

# LDH Service Line Inventory Guidance

3/21/2024

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## EPA Lead and Copper Rule Revisions (LCRR)

- Establishes a compliance deadline of October 16, 2024 for all Community (CWS) and Non-Transient Non-Community (NTNC) water systems to submit their initial service line inventories to the state (LDH).
- This includes systems that have no lead service lines.
- Inventory submittals must include the street address associated with every service line in their distribution system.
- Systems are required to classify the material of both the water-system-owned portion of the service line (water main to the meter) and the customer-owned portion of the service line (meter to the building inlet).

## EPA Lead and Copper Rule Revisions (LCRR)

Water systems must make their service line inventory publicly available:

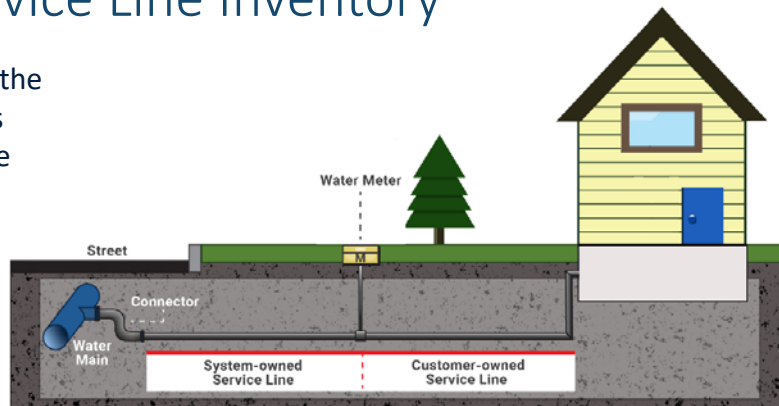
- Systems serving greater than 50,000 persons must make the publicly accessible inventory available online.
- Systems serving 50,000 or fewer people are not required to post their inventories online, but must make it available by mail or in-person at the water system's office.
- When a water system has only non-lead service lines and connectors, the public inventory can consist of a written statement in lieu of the detailed inventory, declaring that the distribution system has no lead, galvanized requiring replacement, or lead status unknown service lines, no known lead connectors or no unknown connectors. The statement must include a general description of all applicable sources used to make this determination.

## Initial Service Line Inventory Requirements

## Initial Service Line Inventory

Each service line, or portion of the service line where ownership is split, must be categorized in the following manner:

1. Lead
2. Galvanized Requiring Replacement
3. Non-Lead
4. Unknown



NOTE: Lead connectors (goosenecks/pigtails) are not considered LSLs will be required to be included in the inventory in future inventory updates per the LCRI (i.e. baseline inventory due in 2027). We strongly encourage systems to classify connector materials in their initial inventory.

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## Initial Service Line Inventory

**Lead** - where the system-owned or customer-owned portion of the service line is made of lead.

NOTE: Lead connectors (i.e., goosenecks or pigtails) are not considered a lead service line but are required to be included in the inventory in future inventory updates (i.e. baseline inventory due in 2027). We strongly encourage systems to classify connector materials in their initial inventory.

**Galvanized requiring replacement (GRR)** - where a galvanized service line is or was at any time downstream of a lead service line or is currently downstream of a "Lead Status Unknown" service line. If the water system is unable to demonstrate (through an evidence-based record, identification method, or identification technique) that the galvanized service line was never downstream of a lead service line, it must presume there was an upstream lead service line and classify it as a GRR service line. Lead particles can attach to the surface of galvanized pipes and accumulate over time.

NOTE: Under the LCRR, a galvanized service line that is (or ever was) downstream of just a lead gooseneck or pigtail connector is not considered a GRR service line.

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## Initial Service Line Inventory

**Non-Lead** - where the service line is determined through an evidence-based record, method, or technique not to be lead or GRR. An evidence-based record, method, or technique provides documentation that identifies a service line's material or supports a classification of "non-lead". The water system may classify the actual material of the service line (*e.g.*, plastic or copper) as an alternative to classifying it as "Non-lead."

**Lead status unknown** - where the service line material is not known to be "lead", "GRR", or a non-lead service line, such as where there is no documented evidence supporting material classification. This classification is also referred to as an "unknown".

## Initial Service Line Inventory

- Inventories will enable water systems to target communication to their residents in homes with "LSLs", "GRRs" and "Unknowns" about the actions they can take to reduce their lead exposure.
- In addition, the inventories will allow water systems to better identify lead/copper sampling locations and begin planning for LSL replacement actions including applying for state and federal grants and loans.
- Water systems should treat the inventory as a living dataset that is continuously improved over time. The number of "unknowns" in the inventory should decrease as systems gather new information through normal operations and any proactive material identification activities in which the water system is engaged.

## Lead Service Line Replacement Plans

All water systems with one or more “lead”, “galvanized requiring replacement”, or “lead status unknown” service lines in their distribution system must submit a lead service line replacement plan to the State. The plan must include a description of:

- 1) A strategy for determining the composition of lead status unknown service lines in its inventory;
- 2) A procedure for conducting full lead service line replacement;
- 3) A strategy for informing customers before a full or partial lead service line replacement;
- 4) A procedure for consumers to flush service lines and premise plumbing of particulate lead following a LSL disturbance or partial LSL replacement;
- 5) A LSL replacement prioritization strategy based on factors including but not limited to the targeting of known lead service lines, lead service line replacement for disadvantaged consumers and populations most sensitive to the effects of lead;
- 6) A funding strategy for conducting LSL replacements which considers ways to accommodate customers that are unable to pay to replace the portion they own;
- 7) A communication strategy to inform residential and non-residential customers and consumers (e.g., property owners, renters, and tenants) served by the water system about the service line replacement plan and program; and
- 8) Identification of any laws, regulations, and/or water tariff agreements that affect the water system's ability to gain access to conduct full lead and galvanized requiring replacement service line replacement, including the citation to the specific laws, regulations, or water tariff agreement provisions.

