

A close-up photograph of a lead-acid battery cell. The cell is partially open, revealing a dark, fibrous seal on the left and a metal terminal on the right. The terminal is heavily corroded with a bright orange-brown substance. The background is a plain, light-colored surface.

Lead and Copper Rule Revisions

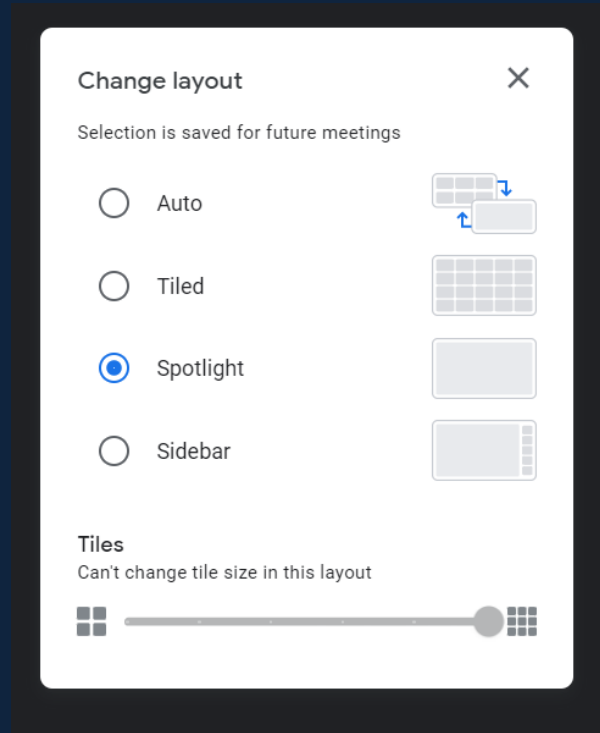
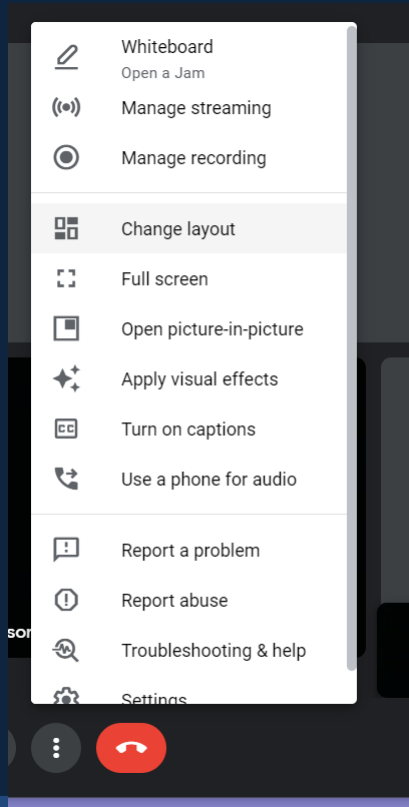
Please type your name into the chat this will help us issue TUs
V2. Updated 2024.01.05

How does the webinar work?

- Chat questions
- If you are following along on the phone



How does the webinar work?



Who are we?

- Colorado Department of Public Health and Environment
- Water Quality Control Division
- Local Assistance Unit

Jess
Morgan



Kyra
Gregory



Angela Green
Garcia



Nicholas
Griffin



Margaret
Bauer



Why are we here?

- Prepare you to comply with Lead and Copper Rule Revisions
- Leave with tools, templates, resources
- Award you TUs
- Create a plan of action to create an LSLI and LSLRP
- Identify who in your system will help with this program
- Create timeline to develop your inventory and plan by October, 2024
- Identify new updates in LCRI



Roadmap

Intro and
Culture of
Health
Framework



Lead Service
Line Inventory



Lead and Copper
Rule Improvements



Lead and Copper Rule
Revisions Overview



Break!



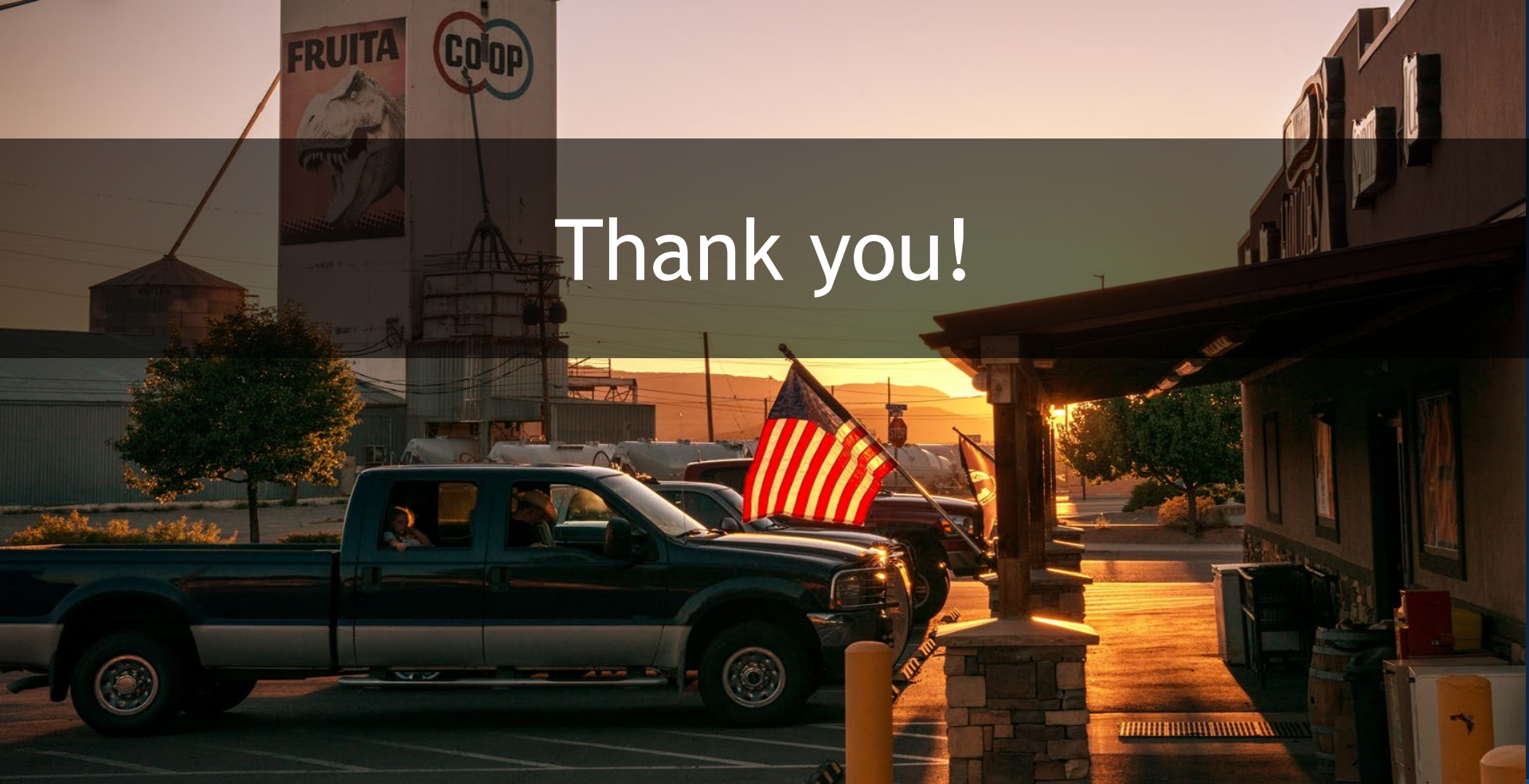
Activity and
Discussion

FRUITA



CO-OP

Thank you!



Getting to know us

Safe Drinking Water Program

Community Dev.
and Partnership

Engineering

Field
Services

Compliance
Assurance

- Community Dev and Partnership
 - LAU = all questions
 - GLU = finances
 - SWP = source water protection
- Engineering = any changes to water source, treatment, or storage
- Field services = sanitary survey prep and follow up
- Compliance assurance = regulatory questions, contact updates, and system updates
- Acute team = emergencies and upsets in treatment

Getting to know you

- Utility name/location/type
- Questions or comments you have about LCRR and LCRI



Our Common Goal?

- Protect and restore Colorado's water quality for public health, the environment, and future generations
 - Protect all Coloradans
 - Implement regulations and BMP
 - Know and work with your partners
 - Ask the tough questions
 - Focus on the goal



Protecting our most vulnerable



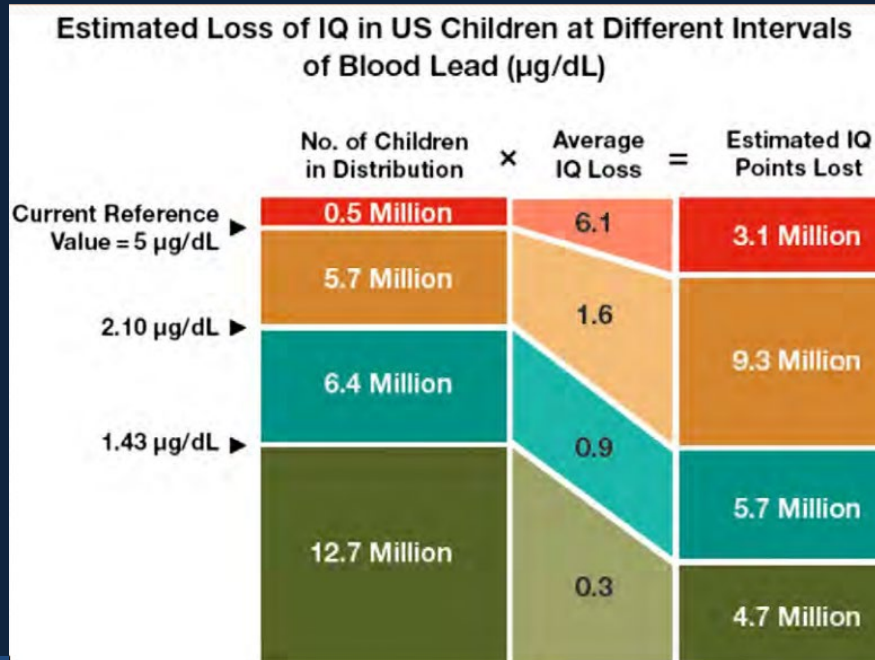
Poll time!

