



Directive 16-06: Lead Service Lines and Lead Components

331-598 • Updated January 2022

In May 2016, Governor Inslee issued [Directive 16-06](#), instructing state agencies to work with partners to address potential sources of lead exposure and ways to minimize its impact. Department of Health (DOH) was directed to work with Group A public water systems to identify all lead service lines and lead components within two years. The directive additionally established a goal to remove all lead service lines and lead components from Group A water systems by 2031.

There is no safe level of lead exposure. The most common sources of lead in drinking water are lead pipes, lead solder, and brass fixtures. In homes with lead pipes that connect the home to the water main, also known as lead services lines, these pipes are typically the most significant source of lead in the water. Lead pipes are more likely to be found in older cities and homes built before 1945. Other sources of lead such as lead solder and brass fixtures can be found in homes built prior to 1986. In most communities, lead service lines are partially owned by the water system and partially owned by the customer. The public water system typically owns the portion of the line from the water main to the curb stop or meter.

Taking Action

In 2016, DOH Office of Drinking Water (ODW) surveyed Group A public water systems to assess the occurrence of lead service lines and lead components (goosenecks) within their areas of water service. More than 680 water systems responded, which serve more than 90 percent of the connections in the state. ODW issued a report that captured the data from participating water systems. Responses showed very low percentages of lead service lines and lead goosenecks in service overall.

In 2018, ODW reached out to water systems for an update to the original survey response. We continue to follow up with water systems on their progress to identify and remove lead service lines and lead components in their distribution systems.

In 2021, the Environmental Protection Agency (EPA) published the Lead and Copper Rule Revisions (LCRR). This rule requires public water systems to inventory the service line material for all connections, including both the utility and customer side, focusing on homes built at a time when lead pipe was used. The rule also updates the lead service line definition to include galvanized pipe downstream, or previously downstream, of a lead pipe. The rule requires the inventories be completed by October 2024. EPA is now working on a proposed Lead and Copper Rule Improvements (LCRI) rule to continue advancing the removal of lead from drinking water.

Survey Results

To date, here is how Washington State measures up.

Lead component	% of connections
Lead service lines in service	0.02
Pre-1945 galvanized service lines in service*	1.2
Unknown number of lead service lines	1.2
No lead service lines	98.8
Lead goosenecks in service	0.21
Unknown number of lead goosenecks	7.6
No lead goosenecks	92.2

**Service lines installed prior to 1945 are more likely to be lead or have lead components. Galvanized service lines installed prior to 1945 are more likely to have been attached to lead components.*

Water System Efforts Since 2016

- ◆ Five water systems serving over 1,000 connections report an unknown number of lead service lines. It is possible there are some lead service lines still in service within these systems.
- ◆ Larger cities, such as Seattle, Tacoma, and Spokane completed inventories and made significant progress replacing lead service lines and goosenecks.
- ◆ Public water systems must comply with EPA's Lead and Copper Rule, which requires routine monitoring for lead and copper and installation of corrosion control treatment when action levels are exceeded.

Funding Options

ODW manages the Drinking Water State Revolving Fund Program (DWSRF), offering loans to public water systems for infrastructure improvements. The DWSRF Construction Loan Program offers funding to public water systems to pay for the removal and replacement of lead service lines and lead goosenecks.

ODW receives a set amount of DWSRF funds to allocate each year. In addition to the annual allocation, the Bipartisan Infrastructure Law (BIL) earmarked a portion of the increase funding specifically for the removal of lead service lines.

The DWSRF Program will have approximately \$43 million to award to lead service line removal projects in 2022 through 2027, with additional funding available through existing DWSRF Programs.

The BIL also includes approximately \$6 million per year funding for ODW to provide technical assistance to water systems to help develop lead service line inventories and reduce the number of unknown service lines.

Next Steps

ODW will:

- ◆ Provide technical assistance to water systems to assist with the completion of

lead service line inventories by October 2024.

- Offer funding for full lead service line replacements, including galvanized service lines requiring replacement under the LCRR through dedicated lead service line replacement funding cycles and DWSRF construction funding cycles.

For More Information

Our publications are online at doh.wa.gov/drinkingwater.

Contact our nearest regional office from 8 AM to 5 PM, Monday through Friday.

[Eastern Region](#), Spokane Valley 509-329-2100.

[Northwest Region](#), Kent 253-395-6750.

[Southwest Region](#), Tumwater 360-236-3030.



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