

# **Lead & Copper Rule**

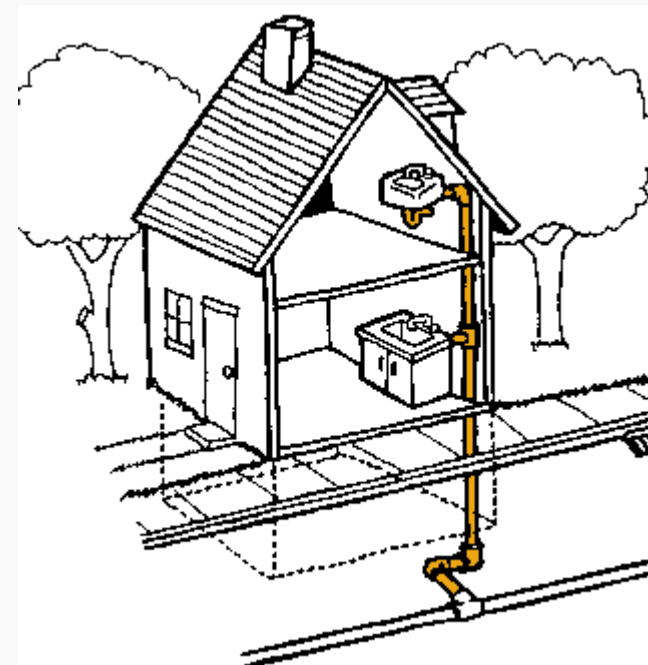
## **Wyoming Association of Rural Water Systems**

US EPA R8 Drinking Water Program  
Chelsea Ransom  
August 2021



## Agenda

- Lead and Copper Rule (LCR) Overview
- Monitoring & Reporting
- Tap Sampling Protocol & Sampling Plan





## Disclaimer

*The views expressed in this presentation are those of the author(s) and do not necessarily reflect the views or policies of the U.S. Environmental Protection Agency*



## Lead and Copper Rule Overview

- The Lead and Copper Rule (LCR) was originally published in 1991
- The Revised LCR is under Development
- Applies to Community (CWS) & Non-transient Non-community (NTNC) Public Water Systems (PWS)
- Transient Water Systems are Not Required to Comply with LCR



## Monitoring & Reporting

- Based on the sum of Residential and Non-Transient population
- Standard (6-month) – New Systems, Systems that Exceed the AL, Systems that FTM 2x, treatment or source changes
- Reduced Monitoring – Annual or Triennial

| System Population | Minimum Number of Tap Sample Sites |                    |
|-------------------|------------------------------------|--------------------|
|                   | Standard Monitoring                | Reduced Monitoring |
| 10,001 to 100,000 | 60                                 | 30                 |
| 3,301 to 10,000   | 40                                 | 20                 |
| 501 to 3,300      | 20                                 | 10                 |
| 101 to 500        | 10                                 | 5                  |
| Less than 101     | 5                                  | 5                  |



# Monitoring & Reporting

## Standard (6-month) Monitoring Periods

- Sample between Jan 1 and June 30; July 1 and Dec 31
- Two rounds of consecutive standard monitoring with results below the Action Levels *may* qualify your System for reduced monitoring
  - Must sample in accordance with Tiering Criteria
  - Must submit Lead Consumer Notice and Certification
  - May not have outstanding LCR violations
  - EPA discretion

