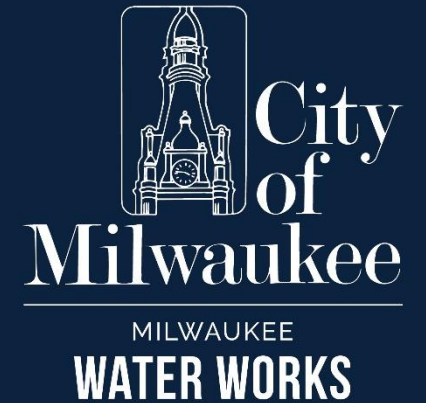




Lead Service Line Replacement Program Semi-Annual Report


October 1, 2025
Public Works Committee
Common Council File #250813



Lead Basics

- Lead is a toxic substance
- Lead exposure is cumulative
- There is no safe exposure to lead
- Young children are particularly vulnerable
- Goal is to remove ALL sources from the community
 - Lead-Safe Milwaukee: <https://city.milwaukee.gov/LeadSafeMKE>
 1. Safe Paint
 2. Safe Water: Lead Service Line Replacement (LSLR) program
 3. Safe Kids



 **Lead-Safe Milwaukee**
SAFE PAINTS SAFE WATER SAFE KIDS

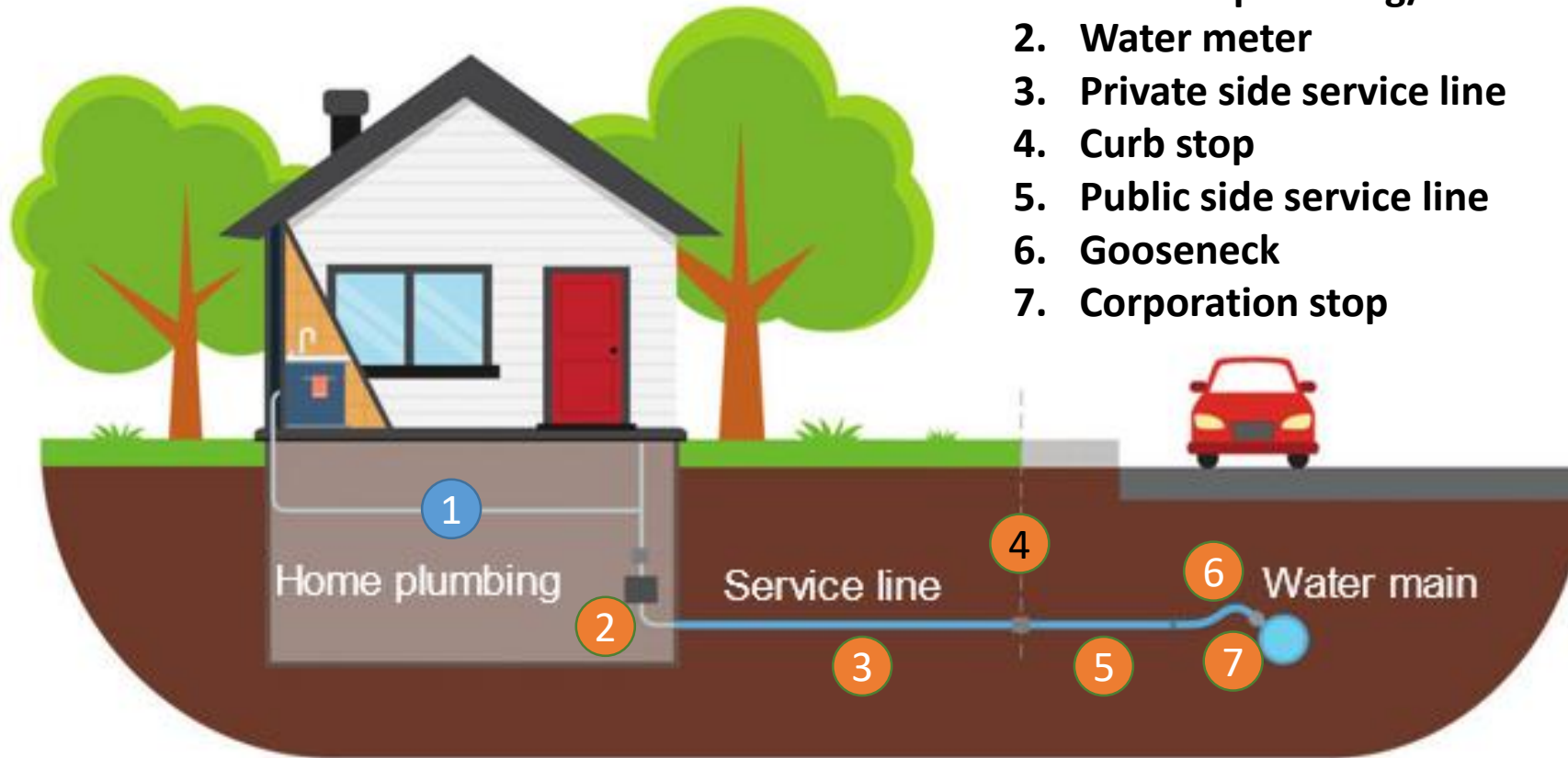
Learn About Lead Lead-Safe Easy as 1-2-3

