

# Briefing Note: Mandatory LSL Replacement By-Laws

**Issue:** Lead service lines (LSLs) on private and municipally-owned property are posing a risk to public health and hindering Ontario municipalities' ability to meet legally-binding provincial water quality standards.

**Recommendation:** Ontario municipalities can and should advance towards the goal of eliminating all lead drinking water infrastructure by introducing mandatory LSL replacement by-laws.

## Background

- There is no safe level of lead in drinking water. Lead is a toxic heavy metal that impacts health in a variety of ways, depending on age and stage of life. Health outcomes of lead exposure can include:
  - Children: Reduced IQ, learning difficulties, behavioural problems, challenges with fine motor skill development;
  - Adults: Reproductive harm, harm to kidney function, heart disease, some cancers, cognitive decline.
- The primary way that drinking water becomes contaminated with lead is when it passes through or sits in a lead service line (LSL), which connects the municipal water main to a building.
  - LSLs are widely considered to be jointly owned by private property owners and the municipality, with ownership being split at the property line.
  - While the use of lead pipes in plumbing was prohibited in 1975, houses built prior to the 1970s may still have a complete or partial LSL.

## Municipal Responsibility

- Under the *Safe Drinking Water Act*, municipal politicians are responsible and legally liable for ensuring that drinking water systems are well managed and that water at-the-tap meets the provincial maximum acceptable concentration (MAC) for lead, which is currently set at 10 parts-per-billion (ppb).
  - Failing to do so can result in serious consequences, including financial penalties and legal actions.
- Municipalities that report a certain number or percentage of water tests that do not meet the MAC for lead are required to take actions to mitigate exposure, which commonly include one or both of the following:
  - Corrosion control: Adjusting water properties or adding corrosion-inhibiting chemicals to reduce the amount of lead leaching into water;
  - LSL replacement: Either completely or partially removing LSLs.

## Why Should We End the Use of Partial LSL Replacements?

- Partial replacements increase health risks in the short-term.
  - Spikes in lead levels at-the-tap above pre-replacement levels have been observed for months or even years following a partial replacement.

- Partial LSL replacements are not a reliable way to help municipalities adhere to regulatory requirements on water quality in the long-term.
  - A review of partial LSL replacements in residences found that lead levels in homes with a partially replaced LSL remained higher, unchanged, or not significantly decreased up to two years after the replacement.
  - Leaving lead infrastructure in place makes the water system vulnerable to future worsening lead exposure that could be caused by a change in source water or climate-related shifts in water chemistry.
  - It is possible that Ontario will strengthen the MAC for lead to 5ppb, in line with the majority of other Canadian provinces and territories, rendering partial LSL replacements an even less effective method for meeting regulatory requirements.

### **Prioritizing Complete LSL Replacement**

- To protect public health and ensure they are capable of adhering to current or future regulatory requirements, Ontario municipalities should enact mandatory LSL replacement by-laws that:
  - End the use of partial LSL replacement by mandating that the complete LSL is replaced when the city is replacing their portion;
  - Address ongoing harms of past partial replacements by setting clear policy objectives for the complete removal of all LSLs on public and private property.

### **Municipal jurisdiction to introduce mandatory LSL replacement by-laws**

- Municipalities have both the *duty* to provide safe drinking water and *authority* to pass mandatory LSL replacement by-laws.
- Under the *Safe Drinking Water Act*, drinking water providers are obligated to provide water that meets Ontario's quality standards, including keeping lead levels at-the-tap below 10ppb.
  - Given that partial LSL replacement is not a reliable method for achieving this requirement, municipal lawmakers must be allowed to use the governance powers laid out in other Ontario legislation to take effective action, including passing mandatory LSL replacement by-laws.
- *The Ontario Municipal Act* empowers municipalities to govern its affairs by passing by-laws related to protecting health and well-being. By-laws can require mandatory actions by residents.
  - The direct responsibility of municipal lawmakers to manage lead levels in water clearly designates lead pipes as a municipal issue.
- *The Building Code Act* allows municipalities to prescribe standards for private property maintenance and require non-compliant properties to be repaired.

At least eight municipalities, including Hamilton, already have by-laws in place that aim to ban or prevent the use of partial LSL replacement.

- Note that while the by-law in Hamilton does create a legal obligation for residents to replace privately-owned LSLs in cases where the city-side is not made of lead, it is not currently being enforced as the city opts to seek voluntary participation before resorting to making an order through the by-law.

## Best Practices for Mandatory LSL Replacement By-laws

- Best practices for LSL replacement financial support include:
  - Using capital funds to pay for LSL replacements; ◦ Grants specific to LSL replacements; ◦ Interest-free loans paid back in instalments through the water bill;
  - Price-capping costs associated with LSL replacement.
- Equity and accessibility consideration for LSL replacement by-laws should include:
  - Income-adjusted support scales;
  - Inclusion of property restoration costs as an eligible expense;
  - Reducing administrative burden by giving residents access to city-contracted or approved contractors;
  - Financial resources should be accessible to landlords who do not live in the home that they own.

## Recommendations

**In the interest of fulfilling individual responsibility and legal liability for providing clean drinking water, municipal politicians should:**

1. **End partial LSL replacement:** Pass a by-law that prohibits partial LSL replacements and specifies an equity-informed financial support structure for the costs associated with replacement.
2. **Address harms caused by past partial replacements:** Set clear policy objectives for eliminating all lead drinking water infrastructure, including existing partial LSLs on private property.

For more information about introducing a mandatory LSL replacement by-law in your municipality, please contact:

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Additional reading:

- [End of the Line: A better way for municipalities to get the lead out of our drinking water](#)