

# Act 39 and Testing for Lead

***Central Bucks School District***

***August 27, 2019***

# History of Water Treatment

- Importance of clean water
- Water – the “great” solvent
- Metals/Elements – prefer their original state
- Health hazards of lead in drinking water
- Lead removal and stability in potable water applications



Image retrieved on 8-26-19 from <https://pixabay.com/photos/pont-du-gard-nimes-arles-ales-2493762/>

# Environmental Protection Agency (EPA)

- **Sets Primary and Secondary Drinking Water Standards**
  - Primary Standards (i.e. health hazards)
  - Secondary Standards (i.e. aesthetic effects)
- **Lead**
  - 1978 Paint Ban
  - 1986 Fed. Safe Drinking Water Act: limit content of lead in materials.
  - 1991 Fed. Lead and Copper Rule: set standards for lead in drinking water (**Goal of 0 ppb; AL of 15 ppb; 90<sup>th</sup> %**).
  - Subsequent amendments/refinements

# PA Department of Environmental Protection (PADEP)

- **States adopt EPA Standards; can set stricter standards**
- **Lead**
  - 1991 PA Lead Ban: use of lead “free” materials in plumbing of any public water system
  - Testing requirements for Public Water Systems (PWS)
    - Every 6 months
    - Reduced monitoring – every 1 to 3 years
    - Goal of 0 ppb; AL of 15 ppb; 90<sup>th</sup> %
  - Current operational and monitoring changes

# Act 39 & Lead – PA School Code

- **Act 39 Lead Basics (Section 3.1 – Section 742)**
  - School Districts may conduct annual lead testing
  - Absent of lead testing, School Districts shall discuss lead issues at a public meeting
  - Implement a plan if lead in drinking water is over 15 ppb
    - Ensure no exposure to lead contaminated drinking water
- **Code intended to:**
  - Improve drinking water
  - Reduce risks



Image retrieved on 8-26-19 from <https://pixabay.com/photos/classroom-chairs-tables-school-824120/>

# Central Bucks School District Initiatives

- Choose the “proactive approach”
- Choose to be ahead of the requirements
- Desire to collect data and information
- Desire to protect the CBSD Students
- Make informed, sound decisions based upon the data
- Provide quality drinking water



Image retrieved on 8-26-19 from <https://pixabay.com/photos/aqua-beverage-clear-close-up-3445987/>

# District Actions to address Act 39

- Tested for lead in over 1050 consumptive locations
- Information is posted on the CBSD website
- **June 2019 Test Summary:**
  - 16 samples over 15 ppb (1.5% of the 1050 samples)
  - 52 samples between 5-15 ppb
  - 286 samples between 1-5 ppb
  - All other samples were non-detect

# CBSD Immediate Steps (following June tests)

- **Sites over 15 ppb:**
  - 14 sites: exposed plumbing and fixtures replaced
  - 2 sites: sink and facilities abandoned
  - Work completed
- **Resampling of the original sites over 15 ppb**
  - occurred on August 16<sup>th</sup> & 19<sup>th</sup>



# CBSD Immediate Steps (following June Tests)

- **Sites between 5-15 ppb:**
  - 8 sites at Buckingham Elementary had exposed plumbing and fixtures replaced; these sites were retested
    - Based on the retest results of the 8 sites, all “bubblers” at Buckingham Elementary were removed
  - 18 “bubblers” being removed – Gayman Elementary (1), Groveland Elementary (9), Kutz Elementary (5), Mill Creek Elementary (1), Pine Run Elementary (1), Warwick Elementary (1)
  - 14 faucets being removed/replaced – Buckingham Elementary (2), Cold Spring Elementary (2), CB East High School (6), Tamanend Middle School (2), Unami Middle School (2), CB West High School (1)
- **Total of 52 sites addressed between 5-15 ppb**

# CBSD School Readiness Steps

- Inform the public of the findings
- Educate the student/staff population on where to obtain water for consumptive purposes
- Sites still over 15 ppb after retesting:
  - Lenape Middle
    - One site: abandon sink and faucet facilities
  - Buckingham Elementary
    - Closing ALL consumptive fixtures
    - Physical removal of ALL “bubblers”
    - Add an additional water bottle filling station
    - Provide bottled water for consumptive purposes

# CBSD School Future Steps (applies to ALL schools unless noted)

- Remove all existing “bubblers”
- Eliminate all existing water fountains
- Install water bottle filling stations equipped with water filtration system (to replace the “bubblers” and water fountains)
- Consultation with the District’s public water suppliers
- Annual Lead Testing at all consumptive sites
- Investigate neutralization bed system at the Buckingham Elementary Facility



Image received from CBSD Staff on 8-26-19