[CONTACT US](#) [VERSION EN ESPAÑOL](#)

There are several sources of lead you should know about. The most common way children are exposed to high levels of lead is through chipping, peeling or cracking lead-based paint in older homes. When lead is found in drinking water, it is usually because water can dissolve the lead in pipes and plumbing. What can you do to protect your family?

- 1
Safe Paint:
- 2
Safe Water:
- 3
Safe Kids:

What is a lead service line?



Lead in water reduction efforts

- 1951 MWW installed last public-side lead service line (LSL)
- 1962 City ordinance requiring private side copper
- 1985 Reconnection to LSL prohibited for new construction
- 1996 Corrosion Control Treatment (orthophosphate) implemented
- 1997 MWW compliance with Lead and Copper Rule
- 2015 MWW pilot study to assess lead in water
- 2016 MWW began replacing, rather than repairing, LSLs
- 2017 Lead Service Line Replacement Program established
- 2019 Corrosion Control Treatment (CCT) Reevaluation of Optimization
- 2020 Lead and Copper Rule (LCR) Compliance Sampling
- 2022 Designation of optimal corrosion control treatment by WI DNR
- 2024 LCR Revisions effective in October
- 2024 LCR Improvements finalized in October – effective November 1, 2027

Lead service line replacement mandate

- As of January 1, 2017, full lead service line mandated to be replaced with copper when:
 - A leak or failure has been discovered on either the privately- or utility-owned portion
 - The utility-owned portion is replaced on either a planned or emergency basis
 - The property is a child care facility (licensed or certified) or school
- As of January 4, 2024:
 - Planned projects shall include locations prioritized using criteria established by the commissioner of public works or commissioner's designee
 - Option for owner to request replacement. Not eligible for the city subsidy
- REPAIR or RECONNECTION to lead service line PROHIBITED
- Property owner may initiate replacement of privately-owned portion at their own expense. MWW will pay for and coordinate replacement of the utility-owned portion

