

Preparing An LSL Inventory

Complying with the EPA Lead & Copper Rule

Part two of a Keck + Wood ongoing series



In August 2022, the EPA released additional guidance to assist utilities in performing their lead service line (LSL) inventories. The guidance, acceptable materials, and data collection outlined in these documents are aligned with Keck & Wood's first article in this series: "What's in Your Water Line?"

New EPA Guidance to Finding Lead Service Lines (LSL's):

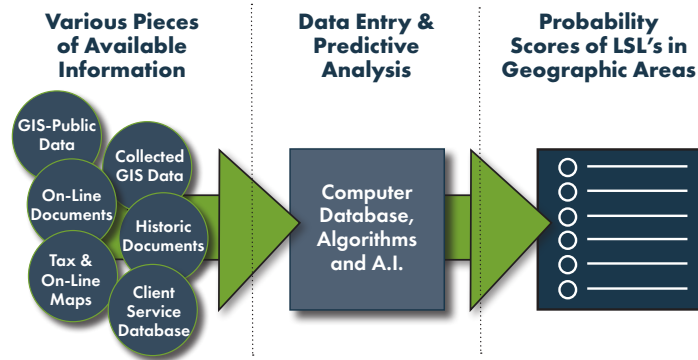
The EPA has provided additional methods of identification in their recent guidance. The most notable addition is the use of predictive analytics for developing a service line inventory.

Why is Predictive Analysis Important?

Predictive analytics uses computer modeling and existing available data to identify patterns in datasets using algorithms and artificial intelligence.

As it pertains to your LSL inventory, a predictive model could use geospatially (GIS) referenced data to make predictions on what the service line material may be in a select geographic area.

The intent of predictive analytics in this application is to provide a probability score for the likelihood of a lead service lines in the area modeled.



If there is minimal documentation or limited resources for field investigations, the data gained from this probability score can narrow down the geographic area which will most likely require additional research to uncover lead service lines.

The primary application for predictive analytics is to provide a likelihood score for the presence of LSL's which will further inform and prioritize field investigations. However, a state authority can issue an approval for a utility to utilize a predictive model as a primary basis for LSL classification based on the specific model used and the utility's specific needs.

Preparing the LSL Inventory for the EPA

In addition to the guidance document, the EPA also released a template which can be used by utilities to document their Lead Service Line inventory. The template file contains forms for background information and data collection methods, as well as a comprehensive inventory template.

It is important to note that the template issued by the EPA contains additional fields which may not be required for all utilities to complete. Not knowing can trigger additional, unnecessary work. Therefore, utilities should understand the state requirements prior to submission.

Keck & Wood has offices across the Southeast who can assist in reviewing the template and map out a strategy on how best to complete the work in order to meet state specific requirements regarding the lead and copper rule.

EPA Service Line Inventory Template
Date last updated: July 27, 2022

What is the purpose of this template?
The purpose of this draft template is to help water systems and states comply with the service line inventory requirements of the January 15, 2021 Lead and Copper Rule Revisions (LCRR). This template supplements the draft EPA document, *Guidance for Developing and Maintaining a Service Line Inventory* (2022) by providing fillable forms and tables that water systems can use to document their methods, organize their inventory, submit the initial inventory and inventory updates to the state, and document how they are making the inventory publicly available. This template also provides a checklist for state review. Note that EPA does NOT require systems use this template for their inventory. Refer to EPA's 2022 Inventory Guidance for minimum LCRR inventory requirements, recommendations, and disclaimers.

How is the template organized?
The worksheets in this template are color coded:
 - Yellow sheets are instructions and background.
 - Dark blue sheets are templates for systems.
 - The dark green sheet is a template for states.
 The cells in this template are also color coded:
 - Gray cells are background or instructions.
 - Light blue cells are fillable cells for systems.
 - Aqua cells are the required fields in the Detailed Inventory worksheet.
 - Light green cells are fillable cells for states.

See the table below for a description of each worksheet.

Worksheet Type	Worksheet Name	Description
Background	Template Instructions_System	Contains detailed instructions for systems.
	Template Instructions_States	Contains detailed instructions for states.
	Classifying SLs	Summarizes requirements for classifying the entire service line when ownership is split (i.e., when the system owns a portion and the customer owns a portion).
Templates for Water Systems	PWS Information	For systems to document basic system information.
	Inventory Methods	For systems to document the methods and resources they used to develop and update their inventory.
	Inventory Summary	For systems to provide a summary of their service line inventory, including information on ownership, inventory format, and the number of service lines for each of the four required materials classifications. Systems can enter the totals into this worksheet or automatically generate totals based on information in the Detailed Inventory worksheet.
	Detailed Inventory	Provides a customizable format water systems can use to track materials for each service line in their distribution system. Each row equals one service line connecting the water main to the customer's plumbing. Separate columns track location information, the system-owned portion, the customer-owned portion, other possible sources of lead, information for assigning a tap sample tiering classification, and information for lead service line replacement (LSLR). Systems can customize the worksheet by adding or deleting columns.
Templates for States	Public Accessibility Doc	For systems to provide documentation to states on how they met the public accessibility requirements of the LCRR.
	State Checklist	Provides a checklist that states can use to determine and document if water systems met all of the January 15, 2021 LCRR requirements for their Initial Inventory including timely submission, required elements, use of information sources, public accessibility, and public notification of service line materials.

The EPA-Issued LCL template contains different tabs and data pages for state utilities, inventory, and public accessibility to name a few.

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Post Submittal - What Happens to the Information?

Once the LSL inventory has been completed, all utilities are required to have their inventory available to the public after submission to the state authority.

Requirements for how the inventory is made public will vary depending on the number of customers served by your utility.

Large (>50,000 customers) utilities are required to have the inventory available on-line.

Small (<10,000 customers) and **Medium** (>10,000 to <50,000 customers) utilities are not required to have the inventory on-line. Utilities can provide access of the information at town halls, website, utility office(s), etc.

Customers with identified LSLs in the final inventory have to be notified within 30 days of the publishing date. However, it is recommended by Keck and Wood that utilities of all sizes make their inventories accessible to the greatest extent possible, regardless of less stringent requirements for smaller utilities.

"As we work with clients to build their LSL inventories, we realize there is a lot of information contained within the paper-based records to build out a large portion of the inventory. Taking the time to work through install, repair billing receipts and other documents saves time and costs uncovering lines in the field."

- Mike Moffitt, PE - SVP Utilities

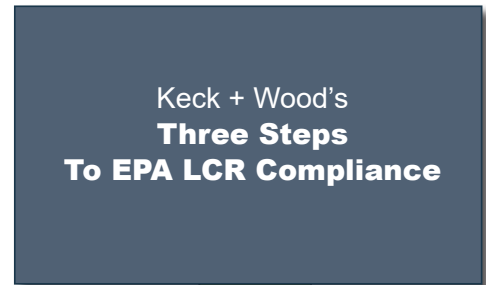
As professional engineers and consultants, we are well versed in these updates issued by the EPA, and this article will provide specific highlights to assist with planning your LSL inventory efforts.

This technical article was co-authored by:

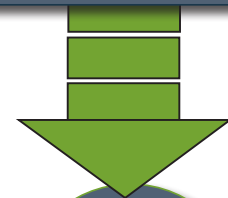
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Today!



EPA Deadline:
October 16, 2024



After
October 16th
2024

