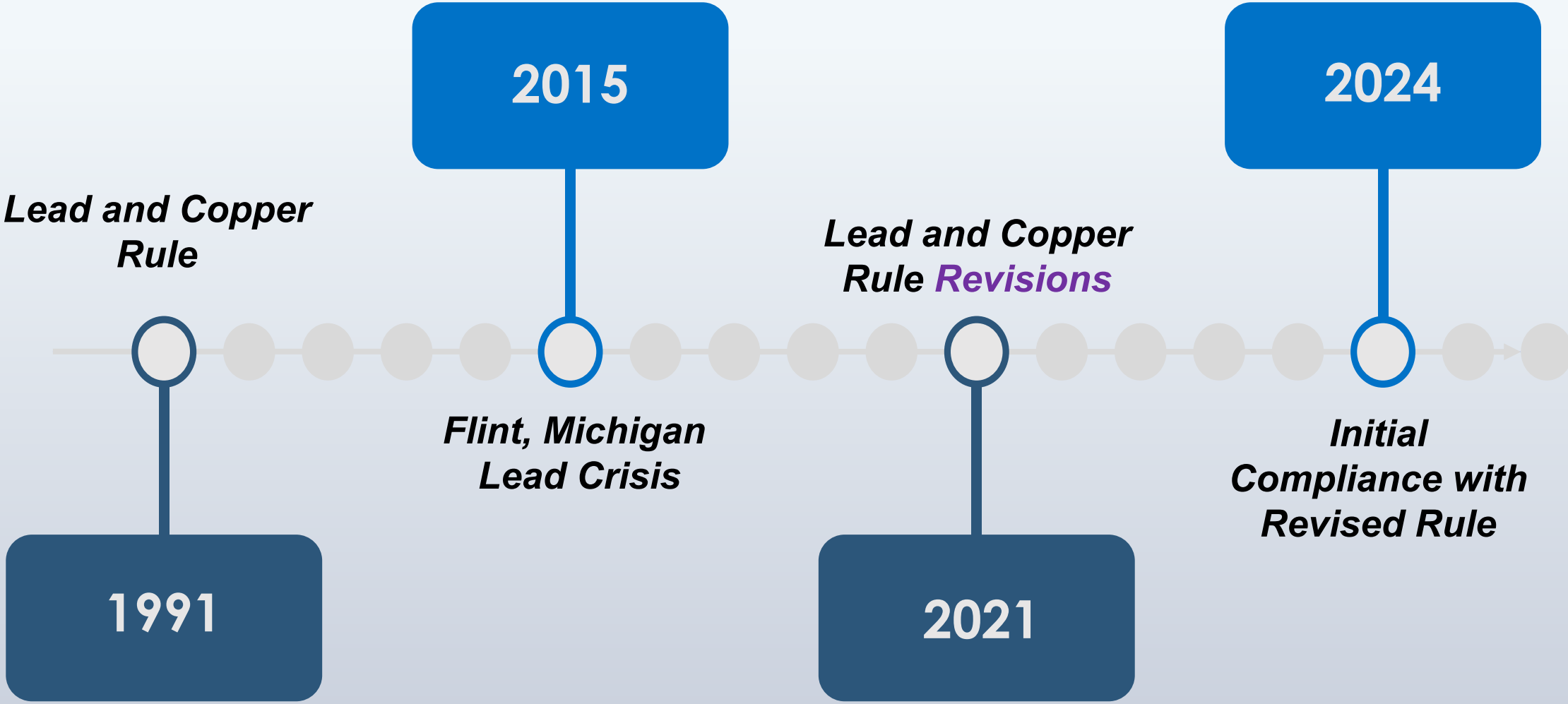
Lead & Copper Rule Revisions Update

TWCA Annual Convention
Lost Pines, TX
March 1, 2023

KIT

Lead and Copper Rule

Applies to all Public Water Systems that provide drinking water to residential , commercial and industrial customers



New Rule - Focus Areas

New rule focuses on better protection of children and communities

- Lead Trigger Level
- New Tap Sampling Protocols
- Inventory of Lead Service Lines
- Replacement of Lead Service Lines
- Water Quality Stabilization
- Public Education
- Sampling at Schools

New Rule Adds a Trigger Level for Lead

- New Rule requires more actions when 90th percentile lead levels exceed 15 ppb

Action Summaries

90th Percentile

15+ ppb

- **Tap Sampling:** Standard monitoring every 6 months
- **CCT:** Implement or re-optimize treatment
- **LSLR:** Full replacement at 3% per year

