Service Line Inventory Requirements of the LCRR

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Oregon Health Authority

Presentation Overview

- Background
- Regulatory framework, history
- Methodologies
- Getting started, resources
- Reporting, Oregon spreadsheet format
- Q&A

Lead and Copper Rules

- LCR Revisions - finalized in 2021
- LCR Improvements proposed 12/2023, final by 10/24

- Focus on the service line inventory requirement
  - Inventory of ALL services lines due October 16, 2024
  - Categorize lines as Lead, Non-lead, Galvanized requiring replacement (GRR) - downstream of lead, or unknown
  - Goal: identify and remove any lead service line or GRR

- Consumer notification and public education will be done per original LCR until LCRI is finalized

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Goal:

To identify and remove ALL lead service lines as quickly as possible.


www.MisterPlumber.ca

History: Lead & Copper Drinking Water regulations

- Rule published in 1991
- Minor revisions in 2000 & 2007
- Long-term revisions (LCRR) January 15, 2021
- Upcoming: LCRI (improvements) ~2024
- Applies to 900 CWS, 300 NT systems in Oregon

LCR Revisions (LCRR)

- Finalized Dec. 17, 2021
- Includes
  - Service line inventory requirements,
  - Modified tap sampling requirements,
  - *Trigger level*
  - Corrective action steps for individual homes

Oregon Rule-making

- DWS has added language from CFR to Oregon Administrative Rules
- OAR 333-061-0036(10)(h) – page 165
  - Service line inventory
  - *LSL replacement plan (not required to be submitted yet)*
  - Effective January 1, 2023
- Provides regulatory basis for inventory work needed to be done now
- Oregon will apply for EPA primacy for both LCR's after LCRI is published (LCRR and LCRI)

Proposed LCR Improvements (LCRI)

- Achieve 100% lead pipe replacement within 10 years
- Locating legacy lead pipes
- Improve tap sampling
  - 1st and 5th liter samples if lead service line
- Lowers lead action level from 15ppb to 10ppb
- Provide filters after recurring Action level exceedances
- Public comments by 2/4/24

