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March 25, 2021

Ministry of the Environment, Conservation and Parks (MECP)  
Climate Change and Resiliency Division, Climate Change Programs and Partnerships Branch  
Climate Change Program Development  
135 St Clair Avenue West, 6<sup>th</sup> Floor  
Toronto, ON, M4V 1P5  
Attn: Isaac Apter, Director of Policy *Isaac.Apter@ontario.ca*

**RE: Per- and Polyfluoroalkyl Substances (PFAS) – Discussion Paper**

Dear Mr. Apter,

On behalf of Ontario's more than 3,000 environment and cleantech firms, the Ontario Environment Industry Association (ONEIA) is pleased to provide our ideas with respect to the challenge facing the Ministry of the Environment, Conservation and Parks (MECP) with respect to managing per- and polyfluoroalkyl substances (PFAS) in the environment.

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 \$11-billion to the provincial economy each year, with approximately \$4.5-billion of this amount coming from export earnings.

Members of ONEIA are committed to engaging with the Province as it develops policies and regulations that are consistent with our principles of sound science, sound environment and a sound economy. To that end, we convened a working group of members drawn from across various sectors to review developments across Canada and the United States with respect to the regulatory and policy framework on PFAS.

**Executive Summary**

For more than fifty years, PFAS have been widely used in products and manufacturing facilities, including food packaging, clothing, non-stick cookware, cosmetics, firefighting foams, stain resistant carpets, and cleaning products. Because these compounds are highly persistent and ubiquitous, the ongoing use of PFAS in products is contributing to an increased accumulation of these chemicals in all waste streams. PFAS can now be found in landfill leachate, wastewater treatment plant (WWTP) effluent and sludge/biosolids, air, groundwater, sediments and soils.

Given the scope of the issue, ONEIA members believe that a fair and balanced approach to managing PFAS is needed in order to:

- a) Reduce exposure to PFAS compounds and protect the health of Ontarians and the ecosystem;
- b) Identify and eliminate new sources of PFAS in waste streams;

- c) Manage PFAS pollution when prevention is not feasible or pollution has already occurred;
- d) Remediate contaminated sites; and
- e) Ensure the framework can be applied and implemented across all environment industry sectors.

According to Health Canada, the main sources of exposure to PFAS is through the ingestion of food, dust and drinking water, as well as through contact with other PFAS-containing materials (e.g. cosmetics, paints, clothing, etc.). There is also a growing concern associated with land application of biosolids containing PFAS, which can then leach into groundwater or be available for uptake by plants and soil organisms and biomagnify to grazing livestock.

A review of recent guidance published by Health Canada indicates that “drinking water is not a major source of exposure and there is evidence of widespread presence in at least one of the other media (air, food, soil, or consumer products)” (Health Canada, Guideline Technical Documents, PFOS and PFOA, December 2018); however, recent efforts across jurisdictions on regulations and standards related to PFAS compounds has focused on drinking water.

Although the primary regulatory focus has been on PFAS in drinking water, the importance of drinking water relative to other pathways of exposure is uncertain. While there is a need to further evaluate and confirm the presence of PFAS in municipal and private drinking water supplies, treatment technologies currently available for the removal of PFAS in drinking water are costly, ineffective for some PFAS, and not widely used.

In addition to determining the best approach related to the relative concern posed by PFAS in drinking water, we will also need to focus on the remediation of contaminated sites and a proactive product life cycle approach to allow a transition to PFAS-free products (including firefighting foam, carpets, textiles and food packaging).

Although there are no known Canadian manufacturers of PFAS, these substances have been imported for use in several industrial and manufacturing applications and have consequently been widely distributed through both aqueous and atmospheric pathways (Health Canada, 2018). ONEIA therefore recommends that the province focus on identifying and assessing point sources of PFAS (e.g., military installations, airports, industry) as well as other waste pathways, such as landfill leachate, sludge/biosolids and wastewater treatment plant discharges. In addition, it is recommended that the MECP consider the approach adopted by the USEPA, which now prohibits companies from importing, processing, or using certain long-chain PFAS without prior EPA review and approval.

The effects of PFAS on human health are the subject of ongoing study. “EPA and the U.S. Centers for Disease Control and Prevention describe the human health effects from exposure to low environmental levels of PFAS as uncertain. There are, however, studies of laboratory animals given large amounts of PFAS that found some PFAS compounds may negatively impact growth and development, reproduction, thyroid function, the immune system, and the liver. More research is needed to assess the human health effects of exposure to PFAS.” (AWWA, 2019, Briefing Paper on PFAS, p.5).

ONEIA members believe that additional clarity should be provided regarding the derivation of the province’s proposed end point, as well as the list of compounds selected for possible regulation. Recognizing that this information will feed into the Environmental Site Assessment (ESA) process, ONEIA is requesting the province also clarify their intentions for incorporating PFAS into the process within Reg. 153/04.

**Summary**

ONEIA appreciates the opportunity to provide its comments and suggestions in this emerging area of concern. We stand ready to work with the MECP and other ministries as you begin to develop a policy framework for PFAS.

Should you have any questions about the information contained herein, please do not hesitate to contact the chair of our working group, Krista Barfoot ([Krista.Barfoot@stantec.com](mailto:Krista.Barfoot@stantec.com)) or feel free to contact the ONEIA office directly at 416-531-7884.

Yours truly,

A handwritten signature in black ink that reads "Alex Gill". The signature is written in a cursive, flowing style.

Alex Gill  
Executive Director, ONEIA

cc.

The Hon. Jeff Yurek , Ministry of the Environment, Conservation and Parks

The Hon. Greg Rickford, Ministry of Energy, Northern Development and Mines

The Hon. Victor Fedeli, Ministry of Economic Development, Job Creation and Trade

The Hon. John Yakabuski, Ministry of Natural Resources and Forestry

The Hon. Ernie Hardeman, Ministry of Agriculture, Food and Rural Affairs

Paul Welsh, Ministry of Environment, Conservation and Parks, Brownfields Program Coordinator,  
Ecological Standards