AWWA Activities, What will happen in 2016 and 2017, Impact of Flint

Presented at
Water Research Foundation Symposium
Philadelphia, PA
March 29, 2016
At the Forefront of Public Consciousness

*Flint residents demand action, accountability*
- Maureen Groppe, USA Today, 7. March 2016

*When will we know the water in Flint is safe to drink?*

*Unpaid water bills in Flint could hinder repairs*

*Audit faults Michigan Regulators in Flint water crisis*
National Drinking Water Advisory Council

1. **Locate and replace all lead service lines completely**, sharing responsibility for that replacement with customers

2. Conduct additional monitoring and analysis of water quality parameters in order to **better manage corrosion control**

3. **Expand educational outreach** to alert customers to the risks posed by lead and steps they can take to reduce those risks

4. Shift from current compliance monitoring to **analyzing customer-samples for lead** upon request.

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*The Board of the American Water Works Association voted unanimously to support recommendations from the NDWAC that strengthen the Lead and Copper Rule and ultimately lead to the complete removal of lead service lines.*

March 8, 2016
EPA Letter to States

• Observed lead levels from compliance monitoring,
• Where lead service lines are located in the utility’s service area, and
• Protocols used by the system to comply with the LCR compliance sampling requirements.
Flint – Emphasis on Transparency

Source: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=a500e6bb17b3433c9e1bf131c2e883d1

Source: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=7983421884ac46e6b1b0ac995d9717bb
Flint – Emphasis on Transparency

Source: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=01364eb7a51f400aa2aeb1161956f70c
40 CFR 141.42 - Special monitoring for corrosivity characteristics.

(d) Community water supply systems shall identify whether the following construction materials are present in their distribution system and report to the State:

- Lead from piping, solder, caulking, interior lining of distribution mains, alloys and home plumbing.
- Copper from piping and alloys, service lines, and home plumbing.
- Galvanized piping, service lines, and home plumbing.
- Ferrous piping materials such as cast iron and steel.
- Asbestos cement pipe.
- In addition, States may require identification and reporting of other materials of construction present in distribution systems that may contribute contaminants to the drinking water, such as:
  - Vinyl lined asbestos cement pipe.
  - Coal tar lined pipes and tanks.
40 CFR 141.86 - Monitoring requirements for lead and copper in tap water.

(1) ..., each water system ... of its distribution system ..., and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. ...

(2) ... When an evaluation of the information collected pursuant to § 141.42(d) is insufficient to locate the requisite number of lead and copper sampling ..., the water system shall review the sources of information listed below in order to ... . In addition, the system shall water meters or performing maintenance activities):

(i) All plumbing codes, permits, records in files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(ii) ... that indicate the material composition of the service connections that connect a structure to the distribution system; and

(iii) ... which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

... shall complete a materials evaluation ... in order to identify a pool of target sampling sites ...

... collect such information ... in the course of ... normal operations ...

... All plumbing codes, permits, records in files of the building department(s) ... all inspections and records of the distribution systems ... all existing water quality information ...
Managing lead in drinking water is a shared responsibility between utility and customer.
Number of Lead Lines in U.S.

Replacing Lead Service Lines

Time and effort to effectively engage customers
Locating lead services
Access to private Property
Shared cost
Solutions for economically challenged households
Prioritization relative to other needs
Consideration in estimate of rate burden

Utility owns 26 ft
Customer owns 44 ft
Line runs under tree and through landscaping.

Utility owns 21 ft
Customer owns 17 ft
Line runs through wall.

Average cost for this utility
Utility side $2,500
Customer side $3,500
(Utility-wide $52.5 M and $73.5 M, respectively)

Source: Photographs courtesy of Greater Cincinnati Water Works
1. With years of experience systems have de-facto water quality parameter regimes

2. NDWAC proposal would have many more plants actively monitoring and managing water quality for corrosion control

Source: USEPA, Information provided to LT-LCR NDWAC Working Group
EPA Letter to States / Memorandum

**Letter to States**
- Confirm state protocols and procedures are consistent with LCR and EPA guidance
- Use EPA guidance for LCR sampling protocols
- Use EPA guidance for procedures for optimizing corrosion control
- Post procedures for identifying Tier 1 sample sites

**Memorandum**
- Recommends against pre-stagnation flushing
- Recommends use of wide-mouth bottles
- Revised wording of instructions for homeowners
National Infrastructure Funding Discussion

• Water infrastructure is now a top tier policy topic

• Recognition that a portfolio of funding tools is needed
  • State Revolving Loan Funds
  • Water Infrastructure Finance and Innovation Act
  • Municipal bonds and private capital

• Challenges include:
  • Funding communities in fiscal distress
  • Supporting improvements to private property

Drinking Water
$1 Trillion

- CSO $48 billion
- Stormwater $19 billion

Recycled water $6 billion

Wastewater collection and treatment $198 billion

LSL Replacement $30 billion

+ $30 billion

$1 Trillion

Recycled $6 billion

Wastewater $198 billion
Thank you for the opportunity to make this presentation. Questions?

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Lead RESOURCE COMMUNITY

Welcome to the Lead Resource Community
AWWA members have worked to protect consumers against lead in drinking water for many years, creating scores of helpful communications, technical and public policy resources. In light of the ongoing situation in Flint, Michigan, these many resources are now available from this single hub. Here you will find insights on corrosion control and other lead management issues, the latest legislative and regulatory developments, and public outreach tools to help you speak with consumers and other key stakeholders.

You can track development of lead issue and available resources on AWWA’s Lead Resource Page.