislation being considered today, which I will discuss in depth in a few minutes, supports this goal.

2. What is New York City's lead service line exposure?

Lead does not come from New York City's drinking water supply. Our water comes from a series of reservoirs and controlled lakes upstate, where Deputy Commissioner Rush's team ensures its quality. Every day, one billion gallons of water comes down to the city through our aqueducts and water tunnels, flows through approximately 7,000 miles of water mains, and is delivered to every home and business around the city. There are no lead pipes whatsoever in the water distribution system.

Lead risk enters at the service line. A service line is the pipe that connects an individual building to the city water main under a street. In New York City, DEP is responsible for the water mains, but the service line is private property, even though it extends into the roadway.



In the past, many service lines for smaller buildings, mainly 1-4 family homes, were made of lead. When water sits in a lead pipe, particularly for several hours, the lead can leach into the water.

New York City banned lead service lines in 1961, but an estimated 150,000 buildings in the city still have old lead service lines. There are about 130,000 known lead service lines in the city. Another 200,000 or so are made of unknown material. DEP has been systematically investigating these lines to determine their makeup. Based on inspection results so far, we expect about 20,000 of the unknown lines to be made of lead, bringing the city-wide total up to about 150,000. This represents approximately 17% of the properties in NYC. We use these 150,000 estimates for replacement planning and cost estimates.

It is important to note that even homes served by lead service lines are not necessarily at immediate risk. Unlike many other cities, New York City treats our water with pH adjustments and addition of food-grade corrosion inhibitors, known as orthophosphates, to minimize the likelihood of lead leaching. The corrosion inhibitors react with lead to form a coating that seals off the lead from the water flowing within it, dramatically reducing the possibility of lead leaching into the water. While highly effective, these are not perfect, so they cannot eliminate all risk.

We maintain a public, online map that shows which buildings in the city have lead service lines, have non-lead service lines, and have service lines of unknown material. We encourage everyone to look up their building with this map.

If your home has a lead service line, we encourage you to test your water for lead. Anyone in the city can call 311 to get a free lead water test kit. DEP will mail the test kit, with instructions, to residents who request one. The recipient simply fills the provided containers with tap water, according to the directions, and sends it back to DEP using the pre-paid return label. Our team will test the water and provide the results to the resident.

If results show that there is lead in your home's water, there are simple steps you can take to reduce the exposure risk. Run your cold water, especially first thing in the morning, so that you do not drink water that has been sitting stagnant in the service line overnight. Use a water filter that is certified to remove lead for your drinking water needs. Finally, replace your lead service line. Replacing a lead service line is the single most effective way to reduce the risk of lead contamination from tap water.

All of this is not to say that water is not safe to drink, even if you have a lead service line. The New York City Department of Health and Mental Hygiene (DOHMH) has never determined that a case of elevated lead levels was caused by drinking water in New York City. Then acting-commissioner Oxiris Barbot of DOHMH testified in 2018 that "lead in water does not present a meaningful risk to New Yorkers, and we do not consider water a significant source of exposure for children."

When other cities have seen true lead emergencies, it has been because their water or their water systems either did not or could not apply the orthophosphates that provide New York City's first line of defense against lead.

3. What is NYC already doing about lead service lines?

Our work to replace lead service lines has already begun. First, there are no lead service lines in the city's water system or on any city property – including schools and public housing properties. Every two years, DEP reviews all city owned and leased properties to ensure that any properties that have entered the city's portfolio do not have lead service lines.

To address lead service lines on private property, we have enacted rules to ensure that broken lines are replaced, have implemented a program to replace lines during water or sewer main work, and have managed replacement programs using grant funding.

