



Lead and Copper Rule Compliance Update Fall 2025

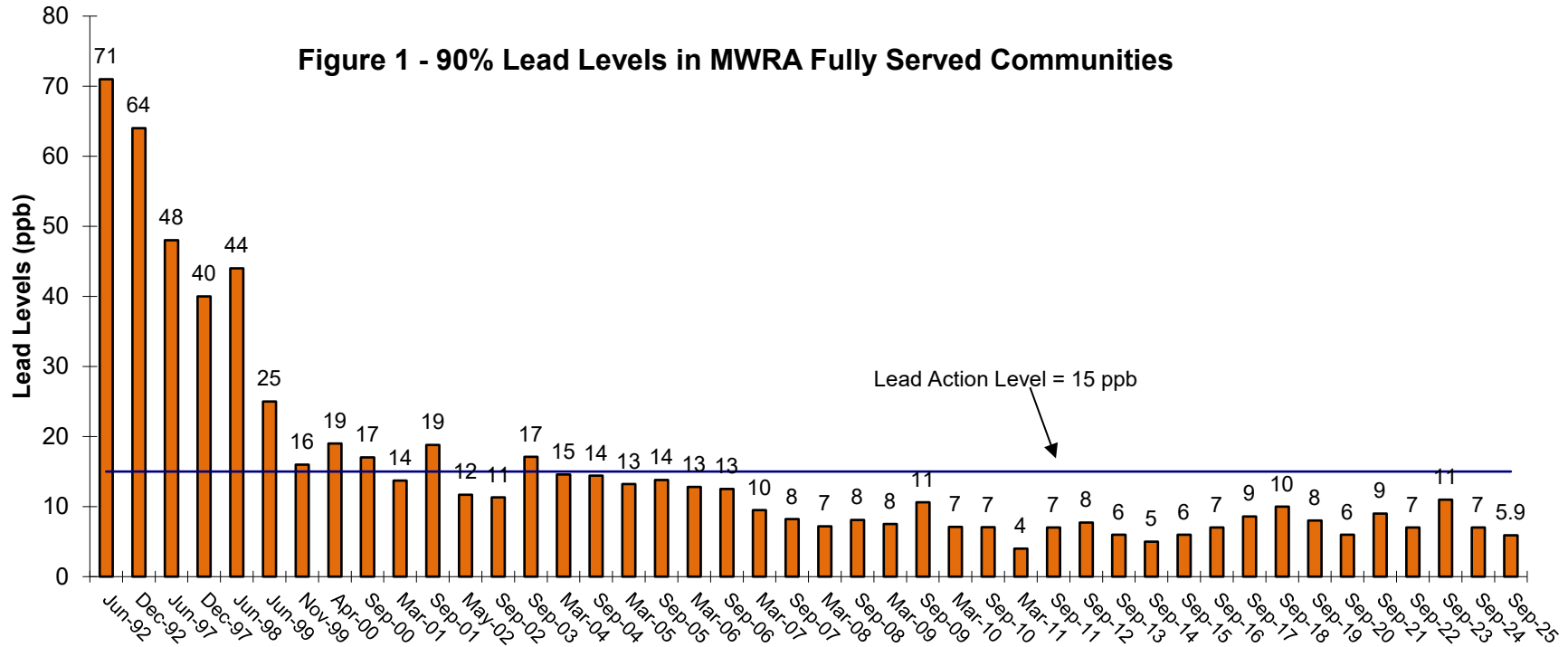
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Director of Planning and Sustainability**

**Water Supply Citizen's Advisory Committee
November 18, 2025**



2025 Lead Results – 90th Percentile = 5.9 ppb

Figure 1 - 90% Lead Levels in MWRA Fully Served Communities





Fall 2025 Sampling Round

- Only 18 of 594 samples were over the Action Level
 - 16 of the 18 were at sites with lead service lines
 - (In past 10 years -- over 90% of elevated samples were LSL)
- Three communities were individually over the Action Level
 - Required to do the 24-hour Public Notice
 - Will Mail Public Education brochure
 - Continuing lead service line replacement
 - Will sample twice in 2026