Action Level = 15 ppb

>10-15 ppb

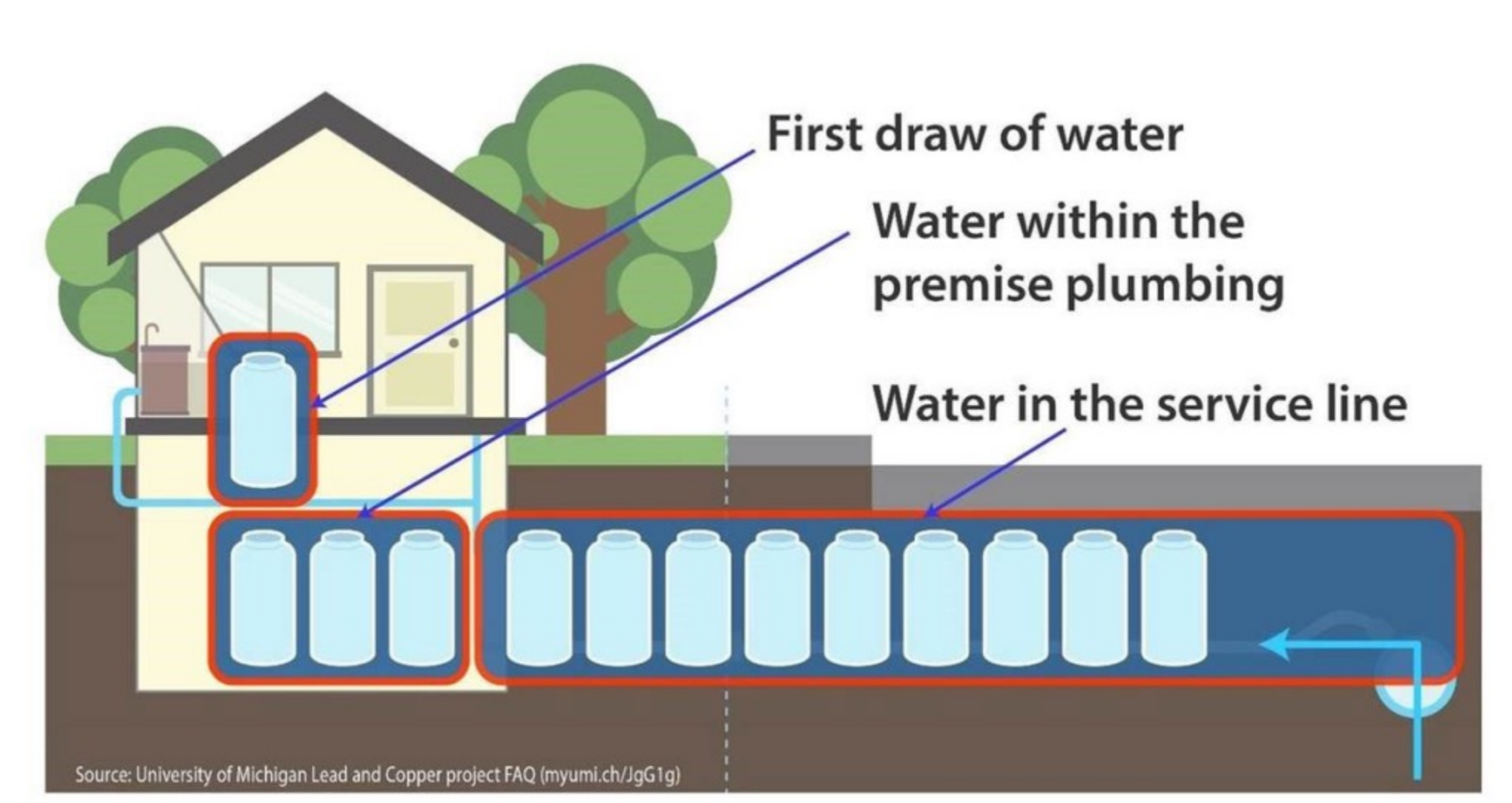
- **Tap Sampling:** Standard monitoring every year
- **CCT:** Conduct new CCT study or re-optimize treatment
- **LSLR:** Full replacement at defined goal rate