Due to their developing bodies, children absorb lead at _____ times the rate of adults:

- a. 0.5 - 1.0
- b. 2.0 - 3.0
- c. 4.0 - 5.0

Public Health Check - Why Pb?

 What are the effects of lead?

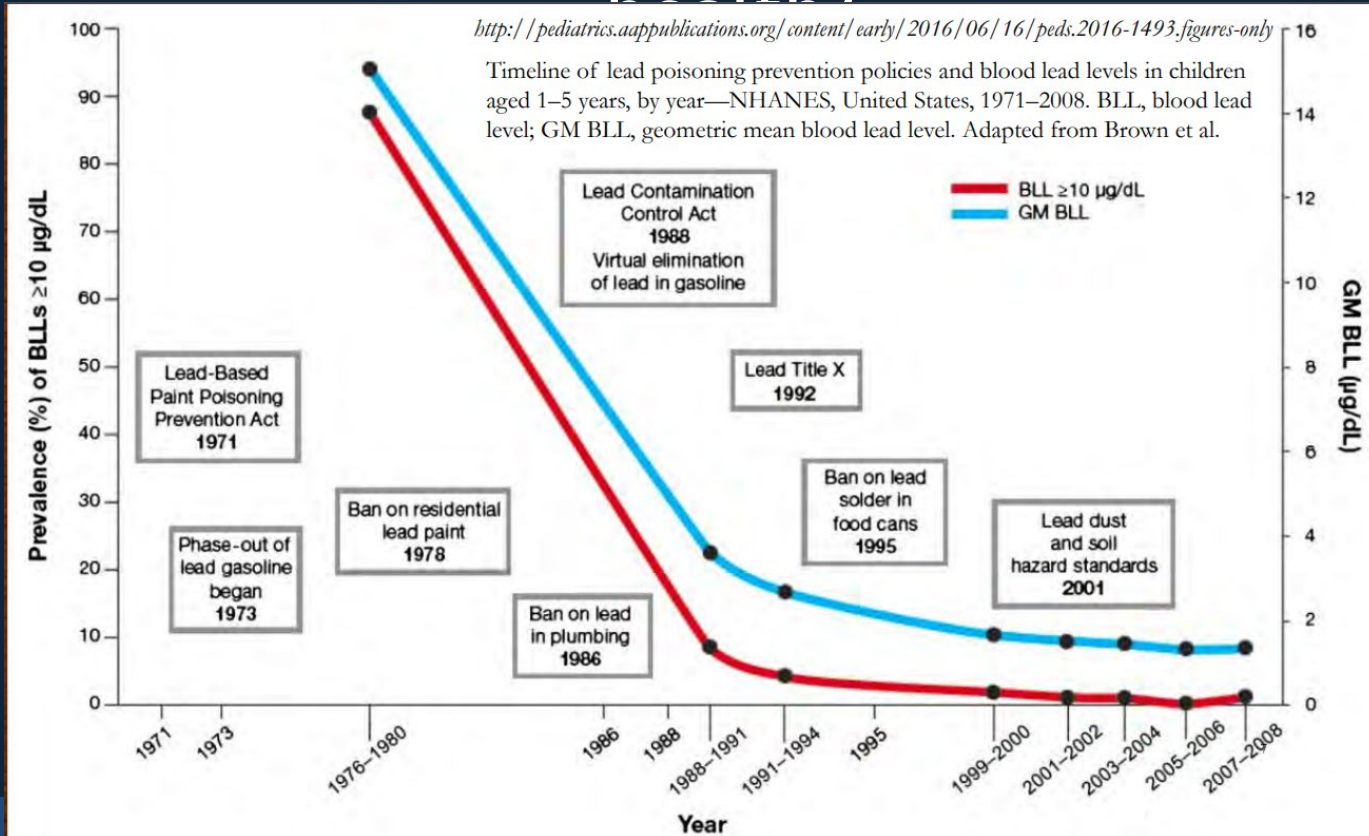


- Children - decreases in IQ and attention span, learning and behavior problems.
- Adults - increased risks of heart disease, high blood pressure, kidney or nervous system problems.



How have previous Pb regs helped public

Health?



Acute Reporting

★ 24-hour CDPHE report line 1-877-518-5608 or 303-692-3308

If monitoring results:

- Nitrite > 1.0 mg/L as N
- Nitrate > 10.0 mg/L as N
- Positive Total Coliform result
- Positive E. coli result
- Surface water: high turbidity/ failure to meet microbial removal at entry point



Acute Reporting

★ 24-hour CDPHE report line 1-877-518-5608 or 303-692-3308

If pressure loss affects

- >50% of the distribution system or
- >100 service connections
- When in doubt, call!



Pressure Loss and Main Break Response Guidance

February 2015



PROVIDED TO PUBLIC WATER SYSTEMS
FROM THE WATER QUALITY CONTROL DIVISION

Colorado Department
of Public Health
and Environment

Purpose

The purpose of this guidance is to assist systems that experience a loss of pressure to all or part of their distribution system with the necessary response steps to protect public health while [meeting](#) department expectations.

Step 1) Notify all affected customers and department

Water is a vital resource and it is important to stay in communication and work with your affected customers during a pressure loss event. Notifying the department will allow us to assist your system through a pressure loss emergency and accurately represent your system when receiving consumer calls and media requests about the event.

Acute Reporting

★ 24-hour CDPHE report line 1-877-518-5608 or 303-692-3308

If emergency occurs:

- Suspected or confirmed tampering
- Failure in key water treatment processes
- Disaster that disrupts supply or distribution system



How to stay in the know?

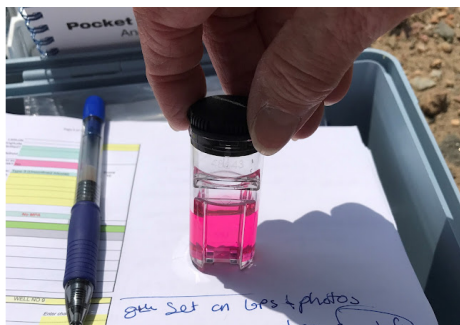
Aqua Talk

safe drinking water information



Wednesday, June 28, 2023

Chlorine Residual Monitoring and Pocket Colorimeters



During sanitary surveys, inspectors evaluate where chlorine residual sampling is being performed and will request to do side-by-side chlorine residual measurements with the operator. Chlorine residual monitoring is required both for entry point chlorine residual monitoring and also in the distribution system during bacteriological sampling. Public water systems that only use sodium or calcium hypochlorite or chlorine gas to form free chlorine for disinfectant residual should be monitoring and reporting free chlorine residual at all times. Conversely, any systems adding ammonia to form chloramines must monitor and report disinfectant residual as total chlorine residual. In this article, we will discuss handheld colorimeters and questions we've received from operators during sanitary surveys on properly measuring both high range and low range chlorine residuals. Improperly using an EPA accepted test method, using expired or incorrect DPD reagent or not verifying or operating disinfectant monitoring analytical equipment in accordance with manufacturer requirements can result in a violation of Regulation 11, Section 11.46. This was one of the Top 10 most cited violations cited during sanitary surveys in 2022.

Wednesday, December 2, 2020

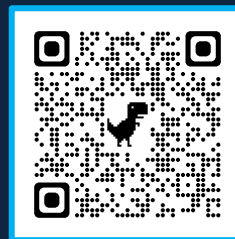
Regulation 11 - Cross Connection Regulation Updates



In the early summer 2020, the department proposed minor modifications to the Backflow Prevention and Cross-Connection Control Rule along with the Finished Water Storage Tank Rule - see other [Aqua Talk post](#) for storage tank discussions. The department completed a stakeholder effort and presented the modifications to the Water Quality Control Commission. The Commission approved all proposed modifications in early August and the changes took effect September 30, 2020. The Backflow Prevention and Cross-Connection Control Rule (Regulation 11, Section 11.39) protects public health from contamination associated with cross-connections and backflow events. The department proposed three changes that will lessen the burden on water systems while still protecting public health:

Search This Blog

Subscribe to the Aqua Talk Blog



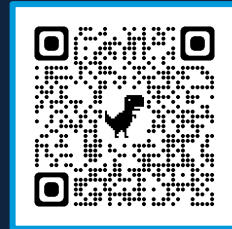
How to stay in the know?

Engagement email notifications

[Sign up for email notifications](#) and select which areas of interest you want to receive emails about.


