# INTRODUCTION

During the month of April, 2016, the Department of Licensing and Regulatory Affairs (DLARA) completed replacement of drinking water fixtures at Monica Walker's Daycare. These fixture replacements were required because testing results indicated that the older fixtures at most schools were imparting lead to the drinking water. After the fixtures were replaced, a more thorough flushing of the plumbing lines was completed to remove any remaining material from the building's water supply system.

For the protection of public health, the DLARA started offering the installation of filters at schools and daycare facilities in Flint. This work began in July, 2016.

On Wednesday, August 3<sup>rd</sup>, 2016, the Department of Environmental Quality conducted a post-fixture sampling assessment of the plumbing system at the facility.

### **Water Main Description**

An inspection from inside the building yielded a three quarter inch copper main.

# **SAMPLING METHODS**

## **Fixture Sampling**

There are two drinking water fixtures that were identified at the facility. After a minimum six-hour stagnation period, four samples were collected at each of the fixtures identified. Two initial samples were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third sample was collected. Finally, the water was flushed for another two minutes, and the fourth sample was collected. These samples were used to determine the impact of any lead sources in and around each specific fixture and its connecting plumbing.

# **Deep Plumbing Sampling**

A different sampling method is used to determine the impact of any lead sources located deep in the supply plumbing of the building. During this method, ten bottles are collected in a row (consecutively). These bottles are one liter in size, which is larger than those used for the fixture sampling method.

### **Sampling Notes**

- Eight samples from two fixtures were collected and sent to the lab for analysis.
- Ten samples from one specific fixture were collected and sent to the lab for analysis for deeper plumbing assessment.

# SAMPLING RESULTS

#### **Post-Fixture Replacement**

August 3, 2016 Of the 18 samples:

- Lead Range: All samples were Non-Detected (ND)
- Copper Range: ND to 180 parts per billion (ppb)
- \* Where the result is non-detected for lead it means that the amount of lead in the water was less than 1 ppb.
- \* Where the result is non-detected for copper it means that the amount of copper in the water was less than 50 ppb.



# Monica Walker August 3, 2016

| Lead | Result (ppb) | Sample Description      | Site Code | Copper | Result (ppb) |
|------|--------------|-------------------------|-----------|--------|--------------|
| Lead | ND           | 01BF001 MAIN FLOOR BATH | P1        | Copper | 80           |
| Lead | ND           | 01BF001 MAIN FLOOR BATH | P2        | Copper | 110          |
| Lead | ND           | 01BF001 MAIN FLOOR BATH | F01       | Copper | ND           |
| Lead | ND           | 01BF001 MAIN FLOOR BATH | F02       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | P1        | Copper | 180          |
| Lead | ND           | 01KC002 KITCHEN         | P2        | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | F01       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | F02       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA1       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA2       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA3       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA4       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA5       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA6       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA7       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA8       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA9       | Copper | ND           |
| Lead | ND           | 01KC002 KITCHEN         | CA10      | Copper | ND           |