Lead service line financial impact

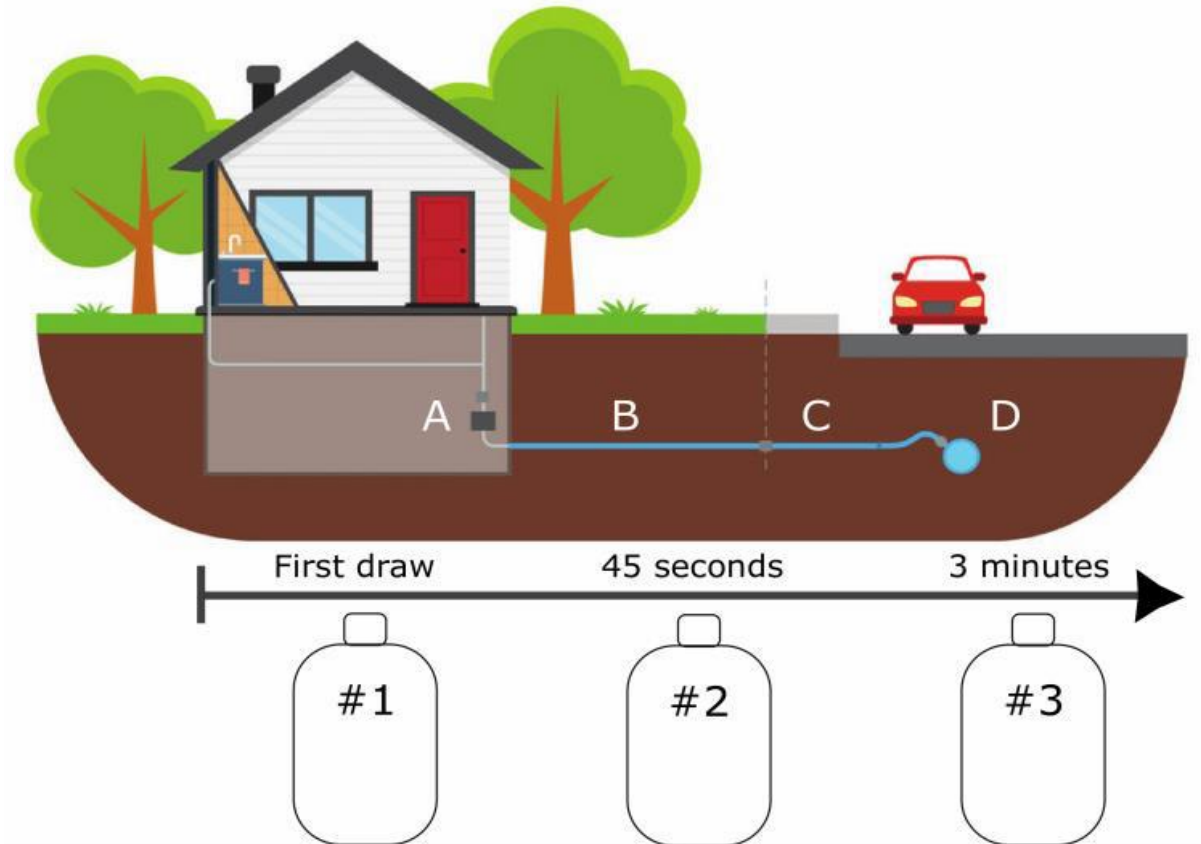
- 5 year average full replacement cost as of June 30, 2025: \$8,273
 - Private side: \$3,821
 - Public side: \$4,452
- One- to four-family residential property cost share eliminated for mandated replacements as of January 4, 2024
- 2025 Budget – 3,500 Replacements
 - 2,500 prioritized locations (administered by Owners Representative)
 - 200-250 planned projects (included with water main replacement, prior to pavement reconstruction, coordinated with sewer lateral replacement)
 - 600-650 leak or failures
 - 50-75 licensed child-care facilities
 - 75-100 Owner request option (subject to capacity, owner responsible for private side cost)

LSL Replacements and Filter Distribution (2017-2025)

| Reason for LSL Replacement | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 (9/15) | Total (%) |
|----------------------------------|-------------|-------------|-------------|------------|------------|------------|-------------|-------------|-------------|---------------------|
| Leak or failure | 437 | 547 | 670 | 629 | 508 | 558 | 643 | 611 | 429 | 5032 (44) |
| Childcares and schools | 150 | 204 | 129 | 48 | 67 | 77 | 98 | 98 | 16 | 887 (8) |
| Water main relay project | 18 | 143 | 177 | 162 | 198 | 152 | 40 | 174 | 29 | 1093 (10) |
| Other infrastructure projects | 6 | 0 | 1 | 25 | 186 | 174 | 321 | 407 | 63 | 1183 (10) |
| Prioritized | - | - | - | - | - | - | - | 1344 | 1539 | 2883 (25) |
| Owner initiated/Public side only | 11 | 39 | 23 | 24 | 27 | 30 | 26 | 48 | 33 | 261 (2) |
| Owner request | - | - | - | - | - | - | - | - | 46 | 46 (1) |
| Total LSL Replacements | 622 | 933 | 1000 | 888 | 986 | 991 | 1128 | 2682 | 2155 | 11,385 (100) |
| Total Filter Distribution | 1164 | 1359 | 1417 | 970 | 971 | 875 | 1271 | 3814 | 3717 | 15,558 |