Topics of General Interest

- COVID-19 Response - Water Professionals
- 10-Year Roadmap on Water Quality Standards
- Clean Water Program Fee Information
- Grants and Loans
- PFAS (Toxic Firefighting Foam Chemicals)
- Training and Coaching Assistance for Drinking Water
- Aqua Talk Division Newsletter - Weekly Posts on Drinking Water Information
- Waters of the United States / Dredge and Fill Permit Program
- Security Updates for Water/Wastewater Systems



Technical Assistance!

- Free hands on support for Lead Service Line Inventory and Lead Service Line Replacement Plan
- Less than 15,000
- Division contract with - WSP in partnership with Sunrise Engineering

 Search: CDPHE LCRR → click on “Please sign up” link

Have you performed any service line materials identification activities to date? *

No

Yes, we have some records

Yes, we have most records

Yes, we have records and have identified our data gaps

Yes, we have records, have identified our data gaps, and have gathered confirmation data

Other: _____

Type of Lead Service Line Inventory assistance I need *

Records Identification

Records Review

Public Education

Customer Surveys

Data Organization

GIS data storage

Completion of CDPHE Inventory Form

Non-invasive confirmation work (scratch tests, meter pit observations)

Underground physical confirmation work (potholing, etc.)

LCRR Partnership Opportunities

- CDPHE - Drinking Water Coaches
- CDPHE - Grants and Loans
- WSP - Special LSLI assistance
- Private companies - software and staff (ask your neighbors)

 Search: CDPHE drinking water training opportunities

 Search: CDPHE Grants and Loans

 Search: CDPHE lead and copper

LCRR Overview

Lead and Copper Rule Revisions

- How did we get here?
 - Final Rule promulgated January 15, 2021
 - Executive Order to review “last-minute” regulations
 - Reviews typical for a new Administration
 - Became effective December 16, 2021.



Lead and Copper Rule Revisions

- August, 2023: LCRR adopted into CO Primary DW Regulations (Reg. 11)
 - Compliance Date 10/16/2024
- US EPA published their proposed Lead and Copper Rule Improvements (LCRI) on 11/30/2023
 - If finalized, LCRI requirements likely to come into effect in 2027



Public Health Goals of LCRR & LCRI

- Allow systems and consumers know if they have lead service lines
- Assessment of individual sites and the surrounding distribution system, prompting:
 - Implementation/optimization of corrosion control treatment
 - Lead service line replacement
- Increased Public Notification
- Know lead exposure at schools and childcare providers
- Removal of all lead (LSL) and galvanized requiring replacement (GRR) service lines

LCRR - Updates

Lead service line replacement plan - ~~October 16, 2024~~

The US EPA proposed Lead and Copper Rule Improvements (LCRI) contains more stringent requirements for lead and GRR replacement than the LCRR (LSL/GRR will be required for *all* Community and NTNC systems, 10 year replacement schedule beginning 2027 LCRI compliance date, regardless of detected lead levels)

- Lead Service Line Replacement Plan form no longer required to be submitted by 10/16/2024 LCRR compliance date, *however*. . .
 - LSL/GRR replacement planning will be necessary!
 - Systems encouraged to use LSLRP form/other tools to help develop plan for for complying with upcoming LSL/GRR replacement requirements

LCRR - Updates

Tiering criteria/sample plan - ~~October 16, 2024~~

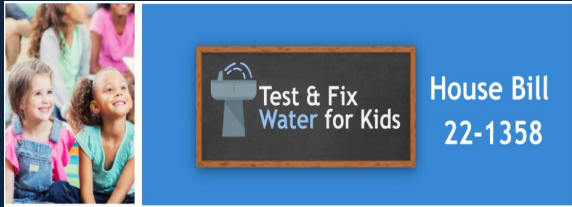
The US EPA proposed Lead and Copper Rule Improvements (LCRI) updates the tiering criteria from what was in the LCRR, so:

- Updated compliance monitoring based on new tiering criteria is *no longer required to be submitted by 10/16/2024 LCRR compliance date*
 - Use current LCR tiering criteria for all sampling until 2028 (assuming late 2027 LCRI compliance date)

LCRR - Updates

Lead Testing in Schools - ~~October 16, 2024~~

- New lead testing in schools requirements to start after 2027 LCRI compliance date
- HB22-1358 Colorado sampling completed May 31, 2023
 - Preschool-5th grade public schools; child-care centers/homes
 - Schools/child care facilities responsible for testing - NOT PWS
 - Lead testing conducted under HB 22-1358 *will* likely count towards LCRI requirements



LCRR Overview

LCRR Compliance Date - **October 16, 2024**

1. Develop a system-wide lead service line inventory
 - Line-by line inventory form must identify portions of each service line as:
 - Lead (LSL)
 - Galvanized requiring replacement (GRR)
 - Unknown
 - Non-lead
 - Inventory must be made submitted to CDPHE, and be publicly available
2. Notifications to customers that have lead, GRR, or unknown service line material
3. Lead action level exceedances on samples collected after the 10/16/24 compliance date will require Tier 1 PN (within 24 hours)

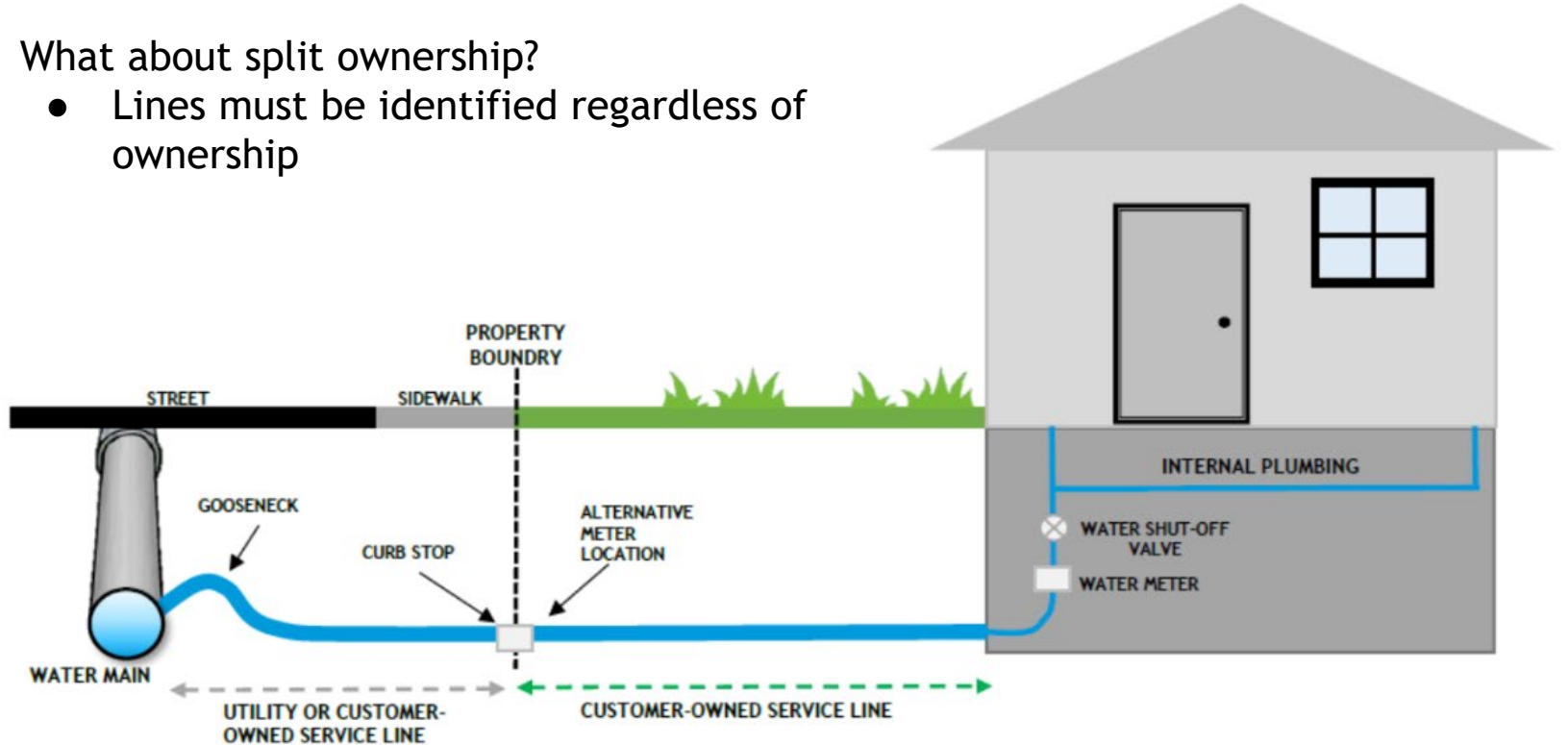
1. Lead Service Line Inventory

- Inventory of every service line to classify the material
- If service line ownership is shared the inventory must include the material type of
 - Customer-owned and
 - System-owned portions
- Materials: Lead, galvanized requiring replacement, non-lead and lead status unknown
- Connector (pigtails/goosenecks, etc) material: not required for the 2024 LCRR initial inventory compliance date, *but strongly recommended* to inventory when records are available or material is encountered. **LCRI may require this information with the 2027 LCRI “Baseline Inventory”**

Defining service lines

What about split ownership?

