



Stakeholders of the West Inter Lake District (WILD) Regional Water Services Commission:

DRINKING WATER CHEMISTRY CHANGES COMING DECEMBER 2022

TO REDUCE LEAD, EPCOR WILL BE ADDING ORTHOPHOSPHATE TO EDMONTON'S TREATED WATER EFFECTIVE DECEMBER 2022.

EPCOR cares about the health and wellbeing of our customers, and we take our commitment to providing safe, reliable drinking water very seriously. As one of our commercial customers, we want to make you aware of an upcoming change to Edmonton's drinking water chemistry. As part of EPCOR's Enhanced Lead Mitigation Program, orthophosphate will be added to treated water starting in December 2022. This may require businesses that use water for manufacturing, food processing, petrochemical production, as well as commercial heating and cooling, to make adjustments to their processes.

Orthophosphate is being added to reduce the release of lead into drinking water from all sources, including lead service lines and plumbing components. It is the industry standard for treating lead corrosion in municipal drinking water all over the world. Orthophosphate is a tasteless, odourless substance that creates a protective barrier on plumbing surfaces. Approximately half of medium and large utilities in the United States and nearly all of the utilities in the United Kingdom rely on a phosphate-based lead corrosion inhibitor to reduce lead in their systems. Canadian cities such as Toronto, Winnipeg, Hamilton, Halifax, and Saint John have also seen positive results by adding orthophosphate to their drinking water.

WHY IS EPCOR ADDING ORTHOPHOSPHATE TO THE WATER?

In March 2019, Health Canada released an updated guideline for Canadian Drinking Water Quality that established a new maximum acceptable concentration (MAC) of lead in the water. The MAC has been reduced from 10 $\mu\text{g/L}$ to 5 $\mu\text{g/L}$ and monitoring has been moved from the distribution system to the consumer's tap. As part of EPCOR's Enhanced Lead Mitigation Strategy, the City of Edmonton approved the addition of orthophosphate as a lead inhibitor to protect residents from releases of lead in the water. The use of orthophosphate has also been endorsed by Alberta Health Services and our regulator Alberta Environment and Parks.

WHAT IS THE TIMELINE FOR IMPLEMENTATION?

Orthophosphate will be added to Edmonton's water at the Rosssdale Water Treatment Plant and E.L. Smith Water Treatment Plant beginning in December 2022. The concentration of orthophosphate will begin at 0.9 mg/L as P. and EPCOR will monitor and, over time, optimize the concentration. Over approximately one year, orthophosphate concentrations may fluctuate. EPCOR anticipates that after the implementation and optimization phase, orthophosphate concentrations will remain stable, with possible slight adjustments from season to season.

HOW CAN I PREPARE MY BUSINESS FOR THIS CHANGE?

EPCOR is providing advanced notice of these changes to allow businesses adequate time to identify potential impacts on their processes and equipment. Some business areas that may be affected include:

Production and Water Treatment

- The addition of orthophosphate may affect reverse osmosis and other water treatment systems. EPCOR recommends that you contact your process equipment consultants or suppliers to complete an assessment in advance of December 2022 to determine if you will need to make any required adjustments prior to orthophosphate implementation.

Heat Exchangers and Cooling Towers

- Orthophosphate in the water may change the type and amount of precipitate that deposits on commercial heat exchangers and cooling towers. Companies may need to adjust their chemical treatment to account for the change in phosphate levels. It is recommended that companies contact their heating and cooling supplier, water treatment chemical provider or process consultant to discuss the need for adjustment to your heating and cooling system.

Boilers

- The impact of orthophosphate on boilers is expected to be minimal. Many customers already add phosphate to precipitate calcium and/or as a tracer in their boiler system. For this reason, companies already adding phosphate may benefit from the implementation of EPCOR's Enhanced Lead Mitigation Strategy. Companies that already add phosphate may need to adjust their dosage levels accordingly or apply for an overstrength permit for discharge of their wastewater. You can apply for an overstrength permit through EPCOR Drainage at epcor.com.

There may be other processes within your business that we have not identified that may be impacted by the addition of orthophosphate to the municipal drinking water. We recommend that you discuss these changes with a consultant to determine if there is an impact to your water process.

IMPACT TO CUSTOMERS PAYING WASTEWATER OVERSTRENGTH SURCHARGE FOR TOTAL PHOSPHORUS

EPCOR recognizes that this change to water chemistry may impact the total phosphorus level measured in samples collected for the overstrength surcharge program. Once the orthophosphate program has been implemented, the measured concentrations in your discharged water will be reduced by the concentration that is added to the municipal drinking water to determine the overstrength surcharge.

The intent is to have no net financial impact to our customers.

For more information on EPCOR's Lead Mitigation Strategy, please visit epcor.com/lead.

If you have any questions or concerns please reach out to us via email at wildwatercommission@gmail.com

Regards,

Administration

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