



Our File No. 2022-01-07

VIA EMAIL: ec.plastiques-plastics.ec@ec.gc.ca

March 4, 2022

Plastic Regulatory Affairs Division
Department of the Environment
351 Saint-Joseph Boulevard
Gatineau QC K1A 0H3

ATTENTION: Tracey Spack, Director

Dear Tracey Spack,

RE: COMMENTS ON CANADA'S DRAFT SINGLE-USE PLASTICS PROHIBITION REGULATIONS

We act on behalf of Surfrider Foundation Canada (SFC) to:

- Support Canada's proposed *Single-Use Plastics Prohibition Regulations*;
- Draw attention to several areas where the proposed regulations should be strengthened; and
- Suggest other avenues for the federal government to combat the single-use plastic problem.

SFC is dedicated to the protection and enjoyment of the ocean, beaches, and waves, for all people, through a powerful activist network. SFC advocates on a number of marine environmental issues, including plastic reduction, ocean protection, beach access, coastal preservation and clean water. To address plastic pollution, SFC believes that we must change the current flow of plastic pollution by stopping plastic at the source, advocating for better product alternatives, and switching to reusable products for our everyday needs.

Plastic pollution has devastating impacts on marine life, human health, and the climate. It is an environmental issue so pervasive that it has unified Canadians, and there is now wide-spread acknowledgment of the harms that stem from single-use plastics. A 2019 poll showed that nine out of 10 Canadians are concerned about the impact that plastic waste is having on the environment, and that 82% of Canadians believe that the government should be contributing more to mitigating this problem.¹ This support for more regulatory oversight of single-use plastics is reflected around the world, with hundreds of local, provincial, state, and national governments enacting strong laws and incentives for producers and consumers to avoid harmful plastics. As Canada strives to be "one of the greenest

¹ Luke Denne, "82% of Canadians urging government action to tackle plastic pollution: CBC poll," *CBC* (5 April 2019), online: <<https://www.cbc.ca/news/business/marketplace-poll-on-plastics-1.5084301>>.



countries in the world,”² the time is ripe to bring forward a strong and unified Canadian approach to combating this pressing issue. We support the proposed *Single-Use Plastics Prohibition Regulations* and believe that they are a strong preliminary step towards a healthier and cleaner planet for future generations. However, as noted below, there are a number of ways in which the proposed regulations can be improved – as well as several other avenues that could be pursued to combat plastic pollution.

1. SECTIONS OF THE *SINGLE-USE PLASTICS PROHIBITION REGULATIONS* THAT WE SUPPORT

1.1 PROHIBITION ON THE SIX LISTED CATEGORIES OF SINGLE-USE PLASTICS

Numerous unnecessary single-use plastic products end up in the ocean, harming aquatic species. On average, there is more than one piece of plastic litter for every square metre of shoreline around the world.³ In the Strait of Georgia between Vancouver Island and mainland BC, over 3,000 particles of plastic were found per cubic metre of seawater analyzed.⁴ Fish, shellfish and mammals are ingesting these microplastics. Zooplankton mistake plastic for food and eat the particles, which then work their way up the food chain. A recent study estimated that returning BC adult salmon may be ingesting up to 90 particles of plastic per day.⁵ It is also estimated that if trends continue, the world’s oceans could contain more plastic than fish by the year 2050.⁶ Reducing the use of single-use plastics is imperative.

Section 4(1) of the proposed regulations states that “A person must not manufacture or import single-use plastic checkout bags, single-use plastic cutlery, single-use plastic foodservice ware, single-use plastic ring carriers or single-use plastic stir sticks.”⁷ We strongly support this proposed ban. However, as we explain in [Section 2](#) of this submission, this list should be expanded – and the definitions strengthened.

1.2 BANNING THE USE OF POLYSTYRENE IN FOODSERVICE WARE

Sections 4(1) and (2) of the proposed regulations prohibit the manufacture, import and sale of single-use plastic foodservice ware made from expanded or extruded polystyrene.⁸ Banning the use of polystyrene in foodservice ware is an effective way to reduce one of the most harmful types of single-use plastics in

² Canada, Environment and Climate Change Canada, *Achieving a Sustainable Future: a federal sustainable development strategy for Canada 2019-2022* (2019), online: <<https://www.fsds-sfdd.ca/en>>, at 10.

³ Jean-Pierre Desforges *et al.*, “Widespread Distribution of Microplastics in Subsurface Seawater in the NE Pacific Ocean” *Marine Pollution Bulletin*, 79 (2014) 94-99, at 94.