- Lead-safe information provided with filter pitchers
- Insert with lead safety information in municipal service bills
- Annual mailing of service line notifications to property address in November
 - Required by Lead & Copper Rule Revisions
 - Lead pipe and unknown pipe (30,000+) material
 - Assistance identifying unknowns to be requested via postcard
- Consumer Confidence Report bill insert with lead and water information
- Online LSL inventory
- Information provided via MWW Customer Service
- Website
 - city.milwaukee.gov/water/LeadPipes in English and Spanish
- Lead-Safe brochures, English and Spanish, available at MHD Health Centers, MPL branches, City Hall complex buildings

Lead Testing – 3 Bottle Protocol



Sample 1:

Represents your home plumbing: everything from inside the faucet to the water meter (A).

Sample 2:

Represents your private service line (B) and the public service line (C).

Sample 3:

Represents the water coming from the public water main (D).

January – June 2025 Lead Testing Updates

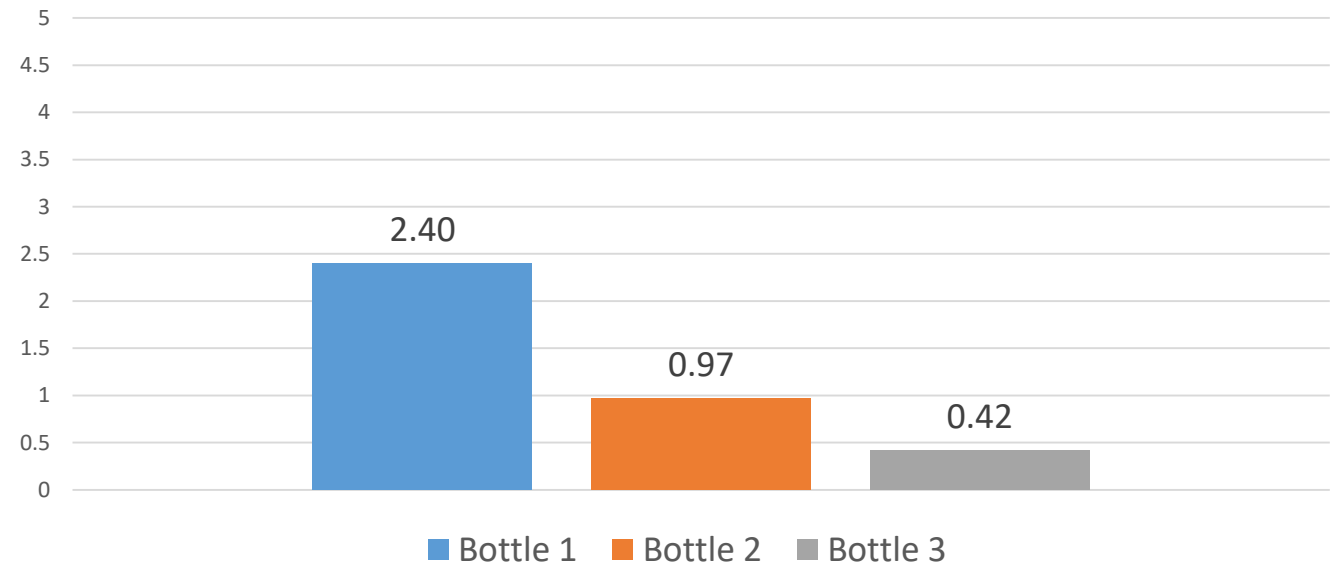
| # of Lead Tests | Samples Tested | Properties Tested |
|----------------------|----------------|-------------------|
| LSL Replacements | 156 | 52 |
| Childcares | 15 | 5 |
| Elevated BLLs | 22 | 7 |
| Prioritization LSLRs | 73 | 73 |
| Totals | 266 | 137 |

