

April 11, 2023

Health Canada and the Canada Drinking Water Committee

RE: CWWA comments on Health Canada's Draft objective for per- and polyfluoroalkyl (PFAS) substances in Canadian drinking water

Consultation Document Published: Feb 7, 2023

Consultation Period Ends: April 12, 2023

The following are the comments on the above noted consultation document from the CWWA Drinking Water Quality Committee (DWQ):

The DWQ committee has reviewed the Health Canada consultation document on the proposed Objective Value (OV) for per- and polyfluoroalkyl (PFAS) substances in Canadian drinking water. An OV of 30 ng/L is set for the total concentration of 18 PFAS compounds along with an ALARA goal. We understand that while this objective value will replace the current MACs for PFOS and PFOA, and the screening values for 9 other PFAS compounds, it is not a health-based MAC. It is an interim target based on analytical and treatment capability that will be in place until there is sufficient health information on PFAS compounds to develop a health-based MAC.

While the DWQ appreciates the unique challenges that PFAS compounds present for human health, not only in drinking water, but through other exposure routes, we have several comments and concerns on the proposed consultation document that we would like to share with Health Canada:

The concept of an Objective Value will be challenging for water systems and the jurisdictions that regulate them. The term "Objective Value" is confusing as it does not align with the rest of the HC guidelines. Most jurisdictions in Canada accept MACs as regulatory limits, however, the status of Objective Values is unclear. This may create a mosaic of approaches across Canada in the short term until a MAC is developed. The new objective value may be considered a softer target than current MACs for PFOS and PFOA and, therefore, may not actually achieve lower PFAS concentrations in the Canadian drinking water. Can Health Canada anticipate a timeframe when a MAC will be developed?

With the exception of some regional studies, such as the recent Quebec study, data on exposure to PFAS in drinking water across Canada still seems to be limited. Has it been established that drinking water is one of the major sources of exposure to PFAS compared to other sources (i.e. diet)? It would seem that, prior to setting goals for drinking water, this work to determine the relative sources of exposure should be completed in order to ensure the optimum public health benefit.

The treatment options listed (GAC, anion exchange, nanofiltration/reverse osmosis) for reducing PFAS in drinking water will be very costly for water utilities to implement. The consultation document and the objective value do not seem to consider the cost versus potential public health benefit. We encourage Health Canada to consider the overall public health benefit against the potential cost of meeting the OV or the eventual MAC for PFAS compounds.

The treatment options identified in the consultation document produce waste streams that will need to be managed. They do not destroy PFAS compounds, but rather, re-direct them. These waste streams will include the residual streams (NF/RO reject, anion exchange regeneration waste) and waste GAC that will require disposal and/or regeneration. In many cases, the residual streams may be forwarded to wastewater treatment plants and the PFOS compounds may be concentrated in biosolids, potentially restricting beneficial land application of biosolids.

The consultation document proposes that the 30 ng/L OV is based on the sum of the analysis of 18 individual PFAS compounds. Two US EPA methods are proposed - Method 533 or 537.1. Currently, the number of labs that are accredited for this PFAS analysis in Canada is limited and the analysis will be costly, particular for small utilities.

The consultation document does not speak to how the summation of individual compounds should be done. Is there scientific validity to adding the concentrations of compounds on a mass concentration basis versus a molar basis? Should the summation be carried out by the accredited laboratory or by the utility? We suggest that Health Canada address these questions in the final document.

As always, we are open to discussing these or any other aspects of the consultation document with Health Canada at some time in the near future.

Sincerely,

Dr. Steve Craik
CWWA Drinking Water Quality Chair