# INTRODUCTION

During the months of November and December 2017, the Department of Licensing and Regulatory Affairs (DLARA) flushed the plumbing lines at each non-public school in Flint. The Department of Environmental Quality (DEQ) sampled each facility.

Follow up samples were taken at points where lead levels exceeded 15 parts per billion (ppb) and/or copper levels exceeded 1,300 ppb.

Resampled fixtures included:

School Name	Fixture Identification	Follow-Up Sampling Date
Fr. Luke M. Powers High School	01WC002	1/23/18
Michigan School for the Deaf (MSD) Stevens Hall	02BF067	1/24/18
New Standard Academy	02KC025	2/1/18
St. John Vianney School	01KC008	1/30/18
Summerfield Community School	01CF008	1/26/18

# SAMPLING METHOD

# Fixture Sampling

Fixtures were flushed the night before the sampling. After a minimum six-hour stagnation period, samples were collected at each of the fixtures. The samples were collected in a 250 milliliter (mL) bottle immediately after turning on the cold water tap.

# **Deep Plumbing Sampling**

Each fixture was also sampled to evaluate the deep plumbing. This consecutive sampling method is used to determine the impact of any lead

sources located deeper in the supply plumbing of the building. During this method, ten bottles are collected in a row. These bottles are one liter (L) in size.

# **RESULTS AND NOTES**

When reviewing the lab sample results, the sample description will contain letters to indicate the fixture type. Specifically, kitchen faucets have "KC" in the name. restroom faucets are noted "BF," and Nurses Stations are "NS." Samples from these fixtures are non-filtered water. unless otherwise indicated in sample notes. Alternatively, water coolers are noted "WC" and drinking water bubblers are noted "DW." Both water coolers and bubblers have inline filters installed, so the samples are of filtered water, unless otherwise noted. Please also note that the fixture type is not necessarily indicative of its actual purpose. It is used to categorize the type of fixture. Not Detected (ND) means; for lead the amount in water is less than 1 ppb, and for copper the amount in water is less than 50 ppb. Sample results can be found online at www.michigan.gov/flintwater, select "Testing Results" and "Establishment Testing."

\*Indicates that additional follow-up is needed. DEQ and LARA will work with the owners of the facility to determine a course of action to remediate the exposure.

## Father Luke M. Powers High School

November 11, 2017

Of the thirty-three (33) samples:

- No samples exceeded 15 ppb for lead.
   Lead Range: ND to 1 ppb
- One sample exceeded 1,300 ppb for copper.
   Copper Range: ND to 1770 ppb

Field Notes:

The exceedance was fixture 01WC002; and the sample was filtered.

January 23, 2018, Follow-Up Sampling

Fixture 01WC002 sample:

The sample was ND for lead.

The sample was 320 ppb for copper.

Deeper Plumbing Samples, of the ten (10) samples:

- All samples were ND for lead.
  Lead Range: ND to ND
- All samples were ND for copper.
  Copper Range: ND to ND

### MSD Stevens Hall

November 12, 2017

Of the sixty-eight (68) samples:

- One sample exceeded 15 ppb for lead. Lead Range: ND to 21 ppb
- No sample exceeded the target of 1,300 ppb for copper.
  Copper Range: ND to 650 ppb.

#### Field Notes:

The exceedance was fixture 02BF067 in Room 236.

All bathroom faucets (BF) were filtered.

January 24, 2018, Follow-Up Sampling

Fixture 02BF067 sample:

The sample was 1 ppb for lead.

The sample was ND for copper.

Deeper Plumbing Samples, of the ten (10) samples:

- All samples were ND for lead. Lead Range: ND to ND
- All samples were ND for copper.
  Copper Range: ND to ND

# **New Standard Academy**

## November 18, 2017

Of the thirty-seven (37) samples:

- One sample exceeded 15 ppb for lead.
  Lead Range: ND to 39 ppb
- No sample exceeded 1,300 ppb for copper.
   Copper Range: ND to 1,150 ppb.

#### Field Notes:

The exceedance was fixture 02KC025 in Room D-20.

## February 1, 2018, Follow-Up Sampling

Fixture 02KC025 sample:

The sample was 29 ND for lead, which exceeded 15 ppb for lead.

The sample was 150 ppb for copper.

Deeper Plumbing Samples, of the ten (10) samples:

- All samples were ND for lead.
  Lead Range: 2 to 5 ppb
- All samples were ND for copper.
  Copper Range: 170 to 220 ppb

#### Field Notes:

Significantly low water flow was observed during flushing and sampling of this faucet.

\*Additional follow-up is needed. DEQ will contact the facility and provide assistance to mitigate the exposure.

# St. John Vianney School

#### November 11, 2017

Of the twenty-four (24) samples:

- One sample exceeded 15 ppb for lead.
  Lead Range: ND to 39 ppb
- One sample exceeded 1,300 ppb for copper.

Copper Range: ND to 4,730 ppb

#### Field Notes:

The exceedances were from fixture 01KC008 in Room M-2.

January 30, 2018, Follow-Up Sampling

Fixture 01KC008 sample:

The sample was 10 ppb for lead, which did not exceed 15 ppb for lead.

The sample was 720 for copper, which did not exceed 1,300 ppb for copper.

Deeper Plumbing Samples, of the ten (10) samples:

- No sample exceeded 15 for lead.
  Lead Range: ND to 4 ppb
- No samples exceeded 1,300 ppb for copper.

Copper Range: 100 to 440 ppb

# Summerfield Community School

November 17, 2017

Of the thirty-three (33) samples:

- One sample exceeded 15 ppb for lead. Lead Range: ND to 59 ppb
- No sample exceeded 1,300 ppb for copper.
   Copper Range: ND to 70 ppb

#### Field Notes:

The exceedance was fixture 001CF008 in Room 14.

January 26, 2018, Follow-Up Sampling

Fixture 001CF008 sample:

The sample was ND lead.

The sample was ND for copper.

Deeper Plumbing Samples, of the ten (10) samples:

- All samples were ND for lead. Lead Range: ND to ND
- All samples were ND for copper.
  Copper Range: ND to ND