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## Service Line Identification Methods/Techniques

## Service Line Identification

- The LCRR requires systems to develop their initial service line inventories using system records and information obtained through normal operations.
- However, LDH recommends that systems with “unknowns” take a more proactive approach to identify unknown service line materials.
- Systems with service lines classified as “unknown”, “lead” or “galvanized requiring replacement” are required to take additional actions such as:
  - submit a lead service line replacement plan,
  - provide annual customer notices,
  - distribute POU treatment devices or pitcher filters with a six-months supply of filters when the service line is disturbed.
- Reducing the number of unknowns now will reduce required actions in the future.
- **NOTE: The recently published LCRI requires systems to identify all unknowns by 2037. More to come on this!**

## Records

**Historical Records Review:** Under the LCRR, system are required to review records such as:

- construction and/or plumbing permits,
- maps of the distribution system,
- lead and copper sample plans,
- historical records on each service connection, meter installation records,
- historical capital improvement or master plans,
- standard operating procedures,
- other inspection reports or records of the distribution system that indicate service line materials.

NOTE: If a system is aware of discrepancies between their records and their knowledge of service line material, or if there is a lack of confidence in the accuracy of the records, the system should classify the service line as “lead status unknown” until further action is taken to verify the service line material.

## Plumbing Code/Louisiana Lead Ban

**Plumbing Codes:** The official effective date of Lead Ban in Louisiana was September 20, 1988. Therefore, all service lines installed after this date can be classified as “non-lead” where a record of the date of construction or service line installation exists.

**Service Line Size:** The use of lead piping greater than 2-inches was extremely rare. Therefore, LDH will allow all service lines larger than 2-inches, regardless of installation date, to be classified as “non-lead” where a record indicates larger service lines are non-lead and the system is not aware of any lead service lines in their distribution system that are larger than 2-inches in diameter.

## Field Identification Methods

**Visual Inspection:** In some cases, water systems may be able to inspect their meter boxes to determine the public and private service line materials. If a system determines that visual identification is feasible, systems are required to document their findings for each location. LDH recommends that photos are included as part of the documentation.

**Excavation/Physical Verification:** Excavation methods are the most accurate but require different levels of disturbance, time investment, and cost as well as coordination with the property owner. At a minimum, LDH requires 1 pothole approximately 18” to 24” from the meter box for each portion of the service line being verified. Therefore, 2 potholes (one on each side of the meter), would be required to physically verify both the public and private portions of the service line. The distance of the pothole may vary from system to system and shall be selected based on the water system’s knowledge of how their meters tie in with their service lines and to minimize disturbance to other utilities or property.

## Interviews/Questionnaires and Other Methods

**Interviews/Questionnaires:** Interviews and questionnaires with experienced system staff, plumbers and others with knowledge of service line materials can be used to focus the inventory effort and verify system records. Classifications of service line materials based on interviews or questionnaires however, shall not be used as a sole source of information for the inventory. All documented interviews and questionnaires are required to be signed and dated by the individual providing the information and shall include the individual's affiliation with the water system and details of various projects or job duties that afforded the individual knowledge of service line materials.

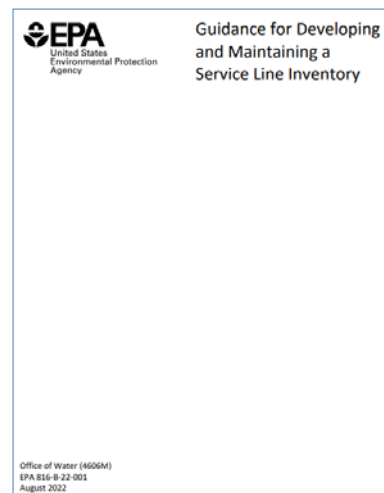
**Other:** LDH will consider other identification methods and techniques on a case-by-case basis. This includes: statistical analysis, predictive modeling, emerging technologies or other techniques systems feel confident will assist in their material identification efforts.

## EPA Guidance

To support public water systems, EPA has published a manual titled: **"Guidance for Developing and Maintaining a Service Line Inventory"**. This manual includes best practices, case studies for inventory development and detailed information on various lead service line identification methods and techniques.

**To view the guidance document visit:**

<https://www.epa.gov/ground-water-and-drinking-water/revised-lead-and-copper-rule>





## LDH Service Line Inventory Template - Introduction

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## LDH Service Line Inventory Template

The LDH Service Line Inventory Template is a Microsoft Excel Spreadsheet that consists of the following 4 Tabs/Worksheets:

- **PWS Records Worksheet** (REQUIRES SYSTEM ENTRY)
- **PWS Service Line Inventory Worksheet** (REQUIRES SYSTEM ENTRY)
- **Service Lines to be Replaced Worksheet** (AUTO-FILLED)
- **SL Summary Worksheet** (AUTO-FILLED):