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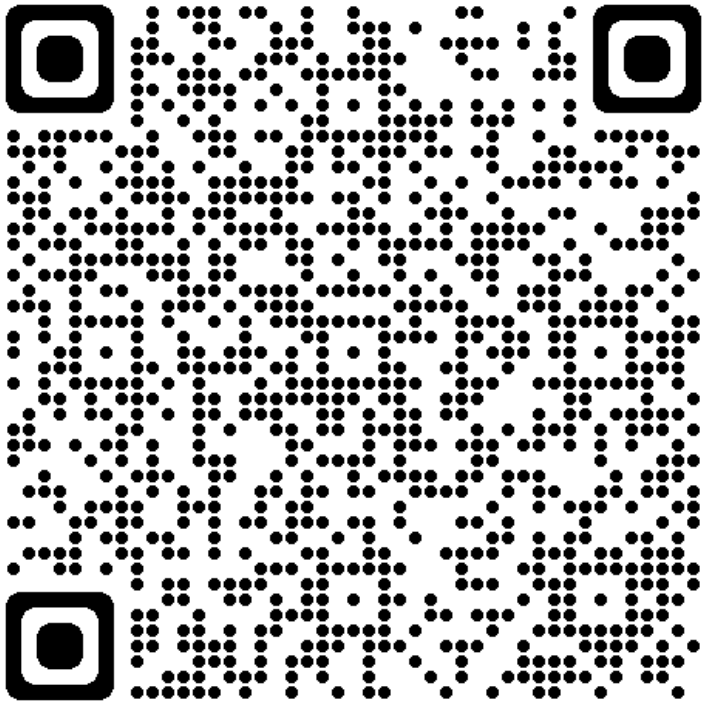
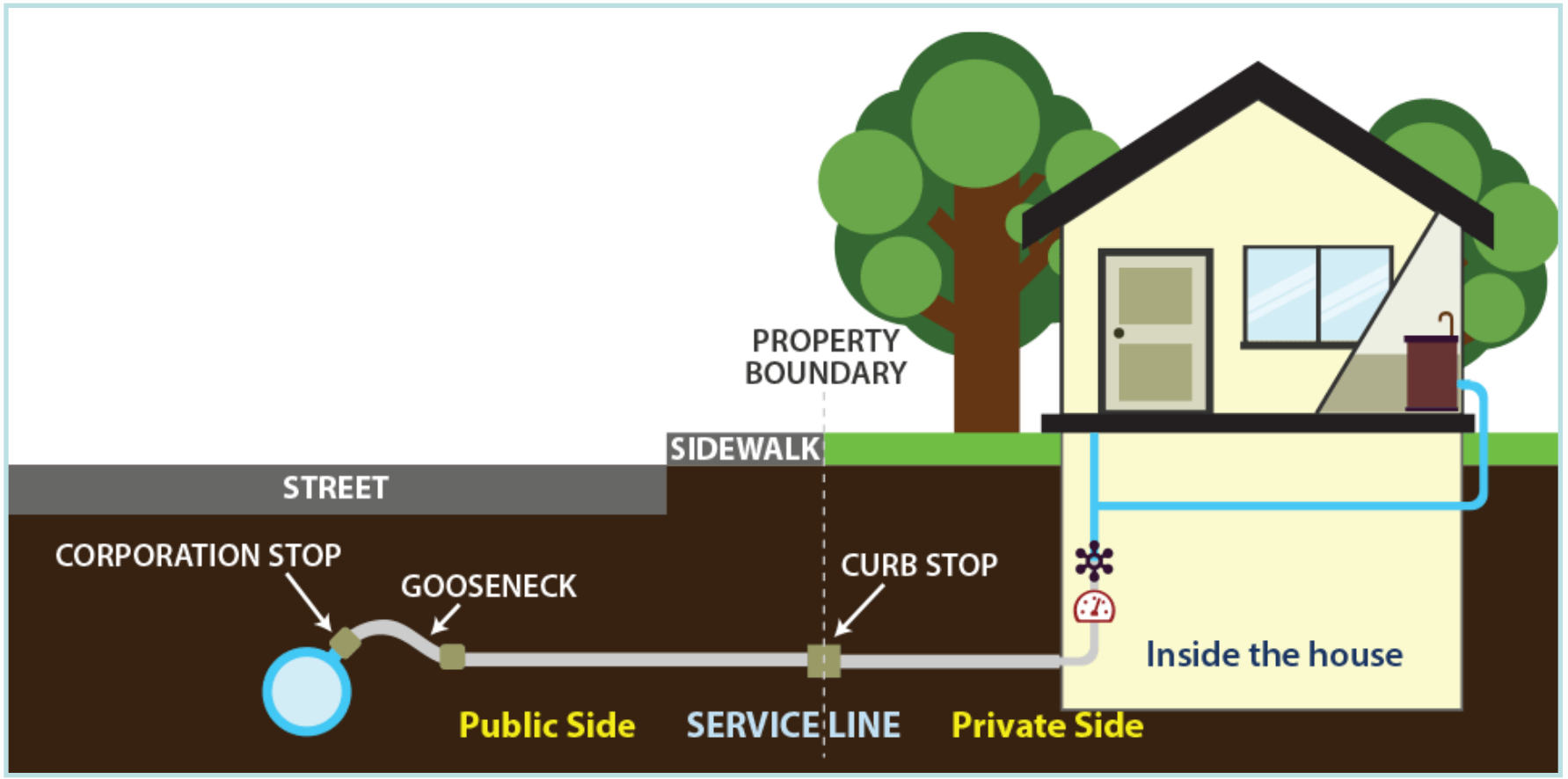


Service lines



Oregon's Lead Ban

- In July 1985, Oregon banned all future use of lead components in public water systems
- There *should not* be any known lead components in a PWS (public side)
- Service connections installed in 1986 or later will be considered non-lead.

Previous efforts to certify no lead

- In 1985, PWSs had to certify that they did not have any lead in the public system, or be on a schedule to remove all lead components
- This certification is not adequate for the LCRR for the public service lines, because non-evidence-based methods were allowed
- Thus, the public service lines still need to be included in the inventory, though we don't expect to find many.