⁴ Jean-Pierre Desforges *et al.*, “Widespread Distribution of Microplastics in Subsurface Seawater in the NE Pacific Ocean” *Marine Pollution Bulletin*, 79 (2014) 94-99, at 94-98.

⁵ Jean-Pierre Desforges *et al.*, “Ingestion of Microplastics by Zooplankton in the Northeast Pacific Ocean,” *Archives of Environmental Contamination and Toxicology* (12 June 2015) Abstract.

⁶ Compared by weight. See: World Economic Forum, *The New Plastics Economy: Rethinking the future of plastics* (January 2016), online: <<https://newplasticseconomy.org/>> at 14 and Graeme Weardon, “More plastic than fish in the sea by 2050, says Ellen MacArthur,” *The Guardian* (19 January 2016), online: <<https://www.theguardian.com/business/2016/jan/19/more-plastic-than-fish-in-the-sea-by-2050-warns-ellen-macarthur>>.

⁷ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999), online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

⁸ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999), online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

Canada. Polystyrene foam is damaging to both the environment and to human health. It is difficult to recycle and it fragments into small pieces of plastic that are difficult, if not impossible, to clean up, yet endure for many years as small pieces and microplastics.⁹ Polystyrene foam is only recyclable if clean, un-dyed, and uncontaminated – meaning that, in practice, little to none of it ends up actually being recycled.¹⁰ In addition to being harmful to the environment, polystyrene has been shown to potentially harm human health, having been designated as “probably carcinogenic” to humans.¹¹ Cities including Vancouver,¹² San Francisco,¹³ and Portland,¹⁴ as well as the states of Vermont,¹⁵ Maryland,¹⁶ Maine,¹⁷ New York,¹⁸ and the District of Columbia¹⁹ have already legislated bans on single-use polystyrene foam. Around the world, France,²⁰ India,²¹ China,²² and other countries are banning the use of polystyrene in foodservice ware for similar reasons. The United States Bill S.984, the “Break Free From Plastic Pollution Act,” was introduced to the Senate in 2021 in order to amend the *Solid Waste Disposal Act* and “reduce the production and use of certain single-use plastic products and packaging,” and contains a prohibition on “expanded polystyrene for use in food service products, disposable consumer coolers, or shipping packaging.”²³ A ban on the use of polystyrene in foodservice ware would bring Canada in line with other cities, states and countries that are leaders in sustainability.

⁹ Plastic Pollution Coalition, blog post, “Coastal Cleanup Goes #FoamFree” (11 September 2017), online:

<<https://www.plasticpollutioncoalition.org/blog/2017/9/11/costal-cleanup-goes-foamfree>>.

¹⁰ Environmental Defence, blog post, “Styrofoam is polluting our environment. Let’s #BanTheFoam.” (19 October 2018), online:

<<https://environmentaldefence.ca/2018/10/19/banthefoam/>>.

¹¹ 5 Gyres, “You recognize the spongy stuff that makes up your takeout coffee cup. But did you know that your coffee cup lid might be the same type of plastic?,” online: <<https://www.5gyres.org/polystyrene>>.

¹² City of Vancouver, by-law No. 12416, *A By-law to amend License By-law No. 4450 regarding polystyrene foam*, s. 15.5(1).

¹³ SF Environment, “Polystyrene Foam and the Food Service and Packaging Waste Reduction Ordinance,” *San Francisco Department of the Environment* at para 1, online: <<https://sfenvironment.org/polystyrene-foam-food-service-packaging-waste-reduction-ordinance>>.

¹⁴ City of Portland, Chapter 17.103, *Prohibition and Restrictions on Single-Use Plastic*, online:

<<https://www.portland.gov/code/17/103>>.

¹⁵ Vermont General Assembly, Act No. 69 (2017), *An act relating to the management of single-use products* (summary), online:

<<https://legislature.vermont.gov/bill/status/2020/S.113>>

¹⁶ Maryland.gov, “Expanded Polystyrene (EPS) Food Service Products Ban,” *Department of the Environment*, online:

<<https://mde.maryland.gov/programs/Land/RecyclingandOperationsprogram/Pages/Expanded-Polystyrene-Food-Service-Products-Ban.aspx>>

¹⁷ Main.gov, “Polystyrene Foam” *Maryland Department of Environmental Protection*, online:

<<https://www.maine.gov/dep/waste/recycle/polystyrene-foam.html>>.

¹⁸ New York State, “Go Foam Free Polystyrene Foam Ban,” *Department of Environmental Conservation*, online:

<<https://www.dec.ny.gov/chemical/120762.html>>.

¹⁹ DC.gov, “Foam Free DC” *Department of Energy & Environment*, online: <<https://doee.dc.gov/foam>>.