- Lines must be identified regardless of ownership



1. Lead Service Line Inventory

Material Types

- **Lead:** any portion of the service line is made of lead. Note: lead gooseneck/pigtail/ connector connected to a non-lead service line technically does not constitute a LSL under LCRR, *however*. . .a lead connector > 2 ft long will likely be considered a LSL under LCRI
- **Galvanized requiring replacement (GRR):** galvanized service line is or was at any time known to be downstream of a lead service line
- **Lead status unknown:** service line material is not known to be lead, galvanized requiring replacement, or a non-lead service line. Where there is no documented evidence supporting material classification

1. Lead Service Line Inventory

What if you don't have records about if a galvanized service line was ever downstream of lead?

A water system without records indicating if an individual galvanized service line ever had a lead service line upstream of it may determine that the line doesn't require replacement *only* if:

- No lead service lines are found within the water system service area during the course of records review; and
- There are no known records or knowledge of previous lead service replacements programs; and
- No LSLs have been found during field investigations.

1. Lead Service Line Inventory

- What about non-potable service lines? - yes, unless:
 - Ordinance stating that line will never be used for potable water OR
 - Ordinance stating customer must notify system if repurposed to potable OR
 - If it is a dedicated irrigation line or line to a hydrant
 - Doesn't go from the water main to a building inlet-doesn't meet definition of service line under LCRR



1. Lead Service Line Inventory

- LSLI must be available to the public*
 - >50,000 population must be available online
 - <50,000 population must be available upon request, but not necessarily published online
 - CCR will require instructions for public to access LSLI

*Including systems that have all non-lead in their inventory


2. Customer Notifications

Within 30 days of completing initial LSL Inventory, drinking water system must send notification of service line material to *each customer served by lead, galvanized requiring replacement, or unknown service line*

- Continued notifications required annually until entire system confirmed non-lead

3. Tier 1 PN for AL exceedance

- Tier 1 Public Notice for 90th percentile (P90) 15 ppb lead action level exceedance (ALE)
 - ASAP, but no later than 24 hours after learning of ALE
- Just as under LCR, systems with P90 > lead action level must offer lead tap sampling to customers who request it (this is the requirement now and will continue under LCRR)



Lead Service Line Inventory (LSLI)

Poll #1

- How many have started your LSLI?
 - Yes
 - No
 - Need more information.

Lead Service Line Inventory

- What is the Lead Service Line Inventory (LSLI)?
- What is the purpose?
- What are the specific requirements to completing an LSLI?
- Suggested steps to complete the LSLI.
- What resources are available?

Starting the LSLI



Lead & Copper Rule
Page

What: Inventory tracking lead, galvanized requiring replacement, and non-lead lines

Who: Systems with one or more:

- lead
 - galvanized requiring replacement and/or
 - lead status unknown service lines
- * Systems may choose to specify the non-lead line material type (e.g. copper, pex)

Required Inventory Information:

- Location identifier
 - Street address (encouraged), customer number, or block intersection, landmark, or other geographic marker associated with the service line
- Material classification (lead, galvanized requiring replacement, non-lead, lead status unknown)
- If building plumbing contains copper pipe with lead solder, installed before 1988
- Ownership status (solely or split ownership)
- Verification method

Starting the LSLI

- How will you track?
 - Important for systems to have some way to track data they get from customer surveys and field staff
 - Google templates
 - Excel
 - Software?



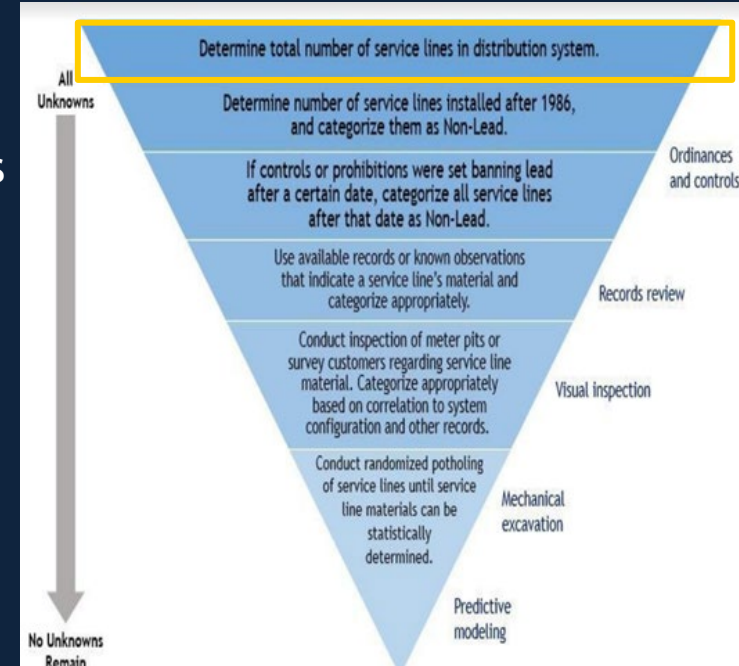
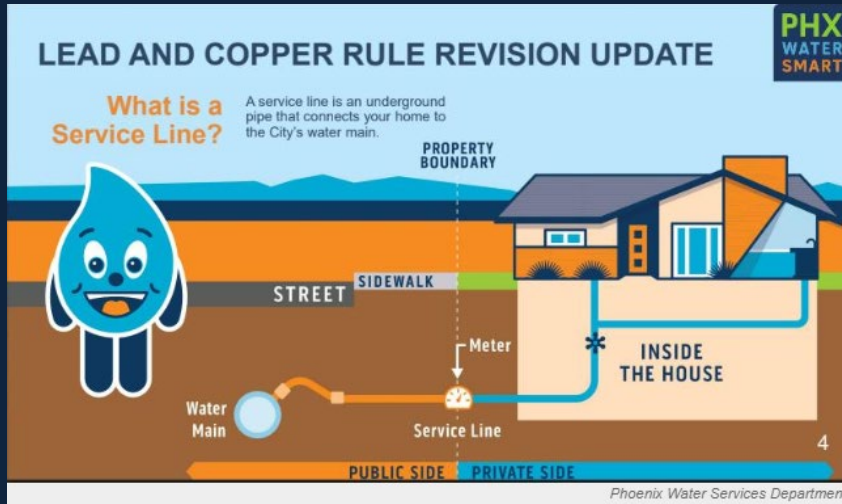
LSLI and LSLR
FAQ's

Service Line Information					
Unique Service Line Identifier	Location Identifier or Site Address	Line Ownership	Current System-Owned Service Line Material	Was System-Owned Service Line Material Ever Lead?	S



LSLI Steps

1. Determine total number of service lines in dist. system.
 - Distribution maps, meter records, billing information, anything else?
 - Good time to determine where ownership lands for you and customer



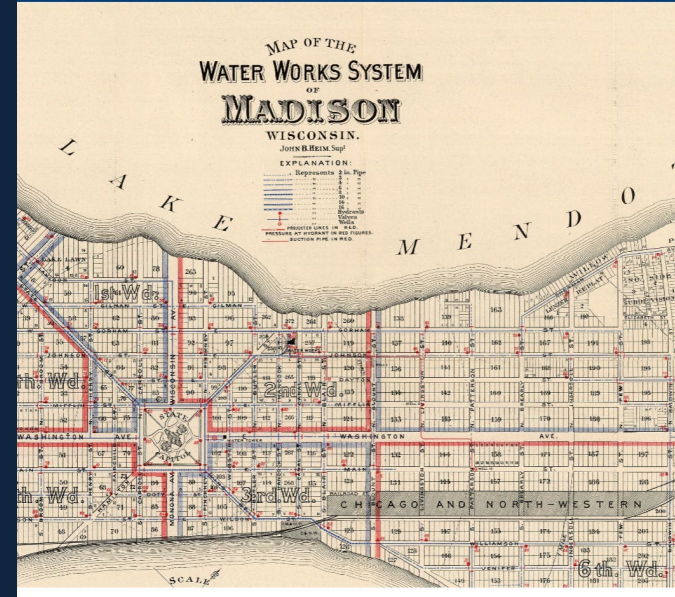
LSLI Steps

2. Identify service lines based on date of installation

- CO lead ban 1988
 - Installation after 1/31/1988 = non-lead
 - Installation between 1/1/1960 - 1/31/1988 = non-lead, if records/evidence show no lead service lines or goose necks installed in water system during that period
- Does the service line predate the current structure?
 - If customer owned lines were not replaced, you cannot assume this connection is "non-lead" based solely on date.
- Where to find records
 - Property records looking for build dates and building permits

LSLI Steps

3. Other controls or prohibitions on using lead in system.
 - This will likely be a city/county specific ban on using lead
4. Use available records or known observations that indicate a service line material.
 - Maintenance documents (meter pits inspections, repairs)
 - Building permits
 - Line size (lead typically not > 4") regardless of date
 - Previous materials evaluation
 - plumber and excavator surveys/records/interviews, as-built drawings, historical maps...