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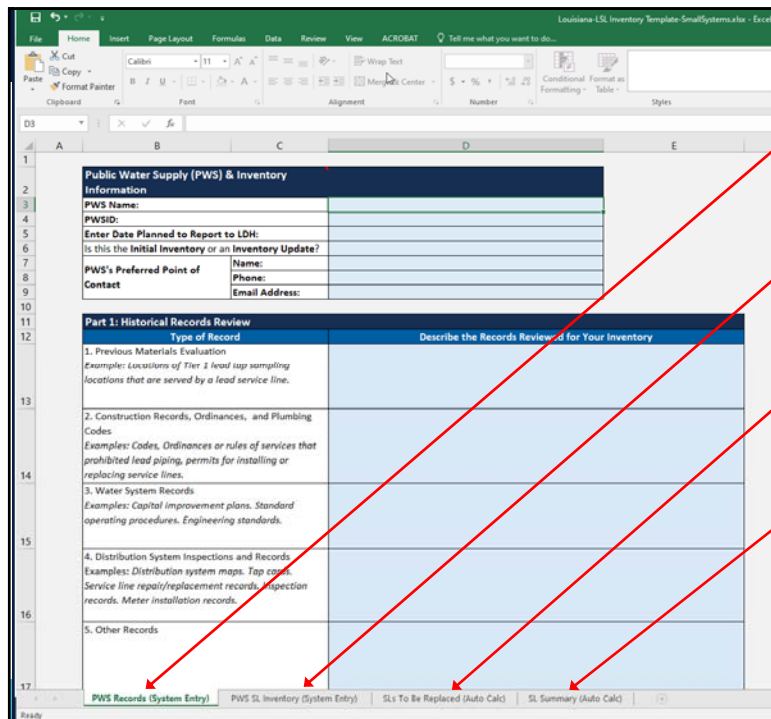
# LDH Service Line Inventory Template


- All systems must utilize the LDH template to submit their service line inventory information to LDH.
- Systems can use other methods of tracking their service line materials (i.e., customized spreadsheet, database, software, billing system, etc.), however, the information must be compiled into the LDH Service Line Inventory Template for submittal.
- Prior to populating the inventory, first save a copy to your hard drive or network drive. Remember to save your work as you go, and back up the spreadsheet so you do not lose your progress.
- Future instructions on how to submit your completed inventory template to LDH will be provided.

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**PWS Records Worksheet**  
**REQUIRES SYSTEM ENTRY**

**PWS SL Inventory Worksheet**  
**REQUIRES SYSTEM ENTRY**

**SLs to be Replaced Worksheet**  
**AUTO-FILLED, No System Entry Required**

**SL Summary Worksheet**  
**AUTO-FILLED, No System Entry Required**

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## LDH Service Line Inventory Template

- Demonstration 1 – Template Overview
- [https://youtu.be/udrJ9K\\_gtAg](https://youtu.be/udrJ9K_gtAg)

## LDH Service Line Inventory Template – PWS Records Tab/Worksheet (REQUIRED)

**Public Water Supply (PWS) & Inventory Information**

PWS Name: \_\_\_\_\_

PWSID: \_\_\_\_\_

Enter Date Planned to Report to LDH: \_\_\_\_\_

Is this the Initial Inventory or an Inventory Update? \_\_\_\_\_

PWS's Preferred Point of Contact

Name:	_____
Phone:	_____
Email Address:	_____

**Part 1: Historical Records Review**

Type of Record	Describe the Records Reviewed for Your Inventory
1. Previous Materials Evaluation Example: Locations of Tier 1 lead tap sampling locations that are served by a lead service line.	
2. Construction Records, Ordinances, and Plumbing Codes Examples: Codes, Ordinances or rules of services that prohibited lead piping, permits for installing or replacing service lines.	
3. Water System Records Examples: Capital improvement plans. Standard operating procedures. Engineering standards.	
4. Distribution System Inspections and Records Examples: Distribution system maps. Tap cards. Service line repair/replacement records. Inspection records. Meter installation records.	
5. Other Records	

**PWS Records (System Entry)**

## PWS Records Worksheet (requires system entry):

Systems are required to provide:

- general system information,
- summary of the records, methods and techniques used to determine service line material; and,
- a description of how the system is making the inventory publicly available
- The PWS Records Worksheet is a required element of the inventory template and is separated into 5 Parts.
- Parts 1 – 5 are covered in the following slides.

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## PWS Information

Public Water Supply (PWS) & Inventory Information							
PWS Name:	_____						
PWSID:	_____						
Enter Date Planned to Report to LDH:	_____						
Is this the Initial Inventory or an Inventory Update?	_____						
PWS's Preferred Point of Contact	<table border="1"> <tr> <td>Name:</td> <td>_____</td> </tr> <tr> <td>Phone:</td> <td>_____</td> </tr> <tr> <td>Email Address:</td> <td>_____</td> </tr> </table>	Name:	_____	Phone:	_____	Email Address:	_____
Name:	_____						
Phone:	_____						
Email Address:	_____						

Provide:

- General system information (PWS Name, PWSID, System Contact Info)
- Date of inventory submission to LDH
- Specify whether the submission is the initial inventory or an inventory update

## Part 1: Historical Records Review

Part 1: Historical Records Review	
Type of Record	Describe the Records Reviewed for Your Inventory
1. Previous Materials Evaluation <i>Example: Locations of Tier 1 lead tap sampling locations that are served by a lead service line.</i>	
2. Construction Records, Ordinances, and Plumbing Codes <i>Examples: Codes, Ordinances or rules of services that prohibited lead piping, permits for installing or replacing service lines.</i>	
3. Water System Records <i>Examples: Capital improvement plans. Standard operating procedures. Engineering standards.</i>	
4. Distribution System Inspections and Records <i>Examples: Distribution system maps. Tap cards. Service line repair/replacement records. Inspection records. Meter installation records.</i>	
5. Other Records	

The LCRR requires all systems to review their records as part of their initial inventory submittal. Describe each type of record reviewed and highlight the findings from the reviews. Be as detailed as possible.