²⁰ Geert De Clerq, “France bans plastic packaging for fruit and vegetables,” *Reuters* (11 October 2021) at para 7, online:

<<https://www.reuters.com/business/environment/france-bans-plastic-packaging-fruit-vegetables-2021-10-11/>>.

²¹ Milan Sharma, “Govt bans manufacture, sale and use of identified single-use plastic items from July 1, 2022” *India Today* (13 August 2021) at para 4, online: <<https://www.indiatoday.in/india/story/govt-bans-manufacture-sale-and-use-of-identified-single-use-plastic-items-from-jul-1-2022-1840562-2021-08-13>>.

²² Waste360 Staff, “China Unveils Five-year Plan to Ban Single-use Plastics” *Waste 360* (25 February 2022) at para 2, online:

<<https://www.waste360.com/legislation-regulation/china-unveils-five-year-plan-ban-single-use-plastics>>; Sophie Hirsh, “China Is Rolling Out Single-Use Plastic Bans” *Green Matters* (20 January 2020) at para 3, online: <<https://www.greenmatters.com/p/china-banning-single-use-plastic>>.

²³ US, Bill S 984, *Break Free From Plastic Pollution Act of 2021*, 117th Cong, 2021, s 12202(b)(2)(A).

1.3 TREATING NON-CONVENTIONAL PLASTICS AND CONVENTIONAL PLASTICS IN THE SAME MANNER

We strongly support the following statement in the Regulatory Impact Analysis: “The proposed regulations would treat single-use items made from non-conventional plastics in the same manner as their conventional plastics counterparts.”²⁴ It is important, at this time when national standards for compostable, biodegradable, biobased, etc. products are not yet developed, that a distinction is not drawn between those and conventional single-use plastics. Compostable plastics can be very problematic if they are thrown away as litter, as they have environmental impacts very similar to those of traditional plastics. According to the United Nations Environment Programme, compostable plastics can take just as long as regular plastics to biodegrade in marine environments. Once they degrade, they also remain as microplastics that affect marine animals in the same way as regular plastics.²⁵ A City of Vancouver staff report asserted that, “Adopting any biodegradable bag alternative may not result in a shift to more sustainable habits and could actually result in more littering due to a common misperception that the bag will degrade more quickly and pose little environmental damage.” The report also cites research that compostable plastics can contaminate compost and recycling streams, do not break down quickly enough in most compost facilities, and are not designed to break down if they are littered in marine environments.^{26 27}

In noting our support for the above proposals, it is important to acknowledge the Canadian responsibility to act. Canada produces a disproportionate amount of plastic waste, using up 1.4% of all plastic produced despite representing only 0.5% of the global population. It is important for Canada to be on the front lines of reducing plastic waste and plastic pollution, and the proposed *Single-Use Plastics Prohibition Regulations* are a positive step towards that goal.

2. SECTIONS OF THE PROPOSED LEGISLATION THAT SHOULD BE STRENGTHENED

2.1 DEFINITIONS OF “SINGLE-USE CUTLERY” AND “SINGLE-USE PLASTIC STRAW”

We propose amending the definitions for **single-use cutlery** and **single-use plastic straw** to add a design/intent-based standard to the existing definition. The draft regulations control “single-use cutlery” and “single-use plastic straws” – which are defined as items that change shape when immersed in water maintained at a temperature between 82°C and 86°C for 15 minutes.

Our concern is that, in an effort to avoid the proposed prohibitions, producers will create single-use plastic cutlery and straws that are more durably rigid – but are still discarded after a single use. This

²⁴ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999) at subheading: Non-conventional plastics, online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

²⁵ Kimberly Amaral, “Plastics in our Oceans,” *Woods Hole Oceanographic Institution*, online: <<https://www.whoi.edu/science/B/people/kamaral/plasticsarticle.html>>.

²⁶ City of Vancouver, *Waste Audit 2015 data. Total plastic film in single family garbage equals approximately 10%*, online: <https://businessdocbox.com/Green_Solutions/83634614-City-of-vancouver-waste-audit-2015-data-total-plastic-film-in-single-family-garbage-equals-approximately-10-18.html>.

