



ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

Conducting a Lead Service Line (LSL) Inventory

A Start-up Guide for Public Water Systems

On December 17, 2021, the EPA published notice ([86 FR 71574](#)) that the [Lead and Copper Rule Revisions \(LCRR\)](#) became effective on December 16, 2021.

The LCRR calls for many changes in monitoring and managing lead and copper in drinking water. The first implemented change will be the required Lead Service Line (LSL) Inventory that all water systems must complete and submit by 2024. LSL inventories must be made available to the public and must be included in the annual Consumer Confidence Report (CCR). Water systems serving over 50,000 must also make their LSL inventories available online.

This notice is to encourage water systems to begin planning their approach to developing LSL Inventories. The Kentucky Division of Water (DOW) will provide further information as it becomes available.

LSL Inventory General Information

Every public water system is required to complete an inventory of service lines, including identification of:

- The primary material of each service line in the distribution system, e.g., lead, galvanized, non-lead (copper, PVC, etc.), or unknown, and
- Both public (utility-owned) and private sections of the service line.

In order to complete the inventory, systems should use existing records and resources, as well as on-site verification of service line material when needed.

It will be important for water systems to proactively communicate with customers about what the LSL inventory is and, as more information is developed, what the water system will do to remediate lead in drinking water.



Steps to Get Started

Follow these preliminary steps to prepare for a successful LSL Inventory

Step 1: Designate a contact person or team within the water system to lead inventory efforts

Step 2: Evaluate what sources of information and records are available and most accessible

- Available records will vary depending on the water system and community. Possible sources are:
 - Records showing *date of construction* (post-1987, service lines were not made of lead)
 - Construction records
 - Subdivision plats
 - PVA records
 - Real estate sales data
 - Building and plumbing codes
 - Historic aerial photos
 - Water system record showing last date lead service lines were used
 - Tap records
 - Area Development District records
 - Building inspection records
 - Past compliance sampling results

Step 2: Review available records and organize (rank) them into levels of validity and usefulness. Digitize any paper records if possible (scan the document or type the information into a database).

Step 3: Begin creating or updating the service line inventory database

- Start with a list of all taps and their addresses/locations
- Add information to the database obtained from the records

Step 4: Evaluate how much information is still needed

- From your list in Step 3, create 2 lists: 1/ all service lines that don't need further verification, and 2/ all the "unknown" service lines that need further verification either by a field visit or more detailed/accurate records

Step 5: Develop a verification plan approach by:

- Geographic sections of the system
- The age of the section of the system
- Reviewing lead and copper water sampling data collected since the 1991 Lead and Copper Rule

Step 6: Verify actual service line material by reviewing:

- tap records
- construction and plumbing codes
- construction/installation records
- permits (e.g., construction or plumbing)
- distribution system maps
- meter installation records
- historical capital improvement plans
- historical master plans
- inspection records
- PVA or tax records
- field/visual records
- pipe diameter (>2" usually not lead)
- aerial photos



Required Information for the LSL Inventory*

1. Type of building
 - single family residential
 - multi-family residential
 - elementary school
 - middle or high school
 - childcare center
 - business
 - industrial
2. Location information for every service line
 - Address
 - GPS location
 - Sampling point number, if currently or historically used as a sampling point for compliance
3. Material used in every service line (2 sets of data – utility-owned line and privately-owned line):
 - Lead
 - Galvanized – unknown if lead contact
 - Galvanized requiring replacement (currently or historically downstream from LSL)
 - Galvanized not requiring replacement (no history of lead contact)
 - Copper
 - Plastic (PVC, HDPE, etc.)
 - Asbestos-cement
 - Unknown (material to be verified later)
4. Date of construction/installation (separate data sets for public vs. private section of service line)
 - Key date: January 1, 1988. If the exact date is unknown, note whether the line was installed before or after that date.
5. List the method(s) used to verify the material of each service line. These records and methods should be considered:
 - Historical record
 - Construction code
 - Plumbing code
 - Permit
 - Distribution system map
 - Distribution system drawing
 - Meter installation record
 - Historical capital improvement plan
 - Historical master plan
 - Inspection record
 - Tap records
 - Construction permit
 - PVA
 - Customer billing data
 - Field inspection
 - Senior staff knowledge

*Note that this is not an all-inclusive list. As DOW receives more guidance from the EPA, there may be additional requirements for the LSL inventory.



Other Important Information

No LSLs in the distribution system

Water systems that can show a distribution system has no LSLs (for example, those which were built after 1987) do not need to complete a full service line inventory. They will be required, however, to provide detailed documentation that demonstrates the lack of LSLs and sign a certification statement to that effect.

Strategy to Identify Unknowns

If a water system is unable to identify the primary material used in all service lines by 2024, it will be necessary to develop and report a strategy to perform the required identification, including a timeline for completion (more information to be provided). The LCRR requires that all water systems provide a description of how they will continue to update their service line inventory; therefore, water systems should approach the LSL inventory as an ongoing process that will continue after the 2024 deadline. Any efficiency and organizational processes developed now will be very useful in the long term.

Customer Communication

The LCRR requires greater customer communication about lead compared to past rules. One new requirement is to report LSL inventory information and the location of LSLs in the annual Consumer Confidence Report. As data are collected, water systems should consider methods of clearly communicating the location of distribution system lead to its customers.

Further Guidance

The DOW expects to receive further guidance from the EPA in the coming months and will communicate that information as soon as it becomes available.

The [Lead Service Line Replacement Collaborative](#) is described as “a joint effort of 28 national public health, water utility, environmental, labor, consumer, housing, and state and local governmental organizations” that can provide resources for the LSL inventory.

Please email DOW at DrinkingWaterCompliance@ky.gov with any questions about LSL inventories.