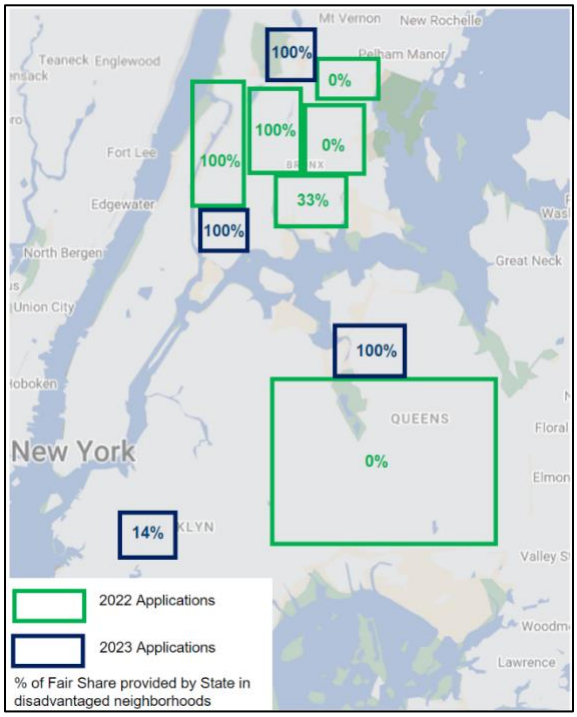
- **Wear and Tear:** In 2009, DEP clarified our rules to require a lead service line to be replaced if it is leaking or broken. In those cases, property owners are responsible for hiring a licensed master plumber to replace the whole service line from the water main in the street to the meter inside their property. This

type of job typically takes one day and costs between $10,000 to $15,000 depending on the property's configuration. If a property owner has warranty coverage for their service line, such as the Oncourse / American Water Resources service line protection that can be paid for through their water bill, these replacements are covered expenses and the property owner does not have to pay anything out of pocket. Approximately 1,500 lead service lines are replaced every year due to wear and tear.

- **Construction Driven Replacement:** Beginning next fiscal year, DDC will replace lead service lines, at no cost to property owners, for properties that are impacted by water main or sewer work in the street. DEP has already begun the same protocol on our own in-house projects. Approximately 700 lead service lines are expected to be replaced every year as part of this program.

- **Neighborhood Replacement Program:** In 2019, DEP administered a small, state-funded lead service line replacement program to replace services for about 600 low-income property owners. Since then, DEP has secured $20 million in federal grants and $24 million in zero interest loans as part of the federal Bipartisan Infrastructure Law to continue this work.

Let me spend a moment on this last point. We have applied for about $96 million to replace lead service lines in six environmental justice neighborhoods in the Bronx, Brooklyn, and Queens that demonstrated severe financial hardship, but have been limited by New York State policy to receiving just the $48 million in grants and loans I just mentioned. This represents less than a quarter of statewide distributed funds.



If New York State disbursement rules for Bipartisan Infrastructure Law funding do not change, NYC anticipates receiving only another $72 million in the future, bringing the city's total to $120 million ($50 million

in grants and $70 million in low interest loans). Over the five years of anticipated funding, DEP expects to replace about 7,300 lead service lines.

This is a great help, but it is far short of the $2 billion needed. We are receiving significantly lower funding per capita than other regions around the state. We have been in active discussions with the State to fight for our fair share.

These existing programs – replacements done due to wear and tear of old lines, the Neighborhood Replacement Program, and Construction Driven Replacement – together will replace about 3,500 lead service lines each year through 2028. At current pace, these three programs will take 50 years to eliminate all the lead service lines in the City. These efforts are not enough. An intentional, dedicated program is needed.

Based on actual bids we have received on recent lead service line replacement contracts, replacing all the estimated 150,000 lead service lines would cost around $2 billion, assuming an average replacement cost of $15,000. We are still working to understand if lead service line replacement is a water rate-eligible cost, but if it were, we expect that water rates would have to be increased to fund this work. Otherwise, funding will need to come from the City's general fund. We must carefully weigh whether this investment should be borne by all ratepayers and taxpayers. There are many low-income homes in New York City with lead service lines; there are also many homes worth $1 million, $2 million, and $3 million that also have lead service lines. It is not clear that these homes should receive a free upgrade at the expense of all ratepayers or taxpayers.