²⁷ See section 3.3 below for further discussion on the importance of developing national standards and programs to ensure that compostable and biodegradable bags do not cause even more environmental harm than conventional plastics.

could well encourage the proliferation of thicker, more durable plastics that are resource-intensive to produce, take longer to degrade in the environment – and still get thrown away. This phenomenon occurred in Hawaii, California, South Hampton NY, and Chicago IL where, following bans on single-use plastic bags, shoppers were provided with free plastic bags made of a thicker plastic and marketed as “re-usable.”²⁸

One way to avoid this would be to add an intention/design-based standard. England’s ban on single-use plastics, for example, defines “**single-use plastic straw**” as: “... a straw that is made wholly or partly from plastic and that is not designed or intended to be re-used.”²⁹ Barbados’ legislation includes that “**single use plastic cutlery**” is “of a disposable nature.”³⁰ Similarly, Senegal defines a “**single use or disposable plastic**” to mean a product made or manufactured from plastic materials and designed, created and placed on the market to be used once and then discarded.³¹ The European Union also defines “**single-use plastic product**” to mean “a product that is made wholly or partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its life span, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived.”³²

Canada could model the prohibition, in part, off these design standards, while maintaining the existing performance standard. For example:

“single-use plastic cutlery” means a plastic manufactured item that is formed in the shape of a fork, knife, spoon, spork or chopstick, that is not generally re-used multiple times; that is not designed or intended to be re-used; or that after being immersed in water maintained at a temperature between 82°C and 86°C for 15 minutes, changes its shape. (ustensile en plastique à usage unique)

“single-use plastic straw” means a plastic manufactured item that is formed in the shape of a drinking straw, that is not generally re-used multiple times; that is not designed or intended to be re-used; or that after being immersed in water maintained at a temperature between 82°C and 86°C for 15 minutes, changes its shape. (paille en plastique à usage unique)

²⁸ Carla Herreria Russo, “Loophole Undermines Hawaii’s Historic Plastic Bag Ban” *Huffington Post* (10 July 2015) online: <https://www.huffpost.com/entry/loophole-hawaii-plastic-bags_n_7750112>; Staley Prom, “Closing Thicker Plastic Reusable Bag Loopholes” (blog post) *Surfrider Foundation* (17 December 2015), online: <<https://www.surfrider.org/coastal-blog/entry/closing-plastic-reusable-bag-loopholes>>.

²⁹ *The Environmental Protection (Plastic Straws, Cotton Buds and Stirrers) (England) Regulations 2020 No. 971*

³⁰ Environmental Law Alliance Worldwide, *Barbados: Select Plastic Laws* (2020), online: <https://www.elaw.org/plastic/BB_PlasticLaws>.

³¹ Environmental Law Alliance Worldwide, “Senegal: Select Plastic Laws” (2020), online: <https://elaw.org/plastic/SN_PlasticLaws>; République du Sénégal, *Loi relative à la prévention et la réduction de l’incidence sur l’environnement des produits plastiques* (2019), Loi no 2020-04, online: <<https://www.au-senegal.com/IMG/pdf/loi-plastique-senegal-2020-04.pdf>>, Art 3.

³² European Union, *Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment* (2019), online: <<https://eur-lex.europa.eu/eli/dir/2019/904/oj>>, Art 3.>

2.2 DEFINITION AND PROHIBITION OF SINGLE-USE PLASTIC CHECKOUT BAG

The definition of “single-use plastic checkout bag” currently reads:

“means a plastic manufactured item that is formed in the shape of a bag that is designed to carry purchased goods from a business and

(a) is made from plastic film;

(b) will break or tear if it is used to carry 10 kg over a distance of 53 m 100 times; or

(c) will break or tear if it is washed in a washing machine in a wash cycle recommended by the manufacturer for washing cotton or linen.

We propose amending the definition of “single-use plastic checkout bag” to include plastic produce bags in grocery stores. In examining their prevalence in the environment and their potential for harm, many of the studies cited in the Regulatory Impact Analysis Statement³³ do not distinguish between single-use plastic checkout bags and other single-use plastic bags.³⁴ Plastic bags pose considerable entanglement risks to marine taxa, not only because of the handles characteristic of checkout bags, but also because of their three-dimensional structure.³⁵ Plastic produce bags also have a three-dimensional structure and also contribute to entanglement risk. Additionally, the Regulatory Impact Analysis Statement states that plastic bags have lethal impacts on marine plants, sponges, and coral due to “smothering by larger items (e.g. plastic bags), which affects gas exchange and their photosynthetic capacities.”³⁶ There is no reason to believe that these lethal impacts would not also be caused by produce bags.