Trigger Level = 10 ppb

0-10 ppb

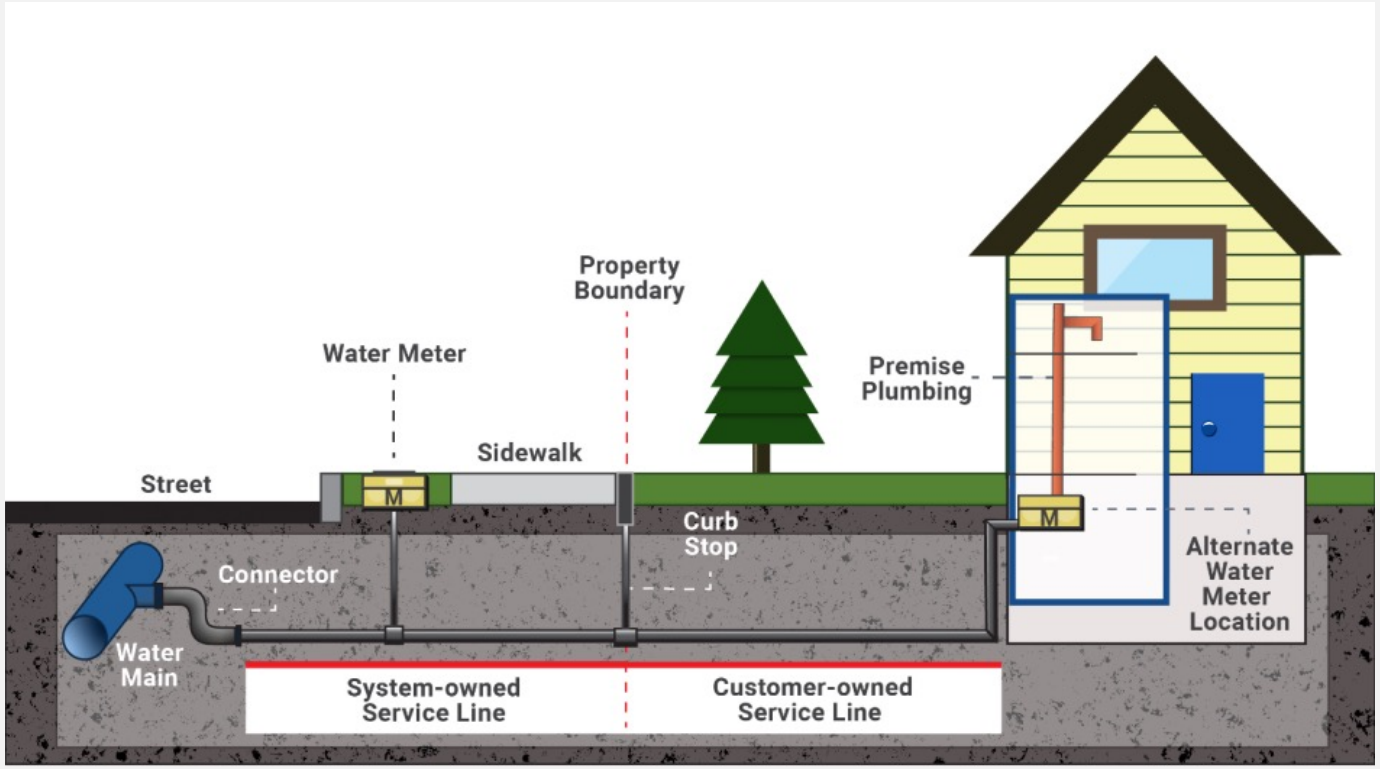
- **Tap Sampling:** Reduced monitoring every 3 years
- **CCT:** Maintain treatment and WQPs
- **LSLR:** Voluntary

