

# Ohio's ~~Lead~~ Service Line Inventory

Tanushree Courlas, P.E.

Assistant Chief, Division of Drinking and Ground Waters

Ohio EPA



**Environmental  
Protection  
Agency**

# Ohio Lead Maps Requirements 2022 and 2024

## 2022 Maps

- Were due December 31, 2022
  - 1600 of 1750 PWSs submitted a new map or “no-change”
  - 79% of submissions were “no-change”

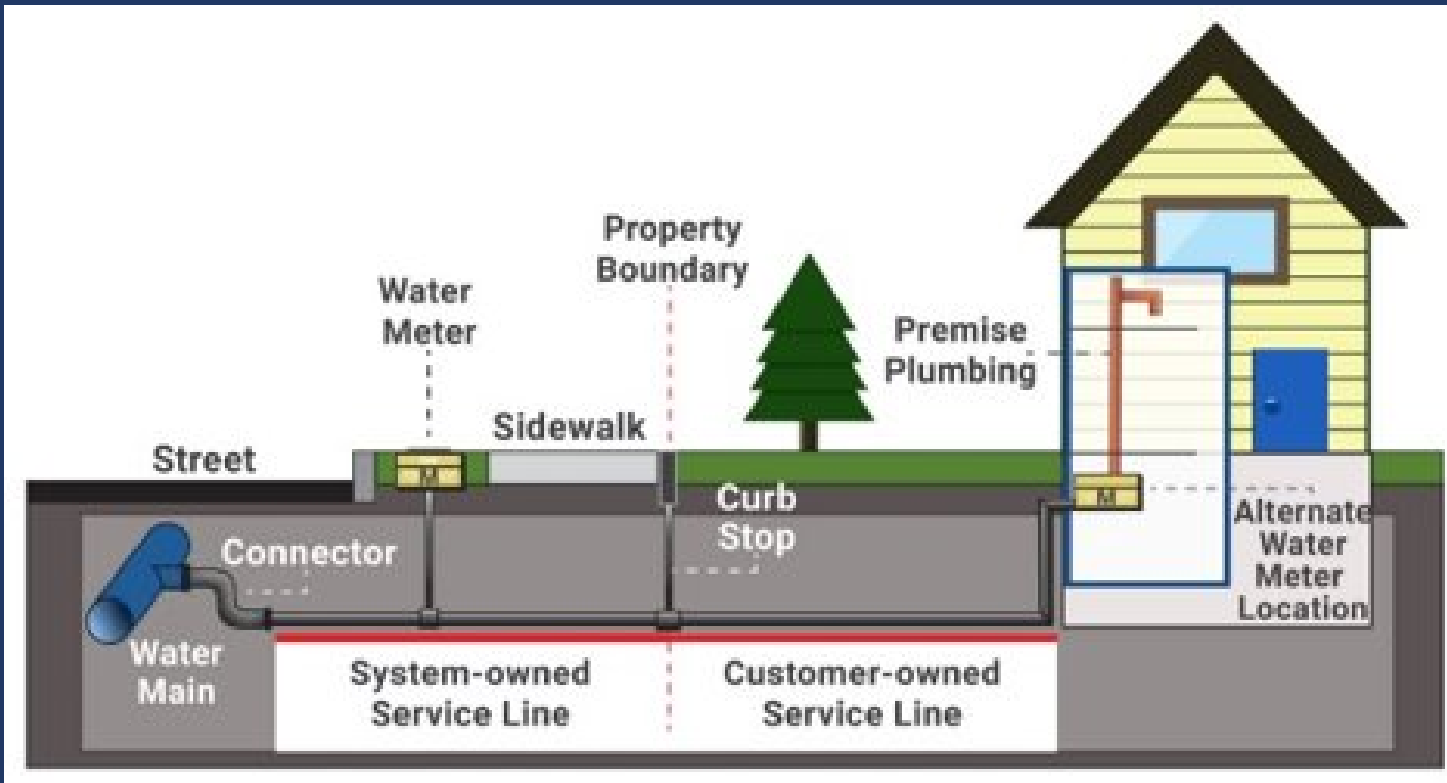
## 2024 Maps

- Expanded content and format requirements
- Developed state platform
- Incorporating 2024 inventory information



**Environmental  
Protection  
Agency**

# Service Line Inventory



Credit: US EPA



**Environmental  
Protection  
Agency**

# Service Line Inventory Materials Classification

- **Lead**
  - Service line is made of lead, a lead connector ≠ a lead service line
- **Galvanized Requiring Replacement**
  - A galvanized line that is or was downstream of a lead service line
- **Non-Lead**
  - Galvanized never downstream of lead, copper, plastic
- **Unknown**
  - Material unknown



# Service Line Initial Inventory

- All community water systems and non-transient non-community water systems must complete
- **Due October 16, 2024**
- Must include all service lines, regardless of use or ownership status using the 4 types of materials classification
- Must be on Ohio EPA's template
- Notification requirements, public accessibility information and required updates can be found in the instructions