Encompassing plastic produce bags within the definition of prohibited single-use plastic bags would remove a major source of single-use plastic pollution without inconveniencing customers. Plastic produce bags are used to protect produce from potential sources of contamination (on the cart or in the basket, on the checkout counter conveyor belt, or from other groceries like meat/fish). However, there is significant potential for fruit and vegetable contamination before the produce even reaches the plastic bag – it is touched on the farm, in loading and unloading, and can come into contact with dirt and bacteria on the truck to the store, on the shelves, or at any other point. The federal government recommends thoroughly washing fruits and vegetables before eating – regardless of whether or not you

³³ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999), online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

³⁴ See: Danielle Senga Green *et al*, “Impact of discarded plastic bags on marine assemblages and ecosystem functioning” (2015) 49:9 *Environ Sci Technol* 5380, online: <<https://pubs.acs.org/doi/pdf/10.1021/acs.est.5b00277>>; Great Canadian Shoreline Cleanup, “Annual Data” (2020), online: <<https://shorelinecleanup.org/impact-visualized-data>>; Chris Wilcox *et al*, “Using expert elicitation to estimate the impacts of plastic pollution on marine wildlife” (2016) 65 *Marine Policy*, online: <<https://reader.elsevier.com/reader/sd/pii/S0308597X15002985?token=95060245AFA2CB3F245DC0EB2B178C077FC311BCFA8F5AFF31D6BDEA95B6F4D13D267AC3B1F2818B4A511C50E9B01283&originRegion=us-east-1&originCreation=20220228224720>>.

³⁵ Chris Wilcox *et al*, “Using expert elicitation to estimate the impacts of plastic pollution on marine wildlife” (2016) 65 *Marine Policy* 107 at 111, online: <<https://reader.elsevier.com/reader/sd/pii/S0308597X15002985?token=95060245AFA2CB3F245DC0EB2B178C077FC311BCFA8F5AFF31D6BDEA95B6F4D13D267AC3B1F2818B4A511C50E9B01283&originRegion=us-east-1&originCreation=20220228224720>>.

³⁶ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999) at subheading: Benefits, online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

use a produce bag.³⁷ If customers are thoroughly washing their produce before consumption, the importance of produce bags as a sanitary tool is essentially non-existent. If customers feel that produce bags are important for cleanliness, using a reusable produce bag is a viable alternative to simply placing produce in a cart and washing it before eating.

Indeed, several jurisdictions have included produce bags within their single-use plastic bag prohibitions. For example, as of January 1, 2017, France prohibited the use of plastic produce bags for fruits and vegetables, as well as the use of plastic bags for wrapping meat and fish. On January 1, 2022, France prohibited the use of plastic packaging for 30 listed fruits and vegetables.³⁸ Plastic packaging bans for more fruits and vegetables are set to take place in June 2023, December 2024 and June 2026.³⁹ Malawi's single-use plastic bag prohibition defines a "plastic bag" as "(a) a plastic carrier bag with handles which is designed for the purpose of carrying goods; (b) a plastic flat bag constructed with no handles and with or without gussets which is designed for the purpose of carrying goods; or (c) a plastic refuse bag which is designed for the purpose of carrying wastes."⁴⁰ Vanuatu prohibits the provision of single-use plastic bags to any other person in the course of carrying on a business, unless the bags are used to contain, wrap, or carry meat or fish.⁴¹

Options to ban plastic bags for other uses. Plastic bags used to package bulk items and meat/fish, to wrap newspapers for delivery, and to carry refuse have all been banned in several jurisdictions.⁴² Such plastic bags are prevalent in Canadian environments and cause harm to the environment. We acknowledge, however, that these plastic bags do serve purposes (including sanitary, environmental (litter-prevention), and convenience) and alternatives would not be as simple as the potential alternatives for produce bags. Consideration should still be given to balancing the environmental harms against their perceived benefits.

³⁷ Government of Canada, *General Food Safety Tips: Produce Safety*, last modified 18 January 2021, online: <<https://www.canada.ca/en/health-canada/services/general-food-safety-tips/produce-safety.html>>.

³⁸ Connexion Journalist, "France tightens plastics ban," *The Connexion*, online: <<https://www.connexionfrance.com/Practical/Environment/France-tightens-plastics-ban>>; France, Library of Congress, France: Government Bans Single-Use Plastic Packaging for Various Perishable Products (2022), online: <<https://www.loc.gov/item/global-legal-monitor/2022-01-18/france-government-bans-single-use-plastic-packaging-for-various-perishable-products/>>.

³⁹ France, Library of Congress, France: Government Bans Single-Use Plastic Packaging for Various Perishable Products (2022), online: <<https://www.loc.gov/item/global-legal-monitor/2022-01-18/france-government-bans-single-use-plastic-packaging-for-various-perishable-products/>>.

⁴⁰ Environmental Law Alliance Worldwide, "Malawi: Select Plastic Laws" (2020), online: <https://www.elaw.org/plastic/MW_PlasticLaws>; Government of Malawi, *Environment Management (Plastics) Regulations 2015*, CAP 60:02, online: <<https://cepa.rmportal.net/Library/inbox/environment-management-plastics-regulations-2015/view>>, s 2.