5th Liter Sampling Represents Water Quality in Lead Service Line



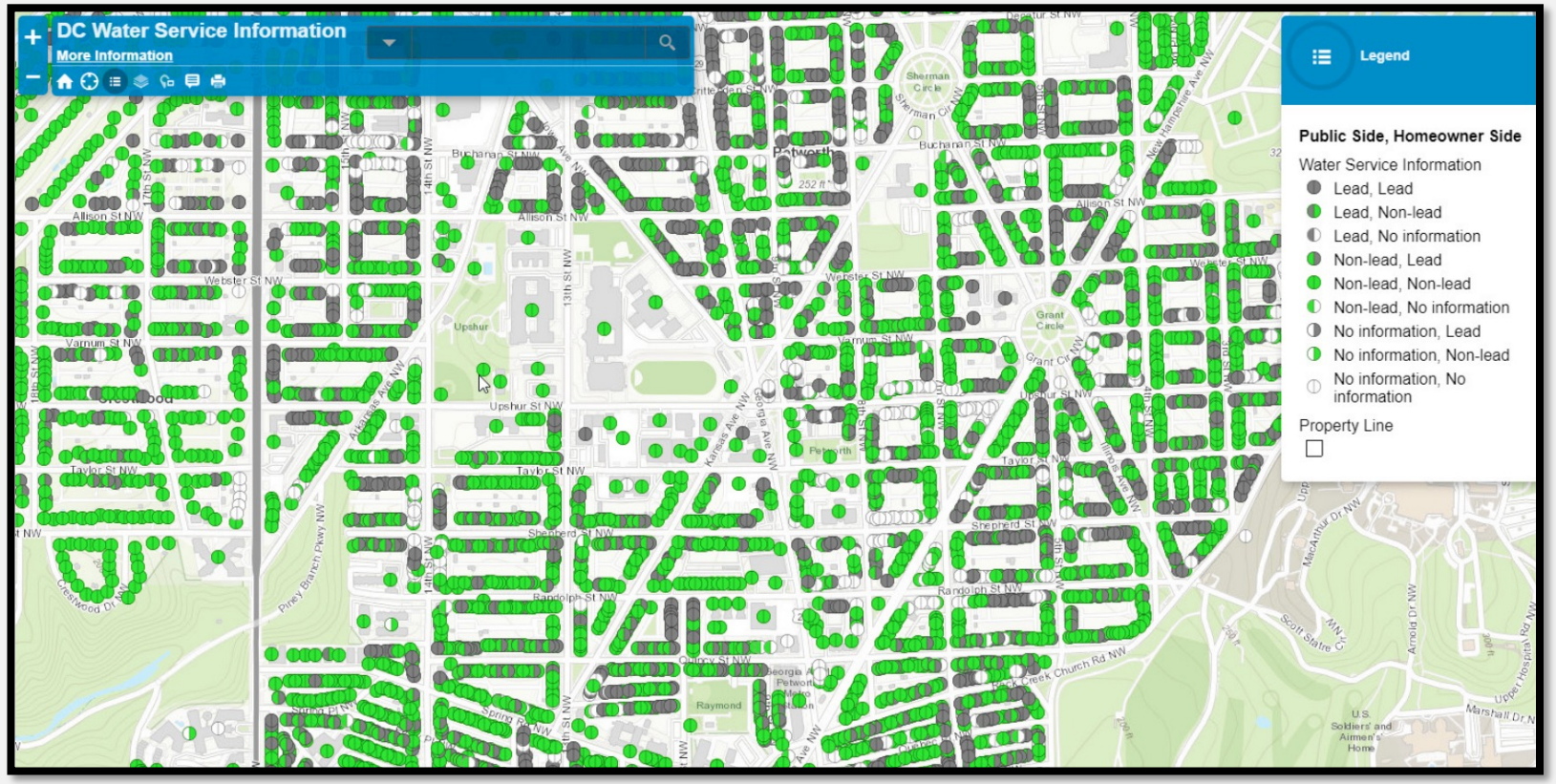
Inventory of Lead Service Lines

- New rule requires initial inventories to be completed by October 2024
- Must categorize Service Lines:
  - Lead
  - Galvanized Requiring Replacement
  - Lead Status Unknown
  - Non-Lead
- Cover both public and private segments
- Information must be made available to public (on website or other)



Spatial Analysis Allows to Identify "Hotspot" Areas

- Lead Service Lines (LSLs) were installed from late 1800s to 1980s
- Lead was banned in late 1980s
- Most LSLs are 2 inches or smaller diameter
- GIS-based tools can help identify "hotspot" areas
- Field investigations needed to confirm desktop results



Lead Service Lines – Field Investigations

- Lead is a soft metal with dull, silver-gray color
- A magnet will not stick to lead pipe; magnet will stick to galvanized pipe
- Lead pipe is easily scratched with a coin or key; galvanized pipe is difficult to scratch