Historical Society or Sewage & Water Boards

LSLI Steps

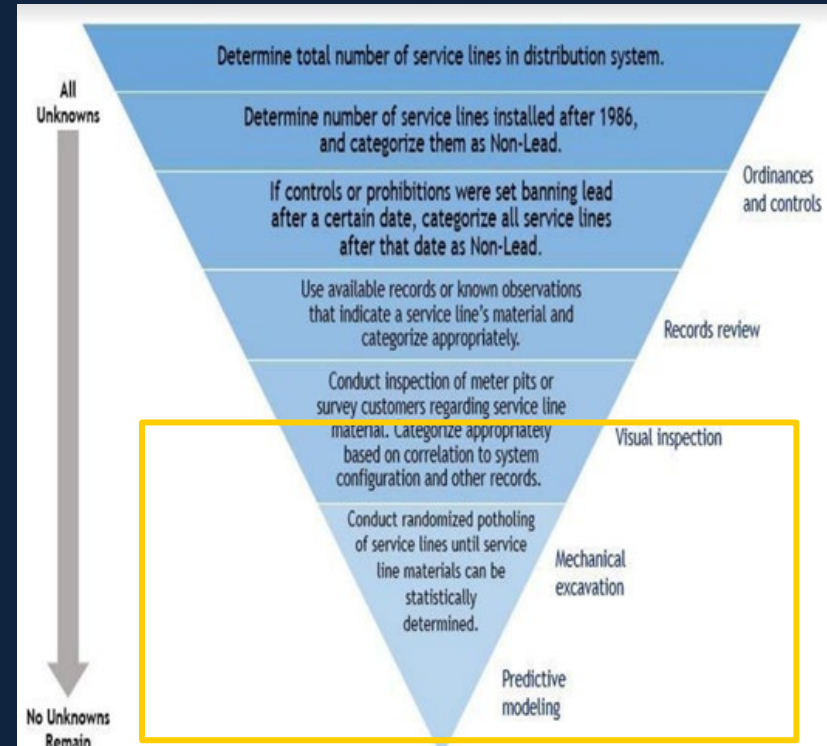
5. Visual Inspection

- Voluntary survey for customers
(with instructions for identifying their customer-owned portion of service line)
- Physical observation inside residential home
- Inspections of meter pits*
- Create a checklist for distribution staff to use while doing routine field work

5. Mechanical excavation

- Visual inspection of service line using excavation (potholing, digging, hydro excavation).

**meter pits can only be used to identify SL material if supplier can provide evidence that the meter pit was installed at same time as the service line*



Material Identification



Lead pipe

Magnets do not stick to lead pipes.

If you scratch the pipe with a coin, the scraped area will appear shiny silver and flake off.



Copper pipe

Magnets do not stick to copper pipes.

If you scratch the pipe with a coin, the scraped area will appear copper in color, the same as a penny.



Galvanized steel pipe

Magnets will stick to the surface of a galvanized steel pipe.

If you scratch the pipe with a coin, it will appear dull and gray.

Other Methods Material ID

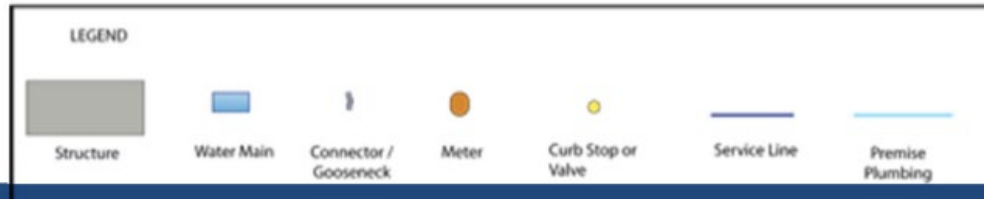
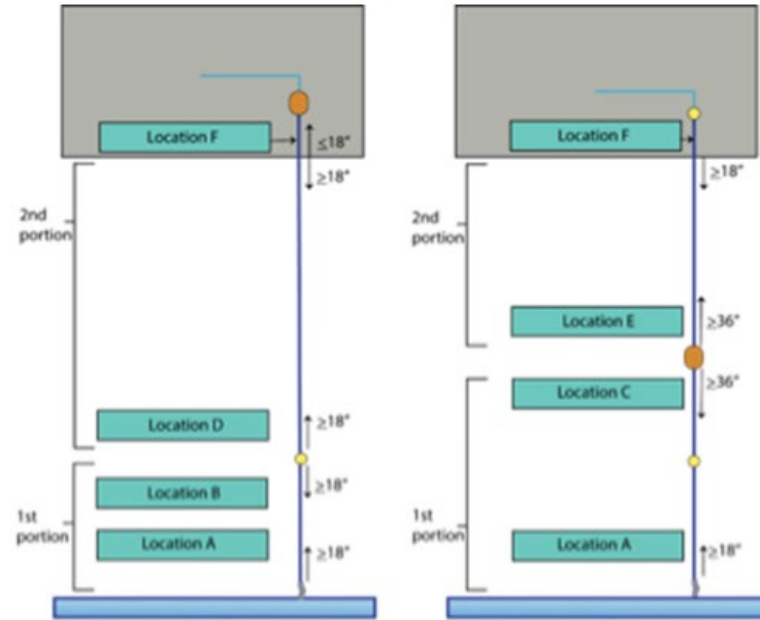
- Water Quality Sampling
 - Can be used for the classification of LSL and GRR, however, CANNOT be used to prove the absence of LSL or GRR
 - Recommend: use interior taps
 - Recommend: develop SOP → consistency
 - Must establish a system specific threshold of the presence of an LSL from samples collected from known LSL or GRR

Excavation/Potholing

- Excavation/Potholing
 - Check minimum of two locations
 - #1 portion of the service line from water main to curb stop valve, or water main to meter
 - #2 portion of the service line from curb stop valve to structure, or meter to structure
 - Approved visual inspection points
 - Minimum of at least 36” from the meter on each side (unless documented evidence that meter pit installed at same time as service)
 - Minimum of 18” on each side of curb stop
 - Minimum of 18” back from where it enters building
 - Minimum of 18” from the connection to the water main

Approved Visual Inspection Points

Specified Locations for Visual Inspection for Single Owned Service Line



Other Methods Material ID

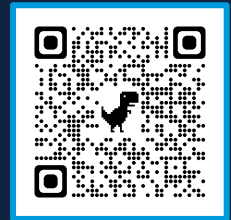
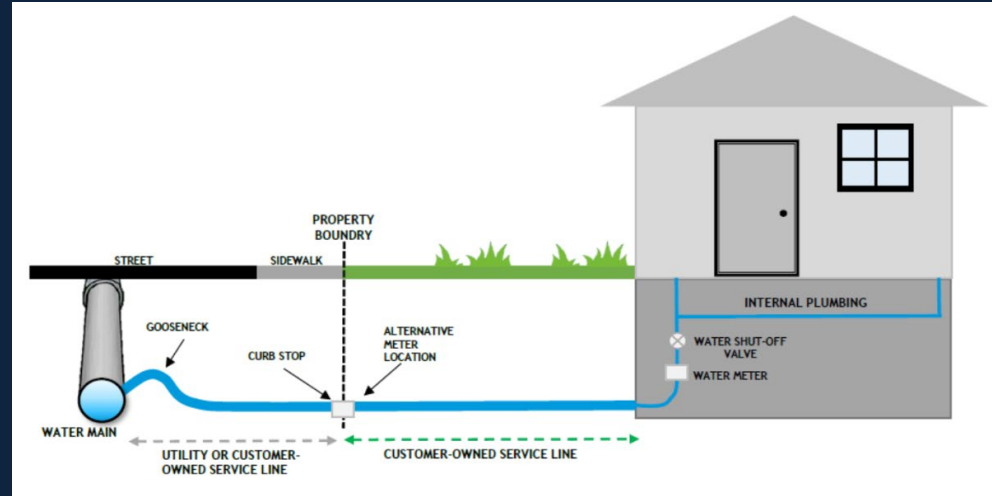
- Predictive Modeling
 - < 1,500 unknown service lines physically verify 20% of the unknowns using an approved verification method.
 - Water systems with >1,500 unknown service lines verify enough service lines to reach a 95% confidence level with a 5% margin of error.

Appendix A: Minimum number of service lines requiring verification

Number of Unknown Service Lines	Number to Verify
Fewer than 1,500	20% of unknown lines
1,500	306
1,600	310
1,700	314
1,800	317
1,900	320
2,000	322
2,200	327
2,400	331
2,600	335
2,800	338
3,000	341
3,500	346
4,000	351
4,500	354
5,000	357
6,000	361
7,000	364
8,000	367

Who is responsible for replacement?

- Proposed LCRI *prohibits partial replacement* unless for emergency repair or planned infrastructure work (not including dedicated LSL/GRR replacement)
- System pays for system side replacement
- System responsible for ensuring that customer portion is replaced, and must offer to replace it. Systems are encouraged to:
 - Educate customers
 - Offer to pay for private-side replacement, or
 - Offer payment plans



Getting Ready for
LCRR


What happens after Oct 2024

- 6-month or annual lead and copper monitoring
 - Submit your inventory to the department every year
- 3-year lead and copper monitoring
 - Submit your inventory to the department every three years.
- Non-lead inventory
 - If your water system demonstrates that there are no lead, GRR, or unknown service lines in its inventory, the system is not required to submit inventory updates to the department
 - Still required to have line-by-line inventory complete - must be available upon request by Department
 - Unless any service line requiring replacement is discovered.