⁴¹ Environmental Law Alliance Worldwide, "Vanuatu: Select Plastic Laws" (2020), online: <<https://www.elaw.org/fr/plastic/vanuatu>>; Republic of Vanuatu, *Waste Management Act*, No 24 (2014), online: <<https://environment.gov.vu/images/Environmental.Protection/Official-Gazette-No.-10-of-2018-dated-2-February-2018.pdf>>, s. 3(2).

⁴² Including, but not limited to China, France, Malawi, Rwanda, and Taiwan. See: China, Library of Congress, *China: Single-Use Plastic Straw and Bag Ban Takes Effect* (2021), online: <<https://www.loc.gov/item/global-legal-monitor/2021-03-23/china-single-use-plastic-straw-and-bag-ban-takes-effect>>; Connexion Journalist, "France tightens plastics ban," *The Connexion* (31 December 2020) online: <<https://www.connexionfrance.com/Practical/Environment/France-tightens-plastics-ban>>; Government of Malawi, *Environment Management (Plastics) Regulations 2015*, CAP 60:02, online: <<https://cepa.rmportal.net/Library/inbox/environment-management-plastics-regulations-2015/view>>, s 2; Kimiko de Freytas-Tamura, "Public shaming and even prison for plastic bag use in Rwanda," *The New York Times* (28 October 2017), online: <<https://www.nytimes.com/2017/10/28/world/africa/rwanda-plastic-bags-banned.html>>; Teresa Bergen, "Will Taiwan's New Plastic Bag Ban Work?," *Inhabitat* (12 March 2019), online: <<https://inhabitat.com/taiwan-introduces-one-of-the-worlds-most-comprehensive-plastic-bans/>>;

function, interfering with the body's natural hormones, increasing cholesterol and the risk of cancer, and affecting growth, learning, and behaviour of infants and children.⁴⁷ PFOA- and PFOS-based additives are already banned in the U.S. and in Canada, under Schedule 1 of *CEPA*.⁴⁸ And an increasing body of scientific research has linked other, shorter-chain PFAS to environmental and/or human health effects.⁴⁹ It is important to note that PFAS-treated single-use foodservice ware is thought to be responsible for a large portion of PFAS exposure.⁵⁰ Exposure may also increase with higher food temperatures, longer contact time, and the presence of emulsified fats.⁵¹

Additionally, PFAS are persistent in both the human body and the environment.⁵² When PFAS-treated single-use foodservice ware ends up in compost or landfills, it can break down into non-degradable short-chain fluorinated compounds and contaminate soil and water, be taken up by crops, and contaminate drinking water sources.⁵³

PFAS have been banned from food packaging in California,⁵⁴ Connecticut,⁵⁵ Maine,⁵⁶ New York,⁵⁷ Vermont,⁵⁸ and Washington.⁵⁹ Washington's ban on PFAS-treatments in foodservice ware applies to

⁴⁷ Sustainable Purchasing Leadership Council and Center for Environmental Health, "Purchasing Recommendations for Sustainable Food Service Ware" (2020) at 5, online (pdf): <https://www.sustainablepurchasing.org/wp-content/uploads/2020/02/2020_Purchasing_Recommendations_Sustainable_FSW.pdf>.

⁴⁸ EHS Daily Advisor, blog post, "The Persistence of PFAS: The 'Forever Chemicals' Coming Under Regulatory Scrutiny" (5 June 2020), online: <<https://ehsdailyadvisor.blr.com/2020/06/the-persistence-of-pfas-the-forever-chemicals-coming-under-regulatory-scrutiny/#:~:text=When%20PFAS%20enter%20the%20human,to%20accumulate%20in%20the%20body>>; Government of Canada, *Other Chemical Substances of Interest: Per- and Poly-fluoroalkyl substances (PFAS)*, last modified 29 July 2021, online: <<https://www.canada.ca/en/health-canada/services/chemical-substances/other-chemical-substances-interest/per-polyfluoroalkyl-substances.html>>.

⁴⁹ Government of Canada, *Other Chemical Substances of Interest: Per- and Poly-fluoroalkyl substances (PFAS)*, last modified 29 July 2021, online: <<https://www.canada.ca/en/health-canada/services/chemical-substances/other-chemical-substances-interest/per-polyfluoroalkyl-substances.html>>.