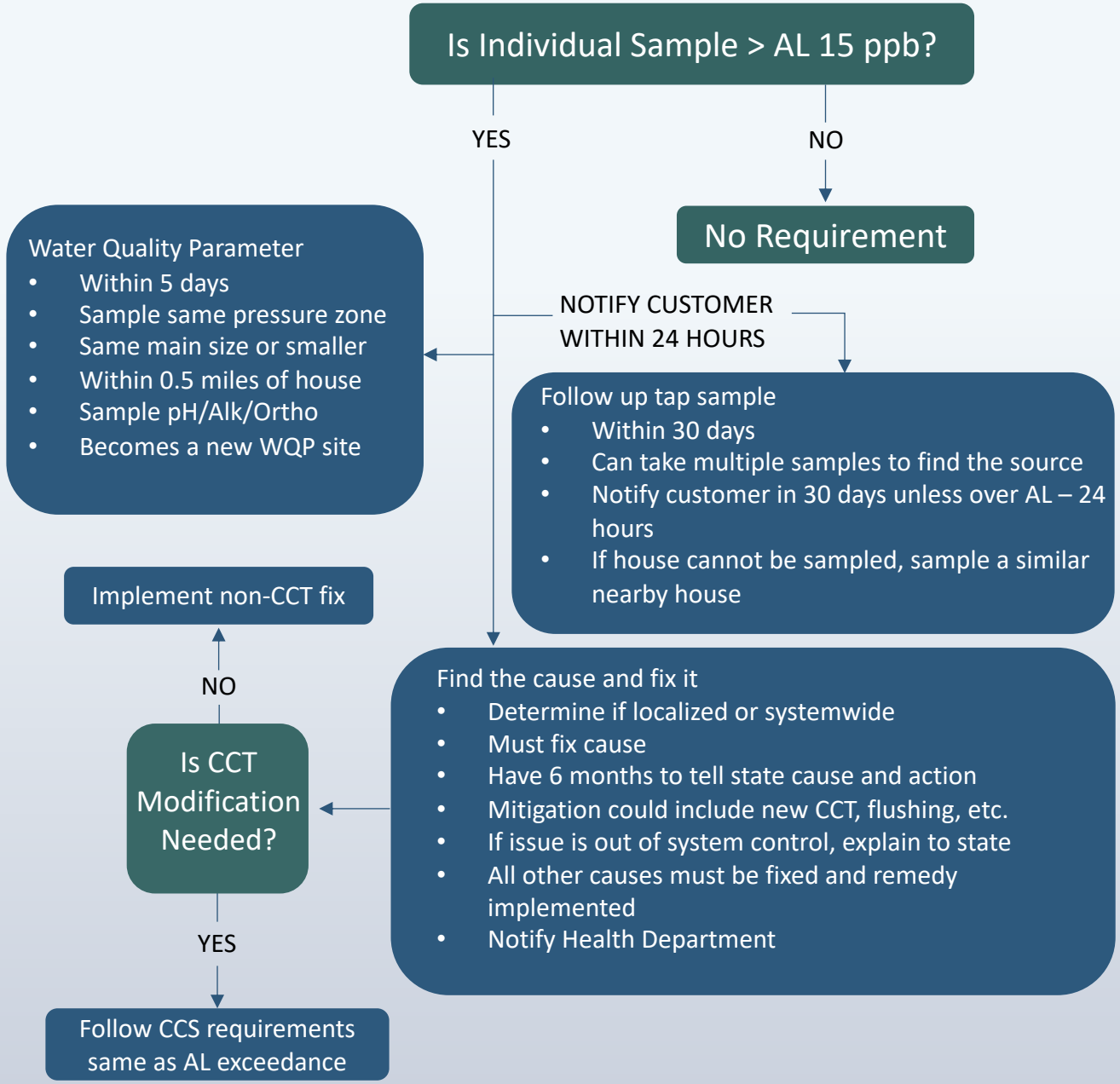
Service Line Inventory Template (TCEQ 20943)

- Fillable forms to document methods, initial inventory and updates: https://www.tceq.texas.gov/drinkingwater/chemicals/lcrr

Location Information								System-Owned Portion				Customer-Owned Portion			
	Location Identifier*														
Unique Service Line ID	Street Number*	Street Name*	City*	Zip Code*	Other Location Identifier‡	GPS Coordinate - Latitude (decimal degrees)	GPS Coordinate - Longitude (decimal degrees)	System-Owned Portion Service Line Material Classification*	If Non-Lead in Column H, Was Material Ever Previously Lead?‡	Service Line Installation Date‡	Notes	Customer-Owned Portion Service Line Material Classification*	Service Line Installation Date‡	Notes	Entire Service Line Material Classification*
A Unique ID is recommended for each service line.	*Water systems must track addresses of all service lines in their internal inventory. For the publicly accessible version, location identifiers are required for lead and galvanized requiring replacement. If the system does not use addresses for their location identifier, other options could include a landmark, intersection, block, or other details to specify service line locations. If using GPS coordinates, utilize the GPS Coordinate – Latitude/Longitude fields and include 5 decimal places.*							*Dropdown list includes recommended subclassifications. If "Non-Lead Other", describe in Notes field*	*Select Yes, No, or Don't know. Important for determining if downstream/customer-owned galvanized service line requires*	*Dropdown list when the service line was installed or replaced*	*Use this field for documenting additional relevant information, including when classification changes.*	*Dropdown list includes recommended subclassifications. If non-lead other, describe in Notes field.*	*Date, year, or estimated date range when the service line was installed or replaced*	*Can use this field for documenting additional relevant information, including when classification changes.*	*Dropdown list includes four required service line classifications of Lead, Non-lead, Galvanized Requiring Replacement, or Unknown*
Example 1	*1234*	*Test St.*	*City*	*Zip Code*	*Intersection of Test and Elm St.*	*30.2711286*	*-97.7436995*	*Lead*	*Yes*	*Before 1989*		*Lead*			Lead
Example 2	*4321*	*Test St.*	*City*	*Zip Code*	*Intersection of Test and Main St.*			*Non-Lead*	*Yes*	*Between 1989 and 2014*		*Lead*			Lead
Example 3	*16*	*Capital St.*	*City*	*Zip Code*				*Lead*	*No*	*Before 1989*		*Non-Lead - Plastic*			Lead
Example 4	*1*	*Water Avenue*	*City*	*Zip Code*				*Unknown - Likely Lead*	*No*	*Between 1989 and 2014*		*Galvanized*			Galvanized Requiring Replacement
Example 5	*67*	*Children's Place*	*City*	*Zip Code*				*Non-Lead*		*Before 1989*		*Non-Lead - Copper*	*Before 1989*		Non-Lead
Example 6	*30*	*Price Street*	*City*	*Zip Code*				*Non-Lead - Copper*		*Between 1989 and 2014*		*Non-Lead*			Non-Lead
Example 7	*123*	*System Ave.*	*City*	*Zip Code*	*Building A*			*Non-Lead - Copper*	*Don't Know*	*Before 1989*		*Non-Lead*	*After 2014*		Non-Lead
Example 8	*123*	*System Ave.*	*City*	*Zip Code*	*Building B*			*Galvanized*	*Don't know*	*Before 1989*		*Galvanized*			Galvanized Requiring Replacement
Example 9	*321*	*Main St.*	*City*	*Zip Code*	*City Hall*			*Lead*	*Yes*	*Before 1989*		*Non-Lead - Copper*	*Before 1989*		Lead