Service Line Inventory Templates

- Non-Lead Service Line Inventory: system is certain that all SLs are “non-lead”
 - All systems after 1988 & most systems newer than 1960.
 - No Lead, Galvanized Requiring Replacement or Unknowns
 - Must also have line by line inventory completed - keep on file
- Service Line Inventory: Systems with lead, GRR, or unknowns
- Provide detailed narrative on methodology for SL classification
- Lead pigtails/connectors not required in initial inventory, but *will be required to be replaced* if discovered during planned or unplanned infrastructure work (e.g. potholing/SL replacement activities)

🔧 Non-Lead Only Service Line Inventory Form

		<u>Non-Lead Only Service Line Inventory Form</u>	
Revision: 10/19/2022		Submit Online: wqcdcompliance.com/login (preferred); Fax: (303) 758-1398	
		Mail: WQCD-B2-Drinking Water CAS	
		4300 Cherry Creek Drive South; Denver, CO 80246-1530	
Section I Public Water System Information			
PWSID:		System Name:	
Contact Person:		Phone:	Email:
*System Authorized Signature		Printed Name	Date
*Signature not required if submitted online.			
Section II Service Line Inventory Summary			
Do <u>NOT</u> use this form if you have any lead, galvanized requiring replacement, or unknown service lines.			



Lead Service Line Inventory

Section III: Service Line Inventory Site Information for Lead, Galvanized Requiring Replacement, and Lead Status Unknown - NOT REQUIRED IF SYSTEM IS ALL NON-LEAD

Information on each Lead, Galvanized Requiring Replacement, and Lead Status Unknown Service Lines must be entered below.

Use Drop-downs where available. Based on the service line information input below, the form calculates the material classification of each full service line.

Service Line Material Classification	Definition
Lead	Any portion of the service line is known to be made of lead (NOT including lead connectors).
Galvanized Requiring Replacement (GRR)	The service line is not made of lead, but a portion is galvanized and the system is unable to demonstrate that the galvanized line was never downstream of a lead service line.
Lead Status Unknown	The service line material is not known to be lead or GRR. For the entire service line or a portion of it (in cases of split ownership), there is not enough evidence to support material classification.
Non-Lead (Not Required to be Reported Below)	All portions of the service line are known NOT to be lead or GRR through an evidence-based record, method, or technique.



Lead Service Line Inventory

Lead Service Line Inventory

A	B	C	D
Unique Service Line Identifier	Location Identifier or Site Address	Connector Type <i>(Likely Future Requirement)</i>	Line Ownership
		<ul style="list-style-type: none"> Lead Removed or Replaced Lead Never Lead Unknown No Connector Present 	

Lead Service Line Inventory



Lead Service Line Inventory

	D	E	F
15	Current System-Owned Service Line Material	Was System-Owned Service Line Material Ever Lead?	Customer-Owned Service Line Material
16			
	<ul style="list-style-type: none"> Lead Galvanized Iron/Steel Copper Plastic Non-Lead (Copper or Plastic) Other - Non-Lead Unknown Galvanized Requiring Replacement 		<ul style="list-style-type: none"> Lead Galvanized Iron/Steel Copper Plastic Non-Lead (Copper or Plastic) Other - Non-Lead Unknown Galvanized Requiring Replacement

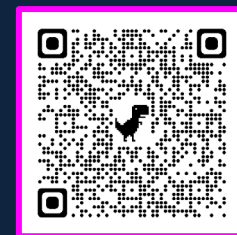
Lead Service Line Inventory



Lead Service Line Inventory

G	H
Verification Method for System-Owned Service Line Material	Verification Method for Customer-Owned Service Line Material
	Other approved by Dept
	Records or Controls
	Visual - Meter/In-Home
	Visual - Excavation//Potholing
	CCTV External
	CCTV Internal
	Statistical - Multi Source Analysis
	Sequential Sampling
	Other approved by Dept

Lead Service Line Inventory



Lead Service Line Inventory

Service Line Information								
Unique Service Line Identifier	Location Identifier or Site Address	Line Ownership	Current System-Owned Service Line Material	Was System-Owned Service Line Material Ever Lead?	Customer-Owned Service Line Material	Verification Method for System-Owned Service Line Material	Verification Method for Customer-Owned Service Line Material	CALCULATED Service Line Material in Inventory
xxx1	1234 Atlantis Blvd	Split Ownership	Copper	Yes	Galvanized Iron/Steel	Records or Controls	Visual - Meter/In-Home	Galvanized Requiring Replacement
xxx2	1236 Atlantis Blvd	Split Ownership	Copper	Yes	Copper	Records or Controls	Visual - Meter/In-Home	Non-Lead

Lead Service Line Inventory



LSLI Takeaway

- Identifying service line material is only one component of the LSLI but it could be extensive and will take time
- Start now, gather information (records, maps, maintenance records)
- It's a living document and will need to be continuously updated



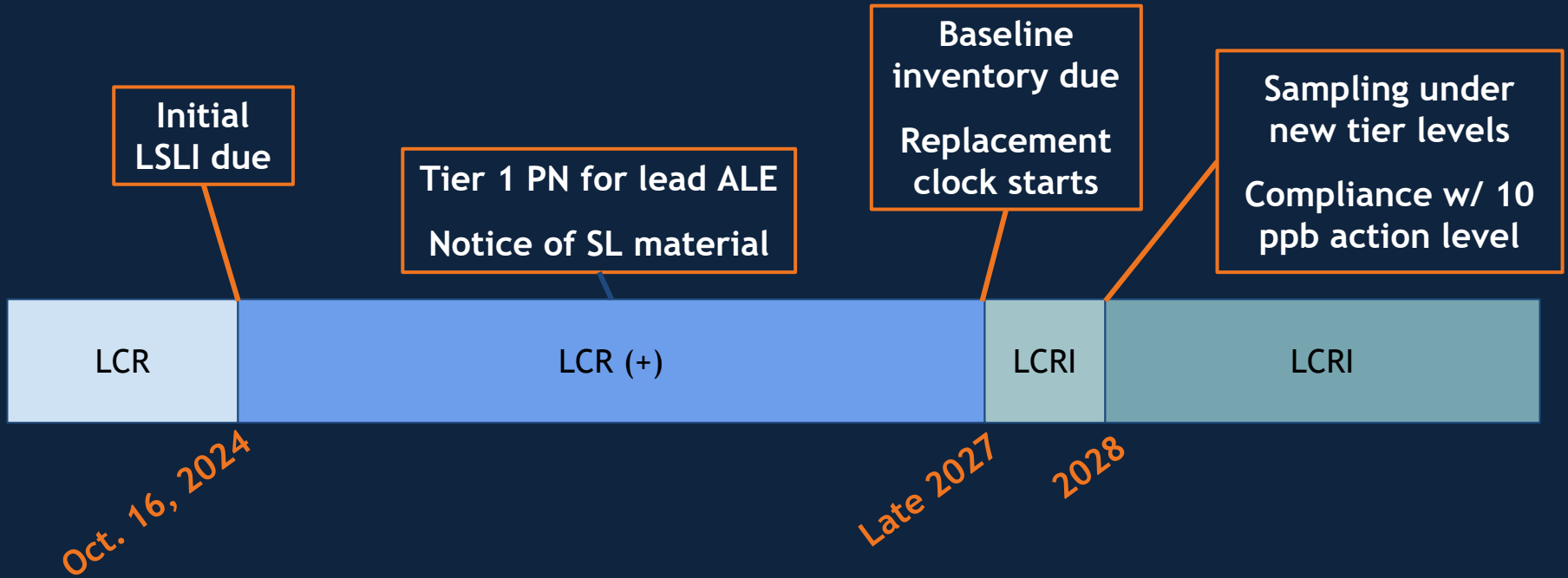
US EPA Proposed Lead and Copper Rule Improvements

Proposed Lead and Copper Rule Improvements (LCRI)

2027 LCRI Compliance Date:

- Submit updated “Baseline Inventory” - may require inventorying connectors
- New tiers
- Lower lead action level (AL)
- 3 day notification to individual sites above AL
- “Distribution System and Site Assessment” on individual taps above AL
- 1st and 5th liter sampling on lsls
- Targeted lead testing in schools
- Mandatory replacement of lsl and grr lines within 10 years

Proposed Timeline



Proposed LCRI-New Tiers* and sampling

Community Systems	Non-Transient Non-Community Systems	
Tier 1 Highest risk	Single-family structures that are served by a lead service line, or are served by a galvanized service line that is downstream of a lead service line, or that contain lead pipes within premise plumbing. Sites with lead status unknown service lines must not be used as Tier 1 sampling sites.	
Tier 2 High Risk	Buildings, including multiple-family residences, that are served by a lead service line, or are served by a galvanized service line that is downstream of a lead service line, or contain lead pipes within premise plumbing. Sites with lead status unknown service lines must not be used as Tier 2 sampling sites.	
Tier 3 Mid risk	Single-family structures that are served by a service line that currently has a lead connector, or are served by a galvanized service line/galvanized plumbing identified as ever being downstream of a LSL or lead connector in the past. Sites with lead status unknown service lines must not be used as Tier 3 sampling sites.	Sites that are served by a service line that currently has a lead connector, or are served by a galvanized service line/galvanized plumbing identified as ever being downstream of a LSL or lead connector in the past. Sites with lead status unknown service lines must not be used as Tier 3 sampling sites.



