

Milwaukee Water Quality & Lead Service Line Fact Sheet & Timeline

2014

November: The WI PSC orders Milwaukee Water Works (MWW) to replace 15 miles of water mains annually beginning in 2015 and replace 20 miles/year by 2020.

MWW Superintendent Carrie Lewis also begins participation in National Drinking Water Advisory Council review of US EPA's Lead & Copper Rule, to advise US EPA on rule updates.

2015

February - April: MWW and Milwaukee Health Dept. (MHD) convene working group with US EPA and WI DHS to begin inquiries on lead levels related to lead service lines leading off of water mains.

April: MWW designs and MHD reviews a study of the changes in lead levels in drinking water under normal main replacement practices.

Two factors drive the study:

- Anticipation of likely US EPA rule changes focusing on lead service line replacement and desire to be proactive in understanding the risk those service lines pose.
- Replacing full lines when mains work takes place is more efficient, less costly to homeowners, and maximizes public health benefits.

May - June: Mayor and Council briefed on the lead service pilot study, with a testing protocol and communications jointly developed by MWW and MHD. Of 21 invited households, 6 voluntarily participate. All 36 properties with lead lines are notified and advised on how to reduce risk before and after mains work.

June: First pilot samples collected, sampling continues through December.

November: National Drinking Water Advisory Council issues final recommendations to US EPA, including rule changes on replacement of lead service lines and other changes to the Lead & Copper Rule.

December: Final pilot study sampling. MWW sends survey to 10 local utilities on lead services and policy/practice. Legislative Reference Bureau conducts survey of US cities.

Both find MWW generally in line on lead service replacement. Of 10 surveyed US cities, only Philadelphia has recently begun proactively replacing lead service lines.

2016

January: Final pilot results. Of the 6 homes, all had an increase in lead levels in the post-connection samples, followed by a return to approximately pre-work levels.

City-State-Federal work group reconvened to discuss the results. Out of caution, communication on lead is made with 26 additional properties who had water main work done late in 2015.

MWW and MHD recommend suspending work involving lead services for 2016 in light of these results. Mains with copper services will continue to be replaced in 2016, and new protocols for lead services will be developed to ensure work is done with maximum public health benefit.

2016

January (cont.)

A letter is sent to the PSC informing them MWW will not be performing main replacements that include lead services in 2016.

City agencies continue discuss with State and Federal partners the approach to lead service lines that supports Milwaukee's long-standing commitment to reducing lead contamination risks.

The Administration is currently developing:

- 1) New practices and customer communication around lead service line hazards for main breaks and leaks to ensure risks from service line disruption are minimized.
- 2) Best practices for MWW, MHD, and DNS to implement going forward to support full lead service line replacement in future mains relays.
- 3) A financial and operating plan for MWW, MHD, and property owners that incorporates full lead line replacement as a long-term goal.

FACTS on lead contamination and lead service lines:

- Lead-based paint, not water, is the primary source of lead contamination and lead poisoning for critical populations in Milwaukee: children under 6, pregnant women, and nursing mothers.
- Approximately 200,000 housing units in Milwaukee are still affected by lead paint, though its use was banned in 1977 by the US Consumer Product Safety Commission.
- Since 1998, aggressive efforts by the City of Milwaukee and others have abated lead hazards in over 17,000 units, and the overall incidence of increased blood lead (>10µg/L) among children has dropped from 32% to 2.7%.
- To continue reducing lead hazards to its customers, Milwaukee Water Works proactively treats water with phosphorus to reduce corrosion in lead pipes.
- MWW has treated water to prevent corrosion in lead pipes since 1996, and has long been compliant with US EPA standards on lead in drinking water.
- There are 70,000 (44%) of 160,000 properties likely or confirmed to have lead service lines in Milwaukee. The remaining 90,000 (56%) are copper.
- Based on the latest science, MWW is working with MHD, State, and Federal partners on a strategy to proactively remove those lines before they pose a serious risk.
- Many Wisconsin communities with older housing stock face similar issues with lead service lines: any home built before 1951 is likely to have a lead line from the water main.
- MWW maintains and replaces lines from the water main to the "curb stop valve". The line from the curb stop to the meter is the customer's responsibility.
- Each lead service line adds an estimated \$3,800 per property to the City's mains project, and an estimated \$5,000 for the owner's side.
- For work originally planned for 2016, removal of 506 lead services on the "city" side would cost \$1.9M, reducing mains work by 1.5 miles.
- For those 506 services, to fully remove the lead line would cost property owners an additional \$2.5M.
- The City of Milwaukee is suspending 2016 projects affecting lead service lines, and continues working with MHD, State, and Federal partners to develop model practices on lead service lines for other communities in the state and nation.