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## Part 2: Identifying SL Material During Normal Operations

Part 2: Identifying Service Line Material During Normal Operations	
1. During which normal operating activities are you collecting information on service line material? Check all that apply. <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Water meter reading             </div> <div style="width: 50%;"> <input type="checkbox"/> Water main repair or replacement             </div> <div style="width: 50%;"> <input type="checkbox"/> Water meter repair or replacement             </div> <div style="width: 50%;"> <input type="checkbox"/> Backflow prevention device inspection             </div> <div style="width: 50%;"> <input type="checkbox"/> Service line repair or replacement             </div> <div style="width: 50%;"> <input type="checkbox"/> Other             </div> </div>	
If "Other", please explain: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>	
2. Did you develop a policy or standard operating procedure to collect service line materials during routine activities? <div style="display: flex; align-items: center; margin-top: 5px;"> <input type="checkbox"/> Yes             <input type="checkbox"/> No           </div>	
If "Yes", please describe: <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>	

The LCRR requires systems to capture service line material during day-to-day activities of the system. Systems are required to develop procedures or policies to ensure service line material is being captured by staff and contractors and that the information is being used to update the service line inventory.

Indicate what routine activities that your water system is using to collect information on service line materials and verify that you have developed a policy or SOP to collect this information. Provide the policy in the space provided.

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## Part 3: Service Line Investigations

### Part 3: Service Line Investigations

1. Identify the service line investigation methods your system used to prepare the inventory (check all that apply). If a water system chooses an investigation method not specified by the state under 40 CFR §141.84(a)(3)(iv), state approval is required. **Note that investigations are not required by the LCRR but can be used by systems to assess accuracy of historical records and gather information when service line material is unknown.**

- |   |   |
|---|---|
| <input type="checkbox"/> Visual Inspection            | <input type="checkbox"/> Predictive Modeling  |
| <input type="checkbox"/> Customer Self-Identification | <input type="checkbox"/> Statistical Analysis |
| <input type="checkbox"/> Mechanical Excavation        | <input type="checkbox"/> Other                |
| <input type="checkbox"/> Vacuum Excavation            |   |

If "Other", please explain:

2. If the system utilized Predictive Modeling or Statistical Analysis, please briefly describe the process below:

Identify other material identification methods or techniques the system is using here.

Field investigations are not required by the LCRR but are recommended by EPA to verify historical records and to reduce the number of "unknowns" in your inventory.

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## Part 4: Inventory Summary Table

### Part 4. Inventory Summary Table<sup>1</sup>

When you are using the **Service Line Information** worksheet, the classifications in the Column "Material Classification for the Entire Service Line" (Column M) will be used to calculate the total number of service lines for each of the four material classifications below.

Service Line Material Classification	Definition	Total Number of Service Lines (REQUIRED to be reported under the LCRR)
Lead	Any portion of the service line is known to be made of lead. <sup>2</sup>	0
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.	0
Non-Lead	All portions of the service line are known NOT to be lead or GRR through an evidence-based record, method, or technique.	0
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.	0
TOTAL		0

Notes

<sup>1</sup> This summary table is for reporting material for the entire service line connecting the water main to the customer's plumbing. Remember that systems must track the system-owned and customer-owned portions separately in their inventory.

<sup>2</sup> A lead-lined galvanized service line is consistent with the definition of an LSL under the LCRR ("a portion of pipe that is made of lead, which connects the water main to the building inlet") (40 CFR §141.2) and must therefore be classified in the inventory as an LSL. Do NOT, however, count non-lead service lines with a lead gooseneck or pigtail as lead service lines.

This section is auto-filled, no system entry required.

The Microsoft Excel worksheet will automatically count the total number of each classification of service line from the information you enter into the PWS SL Inventory Worksheet. LDH will use these counts for reporting to the EPA.

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## Part 5: Public Accessibility

### Part 5. Public Accessibility

How are you making your inventory publicly accessible? Check all that apply. *Remember that if your system serves > 50,000 people, you **must** provide the inventory online.*

- |   |   |
|---|---|
| <input type="checkbox"/> Interactive online map   | <input type="checkbox"/> Printed tabular data                                   |
| <input type="checkbox"/> Static online map        | <input type="checkbox"/> Information on water utility mailings or newsletter    |
| <input type="checkbox"/> Online spreadsheet       | <input type="checkbox"/> Hard copy information available in water system office |
| <input type="checkbox"/> Printed service line map | <input type="checkbox"/> Other  |

If "Other", please describe:

If the inventory is available online (i.e., system's website, etc.), provide a link to the website below:

Specify how you are making your service line inventory publicly accessible. Include a direct URL link to the inventory if you are making it available online.

**REMINDER: The PWS Records Tab/Worksheet is a required element of the inventory submittal. LDH will not accept an inventory unless all Parts (1 – 5) are completed by the water system.**

## PWS Records Worksheet

- Demonstration 2 – PWS Records Tab Overview
- <https://youtu.be/-vZhZ42f3oo>

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## PWS SL Inventory Worksheet

- The Inventory Worksheet consists of 22 Columns Total (A – V).
- Each column in the worksheet represents a different reporting element (address, service line material, basis of material classification, service line installation date, etc.).
- Some of the elements are required and others are optional.
- Each of the different reporting elements (columns) are covered in detail in the following slides.

