### Funding Michigan's Filter First Bills: The First in the Nation to Provide Safe School Drinking Water

March 12, 2024 Elin Warn Betanzo, Safe Water Engineering

## Lead is present in school plumbing, especially in buildings built before 2014

- Plumbing materials (pipes, fittings, and fixtures)
  - up to 8% lead through 2013
  - ▶ up to 0.25% lead beginning in 2014
- Lead solder (banned in 1988)
- Galvanized steel pipes
- Lead service lines, lead packed valves
- Plumbing materials not intended for drinking water use
- Pre-1988 drinking water coolers with leadlined tanks

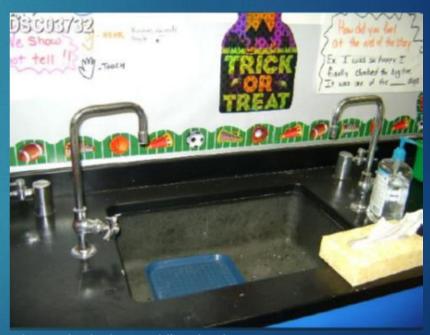


Photo: Birmingham Public Schools

## Corrosion Control treatment reduces lead leaching but irregular water use in schools means it doesn't work as intended

#### 2023-2024 Break Schedule

Aug. 28: First Day of school, half day

Sept. 1-4: Labor Day Recess

Nov. 23-24: Thanksgiving Recess

Dec. 22-Jan. 2: Winter Break

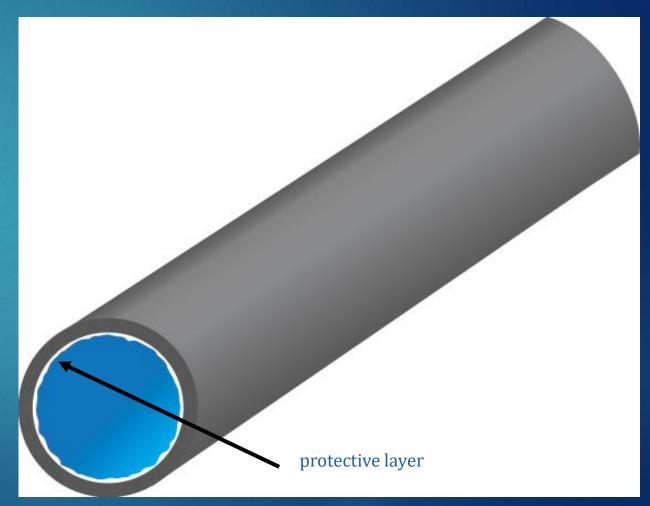
Jan. 15: No School, MLK, Jr. Day

Feb. 19-23: Midwinter Break

March 25-29: Spring Break

May 27: No School, Memorial Day

June 6: Last Day of School

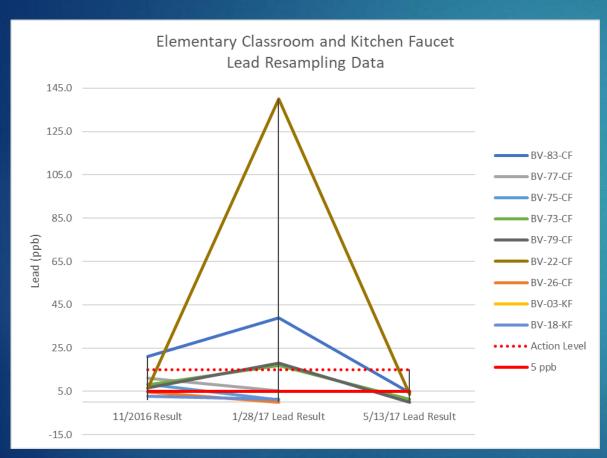


## Why address lead in school drinking water?

- Lead is a potent irreversible neurotoxin
- Lifelong multigenerational impacts
- Young children are most vulnerable to lead exposure
- Lead has no useful purpose in the body
- Health effects from acute and chronic exposures



## Test and Chase approach does not provide safe water





Data from Birmingham Public Schools, 2016-2017

### Michigan's Filter First law provides safe drinking water first, then tests to verify filters are working.

- ▶ The bills require:
  - A drinking water safety plan for each school
  - ► Filter station installation and maintenance on designated drinking water sources
  - Filters certified to meet ANSI/NSF Standards 53 (lead removal) and 42 for particulate removal
  - Testing once per year after filters are installed
  - Remediation if filtered water still contains lead



# Requirements and best practices are needed to ensure filter stations are properly installed and maintained

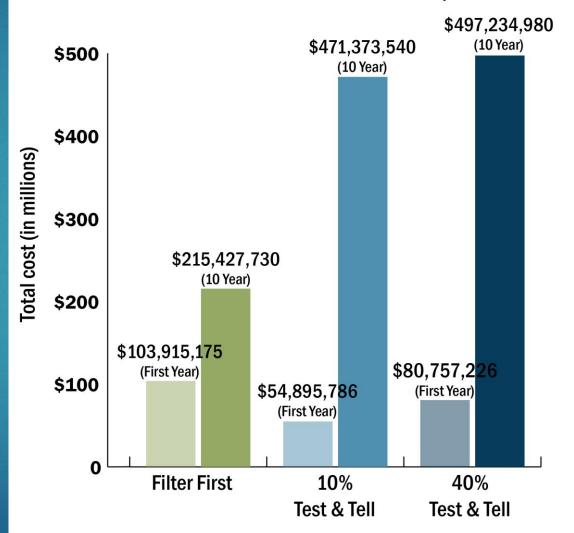


Photos: Safe Water Engineering, 2019-2020 school year

### Full Funding is Necessary to Achieve Filter First Requirements in Every School

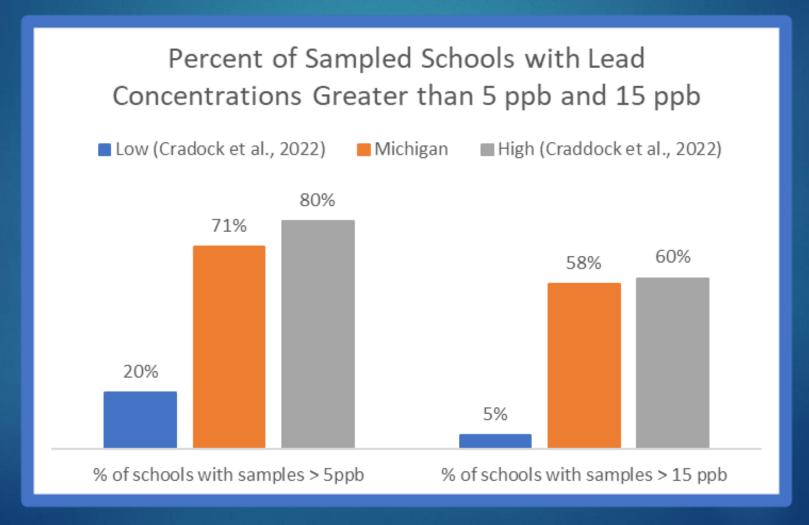
### Michigan Projected Costs

Filter First versus Test & Partial Fixture Replacement



#### Voluntary Michigan School Lead Sampling Data 2020-2022

- 1,967 Michigan schools may have lead > 15 ppb
- 2,414 schools may have lead > 5 ppb
- 3,040 schools may have lead > 1 ppb





All filtered samples collected after installing filter stations in the BPS school district meet the AAP Recommended Action Level of 1 ppb.

There is no detectable lead in any of the samples.