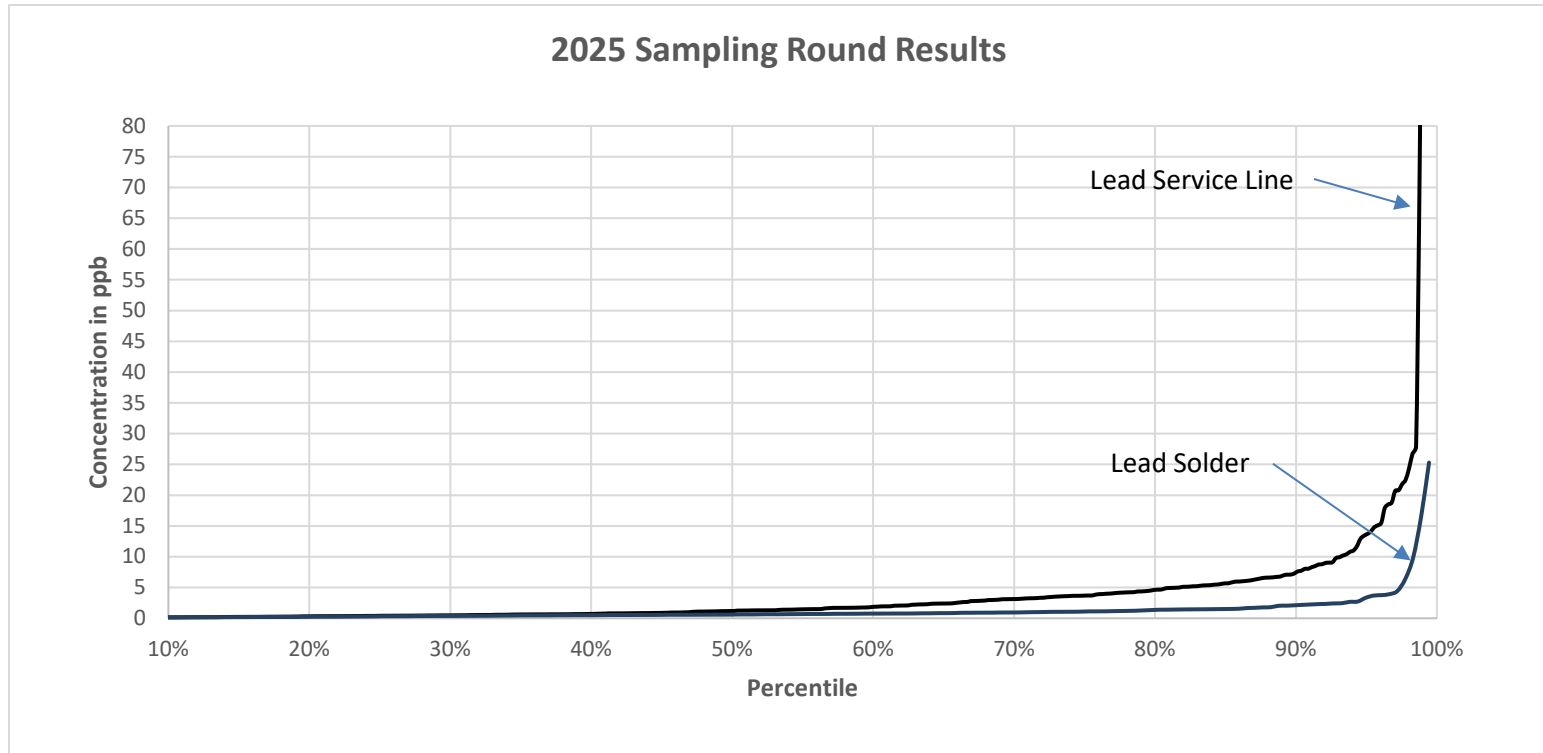


Distribution System and Site Assessment

- Communities did outreach to each sampler with elevated results
 - Results provided within 3 days of notice
 - Request to investigate and sample at each home
 - LSL replaced in a number of cases
- MWRA evaluated distribution system water quality near all
 - All were typical and met MWRA OWQP **limits**
- We've been piloting, but future is more complicated



Comparison of lead solder and LSL sites





90th Percentile Results Significantly Lower for Non-LSL Sites

Year	2018	2019	2020	2021	2022	2023	2024	2025
90th Percentile Full System	10	8	6	9	7	11	7	6
90th Percentile Just LSL	12	11	8	13	9	14	8	7
90th Percentile Just Lead Solder	3	3	2	3	2	3	2	2