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## Columns 'A' and 'B' (System Information)

### AUTO-FILLED:

- Columns 'A' and 'B' are auto-filled with the System Name and PWSID each time a new service line is added.
- These fields are populated from the system information entered into the PWS Records Worksheet.
- This auto-fill function prevents the system from having to reenter their system name and PWSID for each service line entry.
- If a system fails to provide their PWSID or System Name in the PWS Records Worksheet, the inventory will not be accepted by LDH.

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## Columns 'C', 'D', 'E' and 'F' (Service Line Address)

**REQUIRED:** Systems must include the Street Address, City, State and Zip Code of each service line in their inventory.

- **Column 'C' (Street Address)**
- **Column 'D' (City)**
- **Column 'E' (State)**
- **Column 'F' (Zip)**

## Columns 'G', 'H' and 'J' (Optional)

### Column 'G' (Unique Service Line ID) **OPTIONAL:**

- Systems may choose to enter a unique ID for the service line to assist with tracking.
- Examples include the billing number, meter number, etc.

### Column 'H' and 'I' (Latitude/Longitude) **OPTIONAL:**

- Systems can use this field to enter the latitude and longitude of each service connection in decimal degrees.
- Example: Latitude: 31.4523; Longitude: -85.6316.

### Column 'J' (Additional Location Identifier) **OPTIONAL:**

- Systems can use this field when multiple service lines serve the same address such as a hospital or apartment building, or to identify other useful locational information such as subdivision names, etc.

## Columns 'K' and 'Q' (System and Customer Owned Service Line Material)

**REQUIRED:** Systems must select the material classification for each service line from one of the following options from the drop-down menu provided:

- **Lead:** A service line made of lead. Please note that lead connectors such as goosenecks or pigtails, are not considered lead service lines and are not required to be included in the inventory. However, it is recommended that systems include them in Column 'N' where their existence is known.
- **Galvanized Iron/Steel:** An iron or steel service line that is 'galvanized' or coated with zinc.
- **Non-Lead - Copper:** A service line made of copper.
- **Non-Lead - Plastic:** A service line made of plastic materials, such as, PVC, CPVC, PEX, etc.
- **Non-Lead - Other:** A service line that is not Lead, but is not copper, plastic, or galvanized iron/steel. If this option is selected, the specific material should be identified in the corresponding comments field (Column 'P' or Column 'T').
- **Non-Lead - Material Unknown:** A service line that is not Lead, but the specific material is unknown. This may be the case where a system makes a "non-lead" determination based on the service line installation being after the Louisiana Lead Ban (September 20, 1988).
- **Unknown:** A service line of completely unknown material(s) such as when the system has no records or documented evidence that specifies material.
- **No System Owned Portion:** When the service line is entirely owned by the customer or other entity.
- **No Customer Owned Portion:** When the service line is entirely owned by the system.

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## Columns 'L' and 'R' (Basis of Material Classification – System & Customer Owned Portions)

**REQUIRED:** Systems must select the techniques or resources used to identify the system-owned and customer-owned service line materials from one of the following options in the drop-down menu provided:

- **Local Building/Plumbing Codes or Ordinances**
- **Construction Drawings/Maps**
- **Installation Date after Lead Ban:** If service line installation date was after the Louisiana Lead Ban (September 20, 1988).
- **Installation Record (for example, tap card)**
- **Service Line Repair/Replacement Record**
- **Service Line Diameter is Greater than 2 inches**
- **Visual Inspection (for example, visual confirmation at meter pit)**
- **Service Line Excavation**
- **Statistical Analysis/Predictive Model:** Requires state approval.
- **Other (Describe in Comments Column 'P'):** Select if your system utilized a different method than those provided in the drop down menu. If this option is selected, describe the material identification method used in the corresponding comments field (Column 'P' or Column 'T').
- **Not Applicable:** Select this option if the material is unknown or if there is no system-owned portion of service line.

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## Column 'M' (Was System-Owned Service Line Ever Lead?)

**REQUIRED:** Galvanized service lines that are or were ever downstream of a lead service line can adsorb lead and contribute to lead in drinking water long after the upstream lead lines have been replaced. Therefore, such lines are classified as "Galvanized Requiring Replacement". In order to demonstrate if the system-owned portion of the service line was ever lead, one of the following 3 options must be selected from the drop-down menu:

- **No.** Select "No" if the system-owned portion of the service line was never previously lead or there is no system-owned portion of the service line.
- **Yes.** Select "Yes" when the system-owned service line is currently lead or was previously lead but has since been replaced. Note: If the customer-owned portion is galvanized and "Yes" is selected, the customers SL will be considered a galvanized requiring replacement.
- **Don't Know.** Select "Don't Know" if you are unsure if the system-owned service line was ever previously lead (i.e., no records or documentation). Note: If the customer-owned portion is galvanized and "Don't Know" is selected, the customers SL will be considered a galvanized requiring replacement.

## Column 'N' (Connector Material)

**REQUIRED:** Connectors (i.e., goosenecks or pigtails) are **NOT** considered to a lead service lines under the LCRR but are required to be included in future updates to system's inventories per the recently published Proposed Lead and Copper Rule Improvements (LCRI). Under the LCRI, systems must classify connector materials in their baseline inventories which are due in 2027.

Note: Galvanized service lines located downstream of a lead connector are **NOT** considered a galvanized requiring replacement.

## Columns 'O', 'S', 'P' and 'T' (Optional)

### Columns 'O' and 'S' (Service Line Installation Date) **OPTIONAL**:

- Select the appropriate date range of construction or service line installation from the drop down menus if you know when the system-owned or customer-owned portion of the service line was installed or replaced.
- If the system would like to record a more precise date of construction or service line installation date, the system can utilize the comment fields provided in the worksheet to do so.