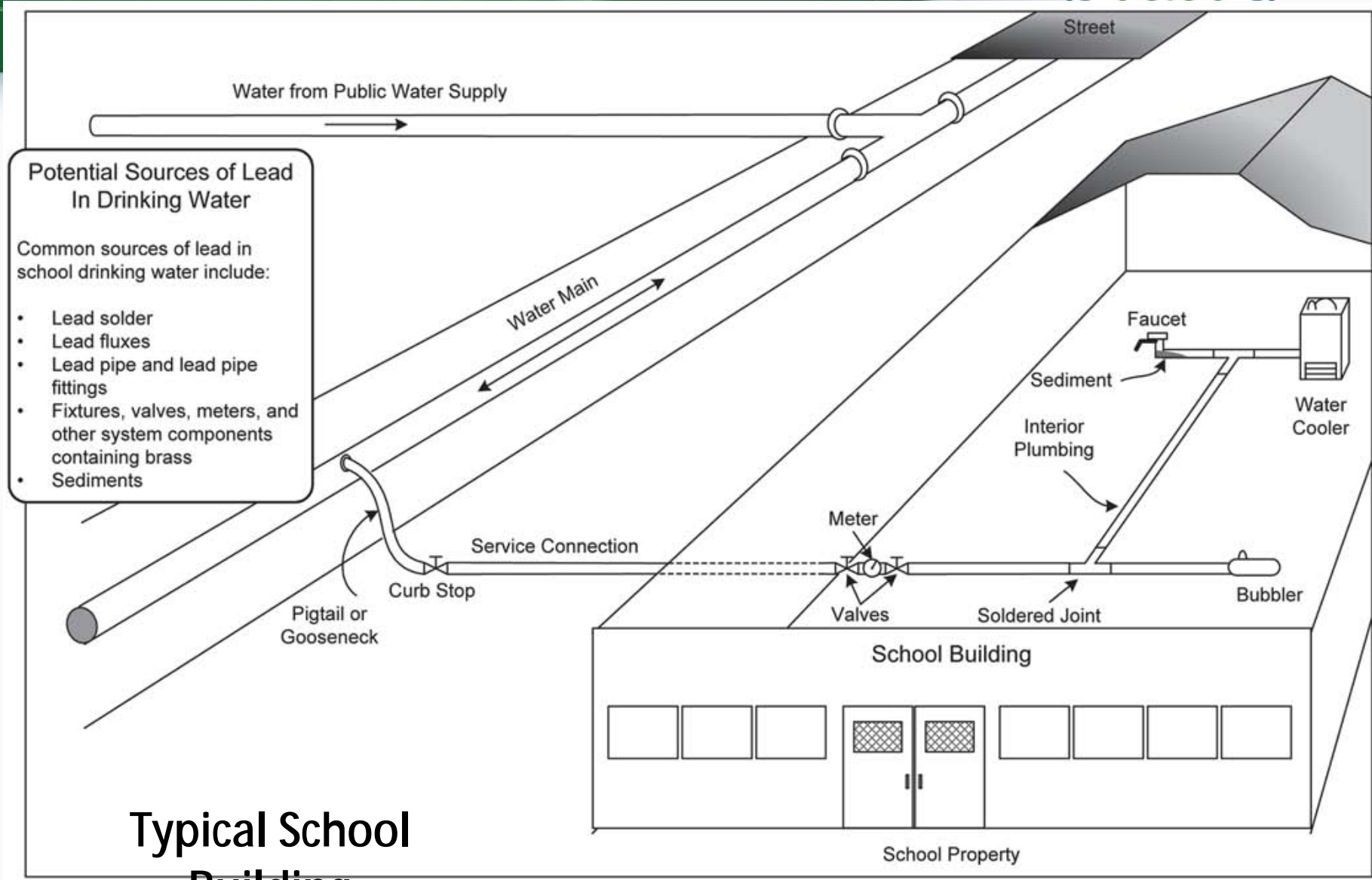
## Reduced Monitoring – Annual or Triennial Monitoring Periods

- Sample between June 1 and September 30

## Where to Collect Samples

- Cold-Water Taps that are Regularly Used for Consumption
- Single Family Homes –
  - Kitchen or Bathroom Faucet
- Buildings –
  - Break Room
  - Cafeteria/Kitchen





**Potential Sources of Lead In Drinking Water**

Common sources of lead in school drinking water include:

- Lead solder
- Lead fluxes
- Lead pipe and lead pipe fittings
- Fixtures, valves, meters, and other system components containing brass
- Sediments

**Typical School Building**






## LCR Tap Sample Site Plan (TSSP)

- Materials Evaluations 141.86 Required in 1991
- EPA requires that systems certify that lead and copper sample sites comply with the LCR tiering criteria
- Region 8 prefers to use the Tap Sample Site Plan form

### Lead & Copper Rule (LCR)

| Form                                                                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><a href="#">Lead and Copper Tap Sample Site Plan</a> - This template may be used by public water systems in Wyoming and on EPA R8 Tribal Lands to identify, verify, and certify lead and copper tap sample sites to comply with the Lead and Copper Rule. This template is also available in <a href="#">MS Word format</a>. These <a href="#">Lead and Copper Tap Sample Site Plan Instructions</a> may be used as a guide for how to properly complete lead and copper tap sample site plans.</p> |

# LEAD AND COPPER RULE

## Lead and Copper Tap Sample Site Plan

### Region 8 – Wyoming and R8 Tribal

THE NUMBER OF LEAD/COPPER SAMPLE SITES REQUIRED IS BASED ON THE POPULATION OF THE PWS AS SUMMARIZED BELOW:

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|                       |                                                                         |
|-----------------------|-------------------------------------------------------------------------|
| PWS ID: _____         | SYSTEM TYPE: <input type="checkbox"/> CWS <input type="checkbox"/> NTNC |
| SYSTEM NAME: _____    | POPULATION: <input type="checkbox"/> >100,000                           |
| ADDRESS: _____        | <input type="checkbox"/> 10,001 to 100,000                              |
| CONTACT PERSON: _____ | <input type="checkbox"/> 3,301 to 10,000                                |
| PHONE NUMBER: _____   | <input type="checkbox"/> 501 to 3,300                                   |
| EMAIL ADDRESS: _____  | <input type="checkbox"/> 101 to 500                                     |
|                       | <input type="checkbox"/> ≤ 100                                          |

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#### Minimum Number of Tap Sample Sites Required for the Lead and Copper Rule

| System Population | Minimum Number of Tap Sample Sites |                    |
|-------------------|------------------------------------|--------------------|
|                   | Standard Monitoring                | Reduced Monitoring |
| 10,001 to 100,000 | 60                                 | 30                 |
| 3,301 to 10,000   | 40                                 | 20                 |
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#### LEAD AND COPPER SAMPLE SITE SELECTION FORM

PWS NUMBER: \_\_\_\_\_

Make sure you include all regular and backup sites and add as many pages as you need.

