Environmental Petition Quick Facts

- Avenue for Canadians to ask technical, science and law based questions to the Federal Government about environmental policies and enforcement, creating a permanent public record of the government's position that can be used to inform future legal, academic, advocacy efforts.
- Does not require official signatures or an MP sponsor; but allows an individual to submit on behalf of a coalition of organizations.
- It gets submitted to the Commissioner of the Environment and Sustainable Development (CESD), which is a part of the Office of the Auditor General (OAG).
- The OAG shares the petition with the most relevant departments and ministries (which we can suggest as part of the petition form). The ministers must then provide their responses to the CESD, who then summarizes and publishes the official response within 120 days.
- We have <2000 words to provide context and to state <10 direct questions to ask of the Government.
- Click here for more information.

Petition Title:

Addressing Microplastic Pollution in Canada

Federal Organizations Concerned:

Environment and Climate Change Canada; Fisheries and Oceans Canada; Health Canada.

Petition:

Background

A. Microplastic pollution has emerged as a pervasive and transboundary environmental threat with implications for both ecosystems and human health. Microplastics (≤ 5mm) and nanoplastics (<1 micron) largely arise from the fragmentation of larger plastic items[1-3]. They are now detected in freshwater systems[4-6], marine systems[7,8], soil[9,10], air[6,11], wildlife[7,12], and in human tissues, including blood[13], lungs[14], intestines[15], placenta[16], breast milk[17], testes[18], and brain tissue[19,20].

   Due to their small size, microplastics are readily ingested by organisms at all levels of the food web and can accumulate across trophic levels[3,7]. In addition to causing physical stress or inflammation, microplastics contain chemical additives, and are known to sorb other chemicals in the environment such as persistent organic pollutants (POPs), metals and harmful pathogens, increasing exposure to hazardous substances like endocrine disruptors[21-24]. While uncertainties remain regarding specific health outcomes, the weight of evidence demonstrates widespread exposure, persistence, and biologically plausible risk pathways sufficient to engage the precautionary principle under §2(1)(a)(ii) of the Canadian Environmental Protection Act (CEPA).

   Canada has demonstrated global leadership in addressing plastic pollution, notably through its presidency of the 2018 G7 and endorsement of the Oceans Plastics Charter. This leadership is reflected in ongoing commitments under the Zero Plastic Waste agenda including the 2017 microbeads in toiletries ban, participation in negotiations towards a global plastics treaty, and more recently the listing of Plastic Manufactured Items under CEPA and the policies that followed (e.g. the single use plastics ban). In addition, there exist domestic statutory responsibilities — including duties under the Fisheries Act to prevent pollution of fish habitat, and obligations under the Species At Risk Act (SARA) to act where there are threats of serious or irreversible harm to listed species. For example, Objective 2 of the Resident Killer Whale Recovery Strategy is to "ensure that chemical and biological pollutants do not prevent the recovery of resident killer whale populations"[25], which should include managing microplastics given the sorption dynamics and trophic accumulation mentioned above. Due to concerns like this across aquatic

systems, the International Joint Commission recommended including microplastics as a chemical of mutual concern under the Great Lakes Water Quality Agreement[26]. Addressing microplastic pollution would be consistent with these commitments and would demonstrate the continued leadership Canadians expect in safeguarding our waters, wildlife and public health.

In part due to the long-lasting nature of plastics such that its presence in the environment represents a burden on future generations, Canadians are expressing strong and widespread concern about plastic pollution[27], with nearly 90% supporting federal action to remove toxic chemicals from products and 86% backing national efforts to address plastic pollution[28]. This concern extends to microplastics, with 82% of Canadians expressing worry about their potential links to serious health outcomes including cancer, infertility, and heart disease[29]. Across sectors, this public concern is mirrored by growing engagement from non-profits, researchers, and private institutions, all contributing to a rapidly expanding body of work and advocacy aimed at understanding and reducing microplastic pollution.

B. A coalition is emerging spanning across groups focused on public health, environmental sustainability, youth advocacy, and more, demanding action from governments in Canada to address the issue of microplastic pollution. To reduce further accumulation of microplastics into our environments, public-facing petition campaigns are set to circulate in fall 2026 that will encourage governments to take forward-thinking action and demonstrate public support for such actions.

C. The recent unanimous decision from the Federal Court of Appeal affirming the federal government's authority to list Plastic Manufactured Items (PMIs) under Schedule 1 of CEPA further clarifies that plastic pollution falls within federal regulatory competence; by now, it is well established that there are many risks to the environment and human health, albeit poorly quantified ones. This decision provides a clear legal foundation for federal action and creates a timely opportunity for the Government of Canada to advance meaningful measures to address microplastic pollution and its impacts.

