

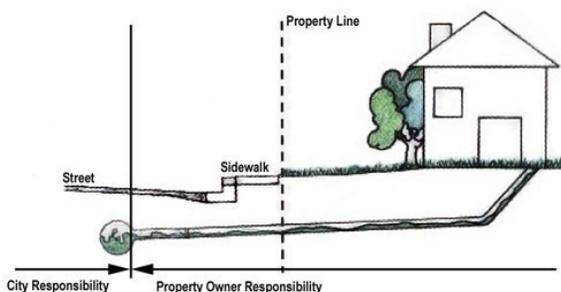


## The Facts about Lead in Kingston's Drinking Water

### Where Could the Lead Come From...

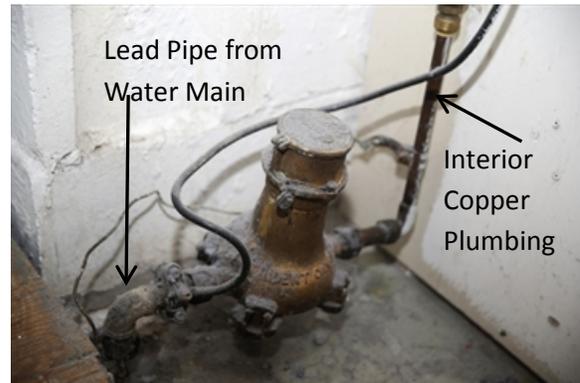
Lead enters drinking water primarily through the dissolving or wearing -away of plumbing materials that is caused by a chemical reaction between the water and the home's plumbing. The amount of lead that will dissolve will vary depending on the water chemistry, amount of lead in the plumbing materials within the home, the amount of time the water is in contact with the plumbing materials, and the presence of protective scales or films inside the plumbing materials.

Lead has never been detected in either Kingston's source water or in the water in its distribution system. We do not have any lead pipes in our treatment plants, our transmission system or within the City distribution grid. All of the Department's water mains are either cast iron or ductile iron. This is typical for most US water supplies, especially in older cities like Kingston. The lead piping, if it exists in a community, is found within the homeowners internal plumbing or their service lateral (the pipe that brings water from the City water main into the property). In the City of Kingston, **the entire length of the service lateral – from the water main in the street to the house– is the responsibility of the property owner.**



Lead was a popular material for both service laterals and internal plumbing prior to the 1930's and, while many property owners have replaced

these service laterals and internal piping over the intervening years, our records suggest that many remain in service within the City of Kingston.



In addition, lead solder and many brass and chrome-plated fixtures contain significant amounts of lead. In water systems like Kingston, where there is no lead in either the source water or the water in the distribution system, the only possible source of lead in the tap water is from the customer's plumbing and occurs when water that is corrosive sits in contact with these plumbing materials for a number of hours and dissolves into the water. The Kingston Water Department has been practicing corrosion control at its Edmund T. Cloonan Water Treatment for over 50 years and this has proven to be effective, as evidenced by our sampling results, in minimizing the dissolution of lead and other metals from our customers' plumbing.

### What Are The Regulations...

In 1991, the EPA promulgated the Lead and Copper Rule (LCR) to control lead and copper in drinking water by mandating that water utilities optimize their corrosion control treatment to effectively control the dissolution of lead and copper in the tap water. Consequently, the Kingston Water Department has been monitoring for lead and copper at our customers' taps since 1992 and has

never had an exceedance or violation. To demonstrate that corrosion control has been optimized, the LCR stipulates that samples must be collected at customers' taps after the water has been sitting in the customers plumbing for a minimum of 6 hours. It further requires that, if possible, samples be collected from homes with lead services/lead plumbing or those with copper plumbing installed prior to 1982 (when lead solder was commonly used to join the pipes). This represents the worst case scenario in terms of possible lead levels and is, therefore, a good measure of the effectiveness of the utility's corrosion control efforts. Unlike most contaminants, there is no maximum contaminant level for lead. Rather, EPA has established an Action Level (AL). The current Action Level for lead is 0.015 mg/L and it is exceeded if more than 10 percent of the samples collected in any monitoring period exceed 0.015 mg/L.

#### ***Kingston's Lead Results***

Kingston is required to collect and analyze 30 samples every 3 years and all samples are collected from homes with lead service laterals. The most recent round of sampling occurred in the summer of 2015. A total of 32 samples were collected and the action level (90<sup>th</sup> percentile) was determined to be 0.004 mg/L- many times lower than the 0.015 mg/L AL. Of the 32 collected, 17 were below the detection limit (meaning no lead was found in the sample) and none exceeded the AL of 0.015mg/L. During the previous round of sampling, 30 samples were collected. The AL was calculated to be 0.006 mg/L, 11 of the 30 were below detection limits and the highest of the 30 was 0.008 mg/L.

#### ***Keeping the Lead Out of Our Drinking Water Takes a Village....***

Minimizing the possibility of exposure to lead from drinking water is truly a partnership between the utility, its customers, and the EPA. The utility is

required to optimize its corrosion control practices in accordance with the regulations. The KWD has done that and, since it began monitoring for lead at the customers' taps in 1992, has never exceeded the Action Level for lead or copper, which means that our current corrosion control practices are working to minimize the dissolution of lead and other metals into the tap water.

For their part, customers should consider replacing all service lines and internal plumbing that contain lead, lead solder, or brass which typically contains high levels of lead. If that is not possible due to the costs involved, then they should make sure that they flush the water before drinking anytime the water has been unused for more than 6 hours. For most of us, that means running the water for about 2 minutes or so after we get up in the morning or after returning from work or school each afternoon. Running the washing machine or dishwasher or flushing the toilet is a good way to flush the water from the lines and ensures that the water that is being consumed comes directly from the water main. In addition, since hot water is likely to contain higher levels of lead, only cold water should be used for consumption. Additional information about lead and drinking water can be found at: <https://www.health.ny.gov/publications/2508/> or by calling the Ulster County Health Department at 340-3010.

Finally, the EPA must continue to review the Lead and Copper Rule in light of the available data and latest science to make sure that it is an effective tool in minimizing the risk of exposure to lead in drinking water. This rule, which has been revised several times since it was passed in 1991, is currently under review by EPA and slated for significant revision, although a timeline has not been established for its publication.