Ontario Public Health Association
l'Association pour la santé publique de l'Ontario
Established/Établi 1949

The mission of OPHA is to provide leadership on issues affecting the public's health and to strengthen the impact of people who are active in public and community health throughout Ontario.

57 Marion Avenue North
Hamilton, Ontario
L8S 4G2

Tel: (416) 367-3313
E-mail: admin@opha.on.ca
www.opha.on.ca

PRESIDENT
Kevin Churchill
E-mail: president@opha.on.ca

EXECUTIVE DIRECTOR
John Atkinson
E-mail: jatkinson@opha.on.ca

July 19, 2023

Executive Director, Program Development and Engagement Division,
Science and Risk Assessment, Science and Technology Branch
Environment and Climate Change Canada
351 Saint-Joseph Boulevard
Gatineau QC
K1A 0H3

Substances Management Information Line
Chemicals Management Plan
Environment and Climate Change Canada
Gatineau, Quebec
K1A 0H3

Sent by email to: substances@ec.gc.ca

Attention: Program Development and Engagement Division, Science and Risk Assessment, Science and Technology Branch

Re: *Canada Gazette, Part 1, Volume 157, Number 20: Government Notices, May 20th, 2023 – Publication of the draft state of per- and polyfluoroalkyl substances (PFAS) report (paragraphs 68(b) and (c) of the Canadian Environmental Protection Act, 1999) and the Risk Management Scope for PFAS document*

To: Executive Director, Program Development and Engagement Division:

The Ontario Public Health Association (OPHA) appreciates the opportunity to comment on the Government of Canada's approach to address the health and environmental risks of exposure to per- and polyfluoroalkyl substances (PFAS), namely the draft State of PFAS Report (SOPR) and the Risk Management Scope for PFAS (RMS).

Our members represent public health practitioners and associations, as well as allied professionals, who are often required to respond to community concerns about exposure to toxic substances in the environment, including PFAS. We rely on evidence-based guidance and regulatory tools, including federal/provincial health communication and other key messages, to protect communities within our jurisdiction from exposure to health hazards and ensure that the public and community partners are aware of health protection and prevention activities related to health hazards.[i] Federal action on PFAS will help public health agencies and professionals across the country support appropriate public health action, based on health evidence, scientific research and the precautionary principle.

OPHA strongly supports the Government's proposal to add the class of PFASs to the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act.

As identified in the draft State of PFAS Report: *"Owing to the widespread use of PFAS combined with their ubiquitous presence in the environment, humans are continuously exposed to multiple PFAS, which have the potential to cause adverse effects of concern."* Addressing PFAS as a class is the most effective method for reducing PFAS risks. Prevention rather than treatment should be the top priority to effectively protect the health of Canadians.

OPHA concurs with the concerns raised in the *Helsingør Statement on poly- and perfluorinated alkyl substances (PFASs)*[ii] noting the:

- Lack of available information on the broad range of PFAS currently in use
- Wide presence of PFAS in the environment to which the public is exposed
- Limited regulatory oversight of fluorinated alternatives and potential risks from transitioning to alternatives that have not been adequately assessed

Similar to the *Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)*[iii], and the *Zürich Statement on Future Actions on Per- and Polyfluoroalkyl Substances (PFASs)*, OPHA is supportive of measures to reduce and restrict use of PFAS compounds, and to include the broad class of PFAS in Schedule 1 of the Canadian Environmental Protection Act. This step is necessary to ensure more is done to address the concerns posed by PFAS to the health of the public and the environment.

Below are additional comments and recommendations relating to the Government of Canada's draft State of PFAS Report and Risk Management Scope for PFAS.

OPHA strongly supports the proposed environmental and human health objectives as outlined in the Risk Management Scope for PFAS. We urge the Government to immediately implement the risk management framework to reduce exposure to PFAS to levels that are protective of human health.

As noted in the Risk Management Scope, the Government's proposed risk management framework identifies environmental and human health objectives as:

"Proposed environmental and human health objectives are quantitative or qualitative goals to address environmental and human health concerns. The proposed environmental and human health objectives for the class of PFAS are, respectively, to:

- *Reduce releases of these substances to the Canadian environment so as not to cause adverse effects*
- *Reduce exposure of the general population to these substances to levels that are protective of human health"*

Given the limitations in understanding the potential health impacts and current exposure, the persistence of these compounds in the environment that are difficult to mitigate, and the emerging research showing health impacts of PFAS at lower levels than previously observed, it is imperative that the Government of Canada take steps to reduce the public's exposure and better assess the potential health impacts.

OPHA supports existing research efforts, but recommends additional research and collection of information to better understand the use of PFAS in Canada, the exposure of the population (e.g. human biomonitoring), the health risks, and the cumulative impacts beyond the PFAS compounds most commonly researched.