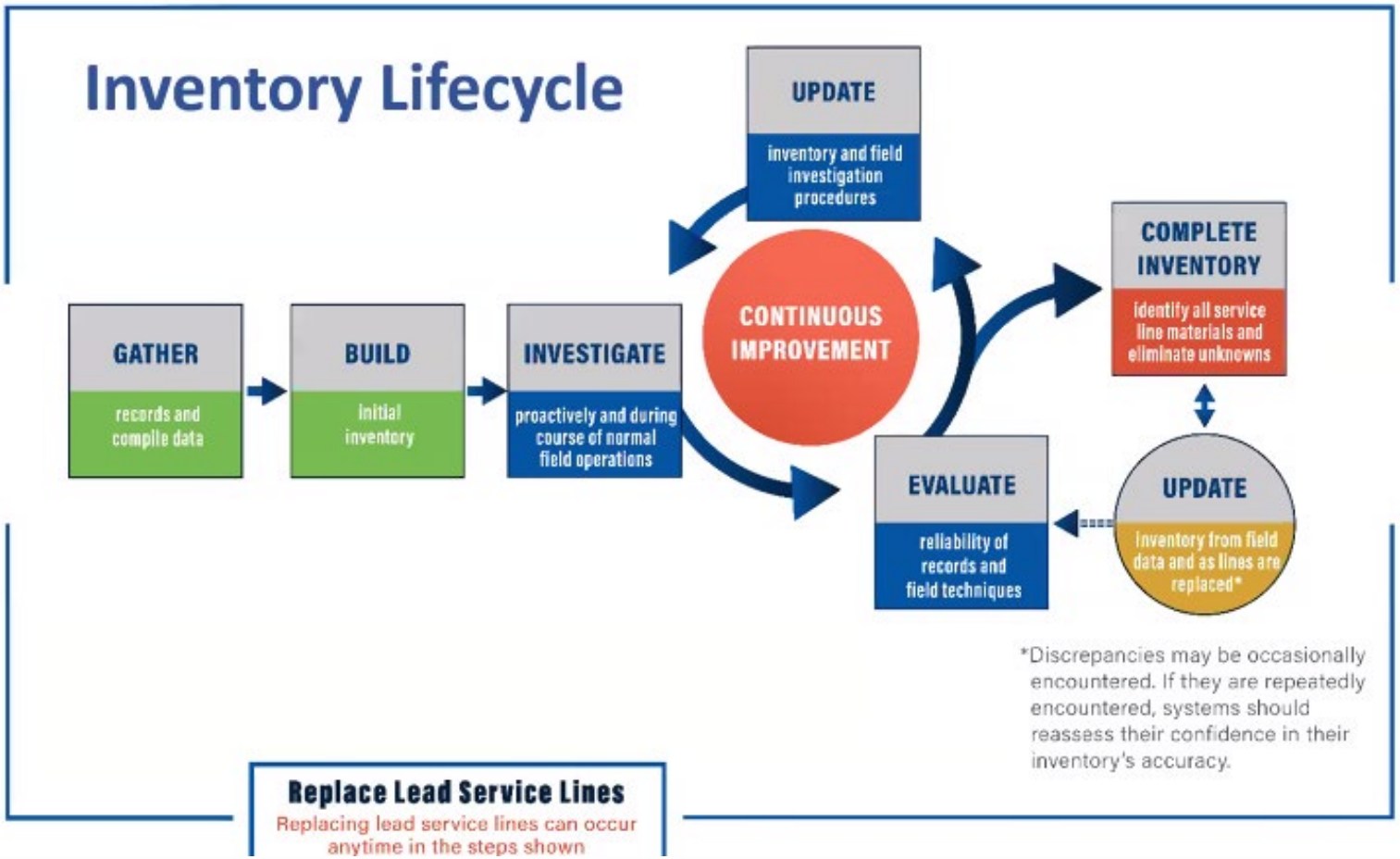
LCRR: Lead Service Line Inventory

- Lead connectors (i.e., goosenecks or pigtails) are not required to be included in the inventory
  - EPA recommends including lead connectors where records exist
  - Water systems must replace lead connectors when encountered (existing Oregon law)

