

REVISED



LEAD AND COPPER RULE

SNAPSHOT

COMPLIANCE DEADLINE:

OCTOBER 16, 2024



Kimley»Horn

Expect More. Experience Better.

In 1991

the **Environmental Protection Agency (EPA)** first implemented the **Lead and Copper Rule to protect public health by minimizing lead and copper levels in community water systems**. The regulation established monitoring provisions for lead and copper taps as well as water quality parameters.

Five ways lead and copper can enter drinking water



Lead service lines
(highest risks)



Lead pipes, faucets, and fixtures



Chrome-plated brass faucets



Lead solder plumbing



Corrosion



According to the EPA, a safe level of lead in our drinking water Does not exist.

Exposure to lead can cause damage to the brain and nervous system, red blood cells, and kidneys, and those most at risk include young children and pregnant women.

The **Lead and Copper Rule Revisions (LCRR)** became effective on December 16, 2021. These revisions focus on enhancing effectiveness and making sure guidelines are readily enforceable **to provide a more proactive versus reactive approach to safeguarding our communities against lead and copper**.

On the following page we highlight some of the critical updates included in the LCRR. **Systems must comply with the LCRR by October 16, 2024.**

Lead Service Line Inventory

Systems will be required to create a lead service line inventory and update this information annually or triennially. An accurate inventory will be key to understanding the scope of a system's lead and copper issues, identifying potential sampling locations, and communicating with residents that may be supplied water by lead service lines. Inventories will also be **essential to obtaining funding** from the Bipartisan Infrastructure Law.

Inventories must be **location-based** and **publicly available** for systems serving more than 50,000. Inventories for systems serving a population of more than 100,000 must be published online.



Kimley-Horn water experts can partner with you to create an inventory and prioritize projects, resulting in an actionable lead service line replacement plan.

Lead Service Line Replacement Plan

After inventory completion, systems must develop a plan showing how **at least 7%** of lead service lines will be replaced **per year**. Systems will also be required to sample and test water supply within six months where lead service lines have been replaced and replace publicly owned lead service lines within 45 days of a connected private-owned lead service line replacement.

Water Sampling Requirement Updates

A crucial component of the revisions aims to prevent sampling that underestimates actual lead levels in drinking water. Under the new rule, sampling must be **prioritized** according to the lead service line inventory results and tier.

Additionally, systems must annually sample at least **20% of elementary schools and childcare facilities** built before 2014—resulting in all being tested within a five-year period.



TOP THREE TIERS

Tier 1:

Single-family homes served by lead service lines

Tier 2:

Buildings and multifamily homes with lead service lines

Tier 3:

Single-family homes with copper pipes and lead solder installed pre-1983

10 PPB Trigger Level

The LCRR incorporates addition of a lead **Trigger level of 10 parts per billion (PPB)**—a level lower than the existing **action level of 15 PPB**, which allows utilities to be proactive in finding and resolving lead contamination in water supply. If sampling reveals a trigger level of 10 ppb, the system will be required to conduct a corrosion control treatment study or reoptimize existing corrosion control treatment.

Implementation of the Find and Fix

The LCRR requires a **find and fix process** when samples from individual households exceed the lead action level of 15 ppb. Systems must perform follow-up monitoring and testing as well as notify residents served at the site **within 24 hours** of the lead action level exceedance. Follow-up testing will determine whether an adjustment to corrosion control treatment or system flushing can remove lead contamination, or if lead levels at the site are caused by household-specific features such as plumbing fixtures.

Funding Options and First Steps

Funding for LCRR compliance measures can be provided through the **bipartisan infrastructure law** or the EPA's state **drinking water state revolving fund** loan program. For lead removal projects, \$11.7 billion in general funding will be available through the Drinking Water State Revolving Fund, and applications are due each March. To access these valuable financial resources, systems must have an established actionable plan and roadmap of needs—in other words, an accurate lead service line inventory. Kimley-Horn is ready to support you through the first steps of analyzing your system before moving seamlessly into the funding application phase.

Transparency Requirements and Reporting

The LCRR demands greater transparency on water quality and infrastructure status. Those serviced by lead pipelines must be notified annually and provided information on potential adverse health effects of lead exposure. When testing, if 90th percentile levels are greater than the action level of 15 ppb during a sampling period, systems must notify customers within 24 hours.



According to the Association of State Drinking Water Administrators, the LCRR could cost an upwards of \$47 billion to enact. Kimley-Horn can partner with you to apply for grants by creating your existing lead pipeline inventory.