



DEPARTMENT OF PUBLIC WORKS AND UTILITIES Water Treatment Plant

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Improved Drinking Water Quality in the City of Flint

The City of Flint is providing this communication to report on the city's water quality since December of 2015, when the city began to once again receive water from the Great Lakes Water Authority (GLWA) and began to treat it with additional orthophosphate for improving corrosion control. The U.S. Environmental Protection Agency's (USEPA) Flint Safe Drinking Water Task Force recommended the water coming from the GLWA be treated with enough additional orthophosphate to maintain a minimum residual of 3.1 milligrams per liter (mg/L) in our distribution system. The purpose of this treatment was to restore a protective barrier on pipe walls, thereby reducing the amount of lead and copper dissolving from service lines and household plumbing. Orthophosphate reacts with lead and copper to form compounds that have a strong tendency to stay in solid form and not dissolve in water.

HERE IS WHAT YOU SHOULD KNOW:

We are very pleased to report significant improvement in water quality throughout the city's distribution system has been achieved since these treatment objectives were established. The improvement is demonstrated by data collected from a variety of sources including city-wide residential self-serve and Michigan Department of Environmental Quality (MDEQ) sentinel testing:

- Lead sampling throughout the city has consistently demonstrated improvement in lead levels since January 2016. The monitoring results for the previous 6 months from MDEQ sentinel sampling sites throughout the city have demonstrated a marked improvement, so much so that the 90th percentile value is below the USEPA Lead Action Level of 15 parts per billion (ppb). Many of these sites are the highest risk sites that are used to determine compliance at the end of each 6-month monitoring period.
- When we compare results of recent samples taken in September 2016, with results of samples taken in January 2016, when we had just started adding orthophosphate, we can see there has been an 86 percent decrease in the number of samples with lead levels reported above the USEPA Action Level of 15 ppb.
- Over the same period of time, the number of test samples with lead results less than 1 ppb increased by 400 percent.

To monitor our corrosion control treatment, we sample water on a weekly basis for water quality parameters (WQPs) such as pH (acidic or basic) and orthophosphate, before it enters the distribution system and throughout the city at 10 distribution system sites. We also sample an additional 15 distribution system locations for these parameters on a quarterly basis. We diligently strive to maintain these parameters at or above state-designated levels in the distribution system to reduce lead and copper concentrations at your tap.

While significant improvement has been accomplished, we are continuing to work at optimizing our treatment process. Since the city began weekly monitoring last January, there have been occasions when the orthophosphate residual was below the established minimum level at one or more locations. These instances were not significantly below the recommended level and they were for a short duration. Nevertheless, the city water department is in the process of developing additional standard operating procedures with the assistance of consultants that specialize in corrosion science in municipal distribution systems. These consultants will provide additional guidance for establishing an Optimal Corrosion Control Treatment Plan (Plan) to improve current corrosion control treatment practices and for responding promptly to minimize future instances when corrosion control was not at recommended levels. Part of the Plan will include a compatibility study of the water treated by Genesee County.

WHAT WE ARE DOING TO ENSURE COMPLIANCE AND SAFETY:

The city still has work to do to assure a long-term supply of safe drinking water, including the continued replacement of lead service lines, the right-sizing and replacement of critical distribution infrastructure, and the complete restoration and “shakedown” period of operation for the Flint Water Treatment Plant to provide water quality that exceeds regulatory standards when it begins treating Lake Huron water from the Karegnondi Water Authority. Until then, the city will be making every effort to not only comply with the Lead Action Level, but to surpass that standard by providing corrosion control treatment that minimizes leaching of lead and copper to the extent reasonably possible, thereby reducing lead and copper levels in homes and businesses.

If you have any questions, please contact the Flint Water Treatment Plant at 810-787-6537 or visit the following website for additional information: www.cityofflint.com.

Please share this information with all the other people who drink Flint water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.