

## Providing all British Columbians with clean, safe drinking water

Water suppliers in BC are committed to providing all British Columbians with safe, clean drinking water.

Drinking water in British Columbia is safe and clean when it leaves the water treatment plant. In some situations, water may come into contact with lead after it leaves the treatment plant.

This may happen in the service lines – the pipes that connect homes or buildings to the water main under the road – or in homes and buildings with older plumbing fixtures that contain lead or lead solder.

The characteristics of the water may also contribute to lead in the drinking water. Water with low pH and low alkalinity levels can corrode the metal in the service lines and plumbing fixtures, releasing lead into the water.

Since 1989, the BC Building Code has restricted the lead content in water lines and plumbing fixtures.

### Keeping drinking water lead free is a shared responsibility

Reducing and eliminating lead in drinking water requires municipal treatment plant operators, water suppliers, health authorities and property owners work together to ensure clean, safe drinking water.

The issue of who is responsible for lead in drinking water is complex, since lead may come from municipally owned service lines or pipes and fixtures contained within private property. While water suppliers own the water supply system, property owners own the pipes and plumbing on their own property.

Under the *BC Public Health Act*, the owners of private properties are responsible for ensuring their plumbing does not create a drinking water health hazard for those who consume the water. That means property owners are responsible for testing the water used in their building and taking mitigation steps, including flushing or replacing private property service lines and plumbing fixtures.

The long-term goal is to eliminate lead from Canada's water system by replacing all lead service lines and household plumbing that contains lead or lead solder. This will be accomplished by federal, provincial, regional and municipal agencies continuing to work together with home and property owners to reduce corrosion and replace older service lines and plumbing fixtures.

Health Canada recently released *Guidelines for Canadian Drinking Water Quality (March 2019)*. These guidelines set the Maximum Acceptable Concentration (MAC) for total lead in the drinking water at 0.005 mg/L, based on a sample of water taken at the tap. Additional guidance was provided through *Guidelines for Evaluating and Mitigating Lead in Drinking Water Supplies, Schools, Daycares and Other Buildings (BC Health Protection Branch, April 2019)* which advises that every effort should be made to maintain lead levels in drinking water as low as reasonably achievable.

## **Water suppliers have an important role to play**

Municipal treatment plant operators and water suppliers have an important role to play in reducing lead in drinking water.

Under the *BC Drinking Water Protection Action (DWPA)*, drinking water supply systems in BC are responsible for monitoring water they deliver to verify it is within acceptable limits for lead and other metals. To meet their responsibilities under the DWPA and the new guidelines, municipal treatment plant operators and water suppliers should:

- Proactively work with home and property owners to determine if lead is present by testing water at the tap
- If necessary, adjust the chemistry of water leaving the treatment plant to minimize its reaction with lead in older service lines or plumbing fixtures (this is known as “corrosion control treatment”)
- Educate homeowners about the steps they can take in the short term to reduce the risk of lead

## **Working together with home and property owners**

Municipal treatment plant operators and other water suppliers can support home and property owners to test the water at the tap, particularly if they live in an area where the characteristics of the water may create conditions for corrosion in the service lines or plumbing fixtures.

Since testing for lead is complex, it is recommended that home and property owners contact their municipality or an accredited lab.

Municipal treatment plant operators and water suppliers can also educate home and property owners about the steps they can take in the short term to reduce the risks of lead. These include:

- Learn about their plumbing, fixtures and service lines
- Run taps until the water runs cold when they have not used water overnight or for a full day or longer
- Filter drinking water with a CSA or NSF certified lead filter (if you have a lead service line)
- Stay informed by talking to municipal treatment plant operators and other water suppliers

In many communities, water suppliers are collaborating with provincial health authorities to conduct a community risk assessment for corrosion and take steps to identify if lead service lines are in their area. This allows them to prioritize higher risk locations.

## **Health risks associated with lead**

Exposure to lead can be hazardous to people’s health. Even low levels of lead have been shown to harm the cognitive development, behaviour, size and hearing of infants and children. The degree of harm from lead exposure depends on frequency, duration and amount of the exposure to lead from all sources including air, soil, dust, food and water. While water can be a significant source of lead, there is no evidence that drinking water in BC is a significant source of dietary lead intake. (BC Guidance Document)

## **BC Water and Waste Association**

The BC Water & Waste Association (BCWWA) is a not-for-profit organization that represents over 4,000 water professionals who are responsible for ensuring safe, sustainable and secure water, sewer and stormwater systems in BC and the Yukon. BCWWA provides professional development, education, certification and advocacy for the water and wastewater industry

For more information, please contact: [Insert BCWWA contact]



Safeguarding public health and the environment through the sharing of skills, knowledge, education and experience, and providing a voice for the water and waste community.

*Sources:*

*Guidelines on Evaluating and Mitigating Lead in Drinking Water Supplies, Schools, Daycares and Other Buildings (April 2019)*

*Guidelines for Canadian Drinking Water Quality (March 2019)*

*Clean, Safe and Reliable Drinking Water, Provincial Health Officer's Drinking Water Report, 2012/13-2016-17*