"Find-and-Fix" Initiative

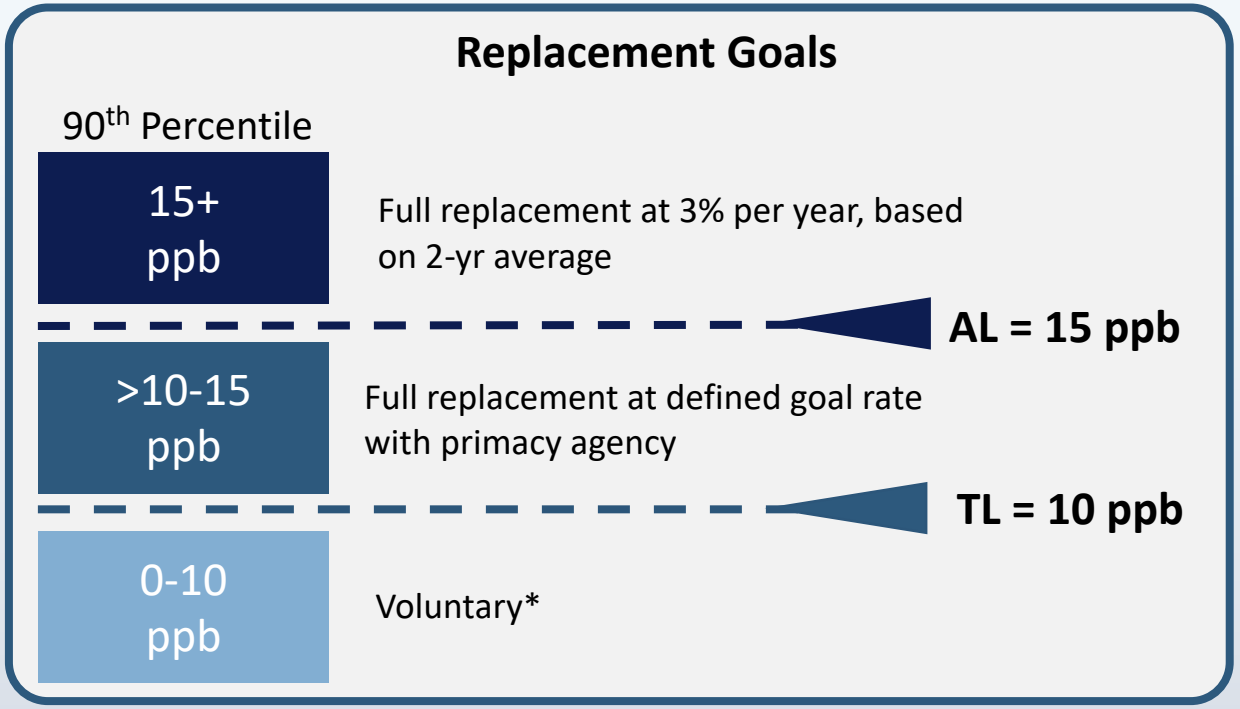
- If individual lead samples exceed 15 ppb, systems will have to identify the cause and mitigate the problem
- Examples of corrective actions:
  - Flushing
  - Remove lead source
  - Water quality stabilization
  - Interim solutions



Lead Service Lines - Replacement Plan

- Lead 90th percentile levels will determine the rate at which lead service lines are replaced
- Collaboration w/ home owners is needed for lead service lines replacement
- Systems must provide pitcher filters to customers to mitigate potential lead exposure until lead service line is replaced