LCRR: Lead Service Line Inventory

- Location Identifier for LSL and GRR
- Will need to be made available to the public if have LSLs, GRRs, or unknowns
- *Most likely future inventory submissions will be required*
- Must include ALL service connections: residential, commercial, fire, irrigation, etc

LCRR: Lead Service Line Inventory



Allowed methodologies to categorize SLs

- Records review
- Installation date & diameter
- Basic / visual inspection
- Physical inspection
- Statistical sampling

Methodologies: Records review

- Service line installation records
- Tap cards
- Plumbing permits
- Maintenance records
- Meter installation records
- Property tax records
- Drawings or maps
- Issues: may not be legible, complete, or accurate

Installation date & Diameter

- Any service lines installed after January 1, 1986 can be categorized as Non-lead
- If a PWS had a written standard regarding pipe materials allowed, that date can also be used. Must have documentation.
- Any service lines 2” or greater can be categorized as Non-lead since lead was not strong enough for this size.

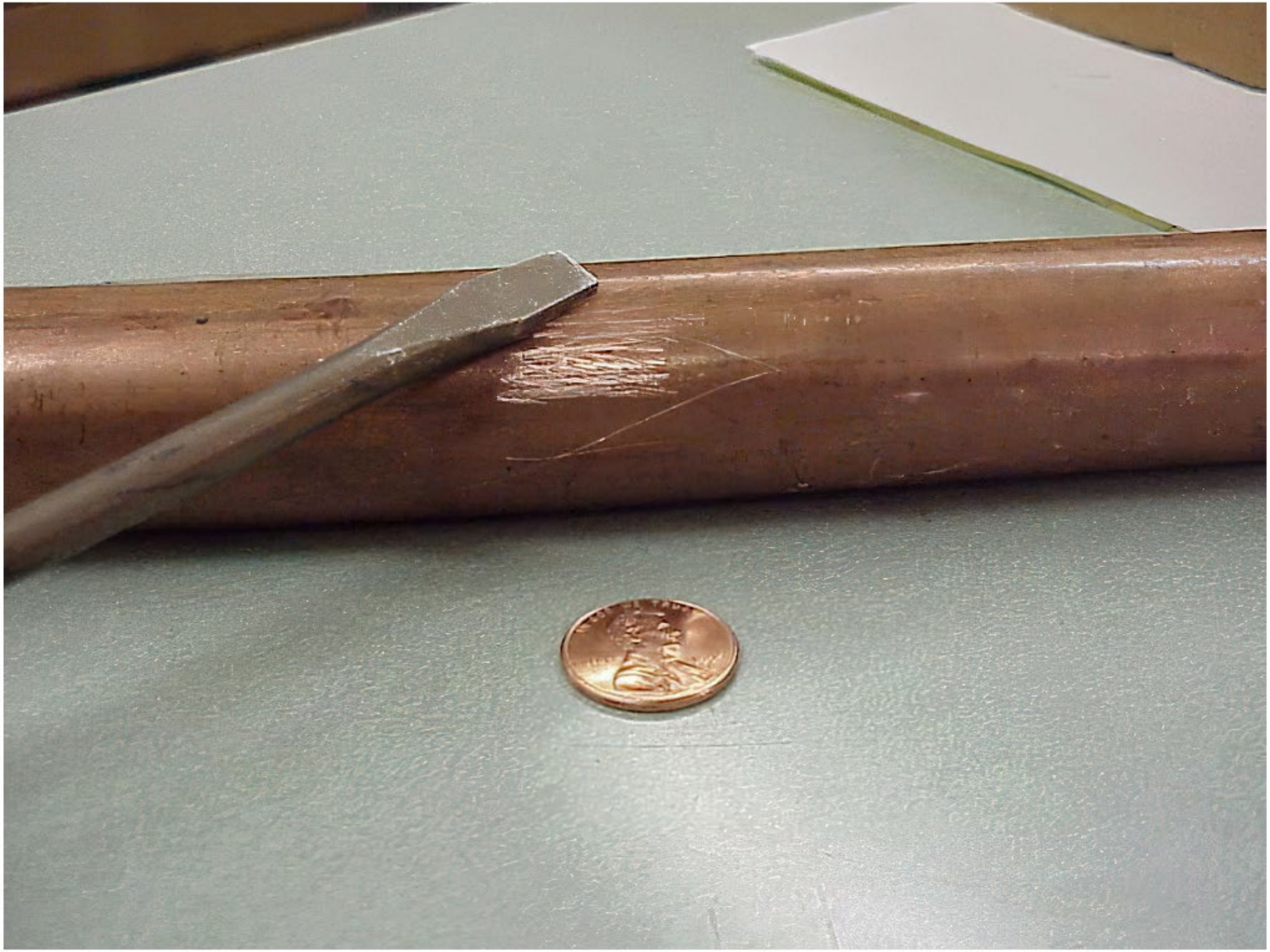
Methodologies: Visual

- Scratch test: PWS staff or residents scratch the pipe using a coin or key
- Magnet test: lead is not magnetic but iron pipe is
- Resident survey, photos
- Plumbers, other utilities

Lead Pipe

- Scratch Test – If the scraped area is shiny and silver, **the pipe is lead.**
- Magnet Test – A magnet will not stick to a lead pipe
- Tapping Test – Tapping a lead pipe with a coin will produce a dull noise

