



**April 12, 2023**

Water and Air Quality Bureau  
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***Re: Objective for Canadian Drinking Water Quality Per- and Polyfluoroalkyl Substances: Objective for Public Consultation***

The Canadian Environmental Law Association (CELA), Health and Environment Justice Support (HEJSupport), Toxics-Free Great Lakes Binational Network (TFGLBN), Clean Production Action (CPA) and Northwatch are responding to the following consultation document: Objective for Canadian Drinking Water Quality Per- and Polyfluoroalkyl Substances, released for comments on February 7, 2023.

We welcome Health Canada's progress to propose the objective value of 30 ng/L for drinking water on Per- and Polyfluoroalkyl substances (PFAS). The proposed objective value will cover up to 29 PFAS and replace the drinking water guidelines for PFOA and PFOS, and screening values for another 9 PFAS. For your consideration, we raise the following concerns and recommendations on the proposed objective value for PFAS:

**1) Proposed objective value does not consider health evidence.**

The proposed objective of 30 ng/L for the sum of PFAS is established based on current available analytical methods and monitoring data on PFAS in drinking water sources conducted since 2012 by different agencies. However, the proposed objective value was not developed using health-based evidence. The proposal should be further strengthened to reflect the concerns associated with the impacts of PFAS on human health that includes impacts on the immune system, developmental and reproductive impacts, endocrine system, liver, and association with certain cancers. As we continue to see the body of evidence demonstrating the impacts associated with PFAS exposure grow, the failure of developing objective value for PFAS is a significant oversight.

Certain groups including children, developing fetus, and babies are the most vulnerable groups to PFAS substances. However, women of childbearing age are at higher risk because they can pass PFAS to their babies. Designing a proposed objective value of 30 ng/L based on limitations of current and acceptable analytical testing methods will result in continued PFAS exposure to these groups in particular. Jurisdictions including the United States are concluding that there are no safe levels to PFAS. The uncertainty on whether the proposed objective value is adequately protective remains high, particularly as the body of evidence showing the association of impacts from PFAS exposure continues to grow. The number of PFAS substances known to be on the market is now over 12000 and growing, and the ability to test and measure the levels in the environment and in the general population continues to be limited in its scope to measure all PFAS.

**Recommendation: Health Canada should establish objective value for PFAS in drinking water that are health-based rather than rely only on current analytical testing methods to ensure protection from PFAS in drinking water especially for developing fetus, babies, and children.**

**2) Number of PFAS to be tracked by proposed objective value is limited.**

Health Canada proposes that the “[t]otal PFAS should be calculated using the full list of substances in EPA Method 533 or EPA Method 537.1 (or both) ...or using method validated by another jurisdiction that measures a minimum of 18 PFAS...” The proposed objective value track up to 29 PFAS, which does not adequately reflect the concerns associated with the remaining thousands and thousands of PFAS identified in the market and are not currently monitored or tested using the current analytical test methods (EPA Method 533 and EPA Method 537.1). The proposal relies on the two EPA methods to calculate the sum of PFAS but also refers to the use of validated methods by another jurisdiction on a minimum of 18 PFAS. No other details have been provided to outline what validated methods are acceptable and which 18 PFAS are to be tracked. This approach creates greater uncertainty about the rigour of the methods to be applied. It would be more precautionary and protective if the proposed approach would rely on EPA Method 533 as it captures 25 PFAS rather than simply setting the approach to a minimum of 18 PFAS.

**Recommendation: Require tracking of all 29 PFAS captured by EPA Methods 533 and EPA Method 537.1 to calculate sum of 29 PFAS. Require the adoption of EPA Method 533 to account and track 25 PFAS rather than allow for use of validated methods capturing a minimum of 18 PFAS to calculate the sum of PFAS.**

**Recommendation: Require review of objective value at a minimum of every 2 years to expand the PFAS substances tracked and measured under the objective value for drinking water to reflect the scope of use of and large number of PFAS substances in the market.**

Furthermore, no single objective values are proposed for the two most detected PFAS: PFOA and PFOS from the drinking water samples tested since 2012 in Canadian water drinking sources. There is significant value for the protection of health to establish objectives for each of PFOA and PFOS, particularly for communities known to have PFAS contamination of drinking water sources (e.g. airport and military bases). US EPA proposed in March 2023 to establish Maximum Contaminant

Levels at 4 ppt (ng/l) for each of PFOA and PFOS. If we rely on the current analytical methods on PFAS, we will continue to lag behind in our response to the threats posed by PFAS, and will not fully reflect the threats to the environment and potential impacts to health.

