

Understanding the University Park Elevated Lead Level Issue

How lead gets into water

When water comes in contact with pipes or the solder that holds them together that contain lead, under certain conditions, it can cause lead to dissolve into the water. Prior to 2018, University Park was served by groundwater wells. Along with normal treatment methods, that well water helped form a protective scale on pipes that was effective at keeping lead out of the water.

About Aqua Illinois' mains and service lines

The water mains from our production plant to the customer connection point do not contain lead. In addition, Aqua has no evidence that lead service lines exist in University Park. Service lines are the lines that go from our water main into homes and businesses. Homes built before 1990 most likely have internal copper pipes that were soldered at connections with a material containing lead and metal fixtures that may contain lead.

Transitioning to Kankakee River water

Because of customer concerns with water hardness and discoloration caused by iron in the water, which caused some residents to install filtration in their homes, Aqua began a project in 2016 to build a pipeline to transport Kankakee River water to the University Park community.

In the summer of 2017, before we changed water sources from wells to the Kankakee River, we began adding a different, widely used treatment product to remove iron or rust. We know that the issue of iron in the water is prevalent in this area, and we had good experience with using this product in other systems. The product information provided by the vendor states it not only removes rust, but also protects against lead.

We carefully consulted with our advisors to address the details of switching treatment options and analyzed the potential issues associated with the transition. We documented the treatment protocol to be followed and submitted this to Illinois Environmental Protection Agency. We changed water sources in January 2018.

Over a year after switching corrosion products, and eight months after switching water sources, when we conducted required compliance lead sampling in August 2018, lead levels met system requirements. This seemed to indicate treatment was effective. However, several individual locations showed increased lead levels compared to prior levels before the changes. As a result, we continued to adjust corrosion treatment based on further evaluations. The next scheduled round of compliance lead sampling began in late May 2019. When we received initial results on Thursday, June 13, 2019, 15 locations were found to be above the EPA "action level" criteria. That is an indication that further evaluation of our treatment was needed. On June 14, we issued a do not consume advisory for University Park, Green Garden and Monee Townships out of an abundance of caution to ensure the safety of our customers.

Our initial evaluation of these results lead us to believe that the treatment product, along with removing rust, impacted the protective scale over time that was formerly in place on the inside of the pipes, at solder connections, and inside fixtures, allowing lead to potentially dissolve into the water. Because lead solder was disallowed by the EPA in 1986, newer homes and businesses,

such as those we removed from the do not consume advisory, would not have the same result. However, we believe properties built before this era, including homes in the University Park downtown section, may now have reduced levels of protective scale, allowing lead to dissolve into the water.

How we are fixing the issue

Aqua Illinois stopped using the original treatment product and began using a new, common treatment called orthophosphate on the evening of Saturday, June 15. Orthophosphate is known to be effective at forming a protective scale with lead and prevents it from dissolving into the water. While we are confident in this solution, we will continue to be vigilant in monitoring results during this period. It is important to note the protective scale takes time to form and we believe that it will take a few weeks, but it may take longer.

We will be testing the water weekly in accordance with EPA standards and reporting our results. Given this timeframe, we are providing every home built before 1990, which are more likely to have lead solder, with a pitcher filter, certified to remove lead by the National Sanitation Foundation, to use at home. When manufacturer's instructions are properly followed, these filters will remove lead from water. The water filtered through the pitchers we are providing allow you to drink, cook, make ice and formula and brush teeth.

Additionally, through property age and lead testing confirmation, we were able to take homes and businesses that were newer, or replaced their plumbing, off the do not consume advisory. We will continue to work with the community to make this as least disruptive as possible and build your confidence in us and the safety of your water.