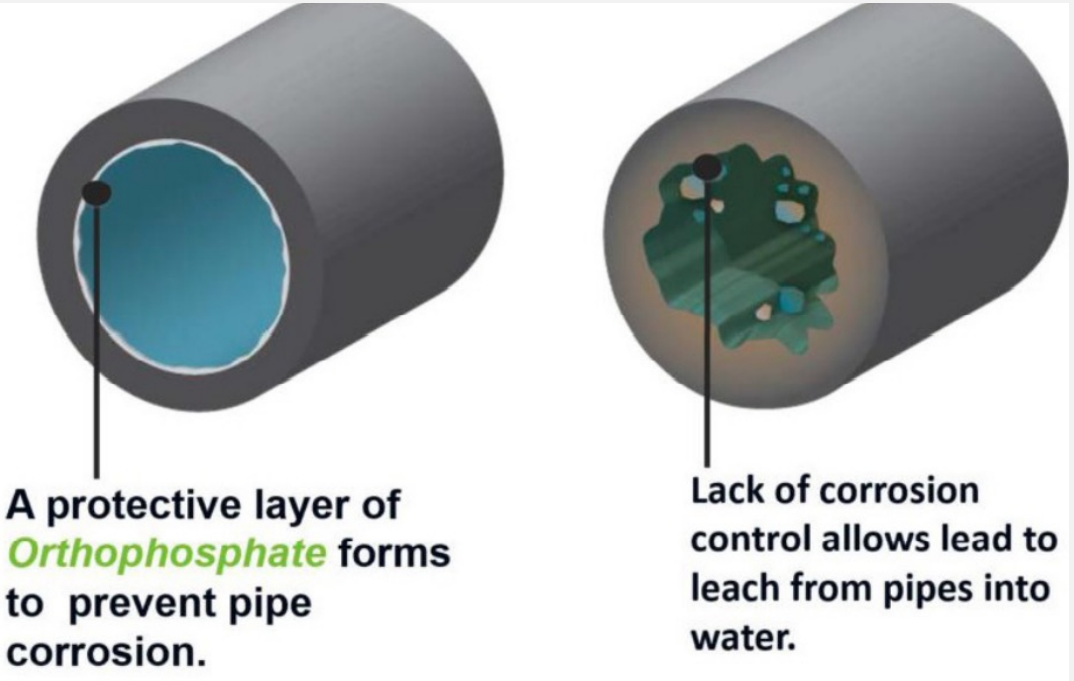
Starts after Oct 16, 2024!

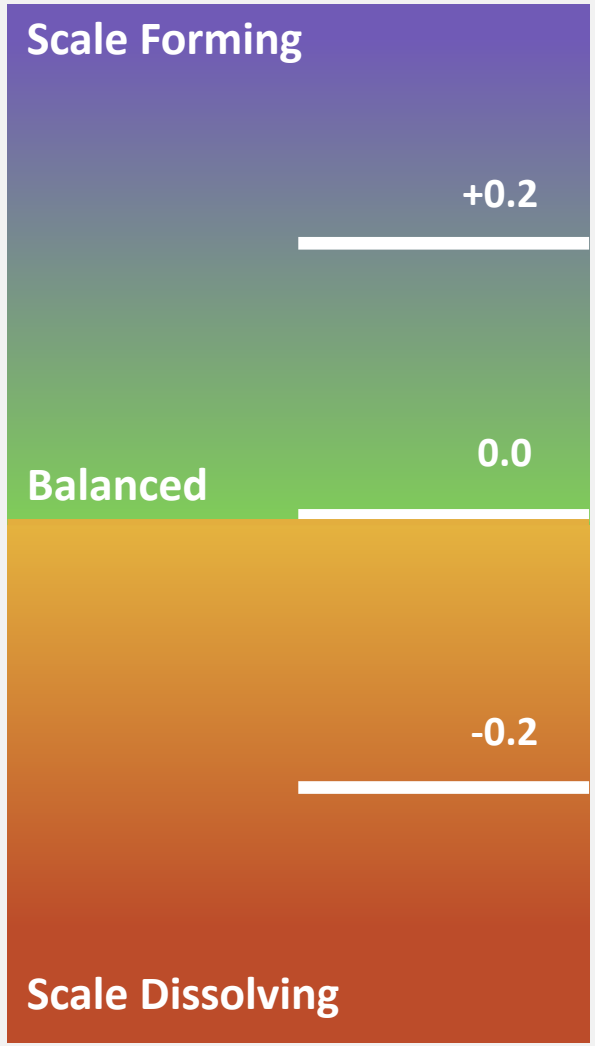


*Must replace/resolve individual “find and fix” sites where samples > 15 ppb

Stabilize Water Quality

- Approves two proven methods to minimize lead release from pipes/fixtures:
  - Orthophosphate Addition
  - pH/ Alkalinity Adjustment