- 4 properties tested with LSL (some EBLLs)
- All 4 properties tested with a lead service line have results less than 5ppb

January – June 2025 Lead Testing Updates

- All childcare results below 1 ppb
- Averages for all 3 bottles below 3 ppb
- All results, **except one**, below the EPA Action Level (15ppb)
- Five results above the future EPA Action Level (10ppb) but below 15ppb

January - June 2025 Average Lead Result by Bottle # (All lead tests)



Key Lead in Water Concentrations

- 15 ppb → Current EPA Action Level
- 10 ppb → New EPA Action Level effective November 1, 2027
- 0 ppb → The ultimate goal

January – June 2025 Lead Testing Updates

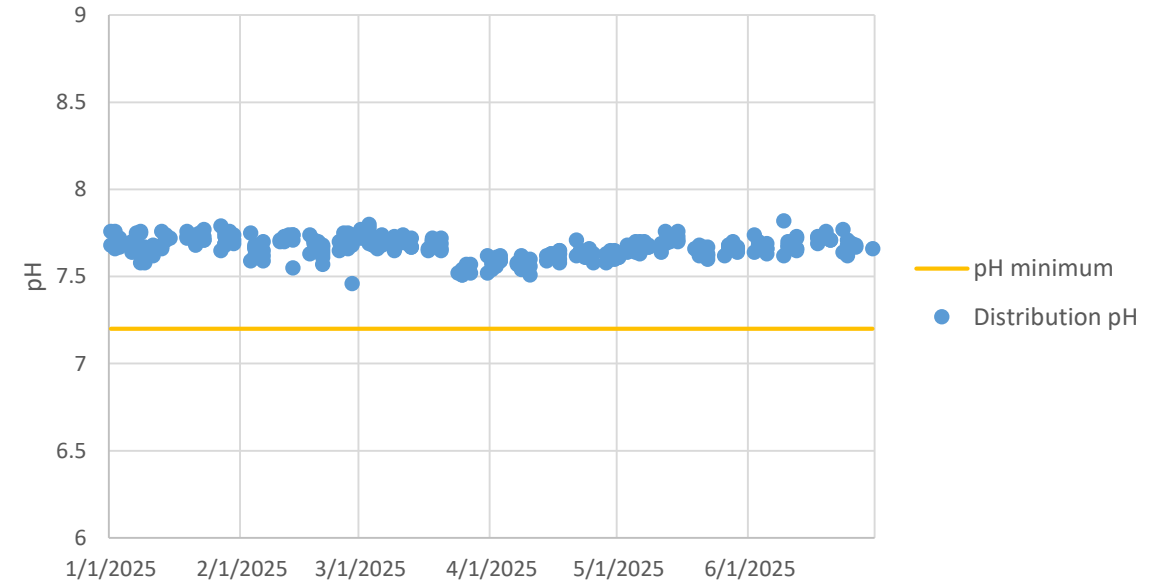
- 6 properties > 10 ppb
 - All after LSL replacement
 - All bottle #1 or #2
 - 1 property > **15 ppb** action level
 - Asked customers to clean/remove aerators and flush to clear construction debris
 - Offered re-test (not all residents followed through on re-test)
 - Re-test results below 5 ppb

| Bottle # | Samples >10 ppb | Notes |
|----------|-----------------|--------------------------|
| 2 | 12.9 | resident did not re-test |
| 1 | 14.1 | re-test below 5 ppb |
| 1 | 18.8 | resident did not re-test |
| 1 | 12.7 | resident did not re-test |
| 1 | 11.0 | resident did not re-test |
| 1 | 10.3 | resident did not re-test |

