MARIN WATER

Update on EPA Lead & Copper Rule

OPERATIONS COMMITTEE MEETING

February 16, 2024

Overview

- Background on Lead Plumbing
- Water Quality Regulations on Lead
- Results of District Sampling and Investigations
- Summary

Background on Lead Use in Plumbing

- Lead material is malleable, ductile, and unreactive
- Plumbing materials used in ancient Roman civilizations and prevalent use in U.S. prior to 1920s
- Lead contamination of drinking water results from corrosion of outdated lead plumbing materials
- Harmful to human health even at low exposure levels, particularly to children and infants

Water Quality Regulations on Lead

- Safe Drinking Water Act (SDWA) passed in 1974 to set enforceable standards in drinking water to protect public health
  - Amended in 1986 to prohibit use of pipes that were not “lead-free”
  - Issued 1991 Lead and Copper Rule
  - Amended in 2011 – further reduced “lead-free” piping
- Marin Water samples for lead every three years in compliance with 1991 Lead and Copper Rule
  - Lead sampling results continue to remain well below regulatory standards
  - Sampling results support lead-free field investigation findings

Lead Sampling in Schools

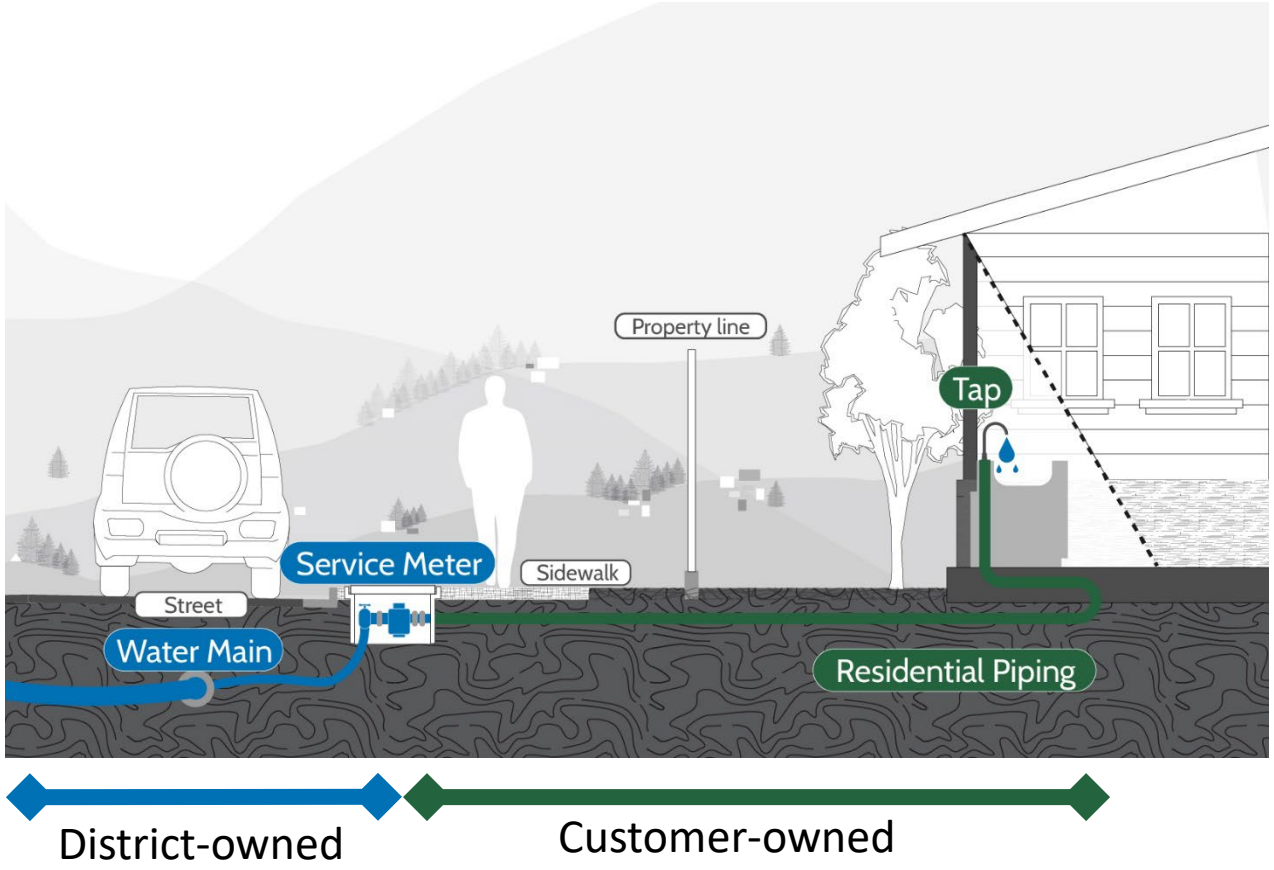
- SWRCB Division of Drinking Water & CA Dept of Education (California Assembly Bill 746) 2017-2019
  - Testing conducted for lead in drinking water at all public K-12 schools across the State
  - District staff reached out to public and private schools and conducted testing at 53 schools in service area
  - Over 260 water samples were analyzed from drinking water fountains, faucets, etc. locations most accessible to children
  - 3 samples exceeded action level and schools were notified that corrective actions were required

