



AMERICAN WATER

A Coordinated Approach to Reduce Lead Exposure from Drinking Water

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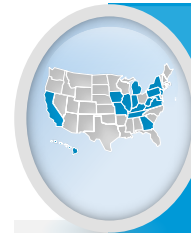
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American Water Facts & Figures

AMERICAN WATER REGULATED OPERATIONS



We deliver water to over 3 million customers across the country

- 15 Million people served in 1,600 communities

Every day we operate and manage:

- **370** individual water systems
- **48,000** miles of distribution mains
- **81** surface water treatment plants
- **500** groundwater treatment plants
- **1,100** groundwater wells
- **1,200** treated water storage facilities

Lead In Drinking Water: Its Source and Health Effects

- Not from source water
- Lead in service lines or solder in plumbing fixtures
- Occurs in drinking water as result of corrosion
- Health effects
 - Neurotoxic esp. to children
 - **NO SAFE LEVEL** for lead exposure (CDC, EPA)



Mitigate Lead Exposure

in Drinking Water



-  **Treat**
-  **Monitor**
-  **Find**
-  **Replace**
-  **Flush**
-  **Educate**



- Corrosion control (or water chemistry) can effectively protect against release of lead
 - Vast majority systems have effectively treated for years

Issues & Challenges

- Changes of source or treatment
 - Water chemistry changes
- Disturbances within distribution system
 - Main breaks,
 - Infrastructure replacements

- Most systems in compliance with Lead & Copper Rule



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Issues & Challenges

- LCR does not prevent individual exposures
- LCR “Action Level” of 15 ug/L is based on effectiveness of corrosion control, not health effects
- Lead concentration can vary
 - House to house
 - Time of day
 - Varies with water usage (flushing)

Utility-owned vs Customer-owned portion of the service line



*Note: Pipe ownership limits may vary



- The goal of Full LSL removal endorsed by EPA, NDWAC, AWWA, stakeholders including 40+ child health agencies
- Results in greatly reduced potential for exposure over long term

“Our communities will be safer in the long run with no lead pipes in the ground”

– David LaFrance - American Water Works Association, March 11, 2016

Issues & Challenges

- **Partial replacement can cause lead spike**
- Partial LSLRs discouraged or prohibited
 - In short term, avoid construction activity impacting LSLs – not sustainable long-term



- Access / liability for conducting work on customer private property
- Cost: Nationwide estimate is \$30 billion
- Cost recovery
 - Customer-owned LSLR is part of infrastructure project (i.e., similar to road, sidewalk, landscaping restoration)

A Proactive Response is Essential for Our Customers

- A variety of stakeholders urge full LSL removal
- Removal of LSLs is an expensive but finite problem
 - Consider as part of infrastructure renewal program
- Collaboration and customer education are necessary components
- Constructive regulation to enable capital investment can help to mitigate lead exposure

