

November 28, 2023

Federal-Provincial-Territorial Committee on Drinking Water
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RE: Guidelines for Canadian drinking water quality: Iron

The Canadian Water and Wastewater Association (CWWA) is the professional association representing Canada's water and wastewater professionals and serves as THE national voice for municipal water utilities. For almost 40 years, the CWWA has collaborated with Health Canada and the Committee for Drinking Water to support the development of practical and effective policies and guidance to Canada's water utilities. To achieve this, the CWWA has formed committees of experts, utility leaders and academics, to review and provide practical comments to the federal government and its agencies. One such committee is our CWWA Drinking Water Committee.

The Drinking Water Quality Committee reviewed the proposed Guidelines for Canadian drinking water quality on iron. While the Committee agreed with the overall conclusions of the Guidelines and the proposed aesthetic and health-based objectives, we did have some concerns about it.

Setting any kind of health-based value will inevitably lead to confusion among operators, managers and when explaining an upper tolerance to politicians or the public. We recommend strong language to explain the difference between health-based value and a MAC. We also note that at the levels recommended for the health-based value (5.3 mg/L), aesthetic concerns would be inevitable and it's unlikely any customers would be willing to consume the water, even if it's technically safe for consumption.

We also note that the total concentration of iron alone will not determine the level aesthetic concerns. The source and oxidation state of the iron are also meaningful considerations. Some members of our committee reported groundwater systems with iron concentration above the aesthetic objective with no impacts on water taste or appearance, while others with surface water sources had incidents of poor water quality at similar concentrations due to conditions (specifically rusting of cast iron piping) in the distribution system.

While setting the aesthetic objective should create latitude for systems who may exceed the limit, without aesthetic concerns, it may create political and consumer pressures to meet the objective unnecessarily.

It might also be worthwhile to note in the technical document that when there are traces of iron in a groundwater due to the presence of iron-related bacteria, disinfecting the well can help reduce iron concentration in the treated water.

Thank you for your consideration
Kara Parisien
Sent on behalf of the CWWA Water Quality Committee