Get the Lead Out of Drinking Water
Outline

- About CELA
- Why is lead a problem?
- Review of Ontario’s approach to lead under the *Safe Drinking Water Act*
- CELA's Recommendations
About CELA

• Specialty Legal Aid Clinic
• Leader in environmental law reform
• Represent low-income individuals and communities
• Advocate for their right to better environmental protection
CELA’s Strategic Priorities

Access to Environmental Justice

- high priority on cases and law reform work aimed at ensuring access to environmental justice

Pollution Prevention and Public Health and Safety

- high priority on cases and law reform work aimed at ensuring safe, healthy and livable communities

https://cela.ca/our-mandate/
An information session on lead in drinking water

• Health impacts of lead in our drinking water
• Provide key recommendations on how to eliminate lead in our drinking water
• Feature a community case study and what we’ve learned so far
Where is lead found?

Lead can be found in all parts of our environment – the air, the soil, the water, and inside our homes.

Lead and lead compounds in drinking water are mostly due to pipes and plumbing materials, and solders.
As these items corrode and breakdown, lead can enter drinking water.
Why is lead a problem?
Health Concerns

• Dissolved lead has no taste, odour, or colour
• The public may not know if they are being exposed to lead
# Health Concerns

Lead can be toxic to humans and animals, causing severe health effects

<table>
<thead>
<tr>
<th>Pregnant women</th>
<th>Children</th>
<th>Adults</th>
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| • Spontaneous abortion  
• Gestational hypertension  
• Preeclampsia  
• Preterm birth  
• Low birth weight | • Irreversible neurodevelopmental effects, leading to:  
- impaired cognition and learning  
- shorter attention spans  
- disruptive behavior  
• Behavioral manifestations of early lead exposure include:  
- hyperactivity and inattentiveness  
• Distal impacts include:  
- poor school performance  
- juvenile delinquency  
- increased likelihood of incarceration  
• Reduced IQ  
• Increased likelihood of behavioral symptoms and loss of economic opportunity. | • Hypertension  
• Chronic kidney disease  
• Essential tremors |
There are **NO** safe levels of lead exposure, negative health effects occur across all populations.
“The overall goal must be to ensure that “Ontario’s drinking water systems deliver water with a level of risk so negligible that a reasonable and informed person would feel safe drinking the water.”

- Mr. Justice O’Connor, Walkerton Report 2001
Review of Ontario’s approach to lead in drinking water
Jurisdiction over Water

Federal jurisdiction
- Establishing guidelines for substances (such as lead)
- Drinking water on First Nation reserves

First Nation jurisdiction
- Water and Wastewater management services (for some)

Provincial/territorial jurisdiction
- Municipal drinking water standards
- Municipal drinking water oversight
- Drinking water resources
- Drinking water supply
Multi-Barrier Framework for Drinking Water Protection

• Ontario was a North American leader in responding to lead in drinking water 14 years ago after elevated levels in London were noted by the medical officer of health, and then confirmed in other communities with older infrastructure and other conditions.

• Ontario promptly enacted changes to laws and regulations to deal with lead in drinking water - its ability to do so effectively built on the multi-barrier approach to protecting drinking water in Ontario.

• This included the office of the Chief Drinking Water Inspector, the advice of the Ontario Drinking Water Advisory Council, and the powers of the Safe Drinking Water Act.
Safe Drinking Water Act

• Passed in December 2002
• The legislation that authorizes Ontario to regulate the quality of drinking water by way of binding standards
• Was enacted based on Justice O’Connor’s recommendations in the Report of the Walkerton Inquiry
Safe Drinking Water Act

• The purposes of the Act are:

1. To recognize that the people of Ontario are entitled to expect their drinking water to be safe
2. To provide for the protection of human health and the prevention of drinking water health hazards through the control and regulation of drinking water systems and drinking water testing
Safe Drinking Water Act

• The Act includes requirements for the treatment and distribution of drinking water in Ontario. Its main features include:
  – legally binding lead standards in drinking water and for water testing
  – duties on owners, operating authorities and laboratories to immediately report adverse water tests
  – enforcement mechanisms, and
  – an annual drinking-water report published by the Minister
Safe Drinking Water Act