### Columns 'P' and 'T' (Comments Fields) **OPTIONAL**:

- Use columns 'P' and 'T' if you want to provide additional information on the system-owned or customer-owned portion of the service line
- For example, more info on the material classification, additional information on the basis of classification, more precise service line installation date, etc.

## Columns 'U' and 'V'

### Column 'U' (Material Classification for the Entire Service Line) **AUTO-FILLED**:

- No entry required. The spreadsheet has built in logic that automatically populates this field based on what the system-inputs into Columns K, M and Q.

### Column 'V' (Additional Comments) **OPTIONAL**:

- Optional field that the system can use to record any additional information.

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		Column(s)	Required/ Optional
Water System Information	A - B	System Info (PWSID, System Name)	Auto-filled
Locational Information	C - F	Service Line Address (Street Address, City, State, Zip)	REQUIRED
	G - J	Additional Locational Information	Optional
System-Owned SL	K	System-Owned Service Line Material	REQUIRED
	L	Basis of Material Classification (System-Owned)	REQUIRED
	M	Was the Service Line Material Ever Previously Lead?	REQUIRED
	N	Is there a Lead Connector?	Optional
	O	Service Line Installation Date (System-Owned)	Optional
Customer-Owned SL	P	Comments (System-Owned)	Optional
	Q	Customer-Owned Service Line Material	REQUIRED
	R	Basis of Material Classification (Customer-Owned)	REQUIRED
	S	Service Line Installation Date (Customer-Owned)	Optional
Entire SL Classification	T	Comments (Customer-Owned)	Optional
	U	Material Classification for the Entire Service Line	Auto-filled
General Comments	V	Additional Comments	Optional

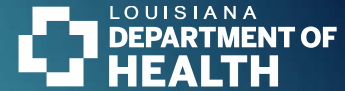
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LOUISIANA DEPARTMENT OF HEALTH	
<h2>PWS SL Inventory Worksheet</h2> <ul style="list-style-type: none"> <li>Demonstration 3 – PWS SL Inventory Worksheet Overview</li> <li><a href="https://youtu.be/NKHsbRsCC-k">https://youtu.be/NKHsbRsCC-k</a></li> </ul>	
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## LDH Service Line Inventory Template – SLs To Be Replaced Worksheet (AUTO-FILLED)

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The screenshot shows the Microsoft Excel interface. The ribbon at the top includes tabs for File, Home, Insert, Page Layout, Formulas, Data, Review, View, and ACROBAT. The 'Home' tab is active, showing options for Font, Alignment, and Number. The spreadsheet grid has columns labeled A through H. A red arrow points to the 'SLs To Be Replaced (Auto Calc)' button in the bottom status bar.

✓ **SLs to be Replaced Worksheet**  
(auto-filled):

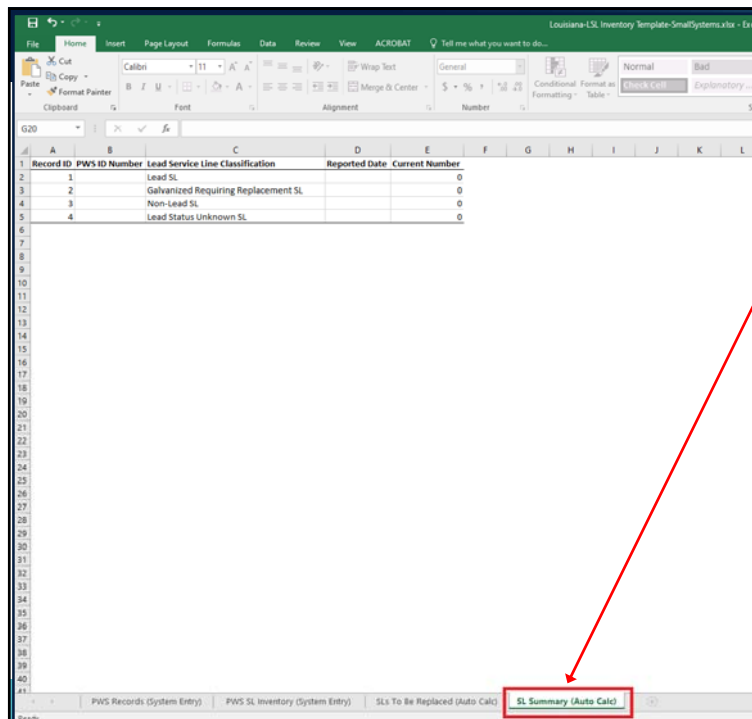
No system entry required. This worksheet is auto-filled from the information provided by the system in the PWS Service Line Inventory Worksheet. It pulls all service lines classified as “Lead”, “Galvanized Requiring Replacement” and “Unknown” into the worksheet which may benefit systems with planning for replacements or proactive service line material verification.

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## LDH Service Line Inventory Template – SL Summary (AUTO-FILLED)

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Record ID	PWS ID Number	Lead Service Line Classification	Reported Date	Current Number
1		Lead SL		0
2		Galvanized Requiring Replacement SL		0
3		Non-Lead SL		0
4		Lead Status Unknown SL		0

### SL Summary Worksheet (auto-filled):

No system entry required. This worksheet is auto-filled from the information provided by the system in the PWS Service Line Inventory Worksheet. This information will be used by LDH for required reporting to the United States Environmental Protection Agency (EPA).

