



# TESTING AND REMEDIATING LEAD CONCENTRATIONS IN DRINKING WATER

at Licensed California Child Care Centers (CCC)

Presented at CSU-WATER 2023 at CSU Monterey Bay by Brian Currier, CSUS, Office of Water Programs



## Topics:

- Project development and staffing
- Process
- Results to-date
- Lessons learned
- Outstanding need



California Rural Water Association

California Child Care Resource & Referral  
NETW40RK

WATER PROGRAMS  
Sacramento State

# Project Development

## AB 2370 Chapter 676, Statutes of 2018, for Lead Testing in Licensed Child Care Centers

The current State law, known as **AB 2370**, includes requirements for lead sampling at licensed Child Care Centers (CCCs)

### Requirements:

- Data management
- Customer support
- Statewide sampling at over 3,000 (prioritized out of 12,000) CCC locations

Be available.



Identify need.



Be flexible.



Identify your team.

# Project Staffing

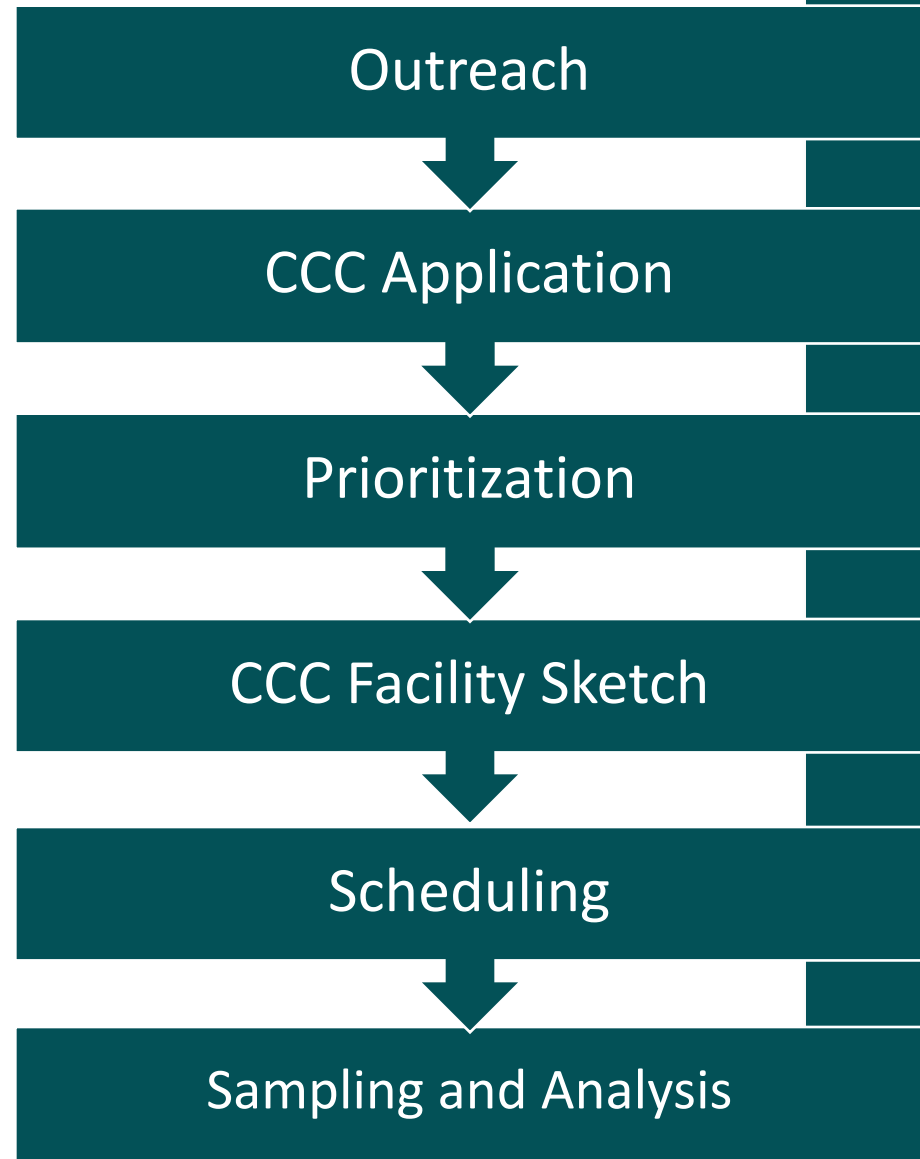
- Research engineers (5)
- Web programmer (1)
- Communications Coordinator (1)
- Admin support (1)
- GIS specialist (1)
- Environmental scientist (1)
- Technical editor (1)
- Computer Science interns (3)
- Communications intern (1)
- Environmental studies intern (1)