Copper Pipe



- Scratch Test – If the scraped area is copper in color, like a penny, **the pipe is copper**.
- Magnet Test – A magnet will not stick to a copper pipe.
- Tapping Test – Tapping a copper pipe with a coin will produce a metallic ringing noise.

Galvanized Pipe

- Scratch Test – If the scraped area remains a dull gray, **the pipe is galvanized steel**.
- Magnet Test – A magnet sticks to a galvanized pipe.
- Tapping Test – Tapping a galvanized pipe with a coin will produce a metallic ringing noise.

Methodologies: Statistical Analysis

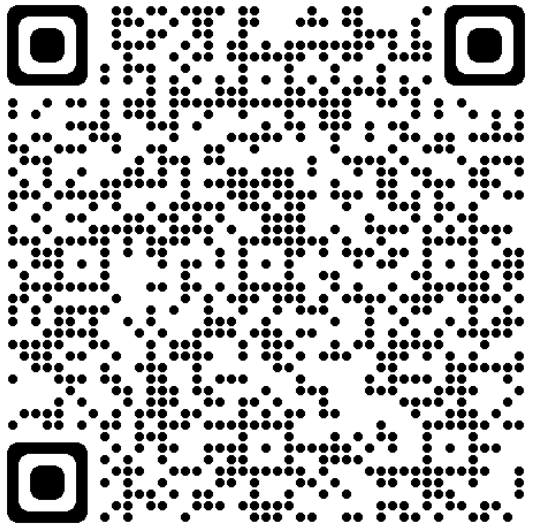
- If no LSLs are known, can statistically verify that no lead service lines are present within a group of unknowns:
  - Use 95% confidence interval
- Physical inspection of the number necessary for 95% confidence
  - Excavation (pot-holing or vacuum)
  - PWS inspection at building inlet
- **If any lead is found, cannot categorize unknowns as Non-lead.**

Statistical Analysis: details

- Note: Oregon protocol is posted, www.oregon.gov/lcrr
- Number of unknowns physically inspected to verify for statistical method to determine a 95% confidence level
- Sites to inspect need to be randomly chosen

Statistical Method – # of unknowns to inspect

Number of Unknown Service Lines	*Number to Physically Inspect Oregon guidance
Fewer than 1,500	20% of unknown lines
1,500 to 2,000	322
2,001 to 3,000	341
3,001 to 4,000	351
4,001 to 6,000	361
6,001 to 10,000	371
10,001 to 50,000	381
>50,001	384



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Physical inspection / excavation

