Lead in Drinking Water Update

October 9, 2018
How We Got Here

• 2015: Public health crisis in Flint, MI triggers nationwide conversation about lead in drinking water.

• December 2016: SWRCB Division of Drinking Water requires local water providers to test schools’ drinking water if asked.

• April-June 2017: City of San Diego conducts water sampling at SDUSD sites.

• All tested fountains with lead above 15 parts per billion (ppb) secured, remediated or removed.

City employee drawing first sample of water, April 2017
Long Term Objective

- The SWRCB, EPA, CDC and district Nursing/Wellness staff acknowledge there is no safe level of lead in drinking water.

- July 2017: Board of Education adopts 5 ppb action level. District plan improves drinking water quality significantly beyond current regulations.
  - One third of the EPA established action level of 15 ppb
  - 5 ppb is the bottled drinking water threshold (FDA Standard)
  - Is supported by the California Public Interest Research Group (CALPIRG)

No drinking water outlet will have a lead content above 5 parts per billion (ppb). (July 2017)
Where We Are Now

• Executing 2017 Board of Education directive: No drinking water outlet will exceed 5 ppb.

• Priority order – driven by sampling results (City of San Diego and district).

• Any outlet tested over 5 ppb is out of service until remediated. Bottled water provided in the interim if needed.

• Proceeding site by site: All drinking water outlets tested and remediated at a site.
Lead in Drinking Water Samples
1,877 Drinking Water Outlets – Initial Sampling
April 2017 – October 2018

- Less than 5 ppb: 87%
- 5 - 15 ppb: 12%
- Greater than 15 ppb: 1%
Testing Results

• 967 samples taken by City of San Diego April-June 2017.

• 1,168 samples taken since conclusion of City water testing.

• 1,842 outlets cleared – tested/remediated below 5 ppb.

• 15 schools cleared – all outlets tested/remediated at less than 5 ppb.

• 130 filters installed.

• As we dig deeper, the defect rate (drinking water outlets over 5 ppb, drinking water outlets over 15 ppb) is more than double what was encountered with City testing.

  • Greater than 5 ppb  City testing: 5.9%  Now: 13.3%
  • Greater than 15 ppb  City testing: 0.4%  Now: 1.5%
Remediation Methods

- Plumbing Repair.
  - Investigate, repair/replace plumbing and fixture as necessary.

- Install point of use filter and downstream plumbing.
  - Commercial filters effective to 1 ppb
  - Filter changes – recurring cost

- Remove fixture from service.
Challenges

• Lead content in drinking water can vary from sample to sample.

• Sampling protocols and action levels can vary from entity to entity.

• Source(s) of lead is difficult to pinpoint.

• Filters.
Moving Forward

• Utilizing high quality filters with greater capacity.
  • NSF Certified
  • Activated carbon and particulate reduction

• All remediated outlets will receive confirmation sampling, including filtered fixtures.

• Updated sampling protocols to address lessons learned.
  • Reviewed and supported by Forensics Analytical

• Water flushing remains in effect.
Filters

• Utilized filters in numerous locations.

• Encountered 1 defective filter of 130 installed.

• Filters alone aren’t the full solution.
  • Requires new plumbing from filter outlet to discharge.

• District investigation with support from Forensics Analytical.
Transparency and Communication

• Parents/guardians are notified of campus-wide testing results.

• Informational meeting at any school with results above 15 ppb.

• Water remediation information and sampling logs posted online.
  • [https://www.sandiegounified.org/watersampling](https://www.sandiegounified.org/watersampling)

• District staff available to answer any questions.
Evaluating 1 ppb
Revisit no later than 2020

• Filtered bottle filling stations and filtered drinking fountains.
  • Filters lead and other possible contaminants

• Implementation Challenges.
  • District has over 7,200 drinking water outlets
  • Drinking water currently available in every elementary classroom
  • Filter maintenance and replacement – recurring operational cost

• Prop. YY proposes $45M for addressing lead in drinking water.
Since the adoption of the district’s strict water sampling and remediation program:

- January 2018: Berkeley Public Schools strengthen their water remediation plan.

- February 2018: Oakland Unified School District adopts a 5 ppb lead standard.
Questions and Answers