ONEIA
ONTARIO ENVIRONMENT INDUSTRY ASSOCIATION

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RE: Consultation: Draft objective for per- and polyfluoroalkyl substances in Canadian drinking water

On behalf of Ontario's more than 3,000 environment and cleantech firms, the Ontario Environment Industry Association (ONEIA) is writing to provide our response to the Consultation: *Draft objective for per- and polyfluoroalkyl substances in Canadian drinking water* as posted at https://www.canada.ca/en/health-canada/programs/consultation-draft-objective-per-polyfluoroalkyl-substances-canadian-drinking-water.html, and noted to be opened on February 11, 2023 (here after referred to as the Draft Objective).

Ontario is home to Canada's largest group of environment and cleantech companies. The most recent statistics from the federal government show that Ontario's environment sector employs more than 226,000 people across a range of sub-sectors. This includes firms working in such diverse areas as materials collection and transfer, resource recovery, composting and recycling solutions, alternative energy systems, environmental consulting, brownfield remediation, and water treatment – to name just a few. These companies contribute more than $25-billion to the provincial economy, with approximately $5.8-billion of this amount coming from export earnings.

ONEIA members are committed to engaging with governments as they develop policies and regulations that are consistent with our principles of sound science, a sound environment, and a sound economy.

ONEIA would like to thank the Government of Canada for the opportunity to review and provide comments on the Draft Objective. Per- and polyfluoroalkyl substances (PFAS) is an area of great interest to our member companies and we are eager to collaborate with government on a practical approach to mitigate environmental and human health impacts of PFAS. ONEIA's PFAS Committee has solicited comments from interested members and is happy to provide the feedback included in Table 1 below.

Table 1. ONEIA Comments on the Draft Objective	
No.	**Comment**
1	The proposed objective does not align with the approach or proposed concentrations being put forward by the United States Environmental Protection Agency (USEPA), ultimately being less conservative than the USEPA values for key PFAS with well researched toxicology (e.g., perfluorooctanoic acid [PFOA] and perfluorooctane sulfonate [PFOS]). Health Canada should consider the value of additionally setting concentration limits for these key PFAS, given their significance and presence in the environment, as well as the volume of toxicological data.
2	Health Canada is allowing for some flexibility in the applied analytical method (Method 533, Method 537.1, or an alternate provided it quantifies a minimum of 18 PFAS); however, this means a variation in the type and number of PFAS that will be reported (e.g., 25 for Method 533, 18 for Method 537.1, and 18+ for another). It is scientifically inappropriate to have this variation where concentrations of different numbers of PFAS are all compared to the same total concentration. This approach also does not align with what has been seen elsewhere in the industry (i.e., where specific PFAS are identified to be summed and compared against a total concentration), and will ultimately cause uncertainty and confusion related to the presence and risk from PFAS in drinking water. The difference in the total number of PFAS produced by each approach could also potentially lead to parties selecting the method that produces results for less PFAS in order to decrease the potential of exceeding the objective. It is noted that some commercially available analytical methods can currently produce results for up to 40 PFAS (e.g., US EPA Method 1633). The sum of 40 PFAS can be very different than the sum of only 18 PFAS. Health Canada should define the list of PFAS compounds to be consistently analyzed and compared to the proposed objective.
3	The wide range of PFAS that are to be included in the sum for comparison to the total concentration includes short-chained PFAS (e.g., PFBA) that are recognized as fairly ubiquitous in the environment, and understood to have a lower toxicity than the longer-chain PFAS. Health Canada should consider addressing the short-chain parameters separately.
4	The inclusion of all detected PFAS in a summation – regardless of which PFAS, and the total number of parameters included – for comparison to the objective is scientifically flawed. Among other things, it does not consider variations in toxicology among different groups or types of PFAS, or that the toxicology of a large majority of the PFAS compounds included in either analytical method is not understood. As a minimum, it would make more sense to have a number of objectives that align with PFAS Groups for which some understanding of toxicology exists (e.g., short-chain, fluorotelomer sulfonates, other).
5	The Draft Objective notes that, “in Canada, laboratories are generally accredited for EPA Method 537.1”; however, based on industry experience, this is not understood to be broadly true. It is not clear that labs are generally following a consistent, standardized methodology.

6	Appendix A indicates PFTA, PFTrDA, NEtFOSAA, and NMeFOSAA are not included in Method 533; however, it also reports a 533 MRL for these parameters. This need to be clarified.
7	Given the reference to approved analytical methods to be used (USEPA Methods 533 and 537.1), which are both drinking water methods, Health Canada must make clear that these guidelines are only for drinking water and are not appropriate for other media (e.g., groundwater, surface water, wastewater, etc.).
8	How the objective translates into a risk assessment process is not clear. As noted in the Draft Objective, the approach is not health-based, and yet undoubtedly there will be an expectation by regulators that this number will be applied to understand human health risk and make risk management decisions. Health Canada should make clear that any analytical results that exceed the final objective value do not necessarily indicate any specific risk to human health.
9	The Draft Objective summarizes a number of studies regarding the presence of PFAS in the Canadian freshwater and drinking water supply, but acknowledges that "There are limited data regarding PFAS in Canadian freshwater and drinking water." Are Health Canada and the provincial/territorial governments investing effort into understanding the extent of PFAS impact to Canadian drinking water?
10	Page 2, Exposure Considerations, Line 11. This sentence is non-specific. The preference would be for Health Canada to acknowledge that these types of facilities (landfills and wastewater treatment plants) are passive receivers of PFAS-containing materials and are engineered structures designed to prohibit release of contaminants into the environment. These types of facilities also do not have a direct-exposure risk to the general public and therefore should not be classified or grouped the same as manufacturers or importers of PFAS.
11	Compared to other countries or agencies using a combined PFAS approach, such as the European Union and World Health Organization (WHO), Health Canada appears to be overly conservative with the 30 ng/L limit for total PFAS (e.g., WHO applies a combined provisional guideline value of 500 ng/L limit for total PFAS), especially as Health Canada has not provided any science-backed reason for the more stringent value.
12	It is understood that exposure to PFAS has the potential for negative health impacts, but there is scientific uncertainty and disagreement on those impacts and the concentrations that cause them. Also, absent the ingestion of PFAS-contaminated water, studies have shown that the primary PFAS exposure pathways for humans is through food consumption and dust inhalation. The establishment of an arbitrary guidance value of 30 ng/L does not necessarily lower the risk to humans from exposure to PFAS.

13	We recognize that Health Canada's focus is specific to identifying "risk-based" concentrations that are protective of human health in relation to exposure via drinking water; however, there remains a lack of information on the Government of Canada's intention to address PFAS more broadly as an environmental concern (e.g., management of upstream sources of PFAS, phasing out of PFAS-containing products, managing PFAS waste, understanding risk-based concentrations for environmental media beyond drinking water, developing treatment recommendations for maintaining PFAS concentrations in drinking water as low as reasonably achievable [ALARA], etc.), or interpret potential ambient background concentrations that may be observed in various media. Are these items also currently under review?

ONEIA appreciates the opportunity to provide our comments and suggestions on the draft objective for PFAS substances in Canadian drinking water. We want to reiterate that we are eager to work with the Health Canada and other areas of the government to advance a practical approach to mitigating the environmental and human health impacts of PFAS and we look forward to being engaged in future discussions and consultations. We welcome the opportunity to discuss our position and recommendations further. Please contact our office at info@oneia.ca or at (416) 531-7884 should you have any questions.

Sincerely,

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Chair, PFAS Committee
ONEIA

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