| No | Site Name & Address | Tier 1, 2, 3, Other | (R)egular sample site or (B)ack-up site | Plumbing Material | Date of Construction/Notes |
|----|---------------------|---------------------|-----------------------------------------|-------------------|----------------------------|
| 1  |                     |                     |                                         |                   |                            |
| 2  |                     |                     |                                         |                   |                            |
| 3  |                     |                     |                                         |                   |                            |
| 4  |                     |                     |                                         |                   |                            |



## LCR Tap Sample Site Plan (TSSP) - CWS

Water systems must identify the highest priority (Tier) sites to sample. Community public water systems must sample at all Tier 1 sites if they have enough Tier 1 sites to choose from

- Tier #1 sites – Single Family Structures<sup>(1)</sup> that:
  - Contains or is serviced by copper pipes with lead solder installed between 1983 and 1988 or
  - Contains or is serviced by lead pipes (including goosenecks or pigtails) and/or served by a lead service line (LSL)<sup>(2)</sup>.

(1) If multiple family residences comprise at least 20% of the structures served by a system they can be counted as Tier 1.

(2) If the PWS has LSLs, then it must collect 50% of the samples from the LSL. If there are not enough LSLs for 50%, the PWS must sample at all sites with LSLs.



## What if the **CWS** does not have Tier 1 Sites?

If the CWS does not have enough Tier 1 sites to choose from, then it must collect LC samples from Tier 2 sites.

- Tier #2 sites: Buildings (i.e. apartment buildings, schools, hospitals) that:
  - Contains or is serviced by copper pipes with lead solder installed between 1983 and 1988 or
  - Contains or is serviced by lead pipes (including goosenecks or pigtails) and/or served by a lead service line (LSL).



## What if the **CWS** does not have Tier 1 + Tier 2 Sites?

If the CWS does not have enough Tier 1 + Tier 2 sites to choose from, then it must collect LC samples from Tier 3 sites.

– Tier #3 sites: Single Family Structures that:

- Contains copper pipes having lead solder installed *before* 1983.
- **Only when all Tier 1, Tier 2, and Tier 3 sites have been exhausted can Tier “Other” sites be counted for compliance.**
- **If a system has Tier 1, 2, or 3 sites but cannot collect samples from the highest Tier locations, they *must* notify EPA as to why they could not sample there.**
- **Failure to follow the Tiering Criteria will result in EPA invalidating the samples and potentially issuing a failure to monitor violation!**



## LCR Tap Sample Site Plan (TSSP) - NTNC

Water systems must identify the highest priority (Tier) sites to sample. Non-Transient Non-Community public water systems must sample at all Tier 1 sites if they have enough Tier 1 sites to choose from

- Tier #1 sites: Buildings (i.e. apartment buildings, schools, hospitals) that:
  - Contains or is serviced by copper pipes with lead solder installed between 1983 and 1988 or
  - Contains or is serviced by lead pipes (including goosenecks or pigtails) and/or served by a lead service line (LSL).



## What if the **NTNC WS** does not have Tier 1 Sites?

If the NTNC WS does not have enough Tier 1 sites to choose from, then it must collect LC samples from Tier 2 sites.

– Tier #2 sites: Buildings that:

- Contains copper pipes having lead solder installed *before* 1983.

- **Only when all Tier 1 and Tier 2 sites have been exhausted can Tier “Other” sites be counted for compliance.**
- **If a system has Tier 1 or 2 sites but cannot collect samples from the highest Tier locations, they *must* notify EPA as to why they could not sample there.**
- **Failure to follow the Tiering Criteria will result in EPA invalidating the samples and potentially issuing a failure to monitor violation!**



| If you are a CWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | If you are a NTNCWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Tier 1</b> sampling sites are single family structures:</p> <ul style="list-style-type: none"> <li>• With copper pipes with lead solder installed between 1983 and 1988*; or</li> <li>• contain lead pipes; or</li> <li>• are served by a lead service line.</li> </ul> <p><b>Tier 2</b> sampling sites consist of buildings (i.e. apartment buildings, schools, hospitals):</p> <ul style="list-style-type: none"> <li>• with copper pipes with lead solder installed between 1983 and 1988, or</li> <li>• contain lead pipes; and/or</li> <li>• served by a lead service line.</li> </ul> <p><b>Tier 3</b> sampling sites are single family structures with copper pipes having lead solder installed before 1983.</p> <p>Tier <b>"Other"</b>:</p> <ul style="list-style-type: none"> <li>• All other structures.</li> </ul> | <p><b>Tier 1</b> sampling sites consist of buildings:</p> <ul style="list-style-type: none"> <li>• with copper pipes with lead solder installed between 1983 and 1988*; or</li> <li>• contain lead pipes; or</li> <li>• are served by a lead service line.</li> </ul> <p><b>Tier 2</b> sampling sites consist of buildings with copper pipes with lead solder installed before 1983.</p> <p>Tier <b>"Other"</b>:</p> <ul style="list-style-type: none"> <li>• All other structures.</li> </ul> |

Email me or check online for a Cheat Sheet.



# Questions?

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