

Lead Management in Water Distribution Systems

Health Canada published a new lead limit for the Guidelines for Canadian Drinking Water Quality in 2019. The new guideline for lead introduced two fundamental changes from how lead has been managed in drinking water since 1992. The first change is the **maximum acceptable concentration (MAC)** for lead was lowered to 5ug/L (micro grams per liter) from the previous MAC of 10ug/L. More importantly, the second change is the point of compliance for lead. The point of compliance is now at the customers tap and no longer in the water distribution system.

In January 2020, Alberta Environment and Parks adopted the new lead MAC of 5ug/L and the new point of compliance. These regulatory changes have led to the addition of testing and reporting requirements for water system owners to Alberta Environment and Parks.

By changing the point of compliance for lead testing, we are now taking into account the impact that household plumbing and fixtures have on the amount of possible lead exposure in drinking water.

In accordance with the new regulatory requirements, the Town of Coalhurst will be testing the water in individual houses at the point of consumption for lead. Testing will be done following the Alberta Environment and Parks Regulations and Guidelines for Managing Lead in Municipal Drinking Water Systems.

Houses will be selected at random using a water system assessment and stratum grouping. If you have any questions about the testing of lead in drinking water, please contact the Town of Coalhurst at 403-381-3033 during regular business hours.

Addresses of houses as well as test result for lead collected from samples will be collected under the authority of the *Environmental Protection and Enhancement Act, Potable Water regulation 16(1)* for the sole purpose of conducting the waterworks system lead survey of tap water. Test results and address only will be disclosed to Alberta Environment and Parks. Your personal information will not be shared any further unless you provide additional consent to do so.

Ownership of Service Lines

It is important to note ownership of water service lines. The municipality owns the portion of the service line to the property line or the water shut off valve in the front of the property. The portion of the service line from the shut off valve to the home is owned by the homeowner.

The Town of Coalhurst water distribution system was installed in the early 1980's, lead service lines were no longer being utilized at this time. The Town of Coalhurst does not own any lead pipes. You can check to see what pipe material your home has for the portion of service line from the property line to the basement. This portion is owned by the homeowner and would have been installed by the home builder.

1. Check the color of the pipe coming out of the ground and into the water meter, you may have to lightly sand the surface to expose the fresh metal of the pipe.

If the pipe is:

Copper (the color of a penny): It is likely copper pipe.

Bluish green or black: It is likely plastic.

Dark grey: It is likely galvanized iron or lead.

2. If it is Dark grey, check the hardness of the pipe.

If you think it could be lead, try etching gently into the pipe. Lead is a relatively soft metal and scratches easily. To avoid damage, don't attempt gentle etching if you think the line could be plastic.

There is an instructional video on [EPCOR.com/Lead](https://www.epcor.com/Lead) that provides more detailed instructions on how to check for lead.

If you think the service line may be made of lead you can also contact the Town of Coalhurst at 403-381-3033 during business hours, and one of our water distribution operators may assist you in identifying your water service line material.

Lead Exposure

Although the lead MAC is 5 µg/L, there is no known level of lead exposure that is considered safe and efforts to reduce lead levels as low as achievable are strongly encouraged by Health Canada. Pregnant women and children under six years-of-age are the populations most vulnerable to lead. Women who have been or are exposed to lead can in turn expose their fetus or infant during pregnancy and breastfeeding. Children are more affected by exposure to lead than adults are because they absorb more ingested lead than adults do. In children and fetuses, lead can cause adverse effects on neurological development and behaviour in children, including reduction of intelligence quotient (IQ). In adults, lead exposure can cause increased blood pressure or kidney problems. Exposure to lead in drinking water is a concern only if the contaminants are ingested.

Inhalation and dermal absorption during bathing and showering are not significant routes of exposure.

How to reduce exposure to lead from drinking water

Flush out your pipes before consuming the water

- Has water been sitting in your pipes for several hours? Run the tap until it's cold (about one minute) before drinking or cooking with the water from that tap.
- Only use cold tap water for drinking or cooking, since hot water increases the leaching of lead and other metals from your plumbing.
- Clean your taps monthly: Every month, inspect the aerators or screens at the tap. If you find debris, clean it out – this will remove any particles that may contain lead, and inspect more frequently if you do not find debris, continue to inspect monthly.
- Brass faucets and valves can contain some lead – These can be replaced with fittings that are certified to the standard on low lead content.
- A household water filter at the tap can effectively remove lead from your water, this is recommended as a temporary solution.
- The filter must be installed and maintained properly, or it could become ineffective.
- Test your water for lead before installation and during use to confirm the filter is working.
- Make sure that any device you purchase is certified to the NSF International standard for removal of lead.

Other Resources and Links:

<https://myhealth.alberta.ca/Alberta/Pages/Common-questions-about-lead-and-drinking-water.aspx>

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/what-about-lead.html>

<https://open.alberta.ca/publications/lead-and-drinking-water-from-lead-service-lines>

The Town of Coalhurst will be randomly testing houses for lead in drinking water. This will be done following the Alberta Environment and Parks Regulations and Guidelines for Managing Lead in Municipal Drinking Water Systems.

If you would like to complete your own test for lead at your residence, a list of Alberta labs that are ISO/IEC 17025 accredited for lead in water can be provided. In addition, other labs may be used if they meet the proper requirements.