• Advisory Council on Drinking-Water Quality and Testing Standards
  – to consider issues and provide recommendations relating to standards for drinking-water quality and testing
• Duties of the owner of the municipal drinking water system
• No mandated Lead Service Line replacement programs
• Regulations have been enacted under the Act to protect the broader public who obtain their drinking water from municipal systems
• The Schools, Private Schools and Child Care Centres Regulation
  – Requires facilities to flush their plumbing and sample for lead in drinking water
  – The purpose of these requirements is to help reduce the likelihood of children attending these facilities from being exposed to excessive levels of lead in drinking water
  – Ontario has implemented a multi-faceted program including inspections and audits.
O. Reg.169/03

• The *Ontario Drinking Water Quality Standards*
  – Sets out the lead drinking water standard in Ontario as 10 micrograms per litre (μg/L)
The Drinking Water Systems Regulation

- establishes testing requirements for contaminants (including lead) by municipalities
- **Section 11**: mandates that the owner of a drinking water system shall ensure than an annual report is prepared
- **Schedules 15.1 and 15.2** deal with lead
O. Reg. 170/03

- Amendments have been made to reduce the risk of elevated lead levels in municipal residential and non-municipal year-round residential systems by testing tap water for lead at residential homes.
- The frequency of sampling and testing depends on drinking water system category, the size of the population served and the source.
Example:

- In large residential systems, if more than 10% of all samples in 2/3 test periods exceeds the standard prescribed for lead, the owner of the system must ensure that a plan is prepared and submitted to the director within a year of the last failed test.
Regulatory Framework for Lead in Drinking Water

• Changes addressed testing at tap, corrosion control, testing in schools, flushing, and low-income filter program
• However, since then, lead service line replacement in some affected municipalities has been slow and poorly tracked
• A CELA study in 2018-19 revealed many municipalities did not know how many LSLs remained; and many lacked public information about the extent of the issue
• Lead service lines are a major remaining source of lead in drinking water to a large number of Ontarians
WHAT CAN WE CONCLUDE?

Failure to sufficiently protect ALL residents in Ontario from exposure to lead in their drinking water
CELA’s Recommendations
Recommendation 1

**Issue:** The current provincial lead standard is 10 micrograms per litre (μg/L), while the federal guideline is 5 micrograms per litre (μg/L).

**Recommendation 1:** *Lower the Ontario lead in drinking water standard to 5 μg/L*

**How can we do this?**
- Amend O. Reg. 169/03, schedule 2 to set the lead standard at 5 μg/L
Recommendation 2

**Issue:** Lead service lines (LSLs) are a significant remaining source of lead. Progress to remove LSLs has been slow and fragmented across the province.

**Recommendation 2:** Require mandatory LSL removal

**How can we do this?**

- all LSLs are identified and mapped by 2025, a minimum of 75% of LSLs replaced by 2030, and all LSLs be removed by 2035
- replacement of the whole LSL at the same time should be mandatory (public and private “side” of LSL)
- Create a new provincial funding program
  - low-income families should be provided with a grant to cover the cost of LSL replacement
  - other homeowners or property owners should have access to loan and re-payment programs.
  - Assist drinking water systems with funding for LSL removal
Recommendation 3

**Issue:** People may not know that they have LSLs

**Recommendation 3:** Improve notice on lead exceedances

**How can we do this?**

- Provide notice to residents by 2025 when all LSLs have been identified and all mapping completed.
- Provide notice to residents every year after 2025, and when home ownership or tenancy changes.
- Require notice of a lead test result that exceeds 5 µg/L to at least one resident of every unit of a multi-unit residence.
Summary of Recommended Approaches

- **Legislate stricter mandatory minimum standards**

- **Develop publicly-accessible lead service line inventory, reporting and notice requirements**

- **Legislate mandatory deadlines for removal of LSLs**

- **Fund programs to support removal of LSLs**

- **Raise awareness through public education**

- **Foster Indigenous-Federal-Provincial Solutions**
THE TIME TO ACT IS NOW

Ontario government has made a commitment to ”update our current policies and consulting on further actions to reduce levels of lead in drinking water” as part of the A Made-in-Ontario Environment Plan.
Thank you!

We want to hear from you!

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See CELA report Lead in Our Drinking Water
https://cela.ca/lead-in-our-drinking-water/
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