# Process

## Primary points of friction

- Application
- Sketch



# All Results To-Date

## Child Care Centers

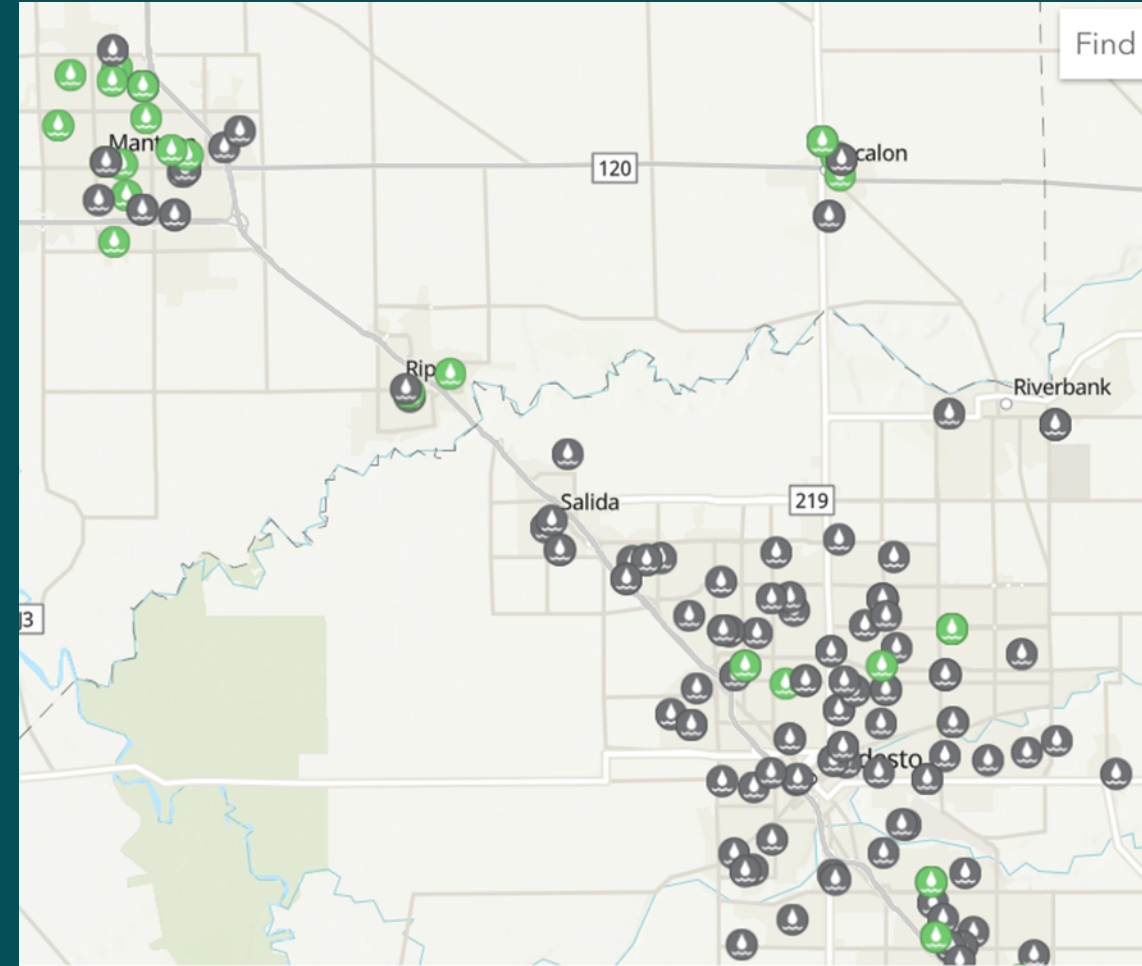
- 5,284 CCC locations tested (2,088 by Grant Team)
- 33,236 outlets tested
- 27% of CCCs had at least one initial AB 2370 Action Level Exceedance ( $\geq 5.5$  mg/L)
- 11% of CCCs exceeded federal standard ( $\geq 15$  mg/L)



# Technical Lessons

## Outreach and CCC Actions

- Slow CCC application rate nullified prioritization schema
- Slow CCC map preparation slowed sampling ramp up
- Application rate differed between communities
- Testing rate differed between communities



# Technical Lessons

- Avoid online-only vendors for plumbing fixtures
- TBD: impact of angle stops (i.e., shutoff valves)

## How to Identify Low-Lead Faucets and Fixtures

If a lead action level exceedance has been found in your building, it may have come from a faucet or plumbing fixture containing high levels of lead. This guide will help you find low-lead replacements.

**STEP 1**

Look for one of these certification marks on the packaging.



**STEP 2**

Look for either Option A or Option B on the packaging.