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## Submittal Instructions

Stay tuned! Future guidance will be provided by LDH on how to submit your service line inventories.

## Customer Notification Requirements

## Customer Notification – LSL, GRR, Unknown

- Within 30 days of completion of the initial lead service line inventory, all water systems must inform all persons served by the water system at the service connection with a lead, galvanized requiring replacement, or lead status unknown service line. LDH recommends notifying customers with a LSL or GRR ASAP.
- The notification must be repeated on an annual basis until the entire service connection is no longer a lead, galvanized requiring replacement, or lead status unknown service line.
- Annually by July 1, the water system must certify to the State that it delivered the required consumer notifications for the previous calendar year. The water system shall also provide a copy of the notification and information materials to the State.

## Customer Notification – Disturbances

- Public notification is required when there is a disturbance to a known or potential service line containing lead (lead, galvanized requiring replacement, or lead status unknown service line). *i.e.*, maintenance that could disturb piping and cause temporary increased lead levels.
- Must conduct public education regarding the increased risk of lead and ways to reduce exposure.
- If the disturbance of a lead, galvanized requiring replacement, or lead status unknown service line results from the replacement of an inline water meter, a water meter setter, or gooseneck, pigtail, or connector, the water system must also provide an NSF approved pitcher filter or point-of-use treatment device certified to reduce lead, instructions to use the filter, and six months of filter replacement cartridges.

## Customer Notification - Partial LSL Replacements

- What is a partial lead service line replacement?
  - When part of a service line is replaced, and any remaining portion of the service line is made of lead (or galvanized iron pipe downstream of lead) when water service is restored.
- Studies show that partial LSL replacements can increase the amount of lead in a homes drinking water.
- Digging and cutting during partial LSL replacements release particulate lead.
- Particulate lead is a big concern because the lead content can be very high.

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## Customer Notification - Partial LSL Replacements

### Requirements for conducting lead service line replacement that may result in partial replacement.

- Systems that plan to partially replace a lead service line in coordination with planned infrastructure work must provide notice to the owner of the affected service line at least 45 days prior to the replacement.
- The notice must explain that the system will replace the portion of the line it owns and offer to replace the portion of the service line not owned by the water system. The water system is not required to bear the cost of replacement of the portion of the affected service line not owned by the water system.
- Before the affected service line is returned to service, the water system must provide notification explaining that consumers may experience a temporary increase of lead levels in their drinking water due to the replacement, information about the health effects of lead, and actions consumers can take to minimize their exposure to lead in drinking water.
- The water system must provide the consumer with a pitcher filter or point-of-use device ANSI/NSF certified to reduce lead, six months of replacement cartridges, and instructions for use before the affected service line is returned to service.
- The water system must offer to collect a follow up tap sample between three months and six months after completion of any partial replacement of a lead service line.
- Any water system that replaces the portion of the lead service line it owns due to an **emergency repair**, must provide notice and risk mitigation measures to the persons served by the affected service line before the affected service line is returned to service.

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## Lead Connectors (Goosenecks/Pigtails)

### Water System Responsibilities:

- Systems must replace any system-owned lead connectors when encountered during planned or unplanned water system infrastructure work.
- Upon replacement of any gooseneck, pigtail, or connector that is attached to a lead service line, the water system must provide the homeowner:
  - information about the potential for elevated lead levels in drinking water as a result of the disturbance,
  - An NSF approved pitcher filter or POU treatment device certified to reduce lead,
  - Instructions to use the filter,
  - and six months of filter replacement cartridges.



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## Lead Connectors (Goosenecks/Pigtails)



Recent example of a main break repair that revealed a lead connector.

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## EPA Lead and Copper Rule Improvements (LCRI)

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## EPA Lead and Copper Rule Improvements (LCRI)

- EPA recently published the proposed Lead and Copper Rule Improvements (LCRI) rule in the Federal Register on December 6, 2023.
- EPA's goal is to publish the LCRI as a FINAL rule by October 17, 2024.
- The LCRI establishes a compliance deadline of 3 years after publication as a Final Rule. Therefore, the compliance deadline will likely be **October of 2027**.

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## Key LCRI Provisions:

- Under the LCRR, water systems are required to submit an initial inventory of their lead service lines by October 16, 2024.
- Under the proposed LCRI, all water systems would be required to:
  - Submit an updated inventory known as the baseline inventory by October of 2027. The baseline inventory is required to include connector material and any updates to the initial inventory.
- Validate certain “non-lead” classifications by 2034.
- Identify all “Unknowns” by 2037.
- The proposed LCRI would require the vast majority of water systems to replace lead services lines by 2037.

## Key LCRI Provisions:

- **Revised tap sample collection protocol** - Required to collect first-draw and 5<sup>th</sup> liter samples at sites with a lead service line (LSL).
- **Lowering the Lead Action Level.** EPA is proposing to lower the lead action level from 15 parts per billion (ppb) to 10 parts per billion (ppb). When more than 10 percent of a systems routine lead sample results exceed the action level, systems would be required to:
  - inform the public within 24 hours (Tier 1 Public Notice).
  - install or adjust corrosion control treatment to reduce lead that leaches into drinking water.
- **Find and Fix** – Requires systems to collect a follow-up sample at each location with lead > 15 ppb within 30 days of learning of the results. Conduct WQP monitoring at or near the site > 15 ppb. Systems must determine if a “fix” is needed (e.g., adjustment to CCT, flushing portions of the distribution system, or other strategies). Systems that identify a fix that is out of their control, such as premise plumbing, must provide documentation to LDH.
- **School and Childcare Lead Monitoring** – Requires systems to monitor 20% of elementary schools and childcare facilities per year (minimum of 5 samples per school and 2 samples per daycare). Sample results, public education and remediation options must be provided to each sampled school or daycare.