OPHA finds the limited information on current exposures and health risks to the Canadian population very concerning, particularly with respect to the combination of PFAS. As identified in SOPR there is a substantial amount of knowledge gaps for PFAS exposure and for the dose-response to potential health risks. These include but not limited to:

- Very limited information about consumer products sold in Canada with respect to the concentration and types of PFAS on consumer products
- Limited available toxicology and epidemiological studies on the majority of PFAS compounds, with information available for less than 50 PFAS compounds which mostly focus on PFOA and PFOS
- Studies illustrating the lack of understanding on unknown fluorinated substances in cosmetics
- Very few PFAS are routinely monitored in human biomonitoring (HBM) surveys

These factors make it challenging for public health professionals to respond to public concerns and inquiries relating to PFAS and limit our ability to provide recommendations to the public on when mitigation is warranted and what are the best practices to reduce exposure.

It is clear through HBM surveys and research that almost all Canadians are exposed to multiple PFAS compounds. Given that the general population is exposed to multiple PFAS and that very few PFAS have been routinely monitored, OPHA recommends that future HMB surveys consider expanding the scope of PFAS testing. In addition, it is recommended that Health Canada develop appropriate guidance for clinical testing of PFAS. This will support a better understanding of combined exposures to PFAS and can support assessment of the impacts of regulatory options.

Many of the key knowledge gaps have been identified by other jurisdictions, such as United States National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry (ATSDR)[iv]. OPHA recommends that the Government consider future research and information collection to address knowledge gaps and better inform public health action. In addition, research that supports addressing these knowledge gaps should be synthesized and communicated with the general public and public health audiences to help support knowledge translation and future public health action.

As noted in SOPR, there is very limited information on understanding the exposure of the public to mixture of PFAS, but also the potential cumulative health risks of these mixtures. OPHA is supportive of future research that will include effects of single PFAS and mixtures on human health. Gathering such information is necessary to identify and prioritize options for reducing human exposure from the broader class of PFAS.

OPHA strongly supports regulatory measures to better assess the health impacts of PFAS and to reduce or eliminate PFAS to minimize public exposure and potential health risks. These regulatory measures must also ensure that proposed alternatives or substitutes to PFAS are appropriately assessed to inform their safe use.

As stated previously, OPHA strongly supports the Government's proposed regulatory measure - to add PFAS into Schedule 1 of the Canadian Environmental Protection Act. As part of regulatory measures, it is important that alternatives or substitutes to PFAS are appropriately assessed for risk and that alternatives and substitutes have an appropriate level of evidence to inform their safe use. For example, siloxanes are noted as a possible alternative, but they can also pose health risks. Historically, this has been a challenge with PFAS, where restrictions to PFOA and PFOS shifted use to other PFAS for which there was limited information on health risks.

Given the current level of public exposure, ubiquitous use and spread of a broad range of PFAS compounds in Ontario and Canada, OPHA recommends that information collection and assessments be conducted in a timely manner and that decisions are made using a precautionary approach.

While OPHA is supportive of measures based on known risks, in the interim we recommend that the precautionary principle be applied for PFAS currently in use, while more research emerges. This includes the determination of which compounds should be placed in the Prohibition of Certain Toxic Substances Regulation, 2012.

OPHA also recommends that current exemptions for manufactured items involving PFOS, PFOA, LC-PFCA, their salts, and precursors be reconsidered as part of future regulatory options. Additionally, opportunities to address issues of PFAS on firefighting foams will be critical to address concerns in smaller Ontario communities in which contaminated soil and groundwater may impact residential communities.

OPHA recommends that the Government of Canada consider a plan for how to address PFAS compounds that do not fit in the OECD definition of PFAS.

The definition of PFAS under Schedule 1 of CEPA will be critical to the effectiveness of shifting industry away from PFAS. Given the unknowns of products that the public is exposed to it is important to consider broadening the definition. These chemicals are varied and continually expanding to include more. The definition should be carefully considered to ensure that it captures the likely variations of PFAS that will be introduced to the market if the declaration of CEPA toxic proceeds.

Based on the SOPR, it is unclear why the US Environmental Protection Agency (EPA) curated list includes over 8,000 PFAS compounds as part of the CompTox dashboard and yet the Organization for Economic Cooperation and Development (OECD) list is only 4730 PFAS compounds. Future use of New Approach Methods (NAMS) should consider an evaluation of a broader list of PFAS. OPHA recommends that consideration be given to the list of PFAS in the EPA curated list to help ensure other PFAS with potential health impacts are also addressed (not considering only persistence). Additional physical and chemical properties can be assessed to better characterize the similarity of other fluorinated compounds that do not meet the OECD definition but can still pose concerns to human health or persistence in the environment. A precautionary principle should be applied for the determination of which compounds be placed in the *Prohibition of Certain Toxic Substances Regulation, 2012*. To properly protect public health, OPHA recommends that PFAS as a class be proposed for virtual elimination under Section 65(3) of CEPA.