4. Intro. 942

There is no simple path forward to replace all lead service lines in the city. Doing so will be costly and will take time. City Council legislation is an important tool to help us achieve our replacement goals, and Intro. 942 is a great start.

In short, this bill requires property owners to replace their lead service lines within ten years of the date the law takes effect and the city to establish a financial assistance program and replace lead service lines for certain properties. I want to thank the Chair for introducing this bill and the Committee for hearing it. We look forward to working with the Council to build on these proposals. I would like to speak about a few pieces we would like to incorporate into the legislation:

- First, we appreciate that the legislation creates an obligation on homeowners to replace lead service lines. This is important because we have seen already in New York and elsewhere that, even when offered a free replacement, homeowners often decline because they fear it will be a hassle. We will spend public money less effectively if there is no mandate on homeowners.
- Second, we appreciate that, in some circumstances, the legislation will require property owners to replace service lines themselves, such as upon the sale of the home. It is important to remember that by definition any lead service line is more than 60 years old and should be replaced in any event over the next few decades.
- Third, we agree that some public assistance for low-income homeowners is warranted, but we would like any financial assistance program included in the bill to be flexible enough that we can create a

variety of programs for different populations and can adapt programs over time based on our experience.

- Finally, we agree that a fully centralized, fully publicly funded approach is not likely to be either the best for New York City nor the most cost-effective.

We will have other suggestions for further refining this bill and we look forward to working with you and Council staff to make this legislation as effective as possible. I want to again thank the Council, and particularly Chair Gennaro, for your partnership in this area. My colleagues and I are happy to answer any questions that you have.

Appendix: LSLs by Property Value and Income Level

Incidence of Lead Service Lines by Market Value of Property[1]

Citywide					
Market Value	**# of Tax Lots**	**% of Citywide Tax Lots**	**# of Tax Lots with LSL**	**% of Citywide Tax Lots with LSLs**	**LSL Incidence Per 100 Tax Lots**
>=$0 - <=$500K	28,107	4%	3,347	3%	11.9
>$500K - <=$750K	207,384	30%	39,104	33%	18.9
>$750K - <=$1.0M	200,797	29%	32,417	27%	16.1
>$1.0M - <=$1.5M	161,791	23%	25,977	22%	16.1
>$1.5M - <=$2.0M	54,358	8%	9,012	8%	16.6
>$2.0M - <=$3.0M	28,580	4%	5,037	4%	17.6
>$3.0M - <=$15.0M	21,124	3%	3,456	3%	16.4
Blank	230	0%	21	0%	9.1
Total	**702,371**	**100%**	**118,371**	**100%**	**16.9**

Bronx					
Market Value	**# of Tax Lots**	**% of Bronx Tax Lots**	**# of Tax Lots with LSL**	**% of Bronx Tax Lots with LSLs**	**LSL Incidence Per 100 Tax Lots**
>=$0 - <=$500K	2,437	3%	567	3%	23.3
>$500K - <=$750K	31,935	45%	7,503	46%	23.5
>$750K - <=$1.0M	25,499	36%	6,054	37%	23.7
>$1.0M - <=$1.5M	7,619	11%	1,596	10%	20.9
>$1.5M - <=$2.0M	1,288	2%	268	2%	20.8
>$2.0M - <=$3.0M	911	1%	219	1%	24.0
>$3.0M - <=$15.0M	575	1%	100	1%	17.4
Blank	23	0%	6	0%	26.1
Total	**70,287**	**100%**	**16,313**	**100%**	**23.2**