- Mechanical:
  - Gold standard
  - Reliable, high accuracy
  - Expensive, time-consuming
- Vacuum:
  - Hydro vacuum loosens the soil, exposes smaller section of service line

- One location is adequate, outside of meter box or at building inlet
- CCTV: inspect from the inside

Getting started

- Develop a plan
  - DWS does NOT need to approve your plan
- Staff time
  - Consider an intern?
- Train all distribution staff
- Develop data collection method for work
- Evaluate available methods by cost, disturbance, impact to homeowner, skills required, time, and accuracy

Assistance

- Free to systems serving <10,000 people
- Training and outreach on service line inventory, methodologies, and reporting requirements
- Individual assistance to public water systems
- Receiving assistance is voluntary
- Alternative inventory submission vendor

  120Water: Data portal
- Two hands-on providers:
  - OAWU: SW and central OR 503-837-1212
  - HBH: North and Eastern 503-554-9553

Assistance, cont'd

- Records review
- Records compilation
- Use of spreadsheet to track data
- Develop a strategy for identifying unknowns
- Assistance with reporting
- Will not conduct physical inspections/ excavation
- Check www.oregon.gov/lcrr to get help!

What about the unknowns?

- A system can list service lines without documentation as “lead status unknown” in the initial inventory
- Unknowns must eventually be determined (assumed to be in LCRI)

Unknowns and Galvanized requiring replacement (GRRs)

- Must be treated as a lead service line until replaced
- Targeted customer notification 30 days after inventory is complete (or Nov 15th, 2024), and annually
  - Health effects of lead
  - Steps they can take to reduce lead exposure
  - EPA will be releasing templates in the next couple of months*

Making the inventory publicly available

- These rules may change with LCRI
- The service line materials inventory must be publicly accessible if unknowns, LSLs, or GRRs
- For LSL and GRR: The inventory must include an associated location identifier, such as a street address, block, intersection, landmark or GPS

Bipartisan Infrastructure Law (BIL)

- Money is coming to states to fund lead service line replacements (loan program, 49% grants to disadvantaged communities).
- Can be used for inventory work (3rd party)
- If lead service lines are found, BIL funding will be available to fund replacement. (Includes GRR too)

Bipartisan Infrastructure Law (BIL)

How to Apply:

Eligible water systems must submit a Letter of Interest (LOI) form by the March 15, 2024 submission deadline. Projects will be reviewed, rated, and ranked annually and placed on a project priority list which will be used to allocate funding.

For specific questions related to filling out the LOI, contact the Regional Development Officer for the area in which the water system is located.

Water systems that need further help filling out and submitting the LOI to Business Oregon can be referred to OHA's Circuit Rider Program.

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Inventory Reporting

- **Entire** inventory must be submitted (including summary data)
- Due October 16, 2024
- MUST use Oregon template/spreadsheet or data portal
- Required elements must be filled out
- Optional elements – info for tap sample siting, others “while you’re there”

What happens if I don't turn in an inventory?

- A Tier 2 (30 days) public notice will be required to be sent out and a treatment technique violation will be issued on the water system.

Current inventory submission status

As of 4/25

- CWS – 66 (7%)
- NTNC – 40 (12%)

- Issues seen with submissions
  - Using EPA template
  - Not including all service lines
  - Filling out drop down options incorrectly (statistical)
  - Not filling out methodology tab

Resources:
Drinking water website

Oregon Drinking Water Services

Working to keep drinking water safe for Oregonians

Access to safe drinking water is essential to human health. Each person on Earth requires at least 20 to 50 liters of clean, safe water a day for drinking, cooking and simply keeping themselves clean. Oregon Drinking Water Services works to help keep drinking water safe for Oregonians.

Oregon Drinking Water Services (DWS) administers and enforces drinking water quality standards for public water systems in the state of Oregon. DWS focuses resources in the areas of highest public health benefit and promotes voluntary compliance with state and federal drinking water standards. DWS also emphasizes prevention of contamination through source water protection, provides technical assistance to water systems and provides water system operator training.