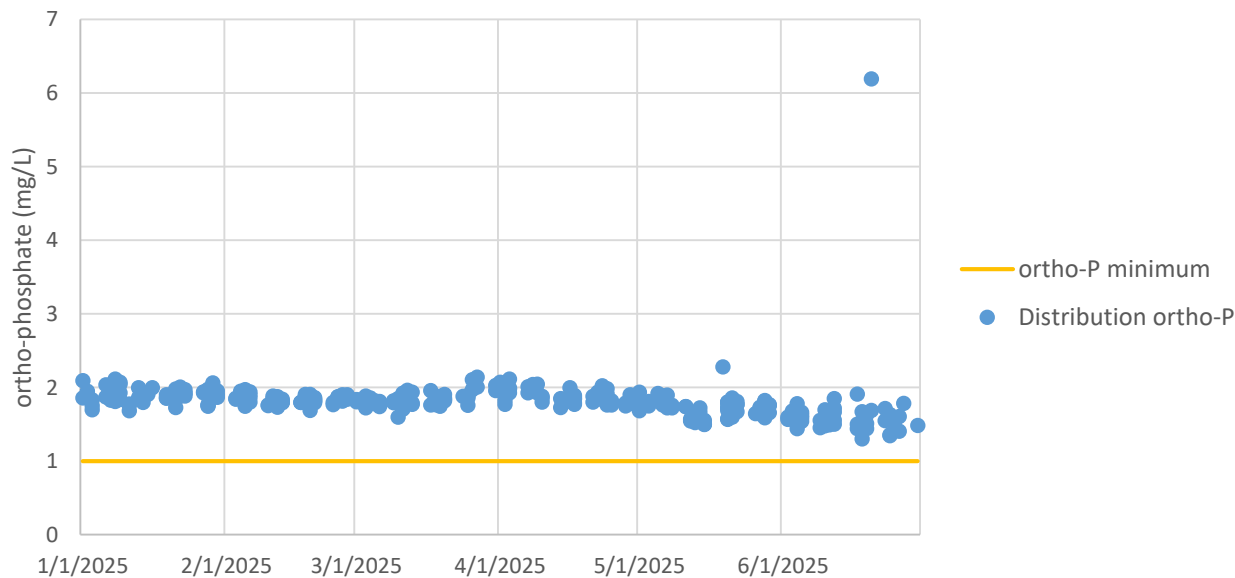
January - June 2025 Optimal Water Quality Parameter Results

pH and orthophosphate (ortho-P) are monitored closely to prevent corrosion of lead service lines and lead internal plumbing

Milwaukee Water Works pH Levels

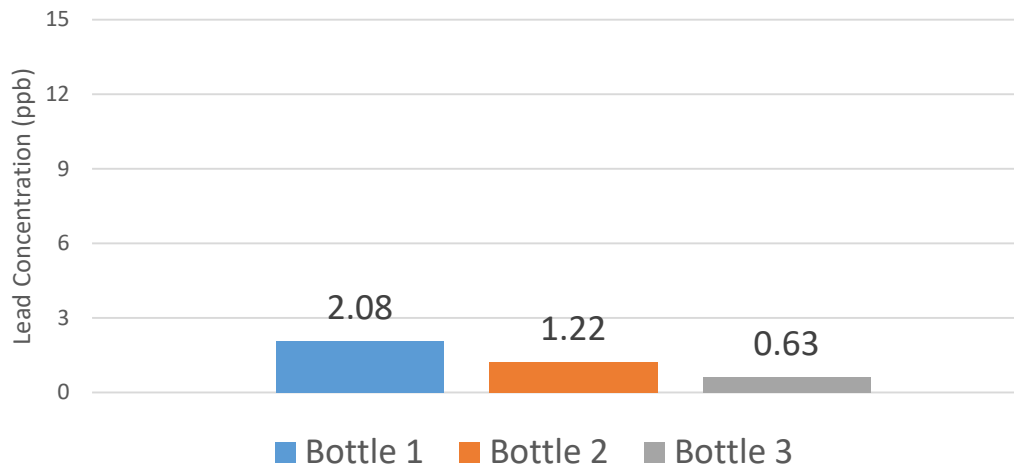


Milwaukee Water Works ortho-p Levels



January – June 2025 EBLL Sampling Update

January - June 2025 EBLL Lead Testing
(average)