Recent Revisions to Water Quality Regulations for Lead

- Flint, Michigan: Lead contamination crisis in drinking water after city switched water sources 2014 causing corrosion of lead service lines and lead-related health concerns
- EPA revised Lead and Copper Rule requiring water utilities to:
  - **Inventory material type of all service lines** and replace lead service lines within 10 years
  - Lower lead action level from 15 to 10 ug/L
  - Improved sampling technique from customer taps
  - Improved communication to customers about lead

Lead Service Line Inventory

- Required to develop an inventory of service line materials by October 2024
- District-owned service line material type inventory previously completed in 2020 (required by California Senate Bill 427)
- Similar to most California water utilities, District does not maintain records of customer-owned service line

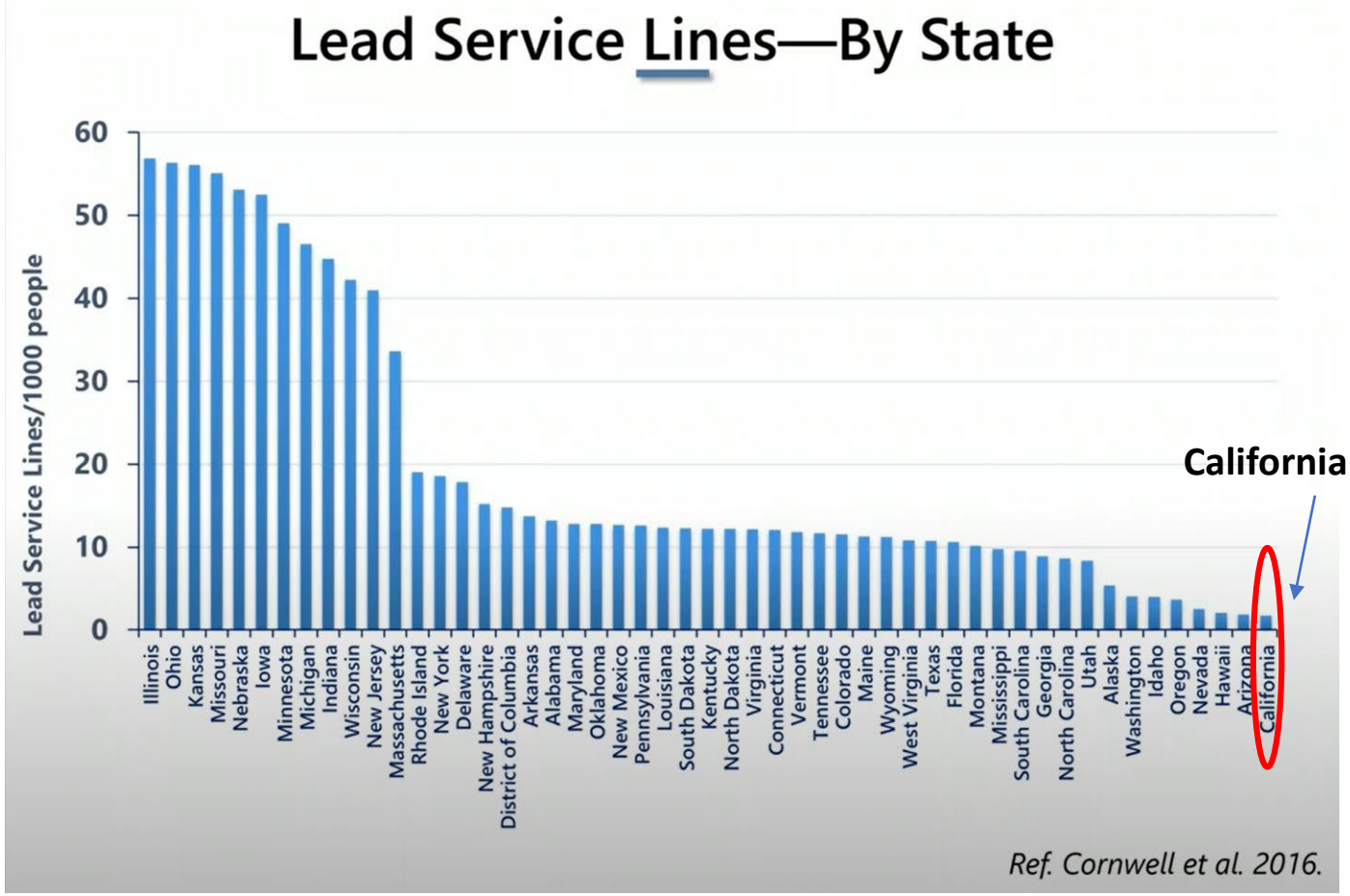


Field Verification of Inventory

- CA Water Boards Div. of Drinking Water (DDW) provided guidance to develop compliant service line inventories
- May 2023: District field staff were trained on identification techniques of pipe materials including visual (color) assessments, scratch testing, magnetic attraction, and chemical reaction testing
- **No lead service lines have been discovered** during the inspection period

Lead Service Lines Inventory - California

- District results are consistent with state-wide trends
- 1880s -- California cities published approved plumbing materials
- Lead was not an approved material across California



Summary

- Continue to work with Division of Drinking Water to complete service line inventory compliant with revised Lead and Copper Rule (LCR)
- Monitor final revisions to LCR and update the Board of Directors as necessary