**Option A: One lead-leaching claim and one lead-content claim**

*Lead-leaching claims*

NSF 61	NSF/ANSI 61
NSF 61-G	NSF/ANSI 61-G
NSF 61/9	NSF/ANSI 61/9
NSF 61/9-G	NSF/ANSI 61/9-G

*Lead-content claims*

NSF 372	No Lead
NSF/ANSI 372	Lead Free
CA AB 1953	Low Lead
HSC §116875	Low Lead Content

**Option B: One combined lead-leaching and lead-content claim**

*Combined lead-leaching and lead-content claims*

NSF 61-372  
 NSF 61 & 372  
 NSF/ANSI 61-372  
 NSF/ANSI 61 & 372  
 NSF/ANSI 61/9 & 372  
 ASME 112.18.1/CSA B125.1

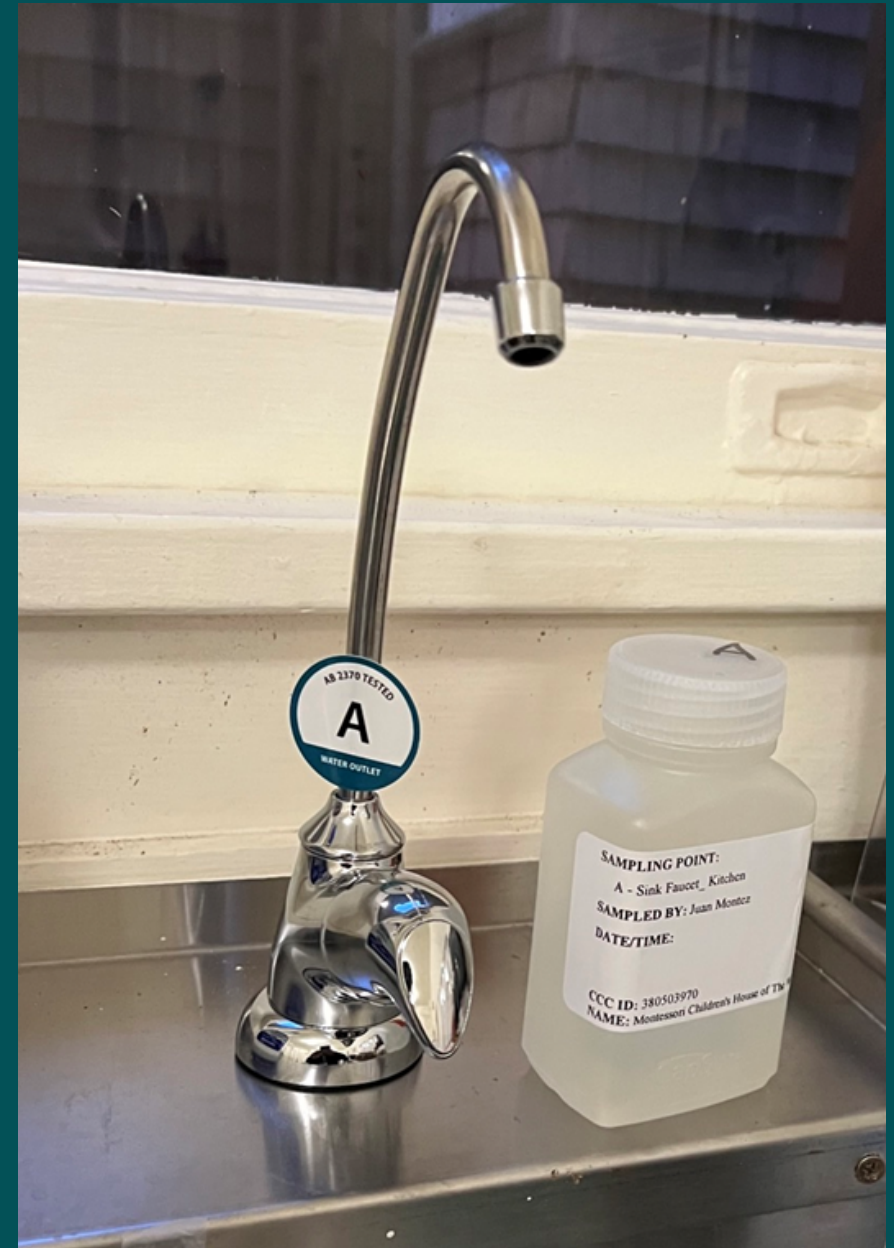
**STEP 3**

After you install your new faucet, flush it for 3 weeks and then re-test it for lead. Do not drink the water or cook with it!

Adapted from the U.S. Environmental Protection Agency's "How to Identify Lead Free Certification Marks for Drinking Water System & Plumbing Products, Rev. March 2015." Any mention of trade names or commercial products does not constitute endorsement or recommendation for use.

# Programmatic Lessons

- Add time and effort for data control systems
- Add time and effort for outreach
- Difficult to prioritize outreach—exhaustive outreach is more effective
- Recognize compliance timeline limitations for remediation:
  - Flushing requirements for new fixtures
  - Sampler availability
  - Turnaround time for lab analysis





# Outstanding Need

- **Schools\***, child care centers, and water districts
  - Communication
  - Outreach
  - Technical Assistance
- **Relative importance of solder, brass, lead fittings/goosenecks, and faucets**
- **Importance of saturation time**
- **How to get to 1 ppb?!**

\*legislation tracking suggestion: AB 249

**Revised Lead and Copper Rule (federal) and State of California requirements will overlap**



Thank you!

Questions on requirements: [CCCwatertesting@dss.ca.gov](mailto:CCCwatertesting@dss.ca.gov)

Questions on grant assistance: [ab2370assistance@owp.csus.edu](mailto:ab2370assistance@owp.csus.edu)

Questions on project development and outstanding needs:

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