⁵⁰ Joe Ackerman, David McRobert & Meg Sears, "PFAS on Food Contact Materials: Consequences for Human Health, Compost, and the Food Chain and Prospects for Regulatory Action in Canada and Beyond (2021), *MJSDL* at para 6, online: <<https://www.mcgill.ca/mjsdl/article/pfas-food-contact-materials-consequences-human-health-compost-and-food-chain-and-prospects>>.

⁵¹ Arabela Ramírez Carnero *et al*, "Presence of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in Food Contact Materials (FCM) and Its Migration to Food" (2021) 10:7 *Foods* 1 at 6, 9 and 10, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8306913/pdf/foods-10-01443.pdf>>.

⁵² EHS Daily Advisor, blog post, "The Persistence of PFAS: The 'Forever Chemicals' Coming Under Regulatory Scrutiny" (5 June 2020), online: <<https://ehsdailyadvisor.blr.com/2020/06/the-persistence-of-pfas-the-forever-chemicals-coming-under-regulatory-scrutiny/#:~:text=When%20PFAS%20enter%20the%20human,to%20accumulate%20in%20the%20body>>

⁵³ Diamond Scientific, blog post, "Preventing PFAS Contamination from Landfills will Protect Human and Environmental Health" (27 December 2021), online: <<https://diamondsci.com/blog/pfas-contamination-from-landfills/>>.

⁵⁴ Natural Resources Defense Council, press release, "California Bans PFAS in Paper-Based Food Packaging" (5 October 2021), online: <https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1200>.

⁵⁵ State of Connecticut, press release, "Governor Lamont Signs Legislation Banning Use Of PFAS-Containing Firefighting Foam in October, Phases Out PFAS-Containing Food Packaging In 2023" (20 July 2021), online: <<https://portal.ct.gov/Office-of-the-Governor/News/Press-Releases/2021/07-2021/Governor-Lamont-Signs-Legislation-Banning-Use-Of-PFAS>>.

⁵⁶ Lindsay Parkinson, "Maine Phasing out PFAS in all products by 2030," *Food Packaging Forum* (19 July 2021), online: <<https://www.foodpackagingforum.org/news/maine-phasing-out-pfas-in-all-products-by-2030>>.

⁵⁷ Packaging Law at Keller and Heckman, "New York Bans PFAS in Food Packaging" (2020), 12:56 *The National Law Review* 1 at 1, online: <<https://www.natlawreview.com/article/new-york-bans-pfas-food-packaging>>.

⁵⁸ Lion Technology Inc, news release, "Vermont Bans PFAS from Food Packaging and More" (21 May 2021), online: <<https://www.lion.com/Lion-News/May-2021/Vermont-Bans-PFAS-from-Food-Packaging-and-More>>.

⁵⁹ Packaging Law at Keller and Heckman, "Washington State to Ban PFAS in Four Types of Food Packaging" (2021), 11:67 *The National Law Review* 1 at 1, online: <<https://www.natlawreview.com/article/washington-state-to-ban-pfas-four-types-food-packaging>>.

wraps and liners, plates, food boats, and pizza boxes.⁶⁰ In California, Connecticut, New York, Vermont, and Washington, the bans will be implemented during or by 2023. Maine’s bans on PFAS in foodservice ware took effect in 2020.⁶¹ Maine has also banned PFAS in all products effective 2030.⁶²

In considering including PFAS-coated plastics under the proposed single-use plastic bans, it is important to ensure that single-use plastic foodservice ware, including PFAS-coated plastics will not simply be replaced with PFAS-coated paper foodservice ware.

2.3.3 REGULATING PHTHALATES IN FOODSERVICE WARE

Phthalates are added to plastics to increase flexibility and plasticity. They are often added to polyvinyl chloride (PVC) – which is included in the proposed ban on foodservice ware – for this purpose, but are also sometimes found in other plastics, like polypropylene,⁶³ polyethylene terephthalate,⁶⁴ and high density polyethylene.⁶⁵ Phthalates are endocrine disruptors⁶⁶ and are associated with decreased reproductive function in adolescent men,⁶⁷ impacts on fetal and pubescent development⁶⁸ including neurobehavioural development,⁶⁹ and increased oncogenesis,⁷⁰ and childhood obesity.⁷¹

⁶⁰ Packaging Law at Keller and Heckman, “Washington State to Ban PFAS in Four Types of Food Packaging” (2021), 11:67 *The National Law Review* 1 at 1, online: <<https://www.natlawreview.com/article/washington-state-to-ban-pfas-four-types-food-packaging>>.

⁶¹ Lindsey Parkinson, “Maine Phasing out PFAS in all products by 2030” (19 July 2021) *Food Packaging Forum* at para 2, online: <<https://www.foodpackagingforum.org/news/maine-phasing-out-pfas-in-all-products-by-2030>>.

