



Seasonal manganese presence in municipal drinking water

NANTON, AB (December 7th, 2022) – A seasonal variance in dissolved manganese in the municipal water supply is causing some public concern due to it causing a yellow or brown hue. It is not a bacterial issue, but a known challenge with our local water sources. The Town is looking into an appropriate and affordable way of addressing the issue with provincial authorities. Until the presence of manganese hits a certain level of concentration in the water over a period of time it is a largely aesthetic, if unappealing, problem. The drinking water presently complies with all safety requirements.

KEY CONSIDERATIONS

1. Manganese is an element found in minerals and is most often present in groundwater sources for drinking water. Manganese in small doses can be beneficial to human health; however, in higher concentrations it can pose adverse effects. Manganese can also affect the taste and appearance of drinking water.
2. Manganese levels tested thus far within the community and at the plant are below the 0.12mg/l threshold.
3. Manganese levels in our reservoir vary depending on aeration, seasonal rains, temperature and turbidity (or a combination of these factors). There are both 'high' and 'low' years.
4. An Alberta Health Services boil advisory will not be triggered by dissolved manganese as boiling will neither extract or otherwise mitigate the colour or other properties of its presence.
5. Operations staff continue to monitor manganese levels daily within the water distribution system to ensure levels continue to stay below the acceptable concentration.



Manganese in water

WHAT CAN I DO?

- 1) If you want your water tested for either chlorine residuals or manganese due to the colour, please contact the Operations Department to request or discuss that. *It may be scheduled as and when personnel resources permit.*
- 2) The purchase of a regular water filter (e.g. a Brita) may help mitigate some dissolved solids in the water, including manganese.
- 3) A 1 micron water filter installed at point of water entry to the home may mitigate manganese and other dissolved solids.

TOWN PRIORITIES ON WATER

- 1) **Water loss in the distribution system:** at least 12 valve replacements are planned for 2023 to facilitate improved leak detection and smaller shut-off isolation areas. Pursuing further leak detection will reduce water and wastewater plant costs related to both water and wastewater treatment.
- 2) **Taste and odour:** an aeration and activated carbon treatment system will be installed for the Town's reservoir in 2023 at a projected cost of approximately \$1.25 million. This follows the dredging of the reservoir in 2019.
- 3) **Communication:** improved use of the alert system, website and social media alert and notification systems for water isolations and more.
- 4) **Regional pipeline feasibility:** The Town and the Town of High River are already working on a feasibility study on a treated water pipeline from High River to replace Nanton's reliance upon Mosquito Creek and the Spring Line. It should report in 2023.

For more information:

Town website: [Water Colour, Taste and Odour | Nanton, AB - Official Website](#)

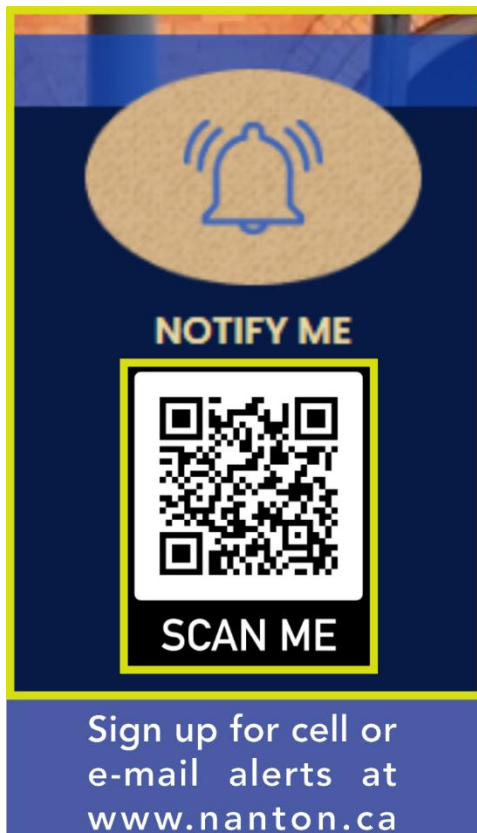
Manganese in drinking water monitoring changes: [Manganese in drinking water \(alberta.ca\)](#)

Federal Report on Manganese: [Manganese in Drinking Water - Canada.ca](#)

Nanton 2016 Taste and Odour Study: [Nanton-Water-Treatment-Plant-Taste-and-Odour-Study-2016](#)

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