Elevated Blood Lead Level (EBLL) Testing

- Coordinating with MHD to provide test kits to families (started in May 2024)
- All EBLLs above 15 $\mu\text{g}/\text{dL}$ are offered a test kit
- 22 samples tested from 7 properties (1 extra from bathroom sink)
- All results below 5 ppb for January – June 2025

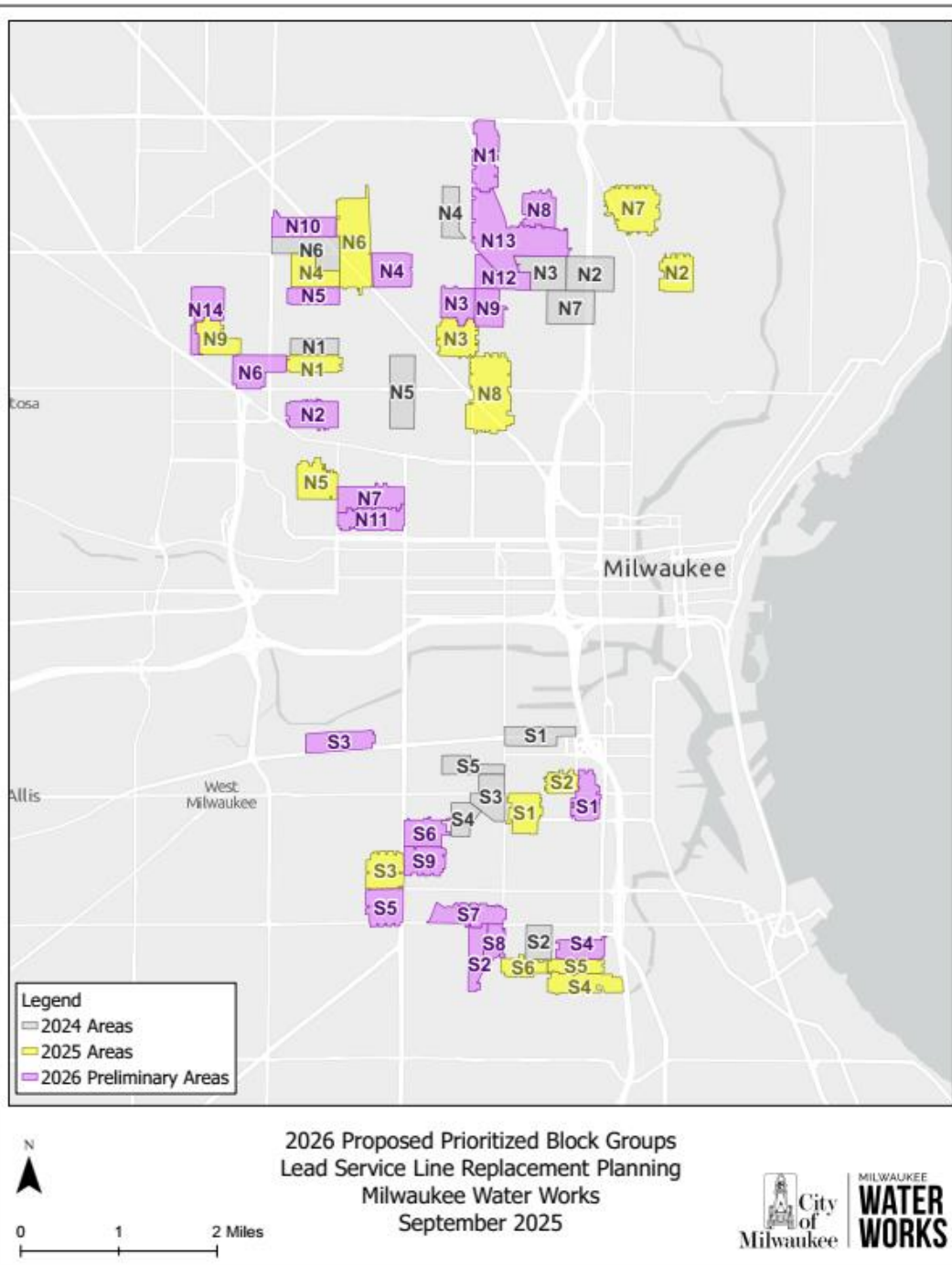
Lead and Copper Rule Improvements (LCRI) Finalized