Contact Us | Sign up for DWS Alerts | Water Advisories Map | Data Online

Guidance for Reopening Building Water Systems After Prolonged Shut Down - *Updated October 7, 2020*

Public Water Systems and Novel Coronavirus 2019 (COVID-19) Frequently Asked Questions - *Updated May 1, 2020*

Services

- Cross Connection & Backflow Prevention
- Emergency Planning and Response
- Groundwater & Source Water Protection
- Monitoring & Reporting
- Operator Certification
- Plan Review
- State Revolving Fund (SRF)
- Water System Operations

Resources

- County & Department of Agriculture Resources
- Data Online
- Domestic Well Safety Program
- Drinking Water Advisory Committee (DWAC)
- For Consumers
- Rules & Implementation Guidance
- Training Opportunities
- Site Map
- Contact Us

News and Hot Topics

Link
Wildfire information for water systems
Drinking Water Source Protection Funding Available - LOI Due March 24, 2021
NEW - Annual Water System Fee Info
SRF PPL Public Notices
Rulemaking: Adoption of Annual Fees
Cyanotoxin Resources for Water System Operators
Shutdown tips for seasonal groundwater systems

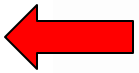
Resources:
Drinking water website (cont.)

Rule Implementation Guidance

Oregon Very Small Systems

Effective January 1, 2022, water systems serving 4 to 14 service connections and commercial or public premises used by 10 to 24 people at least 60 days per year have been renamed Oregon Very Small (OVS) from State Regulated. New rules are now implemented for Oregon Very Small (OVS) systems that retain important public health protections and are more achievable for water suppliers with limited resources.

Service Line Inventory requirements in the Lead and Copper Rule Revisions (LCRR)



The Lead and Copper Rule applies to all community (CWS) and non-transient (NTNC) public water systems. EPA adopted revisions to the Lead and Copper Rule in 2021 that include a requirement for public water systems to conduct inventories of service lines and to identify service line material type. The intent of the service line inventory requirement is to identify those service lines made of lead so that they can be scheduled for removal and replacement.

Public water systems must conduct an inventory of all service lines, on both the water system side and the homeowner side of the meter, and to submit the results to OHA–Drinking Water Services (DWS) by October 16, 2024.

Groundwater Rule

The Groundwater Rule (GWR) applies to all public water systems that use groundwater sources or purchase groundwater. The primary purpose of the rule is to protect public health from bacterial and viral pathogens in public groundwater systems.