Brooklyn					
Market Value	**# of Tax Lots**	**% of Brooklyn Tax Lots**	**# of Tax Lots with LSL**	**% of Brooklyn Tax Lots with LSLs**	**LSL Incidence Per 100 Tax Lots**
>=$0 - <=$500K	7,312	3%	532	2%	7.3
>$500K - <=$750K	34,786	16%	3,368	11%	9.7
>$750K - <=$1.0M	50,165	23%	5,498	18%	11.0
>$1.0M - <=$1.5M	65,255	29%	9,848	32%	15.1
>$1.5M - <=$2.0M	33,388	15%	6,244	20%	18.7
>$2.0M - <=$3.0M	19,374	9%	3,660	12%	18.9
>$3.0M - <=$15.0M	11,400	5%	1,801	6%	15.8
Blank	141	0%	10	0%	7.1
Total	**221,821**	**100%**	**30,961**	**100%**	**14.0**

Manhattan					
Market Value	**# of Tax Lots**	**% of Manhattan Tax Lots**	**# of Tax Lots with LSL**	**% of Manhattan Tax Lots with LSLs**	**LSL Incidence Per 100 Tax Lots**
>=$0 - <=$500K	808	4%	104	3%	12.9
>$500K - <=$750K	1,004	5%	131	4%	13.0
>$750K - <=$1.0M	949	5%	139	4%	14.6
>$1.0M - <=$1.5M	1,764	9%	252	8%	14.3
>$1.5M - <=$2.0M	2,049	10%	348	11%	17.0
>$2.0M - <=$3.0M	4,787	24%	719	23%	15.0
>$3.0M - <=$15.0M	8,331	42%	1,482	47%	17.8
Blank	25	0%	1	0%	4.0
Total	**19,717**	**100%**	**3,176**	**100%**	**16.1**

Queens					
Market Value	**# of Tax Lots**	**% of Queens Tax Lots**	**# of Tax Lots with LSL**	**% of Queens Tax Lots with LSLs**	**LSL Incidence Per 100 Tax Lots**
>=$0 - <=$500K	5,219	2%	1,190	2%	22.8
>$500K - <=$750K	81,886	29%	23,490	39%	28.7
>$750K - <=$1.0M	97,092	34%	18,959	31%	19.5
>$1.0M - <=$1.5M	77,244	27%	13,953	23%	18.1
>$1.5M - <=$2.0M	16,426	6%	2,129	4%	13.0
>$2.0M - <=$3.0M	3,161	1%	434	1%	13.7
>$3.0M - <=$15.0M	746	0%	72	0%	9.7
Blank	35	0%	4	0%	11.4
Total	**281,809**	**100%**	**60,231**	**100%**	**21.4**