- EPA finalized proposed improvements to the LCRR (LCRI)
 - Compliance date of November 1, 2027
 - Requires all LSL replacements within 10 years of compliance date (estimated 2027-2037)
 - Requires annual inventory updates – emphasis on identifying services of unknown material
 - Lowers lead action level from 15 ppb to 10 ppb
 - Changes testing protocol – Test 1st and 5th liters, use highest for compliance
 - Increases outreach to consumers if there are multiple lead action level exceedances
 - Lead testing in all elementary schools and childcares within 5 years (20% per year)
 - *****Pilot/early testing with Milwaukee Public Schools started this week*****
 - Increases outreach to schools
 - Many additional requirements and changes:
- <https://www.epa.gov/ground-water-and-drinking-water/proposed-lead-and-copper-rule-improvements>

- EPA allocations to State of WI
 - \$48.3M for Federal Fiscal Year (FFY) 2022, \$81.2M for FFY 2023 and \$83.3 for FFY 2024
 - The FFY 2025 allocations have not been made
 - Administered by the DNR through the Safe Drinking Water Loan Fund (SDWLP)-LSLR Program
 - 49% principal forgiveness; 51% low interest (0.25%) loans
 - EPA funding is anticipated to last more than 5yrs
- WI DNR Safe Drinking Water Loan Program(SDWLP)-LSLR Program
 - Milwaukee qualifies for principal forgiveness (PF) funding per the state's disadvantaged criteria
 - \$34.2M SFY 2025 funding award issued in October (\$116.2M awarded statewide)
 - \$12.3M PF private side, \$5.1M PF public side, \$16.8M loan public side
 - SFY 2026 Application for \$50.5M (\$19.3M private, \$31.2M public) submitted in June
 - Includes internal staffing costs and contingency
 - \$44M budgeted for 5,000 replacements
 - Award anticipated in October

Prioritization, Expansion Plan, Owner Request

- **2025 Prioritization Program**
 - Fifteen neighborhoods – 2,422 properties. 2,115 (87%) consents received as of 9/15
 - Notices mailed to first group of owners in February
 - If consent not received, final notice with due date mailed 20 days after first
 - Property is referred to DNS if consent not received by due date
 - Outreach activities (canvassing, open house hours, virtual meetings) began in March
- **Increase the number of LSLR's by 1,500 in 2026 (5,000 total)**
 - Expand Prioritization program from 2,300 to 3,800
 - Owners Representative (CDM Smith) to administer
 - Update data and re-prioritize census block groups in January 2026 for 2027 and 2028 prioritization programs
 - Must maintain 5,000+ LSLRs per year to achieve goal of completing all replacements by the end of 2037
 - CDM Smith to prepare a lead service line replacement plan
- **Owner Request Program**
 - Property owner responsible for the lesser of actual or average current cost to replace the private section
 - 900+ applicants
 - Prioritized by presence of children – 200+ locations
 - 120+ property owners were offered the opportunity to be included in the 2024 program. 80+ accepted
 - 200+ notices to be sent this fall for the 2026 program
 - Remaining locations w/children & first 100 signups
 - Status update to remaining 600 applicants will be provided via email
 - 200 notices per year in future years



Thank you



Lead and Water Information

[Milwaukee.gov/Water/WaterQuality](https://milwaukee.gov/Water/WaterQuality)