**Recommendation: Adopt individual objectives for PFOA and PFOS following the approach of US EPA set at 4 ppt rather than allow for integration of PFOA and PFOS in the total sum of PFAS.**

**3) Reliance of wastewater treatment facilities to remove PFAS is an inadequate approach to protect health and the environment.**

The consultation document offers a brief of the availability of technologies in use by wastewater treatment facilities to remove PFAS. However, it is clear that each technology considered (e.g PAC, GAC, RO and NF) and their PFAS removal efficiencies differ and the type of PFAS to be treated also differs for each technology. To achieve an increase in removal efficiencies creates different challenges for facilities considering these technologies. Furthermore, each of these technologies does not address the issue of the management and disposal of bio-sludge that could contain PFAS as a result of the treatment process. The proposed objective values for the sum of PFAS will not make this problem any easier to solve as the removal technologies under consideration may not be fully effective to remove all PFAS, even the 29 PFAS covered under the EPA Methods. A substantial consideration by Health Canada needs to be directed to developing a comprehensive strategy focused on the elimination of the production, sale, import and use of PFAS and products containing PFAS rather than relying on wastewater treatment facilities to adopt removal technologies that cannot address a wider scope of PFAS, including those PFAS that are yet to be identified. The strategy may, inter alia, include scientific research about the practicability of using PFAS in products. Recent data shows that removing PFAS from products reduces pollution but does not change product performance.

**Recommendation: Develop a strategy focusing on the elimination of PFAS from products rather than cleaning the contaminated sites later.**

**4) Testing for individual PFAS and public release of data required.**

Health Canada has not included testing requirements for PFAS in drinking water except to calculate the sum of PFAS and has not created a requirement to make testing data results available to the public on a regular basis.

To support community confidence in the safety of its drinking water and its source, testing requirements for PFAS should be established and the results be publicly available and accessible.

**Recommendation: Health Canada should require testing for PFAS levels in drinking water and access to the results be made publicly available on a regular basis.**

**5) Approach to treat “non-detect” is not “zero.”**

The Health Canada’s proposed objective notes that “a result of non-detect is considered to have a value of zero.” This approach should be rejected and alternative methods for addressing results with “non-detect” should be further considered. The levels to determine “non-detect” levels rely on the sensitivities inherent to the analytical method used so a zero does not mean that the substances targeted by the analytical method is a real “zero.” Adopting “zero” for non-detect will result in underestimating the levels of PFAS in drinking water. There are different approaches that can better reflect the levels of PFAS. And given the limitations with the acceptable analytical methods, particularly that they do not test for all PFAS, it is more precautionary to treat non-detect levels differently.

**Recommendation: Health Canada should reject applying a “zero” for non-detect measures and adopt a different approach to address non-detect.**

**6) Proposed objective value for PFAS increase accountability for users of well water.**

The Health Canada objective values for PFAS do not provide good direction and support for people and communities that rely on well water. The consultation document highlights the necessary standards that could be adopted to ensure that PFAS in well water is tested and validated. Communities and people that rely on private well water for their source of drinking water bear the full financial burden of requiring appropriate testing for PFAS and identification of laboratories that follow the industry standards outlined in the consultation document. Furthermore, in situations where PFAS level results may exceed the proposed objective value, these communities may not be adequately supported to address the exceedances and may avoid taking steps to test for PFAS and remediate the problem. For many communities, there is a low level of awareness about PFAS and their health effects which contributes to the community’s decision not to test their water.

**7) Establishing objective value for PFAS should be an element of a comprehensive strategy for elimination of PFAS.**

The presence of PFAS in drinking water and drinking water sources will continue to pose challenges to the health of Canadians particularly as more studies are released showing the extent of PFAS use in industrial applications and products, the increasing number of substances in the class of PFAS, the toxicity of these substances and confirmation that PFAS is found extensively in all aspects of our environment (indoor and outdoor). Protecting drinking water sources from PFAS can be achieved if it is part of a comprehensive strategy to eliminate PFAS and ensure that the product levels for PFAS is substantially reduced and replaced by non-PFAS and safe alternatives. Establishing objective values for PFAS in drinking water alone will not be adequately protective for Canadians without this broader approach, particularly since the objective value is limited to track a few dozen PFAS and we

cannot rely on the slow progress to develop acceptable analytical methods for testing PFAS. Canada's anticipated State of Report on PFAS to be released in Spring 2023 will be essential to assess the adequacy of the objective value for PFAS in drinking water and identify the approaches needed to manage PFAS as a class.

If you have any questions regarding our comments, please do not hesitate to contact us.

Thank you for your consideration to our comments and recommendations.

Yours truly,

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