A Coordinated Approach to Reduce Potential Lead Exposure

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Illinois American Water Overview

- 128 communities, more than 300,000 customer accounts (about 1.2 million people)
- System Delivery: 109 million gallons per day (on average)
- Over 4,300 miles of water main; 400 miles of sewer main; 29,000 fire hydrants; 75,000 valves
- 20 water plants, nine wastewater plants

American Water Overview

- Heritage dates back to 1886
- Largest U.S. water and wastewater services provider
- 15 Million people served
- 1,600 Communities in 47 states and parts of Canada
- 3.2 Million regulated customers
- 6,700 Employees

Current Regulations

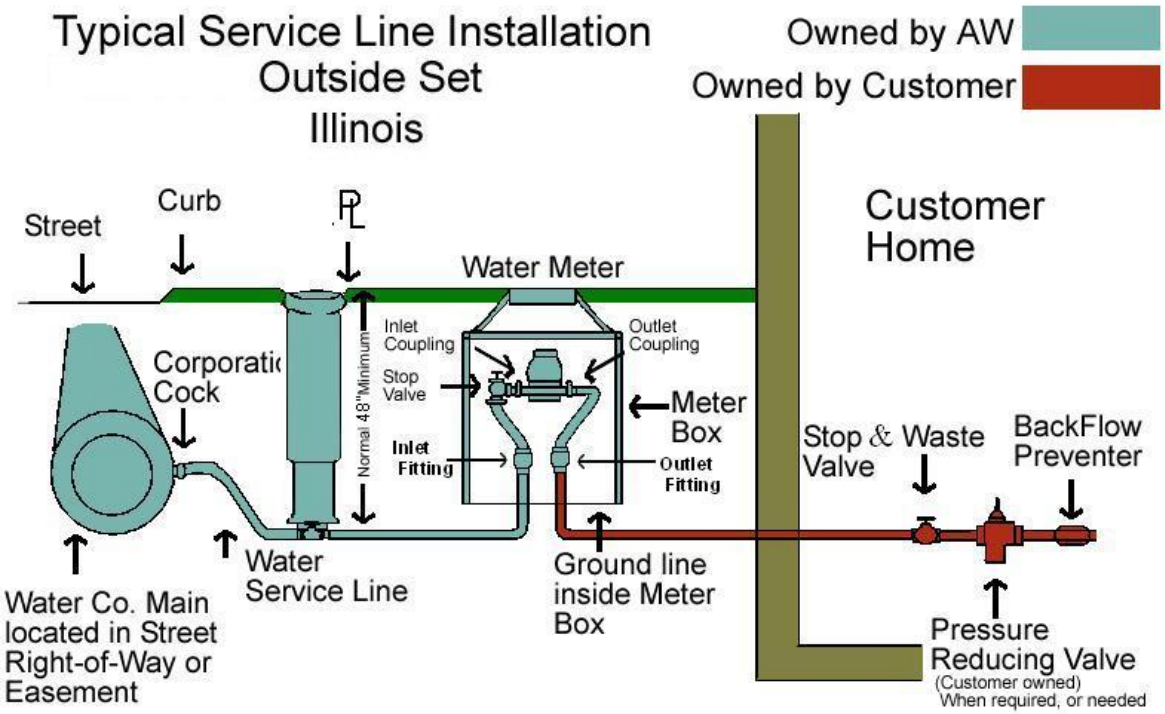
- **Safe Drinking Water ACT (1986)**
  - 40 CFR Part 141 Subpart I
  - Lead and Copper Rule (1991)
  - Reduction of Lead in Drinking Water Act (2011)

- **Illinois Regulations**
  - Illinois Administrative Code, Title 35, Subtitle F, Part 611, Subpart G
  - SB 550 / Public Act 99-0922