**Environmental  
Protection  
Agency**

# Service Line Verification Methods

- Ohio's required inventory template based on federal template
- Combining LCRR inventory requirement & Ohio mapping requirement into one submission for PWSs
- Template is available on our website...no changes to template planned between now and 2024 submission
- Working with individual systems on how to use their GIS data with our template.
- Ohio EPA does not endorse a specific product for inventories

## Science Inventory

You are here: [EPA Home](#) » [Science Inventory](#) » Lead service line identification: A review of strategies and approaches

### Lead service line identification: A review of strategies and approaches

#### Citation:

Hensley, K., V. Bosscher, S. Triantafyllidou, AND D. Lytle. Lead service line identification: A review of strategies and approaches. AWWA Water Science. John Wiley & Sons, Inc., Hoboken, NJ, 3(3):e1226, (2021). <https://doi.org/10.1002/aws2.1226>

Contact

[CESER@epa.gov](mailto:CESER@epa.gov)  
email: CESER@epa.gov



**Environmental  
Protection  
Agency**

# Service Line Inventory Template



Environmental Protection Agency

For detailed instructions <a href="#">CLICK HERE!</a>												
PWS Name:												
PWS ID:												
<p><b>Purpose of this worksheet:</b> To provide a customizable format water systems can use to track materials for each service line in their distribution system.</p> <p><b>General Instructions:</b> Each row in this worksheet represents one service line connecting the water main to the customer's plumbing. The worksheet includes required and recommended elements; the columns with the RED shading are required. This template is formatted for approximately 10,000 rows. The +/- button in the lefthand margin can be used to hide and unhide the PWS Information Box.</p>												
Press the +/- button to display or hide the PWS Information box		Location Information										
Unique Service Line ID	Site Name	Street Number	Street Name	City	Zip Code	County	Latitude	Longitude	In Asset Management	Asset Status	Asset Start Date	Asset End Date
A Unique ID by the public water system 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 GPS coordinates, landmark, intersection, block, or other details to specify service line locations.										
<i>Example 1</i>	<i>Site Name</i>	<i>1234</i>	<i>Test St.</i>	<i>Test City</i>	<i>88888</i>	<i>Test County</i>	<i>##.####</i>	<i>-##.####</i>	<i>Yes, No, Unknown</i>	<i>Active, Inactive, Not Applicable</i>	<i>mm/dd/yyyy</i>	<i>mm/dd/yyyy</i>
1	House 1	1502	Main St	Braceville	44444	Adams	41.2556	-80.3606	No	Active	1/1/2022	1/1/2023
2	Business 1	1234	Main St	Braceville	44444	Adams	41.2556	-80.3620	Yes	Inactive	1/15/2016	

- **Red** = required
- **Blue** = recommended

Press the +/- button to display or hide the PWS Information box		System-Owned Portion										Customer-Owned Portion						
Unique Service Line ID	Site Name	System-Owned Portion Service Line Material Classification	If Non-Lead in Column O...		Is the Service Line Metered?	Service Line Use	Service Line Size	Service Line Length	Basis of Material Classification	Was the Service Line Material Field Verified?	If Yes in Column W...		Customer-Owned Portion Service Line Material Classification	Service Line Installation Date	Service Line Size	Service Line Length	Basis of Material Classification	Was the Service Line Material Field Verified?
			Was Material Ever Previously Lead?	Service Line Installation Date							Describe the Field Verification Method	Enter the Date of Field Verification						
A Unique ID by the public water system for each service line.		If "Non-Lead Other", describe in Comments field	Important for determining if service line requires replacement	Estimated date when the service line was installed or replaced	Service Line Metered or Not Metered	Drinking, Non-Drinking, Combination	Diameter in inches	Length in Feet	Select option from drop down list. If "Other," describe in the Notes field		If Other, describe in the Notes field	Estimated date of field verification or date that the record was updated	If "Non-Lead Other", describe in Comments field	Estimated date when the service line was installed or replaced	Diameter in inches	Length in Feet	If Other, describe in the Notes field	
<i>Example 1</i>	<i>Site Name</i>	<i>Non-Lead-Copper</i>	<i>Yes</i>	<i>3/15/1988</i>	<i>Yes</i>	<i>Drinking</i>	<i>1.50</i>	<i>6</i>	<i>Field inspection only with no record</i>	<i>No</i>			<i>Lead</i>	<i>3/15/1988</i>	<i>1.25</i>	<i>6</i>	<i>Previous materials evaluation</i>	<i>Yes</i>
1	House 1	Non-Lead-Plastic	No	4/25/2005	Yes	Drinking	1.25	6	Previous Materials Evaluation	Yes	Visual inspection of the meter pit	5/25/2018	Non-Lead-Copper	3/12/1981	2	8	Meter sampling only with no record	No
2	Business 1	Non-Lead-Copper	No		Yes	Combination	2.50	8	Material record (e.g., tap card)	No			Non-Lead-Plastic	10/12/2001	2	12	Material record (e.g., tap card)	Yes

# Where to Find Info on the Inventory

The screenshot shows the Ohio EPA website page for "Lead and Copper in Public Water Systems". The page features a navigation bar with links like "Stay Compliant", "Make a Difference", "Monitor Pollution", "Get Funding", "Find Regulations", and "Help". The main content area is titled "Lead and Copper in Public Water Systems" and includes a sub-header "Service Line Inventory Template and Instructions Available". Below this, there is a "General Information" section with a paragraph about the Safe Drinking Water Act and the Lead and Copper Rule. A sidebar on the left contains a "Public Water Systems" section with links to "Source Water Protection and Underground Injection Control (UIC)" and "Reports & Data". A right sidebar titled "For more information" lists several links, including "Service Line Inventory Template" and "Federal EPA Guidance for Developing and Maintaining a Service Line Inventory".