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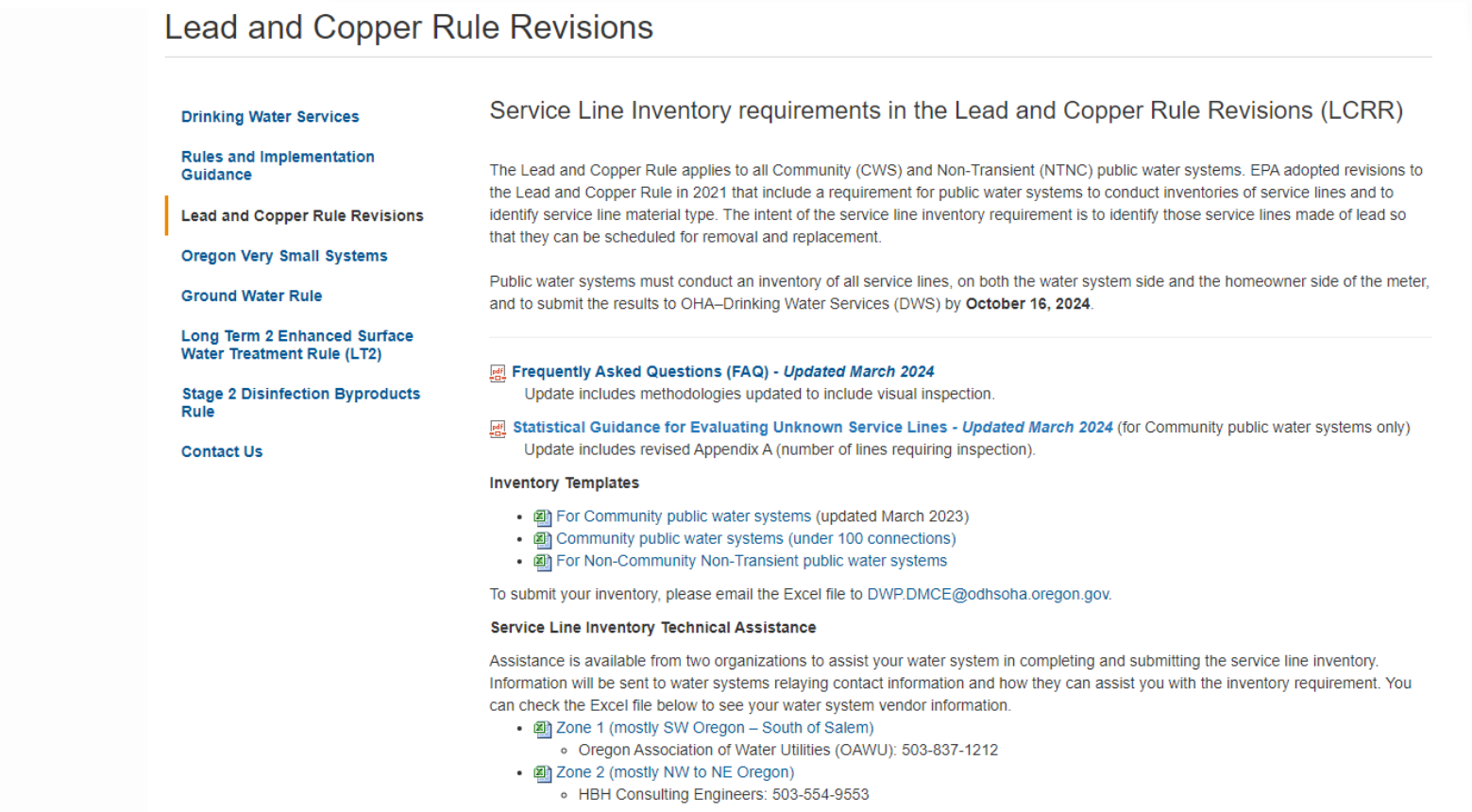
Resources:
Drinking water website (cont.)



Lead and Copper Rule Revisions

- Drinking Water Services
- Rules and Implementation Guidance
- Lead and Copper Rule Revisions
- Oregon Very Small Systems
- Ground Water Rule
- Long Term 2 Enhanced Surface Water Treatment Rule (LT2)
- Stage 2 Disinfection Byproducts Rule
- Contact Us

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Frequently Asked Questions (FAQ) - *Updated March 2024*
Update includes methodologies updated to include visual inspection.

Statistical Guidance for Evaluating Unknown Service Lines - *Updated March 2024* (for Community public water systems only)
Update includes revised Appendix A (number of lines requiring inspection).

Inventory Templates

- For Community public water systems (updated March 2023)
- Community public water systems (under 100 connections)
- For Non-Community Non-Transient public water systems

To submit your inventory, please email the Excel file to DWP.DMCE@odhsoha.oregon.gov.

Service Line Inventory Technical Assistance

Assistance is available from two organizations to assist your water system in completing and submitting the service line inventory. Information will be sent to water systems relaying contact information and how they can assist you with the inventory requirement. You can check the Excel file below to see your water system vendor information.

- Zone 1 (mostly SW Oregon – South of Salem)
  - Oregon Association of Water Utilities (OAWU): 503-837-1212
- Zone 2 (mostly NW to NE Oregon)
  - HBH Consulting Engineers: 503-554-9553

What happens if there is a >90% lead ALE?

- A community wide Tier 1 (24 hour) public notice is required to be issued as soon as the water system learns of the ALE. This officially begins on Oct 16, 2024, but systems will be encouraged to implement early. (lead AL 15ppb)
- Systems are to submit a copy of the notice to the state.
- Letter template is on the DWS website under Forms and Resources

Questions??

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- 541-966-0901