

April 4, 2025

Federal-Provincial-Territorial Committee on Drinking Water  
[water-eau@hc-sc.gc.ca](mailto:water-eau@hc-sc.gc.ca)

**RE: Draft Guidelines for Canadian Drinking Water Quality, Trihalomethanes**

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. The Association maintains a Committee on Drinking Water Quality composed of drinking water treatment experts from across the country. The Committee reviewed the Guidelines for Drinking Water Quality, Trihalomethanes. The Committee supports the proposed maximum acceptable concentration and appreciates the thorough review of the current science on trihalomethanes. We are supportive of maintaining the existing MAC value for Total THMs, based on *a locational running annual average of a minimum of quarterly samples taken at the points in the distribution system with the highest potential levels of THMs*. We strongly support the advice that disinfection not be compromised in pursuit of lower THM levels. We appreciate the clear statement that, "*Data suggest that chloroform is a threshold carcinogen that does not pose a cancer risk at levels found in drinking water.*" This fact is often not understood within the greater drinking water community and ought to be communicated more widely. We also suggest that Health Canada always recommend the use of accredited laboratories for all THM testing.

Additional comments on the document are summarized below:

- The table of contents includes page number references, but page numbers are not printed on the document
- On page 4: Very limited toxicity data exist for iodinated THMs, so it is not possible to derive an HBV for these substances.
- In section 6.0, table 29 shows the proposed MAC for BDCM at 0,100 mg/L. Compared to other jurisdiction, that MAC is high (i.e., US EPA (0 mg/L) , EU (2020) (0,100 mg/L) and OMS (0,06mg/L)). Can additional clarification on the selection of the proposed MAC for BDCM and consideration to international values be provided?
- On point 7.0, more than 600 DBPs have been identified, but few have drinking water guidelines. Is there the intention to develop guidelines for other disinfection byproducts?
- Reconsider including the citation from S. Chowdhury et al. (2011). This work was rightfully highly criticized (see: R.J. Bull, et al., (2011) *Re: Chowdhury et al. 2011. J. Hazard. Mater. Disinfection byproducts in Canadian provinces: Associated cancer risks and associated medical expenses*) for multiple misinterpretations and misinformation. Furthermore, this author has other questionable DBP publications, including a 2010 paper in Environmental International that was retracted from the journal in 2012 [Retraction notice to: Human health risk assessment from exposure to trihalomethanes in Canadian cities [Environment International 36 (2010) 453–460]; Retraction in: Environ Int. 2012 Feb;39(1):1]. The THM document contains many other quality

references so refraining from citing questionable ones is advisable and would also help to stop perpetuating further citations of suspect work by others.

- On page 61, it introduces a colorimetric method for THMs (HACH THM plus method), and the information may be misleading as there is no evidence that the data from this method have a good correlation with standard methods. The cited reference (Ali et al. 2019) did not include any information to compare the results to standardized THMs methods. The HACH method clearly stated that any HAAs will have positive interference to results. So the results from this colorimetric method may (if the water matrix does not have HAAs) or may not (if there are HAAs in the water matrix) align with standardized methods. Considering the majority of drinking water systems will likely have both THMs and HAAs, this should be included in the document to avoid misleading the readers.

A colorimetric method is also available. It can be used for day-to-day operations and estimates THMs, based on chloroform content, using reagents and a spectrophotometer. This method has been demonstrated **to have good correlation with standardized methods** and has been used in small-scale systems (Ali et al., 2019). A few studies have used this method in assessing THM concentrations (Ahmed et al., 2019; Ali et al., 2019).

- On page 59, Table 18, Column-MDL. Suggest comparing the MDL consistently for all compounds: Either from low to high values, or high to low. The current document compares MDL inconsistently for different compounds, some from low to high, and some from high to low which is difficult for readers.
- Appreciated the inclusion of occurrence data for I-THM in Table B7 from across the country.

Thank you for your consideration

Kara Parisien  
On behalf of CWWA's Drinking Water Quality Committee