Red shows results over new Action Level of 10 ppb (effective 10/27)
Five bottle sampling will tend to increase reported lead levels



Initial Service Line Inventory Findings

- 524,810 total service lines reported by MWRA communities
- Lead Service Lines = 14,078 (2.7%)
- Galvanized Requiring Replacement = 2,856 (0.5%)
- Unknowns = 75,050 total (14%)
 - But many are in communities that do not expect to find lead
- Communities about to do the annual mailings to all LSL, GRR and Unknowns



Lead and Copper Rule changes coming

- Lower Action Level
- Sampling focused on homes with LSL
- 1st and 5th liter sampling at LSL homes
- School and childcare facility sampling

- Option to accelerate LSL replacement vs changing corrosion control – 5-year schedule, 20% per year

- Exceeding Action Level =
 - 24 hour public notice
 - Possible offer of filters to all homes



MWRA Lead Loan Program

- Launched in 2016 - \$100 Million, 10 year interest-free loans
- Must replace **ALL** lead pipe within a service line
 - **BOTH** public and private portions
- Added \$100 Million in 2024, with 25% grant if the community funds the private side
- \$64.9 Million distributed to 21 communities since 2016
- MWRA goal – replace all LSL by end of 2032
- MWRA's Lead Loan program has funded more than:
 - **9,500 LSL** replacements
 - **1,579 lead gooseneck** replacements
 - **4,131 unknown** identifications