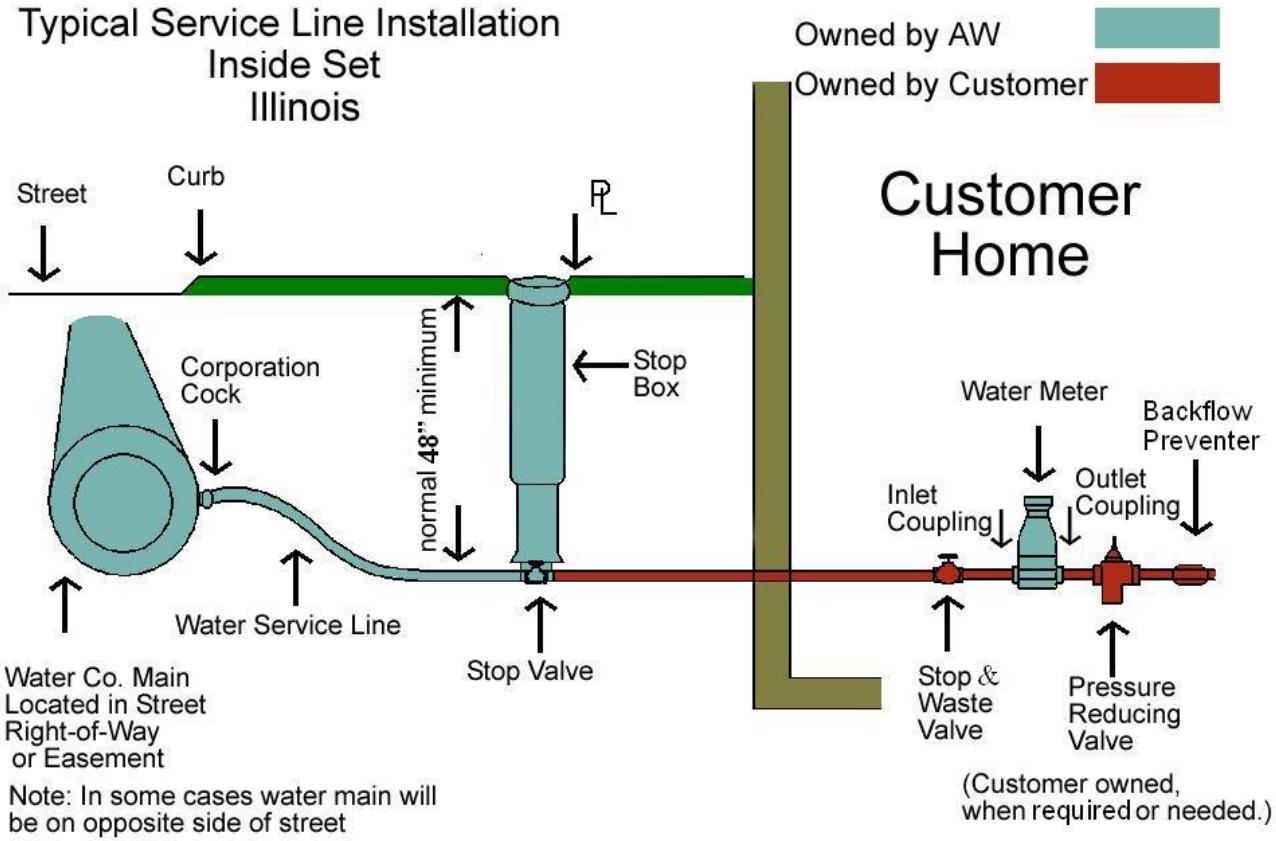
Where does the lead come from?

- Lead is not typically found in drinking water supplies
- Lead is often found in service lines or the plumbing and fixtures of older structures
- Corrosive water leaches lead from the pipes and fixtures

Typical Service Line Installation (Outside Meter Set)



Typical Service Line Installation (Inside Meter Set)



What can we do about lead?

Three parties to this problem

- Utility
- Customer
- Regulators

What can each do?

Mitigate Lead Exposure

in Drinking Water

Treatment Options - Utility

- **Steps taken at the treatment plant to safeguard against corrosive water**
  - Treatment processes
  - Chemical addition to reduce corrosivity of the water
  - Adding chemicals such as Orthophosphates coats service lines and fixtures to prevent leaching of lead

Monitoring – Utility, Customers, Regulators

- **Raw and finished water pH, Alkalinity, etc.**
- **Lead sampling in homes, schools, and businesses**

Finding Lead – Utility, Customers

- **Records research to locate lead service lines**
- **Age of development**
- **Field investigations (meter pits, pot holing)**
- **Home inspections**

Replacing Lead – Utility, Customers, Regulators

- **Service Line Replacement**
  - Utility owned service lines
  - Customer owned service lines
- **Plumbing and Fixture Replacement**

Flush - Customers

- Flushing plumbing before water use helps reduce potential exposure to lead
- Leaching of lead is most likely to occur during period of low use such as overnight
- Customers with lead plumbing should flush lines prior to using water for drinking or cooking.

Educating Customers on Lead Exposure – Utilities and Regulators

- Bill Inserts
- Mailers
- Door hangers
- IEPA construction permit requirements
- IAWC notification materials

What is the long term Solution?

At American Water, we believe the long term solution is to remove lead from the system.

- Corporate action group studying lead service line replacement
- Individual state companies actively inventorying lead service lines through records research and field inspection
- Working with regulators and legislators in various states to develop mechanisms to fund the full replacement of lead service lines – company and customer owned.

A Coordinated & Reasonable Approach is Essential

- Advance beyond the current situation
- A variety of stakeholders urge a more proactive approach
- Collaboration and customer education are necessary components
- Ratemaking treatment or other funding mechanisms must support mitigation efforts