D. Addressing microplastic pollution requires targeting its most common sources. Synthetic microfibers, many of which are released through domestic laundering, account for approximately 80% (49–97%) of microplastics detected in Canadian water, soil, biota, and wastewater[30]. While wastewater treatment plants capture a portion of these particles, the sheer volume of discharge means that trillions of fibers enter aquatic ecosystems. Further, approximately half of the biosolids captured during treatment are applied as agricultural fertilizers in Canada, thus re-entering the aquatic environment through soils[31]. Fortunately, one upstream solution already exists and is proven to be effective[32,33]: microfiber filter technology for laundry machines. This technology is already commercially available and proven to intercept up to 90% of fibers at the source[32-37]. Implementing mandatory filtration standards for new laundry appliances is a critical and immediately available intervention.

Questions

1. Given the extent of the microplastic pollution problem, considerable public concern, and the emerging evidence that microplastics pose a risk to aquatic ecosystems and threaten human health [Background A], will the Government **integrate microplastics and microplastic pollution pathways** (e.g. tire dust, microfiber shedding, biosolids collected from wastewater, etc.) **into the Canada-wide strategy on zero plastic waste and action plan**? If yes, on what timeline?

2. Recognizing that a large portion of microplastic pollution originates from textiles [D], and recognizing that the complete prevention of microplastic pollution from textiles ultimately requires eliminating the use of non-biodegradable synthetic fibers and synthetic dyes in clothing in favour of truly biodegradable alternatives, how will the Government **incentivize and fund the research, development, and commercial viability of Canadian innovation and technology for truly biodegradable textiles/dyes**, leading the way for other countries to follow? Also, how will this transition be integrated with existing federal initiatives promoting circularity in the textile and apparel sector?

3. What actions will the government take to **ensure that wastewater treatment facilities across the country are capable of effectively removing microplastics**, including whether the federal government plans to require and support facility upgrades to a tertiary treatment level?

4. Following wastewater treatment facility action, how will Canada **address the health and environmental risks—and environmental justice concerns—associated with microplastics captured in wastewater** that are subsequently landfilled, incinerated, or applied to agricultural lands as biosolids?

5. The above upstream changes to textile materials and upgrades to wastewater treatment infrastructure would take decades to fully implement. Meanwhile, microfiber filtration systems with mesh sizes of 100µm or smaller have been reported to reduce textile microfiber emissions from washing machines by more than 70–90% under experimental conditions[33,34,36,37]. Recognizing that motions for regulations of microfiber filtration in new laundry appliances with a minimum mesh size of 100µm have been raised and supported in jurisdictions such as Oregon[40], California[41], and Ontario[42,43], and have been enacted into legislation in jurisdictions such as France[44], will the Government of Canada introduce regulations prior to December 31, 2029, **requiring that all new washing machines and dryers manufactured, imported, or sold in Canada be equipped with built-in microfiber filtration systems** with a mesh size of 100µm or smaller?

6. In addition to the plastics strategy and action plan outlined in Question 1, will the Government **commit to a specific longitudinal study or risk assessment on the long-term developmental impacts of microplastic ingestion and inhalation on at-risk individuals and Canadian children**, especially given the evidence of microplastic presence in human placentas, breast milk and infant feces[38,39]?

7. Alongside regulations outlined in Questions 2-5, will the Government **develop and launch a public education campaign** and incentivize aftermarket filtration system installation, using accessible languages across various mediums (e.g. print, radio, TV ads), to ensure Canadians are informed about microfiber shedding and garment care, understand the risks associated with microplastics as well as how to use and maintain filtration systems properly, dispose of captured fibers responsibly, and avoid unnecessary replacement of functional appliances before the end of their lifespan?

8. Will the Government of Canada **partner with provincial education ministries to integrate microplastic pollution literacy into school curricula** to ensure the next generation of Canadians are equipped to manage this emerging environmental and health threat?

9. Given that microplastics represent a major pathway for exposure to persistent organic pollutants [A], and that microfiber pollution is mediated by intermediate manufactured products, namely laundry appliances, is the Government of Canada confident that the current listing of Plastic Manufactured Items under Schedule 1 of the Canadian Environmental Protection Act (CEPA) provides sufficient authority to regulate those intermediary products and appliances, or, if not, **will the Government of Canada add Microplastics to Schedule 1** enabling direct regulation of such products and appliances?

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