## Key LCRI Provisions:

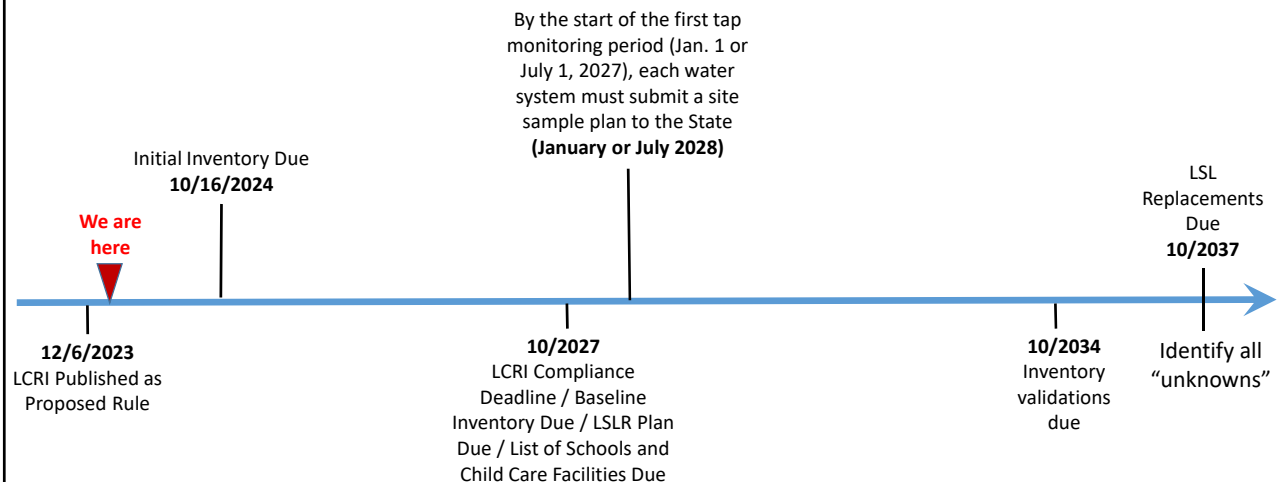
- **Updated lead and copper sample site selection criteria -**
  - Tier 1 sampling sites are single-family structures served by a lead service line.
  - Tier 2 sampling sites are buildings, including multiple-family residences, with premise plumbing made of lead and/or served by a lead service line.
  - Tier 3 sampling sites are sites that are served by a lead connector. Tier 3 sites are also sites served by a galvanized service line or containing galvanized premise plumbing that are identified as ever being downstream of a lead service line or lead connector in the past. Tier 3 for community water systems only includes single-family structures.
  - Tier 4 sampling sites are sites that contain copper pipes with lead solder installed before the effective date of the State's applicable lead ban. Tier 4 for community water systems only includes single-family structures.
  - Tier 5 sampling sites are sites that are representative of sites throughout the distribution system. For the purpose of this paragraph (a), a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.
- **Revised Lead & Copper Sample Plans** – Must reevaluate the sites used for lead and copper monitoring. An updated sample plan would be required to be submitted to the state by 2027.
- **Revised Public Notification Requirements** - Must issue a Tier 1 Public Notice following a Lead 90th percentile action level exceedance (ALE) within 24 hours of being notified of the ALE, must provide notice to customers whose individual tap sample is > 15 ppb within 3 days, must include additional lead and copper information in consumer confidence reports.

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## LCRI Timeline:



## EPA Lead and Copper Rule Improvements (LCRI)

- For additional information on the Proposed LCRI, including instructions on how to submit public comment, please visit EPA's LCRI Website at: <https://www.epa.gov/ground-water-and-drinking-water/proposed-lead-and-copper-rule-improvements>
- Public comments must be submitted to the EPA by

## LSL Inventory and Replacement Funding Bipartisan Infrastructure Law



## Bipartisan Infrastructure Law (BIL)

- Louisiana is eligible to receive \$42 million per year over the next five years in dedicated funding for Lead Service Line (LSL) identification (i.e., inventories) and replacement.
- Funding will be managed by the Louisiana Drinking Water Revolving Loan Fund Program. For a project to be eligible for funding, it must be otherwise DWRLF eligible and be a lead service line identification and/or replacement project.
- Any project funded under this appropriation involving the replacement of a lead service line must replace the entire lead service line (both public and private owned portions), unless a portion has already been replaced or is concurrently being replaced with another funding source.
- Under the BIL, 49% of funds awarded to a LSL replacement project would be in the form of principal forgiveness (free) and 51% would be in the form of no-interest loans (up to 30 year terms).
- For more information visit the LDWRLF Program at: <https://ldh.la.gov/page/430>

## LDH Service Line Inventory Website and Resources

## Useful Links:

- LDH Service Line Inventory Website: <https://ldh.la.gov/page/LSLI>
  - Frequently Asked Questions (FAQs)
  - LDH Service Line Inventory Template
  - LDH Service Line Inventory Template User Guide
- EPA Guidance on Developing Service Line Inventories: <https://www.epa.gov/ground-water-and-drinking-water/revised-lead-and-copper-rule>
- EPA Lead and Copper Rule Revisions (LCRR): <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-141/subpart-I>
- EPA Lead and Copper Rule Improvements (LCRI): <https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-improvements>

## Q&A



# THANK YOU

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