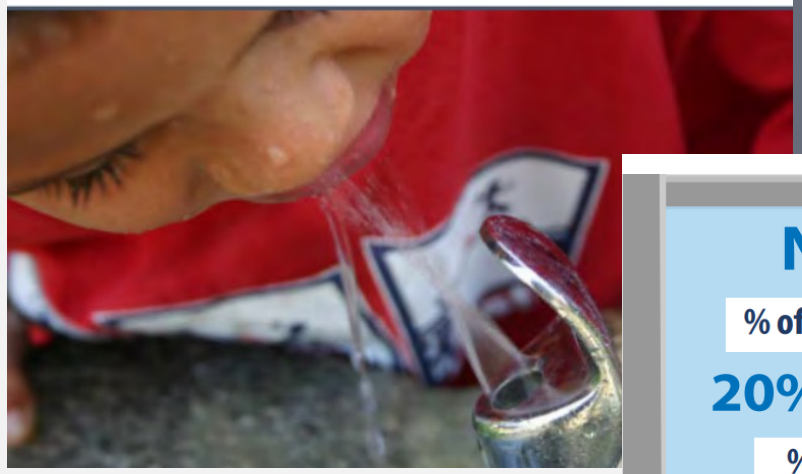
Public Education

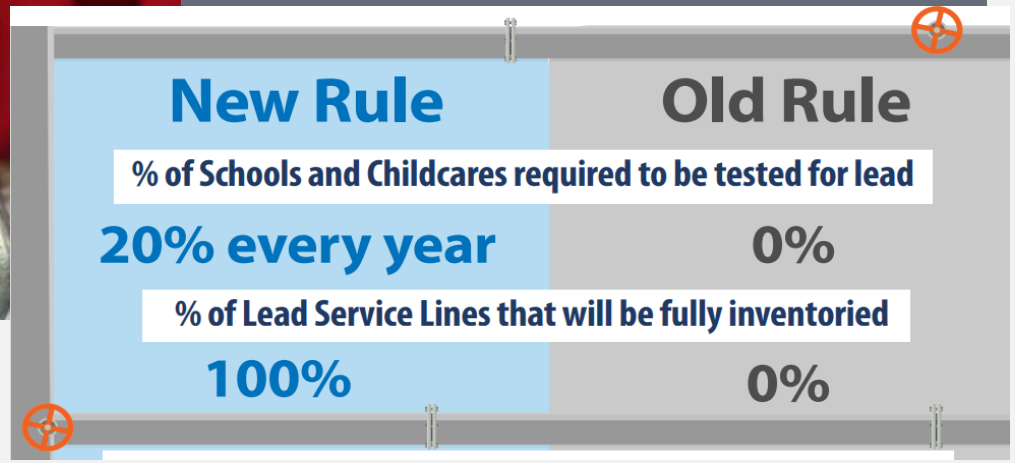
- Systems must notify individual customers with lead concentrations of greater than 15 ppb
- Systems must educate customers through outreach programs

3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities

A Training, Testing, and Taking Action Approach

Revised Manual





Sampling at Schools

Sampling starts after Oct 16, 2024!

Daycare Facilities

- 20% must be sampled annually
- All must be sampled at least once within 5 years
- 2 samples from each facility

Elementary Schools

- 20% must be sampled annually
- Must be done in the first 5 years
- 5 samples from each facility
- Both public and private

Secondary Schools

- Only sampled upon request

Overview of New Rule Requirements

Systems Must:

By Compliance Date Oct. 16, 2024

- Create/Maintain LSL Inventory
- Create LSL Replacement Plan
- Review & Update LCR Sampling Plan
- Identify Schools & Child Care Facilities Point-of-Contacts
- Review and Update Customer Communications (CCRs)

Starting after Compliance Date Oct. 16, 2024

- Update LSL Inventory Annually or Triennially
- Start LSL Replacements
- Lead and Copper Sampling & Monitoring
- Annual Sampling at Childcare Facilities & Elementary Schools
- Customer Communications and Outreach

Funding Opportunities

State

- State Water Development Board Loans
- Community Development Block Grant

Federal

- Water Infrastructure Improvements for the Nation (WIIN) Act
- Water Infrastructure Finance and Innovation Act (WIFIA) Program
- Bipartisan Infrastructure Law

Bipartisan Infrastructure Law

- $222M in Drinking Water State Revolving Fund (DWSRF) which will be offered through a separate solicitation
- TWDB is currently drafting a LSL Replacement Intended Use Plan (IUP)

Questions?

THANK YOU

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