Boston – Halloween 2024



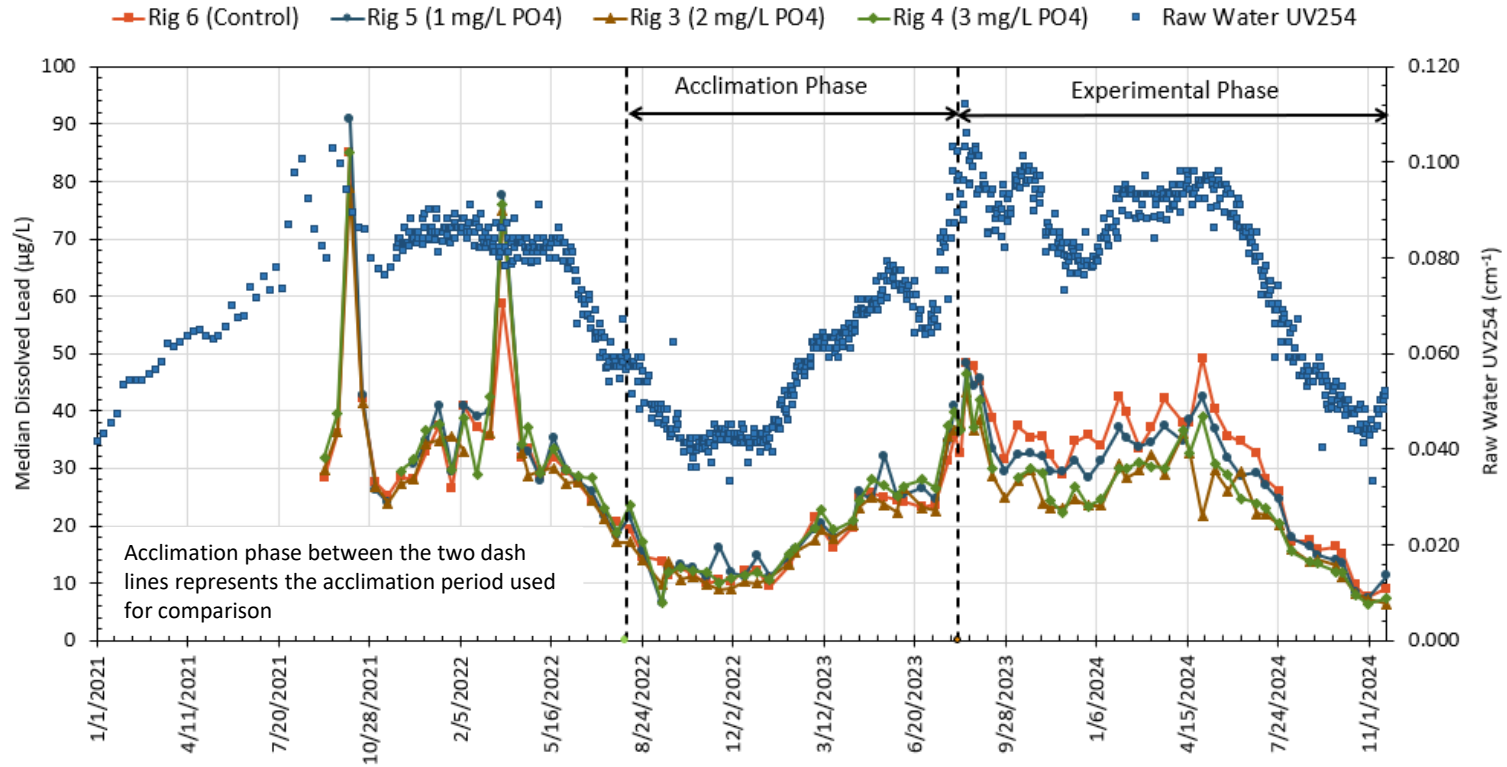


Pipe Rig Corrosion Control Review

- Review and analysis of results from the pipe rig study underway
- Report expected early 2026
- Overall conclusion – relatively modest improvement with orthophosphate – focus on accelerating LSL replacement

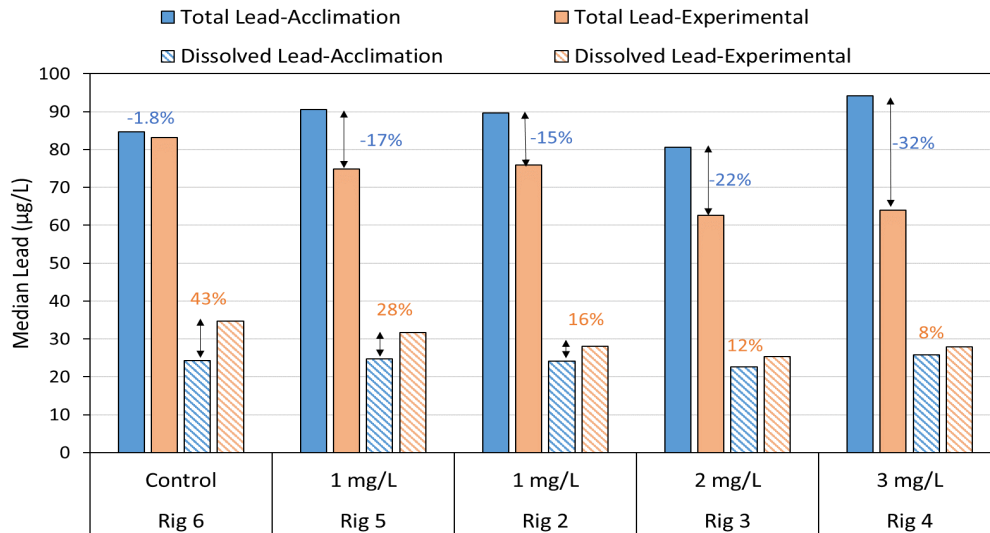


Median Dissolved Lead and Raw Water



Pipe Rig Median Total and Dissolved Lead

- Total Lead: 15-30% reduction by 1-3 mg/L PO₄ compared to control
- Dissolved Lead: 15-35% reduction at 1-3 mg/L PO₄ compared to control



Conclusions

- Distribution system data show that LSLs are the largest contributor to high lead levels in MWRA communities
 - pH/alkalinity CCT enables MWRA to comply with the current LCR
- Pipe rig data show that adding PO_4 modestly reduces lead levels, but not to the extent seen in some water systems
 - Organics in the raw water exert strong control on lead solubility
- Adding phosphorus as a nutrient significantly impacts simultaneous compliance for distribution system and receiving waters
- Accelerating LSL removal allows MWRA to:
 - Eliminate the highest-risk source of lead rather than adding a chemical
 - Avoid optimizing corrosion control around a material that will be removed from the system

Questions or Comments?

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Drink with Confidence
Flush with Pride