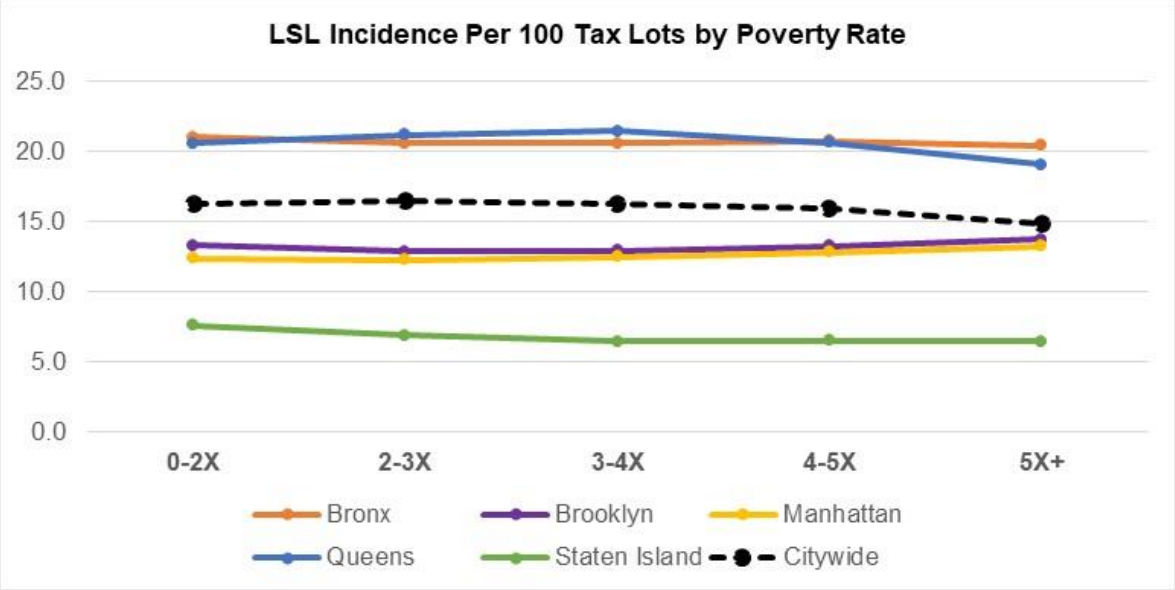
Staten Island					
Market Value	**# of Tax Lots**	**% of Staten Island Tax Lots**	**# of Tax Lots with LSL**	**% of Staten Island Tax Lots with LSLs**	**LSL Incidence Per 100 Tax Lots**
>=$0 - <=$500K	12,331	11%	954	12%	7.7
>$500K - <=$750K	57,773	53%	4,612	60%	8.0
>$750K - <=$1.0M	27,092	25%	1,767	23%	6.5
>$1.0M - <=$1.5M	9,909	9%	328	4%	3.3
>$1.5M - <=$2.0M	1,207	1%	23	0%	1.9
>$2.0M - <=$3.0M	347	0%	5	0%	1.4
>$3.0M - <=$15.0M	72	0%	1	0%	1.4
Blank	6	0%	0	0%	0.0
Total	**108,737**	**100%**	**7,690**	**100%**	**7.1**

[1] Analysis is limited to tax lots with Department of City Planning Land Use categories 1 (One & Two Family Buildings) and 2 (Multi-Family Walk-Up Buildings). These two categories account for 90% of the potential LSLs identified in DEP's records. Market Value is Department of Finance data from June 2024.

Distribution of Lead Service Lines by Poverty Level[2]

	Distribution of Tax Lots with LSLs by Poverty Level				
Poverty Level Range	**0-2X**	**2-3X**	**3-4X**	**4-5X**	**5X+**
Income Limit for 3-Person Household	*$46,060*	*$69,090*	*$92,120*	*$115,150*	*>$115,150*
Bronx	7,285	2,754	2,403	1,740	4,129
Brooklyn	11,872	4,806	4,024	3,444	12,261
Manhattan	1,320	440	441	356	2,811
Queens	17,049	10,535	9,391	7,651	20,690
Staten Island	2,009	1,032	1,034	942	3,386
Citywide	**39,534**	**19,567**	**17,292**	**14,133**	**43,277**

	LSL Incidence Per 100 Tax Lots by Poverty Level				
Poverty Level Range	**0-2X**	**2-3X**	**3-4X**	**4-5X**	**5X+**
Income Limit for 3-Person Household	*$46,060*	*$69,090*	*$92,120*	*$115,150*	*>$115,150*
Bronx	21.0	20.6	20.6	20.8	20.4
Brooklyn	13.3	12.9	12.9	13.2	13.8
Manhattan	12.4	12.3	12.5	12.8	13.2
Queens	20.6	21.2	21.4	20.6	19.1
Staten Island	7.6	6.9	6.5	6.5	6.5
Citywide	**16.2**	**16.4**	**16.3**	**15.9**	**14.9**



[2] Data source: Ratio of Income to Poverty Level by Census Tract, US Census Bureau, 2018-2022 American Community Survey – Summary File; 2022 federal poverty guidelines, US Department of Health and Human Services.
The federal poverty level is issued annually for the US Department of Health and Human Services. In the absence of income data at the tax lot level, the allocation of tax lots with LSLs by poverty level bracket was estimated based on the property's census tract-level poverty rate. Thus, this analysis is for the purpose of a high-level estimate and should be used for initial discussion purposes only.