



Notice to Industrial, Commercial and Institutional Customers Loch Lomond/Latimer Lake Drinking Water Supply



Saint John Water wishes to advise its industrial, commercial and institutional customers east of the Reversing Falls (including areas of North, South and East Saint John) of the water quality transition scheduled to commence this month, as part of the Safe, Clean Drinking Water Project.

Early pH adjustment of the drinking water using sodium hydroxide is the first incremental step in preparation for the transition to fully treated Loch Lomond/Latimer Lake drinking water. The second step will occur once the pH of the water rises above 7, at which time treatment with orthophosphate will commence. These interim system changes are being planned in collaboration with the New Brunswick Departments of Health and Environment and Local Government as well as expert advisors in drinking water treatment.

Step 1 - Adjusting the pH using Sodium Hydroxide

Treating the water with sodium hydroxide will increase the pH and the alkalinity of the drinking water delivered to customers on the east water distribution system. The pH increase will move the pH of the drinking water to within the Guidelines of Canadian Drinking Water Quality.

Diagrams and water quality tables are available on www.saintjohn.ca/eastsidewater showing the water quality parameters for the various treatment steps.

Sodium hydroxide is a food grade product frequently used in water treatment processes to neutralize acidity, increase alkalinity, or raise the pH value. The sodium hydroxide product is National Sanitation Foundation (NSF)/ANSI Standard 60 certified.

The addition of sodium hydroxide will slowly increase the drinking water pH to a range between 7.0-9.0 and the alkalinity (mg/L as CaCO₃) in the range of 10-25. Corrosiveness of the water would decrease at the higher pH.

The target timeline to commence the process of slowly adjusting the pH is between April 20 and April 30, 2018. The dosage of sodium hydroxide will be gradually increased so the pH is incrementally increased from its current value to a pH greater than 7 over the course of approximately 2 - 3 months. Once the pH increases above the designated value of 7, orthophosphate treatment will then commence.

Step 2 – Addition of Orthophosphate

Since orthophosphate is ineffective at low pH, the pH correction (increase) has to be completed first to reach a pH greater than 7. Once the pH is in a stable range for orthophosphate to be effective, treatment with orthophosphate will commence.

Final Water Quality after Full Treatment

Operation of the Loch Lomond Drinking Water Treatment Facility is scheduled to commence in the summer of 2018 delivering fully treated surface water that meets the New Brunswick and Canadian Drinking Water Quality Guidelines.

Interim measures by Saint John Water at Latimer Lake will cease operation as the treatment process at the new Loch Lomond Drinking Water Treatment Facility will include pH adjustment and the addition of an orthophosphate.

Potential Customer Impacts

Based on practice and historical data, there should be no adverse effects for copper piping. However, Saint John Water advises customers to be cognizant of the system changes that will be commencing. Treatment of the drinking water with orthophosphate once the pH is above 7.0 will also add additional protection to the distribution infrastructure and plumbing systems.

The adjustment of pH is being undertaken to reduce pipe corrosion, both for larger buried pipes and for premise plumbing. The implementation of an early pH correction program is intended to introduce changes slowly to allow infrastructure a period of adjustment before the new drinking water treatment facility begins to deliver treated water to customers.

Adjusting the pH with the addition of sodium hydroxide at the Latimer Lake Drinking Water Treatment Facility has the potential to destabilize some internal corrosion (tuberculation) in the water system that has formed on the inside of cast-iron pipes over a number of years. Therefore, there is a possibility for discoloured water, increased iron in the water and changes in chlorine levels.

The gradual adjustment to the pH is intended to mitigate these potential issues to the extent possible. If there are any changes to water quality or questions regarding the changes in water chemistry, customers can contact (506) 658-4455.

Port City Water Partners remains focused on completing all components of the Safe, Clean Drinking Water Project while Saint John Water prepares for the water quality transition. Increased water monitoring will be done by Saint John Water during the period of transition.

We thank you for your understanding as we work through this historic transition for our City that will result in greatly improved water quality.