OPHA urges the Government to expand monitoring for PFAS in foods, assess the impacts of food packaging on human exposure, and take steps to ensure that other federal regulations do not have unintended impacts of increasing PFAS exposure.

Considering food packaging is a major source of PFAS exposure for the public and that the Single Use Plastic Prohibitions is likely to push for greater use of food packaging that may contain PFAS compounds, we strongly recommend regulatory measures to ensure that alternative food packaging is PFAS free.

Additionally, OPHA recommends more testing for the presence of PFAS in food to provide better exposure assessments. This can support health and risk communication messaging when PFAS exceedances are found, similar to the US Food and Drug Administration findings on imported clams, as noted in the SOPR. It can also inform a better understanding of PFAS exposure from food sources.

OPHA urges the Government of Canada to update guidelines that support public health action and to coordinate outreach with public health agencies across the country to support a better understanding of

the health evidence informing the guidance/best practices to reduce exposure to PFAS from different sources.

OPHA supports the development of additional guidelines, as it will inform risk communication with the public and best practices. This includes updating of the drinking water guidelines, guidance for fish consumption and soil that can inform human exposure for food intake and guidance on water treatment. This will also be helpful to support health units with risk assessments and risk communication with the public or impacted communities.

Outreach should also focus on communicating the research to support understanding and rationale for development of guidelines. For example, public health agencies require more guidance to respond to public inquiries and concerns relating to drinking water concentrations and other sources. A better understanding of unknowns from epidemiology research, and having the research coordinated to support conducting systematic reviews or meta-analysis will provide more clarity.

OPHA foresees more public interest to better assess and understand their exposure to PFAS given the emerging research, the community awareness, and the many routes of exposure. Local public health units would benefit from guidance and best practices on how to mitigate PFAS concerns relating to drinking water and contaminated soils/sites. OPHA recommends that the Government develop best practices for water treatment of PFAS for larger municipal systems and for smaller residential treatment systems.

In closing, OPHA would like to reiterate our support for strong federal action to reduce exposure to PFAS from all sources, and to protect Canadians from health risks. This includes designating the class of PFAS substances as CEPA-toxic under Schedule 1 of the Act.

Given the findings from the State of PFAS report, the existing and emerging scientific evidence of the association of PFAS with environmental and human health effects, the limitations in understanding the potential health impacts and current exposure, the persistence of these compounds in the environment that are difficult to mitigate, the emerging research showing health impacts of PFAS at lower levels than previously observed, and the Government's Risk Management Scope proposal, we urge the Government of Canada to incorporate our recommendations to better protect the health of all Canadians. It is imperative that all levels of government and supporting agencies take steps to reduce the public's exposure and better assess the potential health impacts of PFAS.

Sincerely,

John Atkinson
Executive Director

[i] Ontario Public Health Standards, 2021. https://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/protocols_guidelines/Ontario Public Health Standards_2021.pdf
Health Hazard Response Protocol, 2019. https://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/protocols_guidelines/Health_Hazard_Response_Protocol_2019_en.pdf

[ii] Martin Scheringer, Xenia Trier, Ian T. Cousins, Pim de Voogt, Tony Fletcher, Zhanyun Wang, Thomas F. Webster, Helsingør Statement on poly- and perfluorinated alkyl substances (PFASs), Chemosphere, Volume 114, 2014, Pages 337-339, ISSN 0045-6535, https://doi.org/10.1016/j.chemosphere.2014.05.044. (https://www.sciencedirect.com/science/article/pii/S004565351400678X)

[iii] Blum, A., et al., 2015. The Madrid Statement on PFAS. Environmental Health Review. May 2015. https://ehp.niehs.nih.gov/doi/10.1289/ehp.1509934

[iv] Rogers, R.D., Reh, C.M. & Breysse, P. Advancing per- and polyfluoroalkyl substances (PFAS) research: an overview of ATSDR and NCEH activities and recommendations. *J Expo Sci Environ Epidemiol* 31, 961–971 (2021). https://doi.org/10.1038/s41370-021-00316-6

More about the Ontario Public Health Association

OPHA has established a strong record of success as the voice of public health in Ontario. We are a member-based, not-for-profit association that has been advancing the public health agenda since 1949. OPHA provides leadership on issues affecting the public's health and strengthens the impact of those who are active in public and community health throughout Ontario. OPHA does this through a variety of means including advocacy, capacity building, research and knowledge exchange. Our membership represents many disciplines from across multiple sectors.

www.opha.on.ca | 416-367-3313 | admin@opha.on.ca