Proposed LCRI-New Tiers* and sampling

Community Systems		Non-Transient Non-Community Systems
Tier 4 Lower risk	Single-family structures that contain copper pipes with lead solder installed in 1987 or earlier. Sites with lead status unknown service lines must not be used as Tier 4 sampling sites.	Sites that contain copper pipes with lead solder installed in 1987 or earlier. Sites with lead status unknown service lines must not be used as Tier 4 sampling sites.
Tier 5 Lowest risk	Sites are representative of sites throughout the distribution system.	

**Sampling under current LCR tiers still in effect through 2027*

Proposed LCRI - 10 ppb Action Level* (AL)

If 90th percentile is above lead action level of 10 ppb:

- Tier 1 Public Notice (within 24 hours)
- Individual lead result notifications within 3 days for individual result > 10 ppb
- Public Education and Outreach (PE) - within 60 days after end of each LCRI tap monitoring period until the system no longer exceeds AL
- WQ parameter monitoring at EP/Dist Sys.
- Installation or re-optimization of corrosion control treatment (CCT)
 - Alternatively: Remove all LSLs in 5 years (20% per year average)
 - NTNC or small CWSs serving up to 3300 people can choose other compliance option (if approved by Department):
 - POU devices or lead plumbing removal

Proposed LCRI - Individual Sample Result Reporting

The proposed LCRI will require water systems to deliver consumer notice of lead and copper tap sampling results to consumers whose tap was sampled within 3 days of receiving results.

**Existing LCR notification requirements for individual tap sample results to remain until 2027 LCRI compliance date*

LCRI - “Distribution System and Site Assessment”*

Conduct sampling and assessment at *individual* taps above 10 ppb lead AL, to investigate and potentially remediate the source of the lead.

If sample > 10 ppb:

- Collect WQ parameter samples at a nearby site within 5 days (14 days for small systems without CCT) of receiving sample result.
 - pH, Alkalinity, Orthophosphate and/or Silica (if orthophosphate- or silica-based inhibitors used)
- Collect follow-up lead sample from original sample site of the AL exceedence within 30 days of receiving sample result.

LCRI - “Distribution System and Site Assessment”*

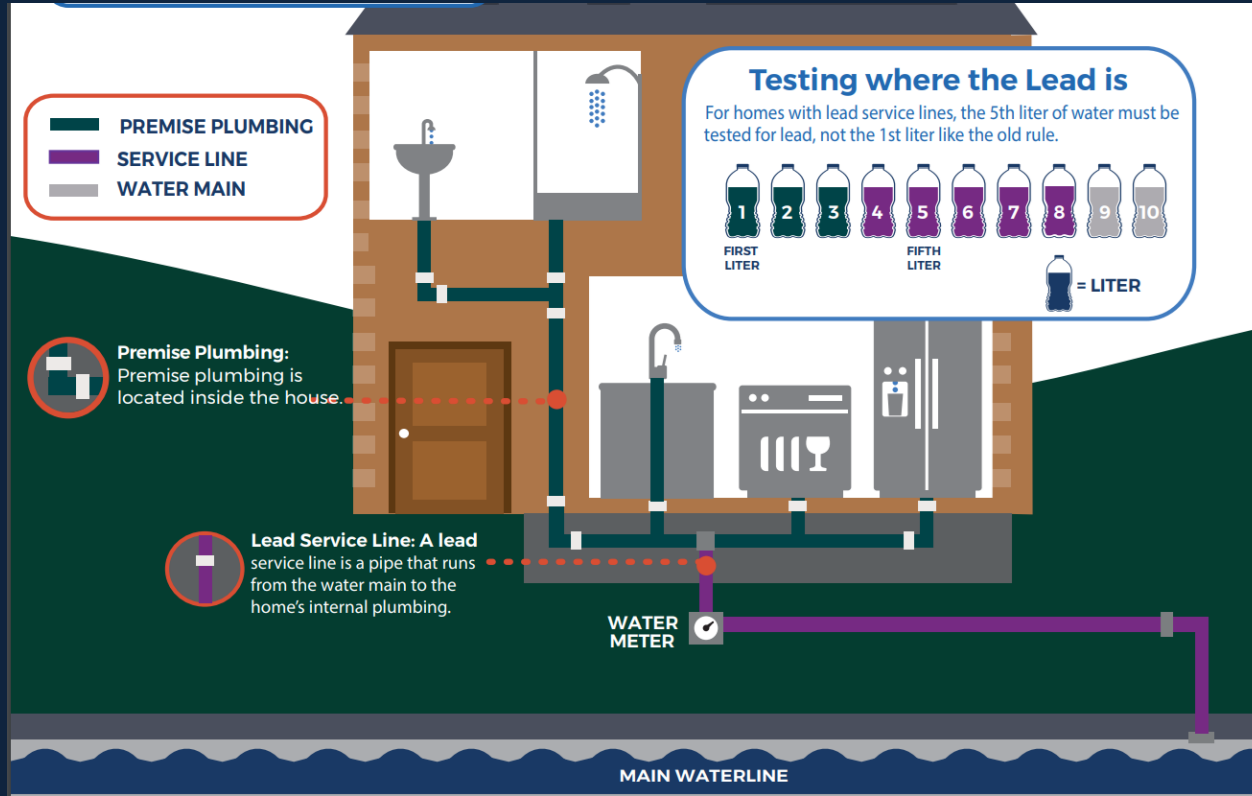
No later than 6 months after tap sampling period in which the site(s) exceeded 10 ppb, supplier must evaluate results and submit recommendation to the Department, including:

- Determine if localized or centralized adjustment/implementation of corrosion control treatment, or other distribution actions are necessary
- Include cause of elevated lead level, if supplier is not recommending CCT or other actions

Proposed LCRI - 5th Liter Sampling on LSLs*

- Targets water from service lines, not just the faucet or premise plumbing
- 6 hour stagnant period before sampling
- 5th liter samples will be required only at sample sites with lead service lines (sites without LSL collect as normal)
 - 5th L sampling only required at LSL sites.
 - 1st L analyzed for lead and copper, 5th L just for lead.
 - The higher of the 2 lead values has to be used in 90 percentile calculation

Proposed LCRI - 5th Liter Sampling on LSLs*



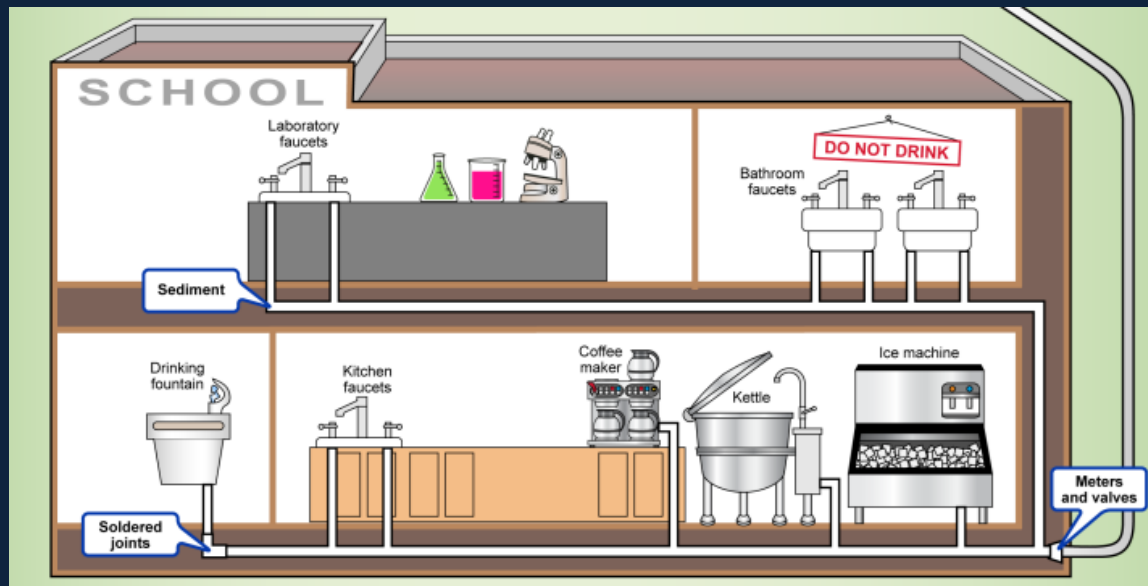
Proposed LCRI - Lead Sampling in Schools*

- Beginning 2027 LCRI compliance date, all elementary schools and child care facilities must be tested within 5 years, unless school or child care facility opts out
- 20% of elementary schools, and 20% of licensed public and private child care facilities yearly
- Secondary schools not required to be sampled *unless* requested by the school
 - PWS must provide secondary schools info about lead, and how to request sampling
- Waivers will be provided to systems for the schools/child cares that sampled between January 1, 2021 and LCRI compliance date
 - *Schools/child care facilities that tested for lead under Colorado HB-1358 will likely satisfy this LCRI requirement!*
 - Private Schools/religious schools/home child care providers that didn't participate or opted out of HB-1358 sampling need to be included under LCRI