- Available on our Website Currently
  - Template and Instructions
  - Fact Sheets
  - Funding Webinar
  - Guidance from US EPA
- Inventory webinars





## Challenges

- Where do I start?
- GRR
- Lack of manpower
- Contractor availability
- Records
- Getting to the finish line



**Environmental  
Protection  
Agency**

# Funding Summary

- **H2Ohio**
  - State funding
  - \$10 million each year for the last 4 years
  - \$20 million next 2 years
- **Drinking Water State Revolving Fund**
  - Base Drinking Water State Revolving Fund
- **New Bipartisan Infrastructure Law (IIJA)**
  - General Supplemental
  - Emerging Contaminants
  - Lead Service Line
- **Water Infrastructure Improvements for the Nation Act (WIIN)**



### Identification and Mapping Year 3

- \$2.1 million
- 48 systems
- \$600k to RCAP and ORWA

### Lead Service Line Replacement Year 3

- \$2.4 million
- 6 systems
- Delphos, Lockland, Norwood, Scio, Sebring, Hubbard

### Identification and Mapping Year 4

- \$2.4 million
- 53 systems in 37 counties

### Distribution Equipment Year 4

- \$1 million
- ~116 systems

The logo for H2Ohio features the text "H2Ohio" in a blue, sans-serif font. The "2" is a smaller size than the "H" and "O". Below the text are three blue wavy lines representing water. The logo is set against a white background.

**H2Ohio**

# Small System Technical Assistance

## Program

## Purpose

DWSRF General  
Supplemental

RCAP – training, technical assistance

DWSRF Lead  
Service Line  
Replacement

LSL identification, mapping, inventory  
through RCAP

Base DWSRF

ORWA – training, technical assistance

# Ohio Rural Community Assistance Program (RCAP)

- Direct assistance to PWS under 10,000 in population
- Development of service line inventory
- Outreach to the community
- Assistance and training in identification
- In total, they are working with over 60 communities on service line inventories



**Environmental  
Protection  
Agency**

# Service Line Inventory Direct Assistance Contract

- Currently with the state Development Administrative Services for draft and advertising
- Anticipating advertising early 2024
- Likely contracting with multiple vendors to meet the needs of Ohio's PWS
- Ohio EPA's goal is to be in contract early next year



**Environmental  
Protection  
Agency**

# LSL Outreach Events

- LSL Funding Workshops
- Inventory Webinars
- Dedicated Email
- Presentations with Professional Organizations



## Lead Service Line and Brownfield Funding Open House

Ohio Brownfields and Lead Service Line Teams

**Northeast Ohio**  
September 7, 2:00 pm - 4:00 pm  
RSVP by September 4



**Kent Free Library**  
312 W Main St, Kent, OH 44240

Ohio EPA invites you to in-person open houses to learn about funding and technical assistance opportunities related to lead service lines and Brownfields. Meet our team to discuss upcoming lead and copper regulations, funding for lead service lines, and technical assistance available to public water systems. The Ohio Brownfields team will be available to discuss potential projects in your community, and the funding and technical assistance opportunities available throughout the state. Don't miss out on the chance to learn more about the significant resources available to your community!

For questions and to RSVP, please email James Gault ([james.gault@epa.ohio.gov](mailto:james.gault@epa.ohio.gov)). We look forward to seeing you soon!





**RASOR**

Proposal to serve

## Ohio Environmental Protection Agency

Consulting Services for  
Developing Ohio Strategy to  
Address Lead in Drinking  
Water

RFP Number: SRC000005032  
Index Number: EPA021  
UNSPSC Category: 77101500

Technical Proposal

Submitted by:  
KPMG LLP

October 05, 2022  
kpmg.com



# Ohio Lead Strategy Project

- Project Kickoff in January
- Contract with KPMG
  - Razor Marketing Communications
- 12-month ambitious effort



**Environmental  
Protection  
Agency**



# Key Challenges

- Securing sufficient funding (across all sectors)
  - Needs > current funding
  - Funding private side
- Homeowner engagement: resistance for variety of reason
  - Trust, cost, damage to home/landscaping
  - Rental properties
- Lack of consistent regulations and policy across state
  - Need regulatory/legislative tools to ensure private side engagement
  - Need clarity on future LCR requirements and more comprehensive state guidance
- Lack of trust across all levels
  - General lack of trust in government
  - Additional barriers in disadvantaged, rural, and lower income areas



**Environmental  
Protection  
Agency**

# Thank you!

Tanushree Courlas, P.E.

Assistant Chief, Division of Drinking and Ground Water

Ohio EPA



**Environmental  
Protection  
Agency**