Transparency in Action: Map of Public Lead Service Line Replacement Programs

Framework Behind the Map

Map Elements: Identifying and Tracking LSL Replacement Programs

EDF used utility websites and news articles to identify lead service line (LSL) replacement programs for the map.

For each program, we track four factors:

- Does the utility's website have information on lead and LSL replacement?
- Does the utility's website have an online interactive map of LSL locations? Note: EDF has long touted interactive maps as the best method to communicate about the location of LSLs in a community.
- Does it prioritize replacing LSLs for vulnerable populations? See tables below for additional information.
- Is there financial support for people who need to replace the entire LSL from the street to their home (aka "private side replacement")? If so, what funding type is available? See tables below for additional information.

If you are utility representative that would like to request changes to the elements displayed about your program, please use this form to submit a request.

The map features three different layers that a user can use to view or filter for additional data.

- **Top 10 Cities with Most LSLs:** When selected, this layer filters to only show the top 10 cities in the country with the most LSLs based on data from EPA's 7th DWINSA (see below for more detail). See EDF's "Top 10 Cities with the Most Lead Pipes" for additional detail.
- **EPA State LSL Estimate:** This layer contains data from the updated 7th DWINSA. Based on the updated results, the EPA projects there are 9 million lead service lines across the country. In 2023 EPA allowed states and water utilities to submit a "one-time update" to service line information. The same methodologies for the 7th DWINSA were used for this update. According to EPA, "To develop estimated counts of service lines, system level data is extrapolated at the state and national level using similar methodology as for the primary DWINSA. Responses from the DWINSA service line questionnaire were used to estimate the numbers of service lines of each material type. EPA categorized these material types as known lead, standalone galvanized, no lead, and unknown/nonreported (also called undiscovered)." For water systems that opted not to participate in the update, previously reported data under the 7th DWINSA were used.
- **States with Mandated LSLR:** This layer displays the states that have mandates requiring utilities to replace LSLs. As of April 2024, there are four states with a mandate: Illinois, Michigan, New Jersey, and Rhode Island.

High level summary information about each mandate is provided when you click anywhere within the state boundaries (not on a specific dot).

- **Statewide LSL Maps:** This layer displays the states that have developed an online map showing where LSLs are located across the state. Click anywhere within a state's boundaries to view key information about the map, along with resources to help the user identify service line material, understand the replacement process, and take action.

Disclaimers and Caveats

EDF is committed to data accuracy, and we make every effort to ensure our information is correct. However, the LSL replacement landscape changes quickly and information may become out-of-date.

A few notes about this map:

- This map includes water utilities that are actively replacing LSLs and are public about their efforts via their websites and media outlets. We do not include communities that are only inventorying their LSLs currently. A community may also be absent from the map because the utility has determined there are no known LSLs, thus an LSL replacement program is not needed at this time.
- In most cases, a dot on the map represents a single utility's LSL replacement program. However, there are some cases where the communities served by the water utility do not match the location of the dot on the map. For example, New Jersey American Water serves over 190 communities, but the dot on the map is located at the utility's main headquarters address.
- EPA estimates that there are 9.2 million LSLs, which includes "galvanized requiring replacement" (GRR). See page 4 of the DWINSA fact sheet for additional context. Therefore, we do not distinguish between programs that are replacing only LSLs, only GRR, or both.
- Programs are categorized as complete on the map if all known LSLs have been replaced. However, LSLs may continue to be discovered and replaced over time.
- Users cannot infer from this map that a specific utility is complying with the federal Lead and Copper Rule or relevant state and local regulations.

Definitions

Vulnerable Populations Prioritized

Description	Definition
No details found	Unless a specific population has been highlighted, programs prioritizing locations with known LSLs fall under this category.
Details not provided	The utility has vague reference to prioritization of vulnerable populations but did not specify which ones.
State-mandated factors	Applies only to Illinois as state law requires utilities to prioritize "high-risk locations".

For more information, please contact Roya Alkafaji, Manager, Healthy Communities, ralkafaji@edf.org

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Child care facilities	
Schools	
Households with children	
Households with pregnant persons	
Socioeconomic factors	This includes income, education, housing quality, employment, disabilities, underserved communities, high social vulnerability index, and poor health outcomes.
Communities of color	
Households with elevated levels of lead in water samples	

Financial Support for Private Side Replacement Provided

Description	Definition
No details found	
State-mandated	Applies only to Michigan as state law requires utilities to prioritize “high-risk locations”.
No direct cost to homeowner*	Although there is no direct cost, the asterisk indicates this may include instances where the utility has raised rates spread across the ratepayer base to pay for the full cost of LSL replacement.
No direct cost to homeowner (limited number of replacements due to available funding)	A utility may only have funding to cover private side replacement for a limited number of service lines.
No cost to some homeowners based on eligibility criteria	A homeowner must meet specific eligibility criteria (i.e., income-based) to qualify for funding.
Capped reimbursement to homeowner	The utility may reimburse the homeowner up to a specific dollar amount or percentage of the overall cost to replace the private side lead service line.
Loan to homeowner	
Otherwise subsidized	Includes but is not limited to: homeowners pay back the cost of private side replacement via a property tax assessment, permit fees waived, unclear explanations about funding mechanism used.

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