Proposed LCRI - Lead Sampling in Schools*

Lead sampling protocol for schools and child care facilities

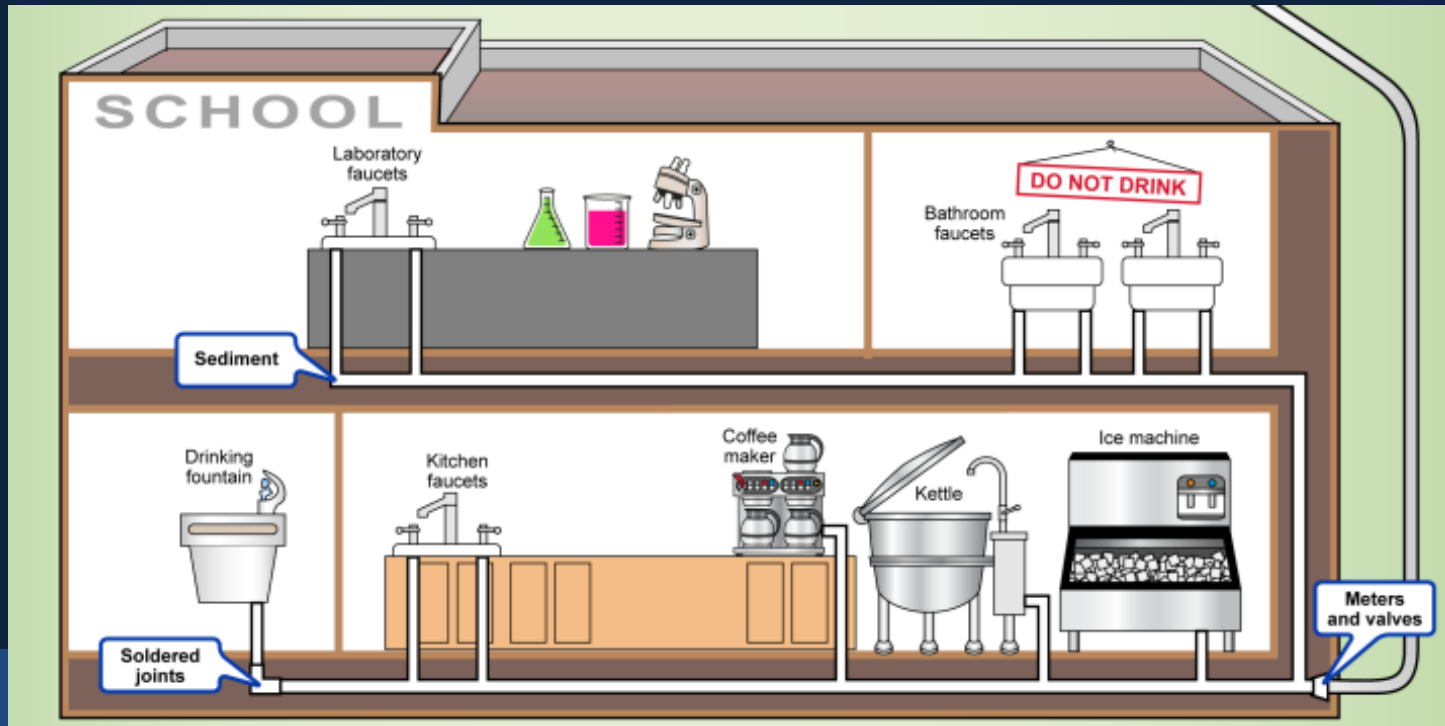
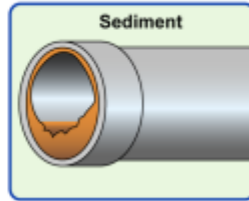
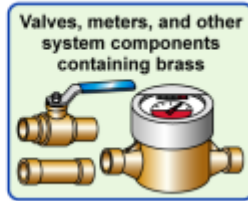
- Five samples per school at the following locations:
 - Two drinking water fountains
 - One kitchen faucet used for food or drink prep
 - One classroom faucet or other tap used for drinking
 - One nurse's office faucet, as available
- Two samples per child care facility at the following locations:
 - One drinking water fountain
 - One of either a kitchen faucet used for food or drink or one classroom faucet or other tap used for drinking



Lead sampling protocol for schools and child care facilities:

- After 8 -18 hrs, cold water tap, 250 ml, first-draw samples
- Supplier may sample at taps with POU devices if that facility has POU devices installed on *all* taps used for consumption

Potential sources of lead in school drinking water:



Proposed LCRI - LSL/GRR Replacement*

Systems must replace all LSL & GRR over a 10-year period

- Only full LSLR (both customer and system portions) counts toward the mandatory removal rate under LCRI
- 10% per year (based on 3-year rolling average)
- Replacement not tied to AL- if you have LSLs or GRR lines, they must be replaced!
- Lead connectors/goosenecks encountered during planned or unplanned infrastructure work (e.g. potholing or service line replacement activities) must be replaced

Takeaways

- Develop and submit LCRR initial inventory by 10/16/2024
- Comply with LCRR public education and public notice requirements, effective 10/16/2024
- Know and prepare for upcoming requirements under LCRI, effective (sometime in) 2027
 - 10 years to remove all LSLs- start replacement planning now!
 - Lower lead AL. . .will this likely affect your system?
 - New tiers and sampling protocol for LSLs
 - Some proposed LCRI requirements may change

Resources



LSLI Assistance

Systems with populations up to 15,000 get free technical assistance and hands-on support for LSLI & LSLRP planning & activities, provided by WSP

Sign up for this free assistance here:

https://docs.google.com/forms/d/e/1FAIpQLSf4mZGDAZTwi-CrNqc7o8to_O5k-cB_f44AlavMkvydtDKh-A/viewform



State Contacts about LCRR

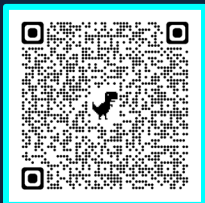
- Haley Orahood
 - haley.orahood@state.co.us
- Bryan Pilson
 - bryan.pilson@state.co.us

Funding!

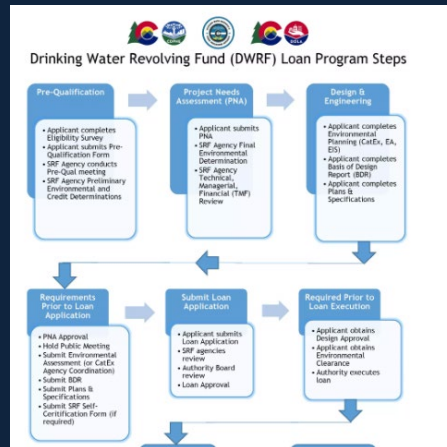
- This is a big lift that will take staff hours



SRF/BIL Funding



Grants & Loans
email sign up



ASSIGNMENT TRACKER

Add subjects or course to the 'Subjects' sheet. In this sheet, select your subject, add assignments, status, time required, when you plan to do it and when it's due.

Subject	Assignment	Status	Time	Start date	Due on
Math	Lorem ipsum dolor sit	Done	1.5 hrs	12/15/2022	12/17/2022
Geography	Duis autem vel eum iriure dolor in hendrerit in vulputate	Done	30 min	12/18/2022	12/20/2022
Physics	At vero eos et accusam et justo duo dolores et ea rebum	In progress	2 hrs	12/19/2022	12/21/2022
Biology	Quis nostrud exerci tation ullamcorper	Not started	6 hrs	11/2/2016	12/22/2022

	A	B	C
1	To Do 1/3 completed		
3	✓	Date	Task
4	<input checked="" type="checkbox"/>	7/9	Type anything into column A to complete an item
5	<input type="checkbox"/>	8/9	Change the styling of completed items under 'Format' > 'Conditional Formatting' (on the web)
6	<input type="checkbox"/>	9/9	Sort items using the drop-down arrows next to the heading name (on the web)
7	<input type="checkbox"/>		
8	<input type="checkbox"/>		

- Google project management tools
 - Assignment tracker
 - Todo list
 - Project timeline
- What questions to ask
 - What are the project goals
 - What are the separate tasks to accomplish
 - Who will be responsible for which task

PROJECT TIMELINE TEMPLATE

Smartsheet Tip →

This is a modified form of a Gantt chart which focuses on creating a project schedule that is broken down into stages.

PROJECT TITLE [Project's title]
 PROJECT MANAGER [Project Manager's name]

COMPANY NAME [Company's name]
 DATE 3/12/18

PHASE	DETAILS	Q1			Q2			Q3			OCT
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	PROJECT WEEK: Enter the date of the first Monday of each month --> - Project Charter - Plan Review - Initiation	2 9 16 23 30	6 13 20 27								
1	Project Conception and Initiation - Scope and Goal Setting - Budget - Work Breakdown Schedule - Gantt Chart - Communication Plan - Risk Management	Project Charter			Initiation						
2	Project Definition and Planning - Status and Tracking - KPIs - Quality - Forecasts				Scope and Goal Setting			Budget			
3	Project Launch & Execution - Objective Execution - Quality Deliverables - Effort and Cost Tracking - Performance										
4	Project Performance & Control - Postmortem - Project Punchlist - Report										
5	Project Close										

PROJECT END



LCRR Partnership Opportunities

- CDPHE - Drinking Water Coaches
- CDPHE - Grants and Loans
- WSP - Special LSLI assistance
- 🔍 Search: CDPHE drinking water training opportunities
- 🔍 Search: CDPHE Grants and Loans
- 🔍 Search: CDPHE lead and copper

QUESTIONS?



Discussion

- What topic from this presentation will be the most beneficial to you and your system?
- What was missing?





Contact Information

To request coaching visit from our team

- Once at the CDPHE site Click on the link “Request free customized coaching and training assistance”

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Coaching Request or
Training