⁶² Lindsey Parkinson, “Maine Phasing out PFAS in all products by 2030” (19 July 2021) *Food Packaging Forum*, online: <<https://www.foodpackagingforum.org/news/maine-phasing-out-pfas-in-all-products-by-2030>>.

⁶³ Jane Munske, “Phthalates” (4 October 2012), *Food Packaging Forum*, online: <<https://www.foodpackagingforum.org/food-packaging-health/phthalates>>.

⁶⁴ Noushin Rastkari *et al*, “The Effect of Storage Time, Temperature and Type of Packaging on the Release of Phthalate Esters into Packed Acidic Liquids” (2017) 55:4 *Food Technol Biotechnol* 562 at 562, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5848201/#:~:text=There%20is%20evidence%20indicating%20that,HDPE%20bottles%20into%20their%20contents.&text=The%20highest%20concentrations%20of%20diethyl,PET%20and%20HDPE%20bottles%20respectively>>.

⁶⁵ Noushin Rastkari *et al*, “The Effect of Storage Time, Temperature and Type of Packaging on the Release of Phthalate Esters into Packed Acidic Liquids” (2017) 55:4 *Food Technol Biotechnol* 562 at 562, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5848201/#:~:text=There%20is%20evidence%20indicating%20that,HDPE%20bottles%20into%20their%20contents.&text=The%20highest%20concentrations%20of%20diethyl,PET%20and%20HDPE%20bottles%20respectively>>.

⁶⁶ Claude Monneret, “What is an endocrine disruptor?” (2017) 340:9-10 *Comptes Rendus Biologies* 403 at 404, online: <<https://www.sciencedirect.com/science/article/pii/S1631069117301257>>.

⁶⁷ Jonatan Axelsson *et al*, “Prenatal phthalate exposure and reproductive function in young men” (April 2015) 138 *Environ Res* 264 at 264, online: <<https://pubmed.ncbi.nlm.nih.gov/25743932/>>.

⁶⁸ Teng Zong, “Maternal exposure to di-(2-ethylhexyl) phthalate disrupts placental growth and development in pregnant mice” (2020), 297 *J Hazard Mater* 25 at 26 online: <<https://pubmed.ncbi.nlm.nih.gov/25935407/>>; Yiyu Kian *et al*, “The Endocrine Disruption of Prenatal Phthalate Exposure in Mother and Offspring” (2020), 8:366 *Front Public Health* 1 at 1, online: <<https://www.frontiersin.org/articles/10.3389/fpubh.2020.00366/full#:~:text=Prenatal%20exposure%20phthalates%20would%20disrupt,newborns%20as%20well%20as%20growth>>.

⁶⁹ Machiko Minatoya & Reiko Kishi, “A Review of Recent Studies on Bisphenol A and Phthalate Exposures and Child Neurodevelopment” (2021) 18:7 *Int J Environ Res Public Health* 1 at 2, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8036555/>>.

⁷⁰ Ivan Rusyn & J Christopher Corton, “Mechanistic considerations for human relevance of cancer hazard of di(2-ethylhexyl) phthalate” (2011) 750:2 *Mutat Res* 141 at 142, online: <<https://pubmed.ncbi.nlm.nih.gov/22198209>>.

⁷¹ Shin Hye Kim & Mi Jung Park, “Phthalate exposure and childhood obesity” (2014) 19:2 *Ann Pediatr Endocrinol Metab* 69 at 69, online: <<https://pubmed.ncbi.nlm.nih.gov/25077088/>>.

Bis(2-ethylhexyl)phthalate (DEHP), is the most common member of the class of phthalates and is listed under Schedule 1 of CEPA.⁷² There are, however, other members of the phthalate class – including di-*n*-octyl phthalate (DNOP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), di-isodecyl phthalate (DIDP), and di-isononyl phthalate (DINP) – that can be found in some plastics and have been shown to have negative effects on human health.⁷³

A number of jurisdictions, including the US, the EU, and Canada, have banned phthalates (or have banned certain phthalates) in children’s toys and childcare articles.⁷⁴ On December 7, 2021, health representatives sued the Food and Drug Administration in US Federal Court for failing to take action on a petition filed in 2016 asking the FDA to ban phthalates in food packaging and processing materials.⁷⁵ We propose taking the additional step to ban certain phthalates from plastic foodservice ware.

2.3.4 REGULATING BISPHENOLS IN FOODSERVICE WARE

Bisphenols are used in the manufacture of hard plastics and epoxies.⁷⁶ The most common bisphenol is bisphenol A (BPA). In the late 1990s, studies began to link low-dose BPA exposure to negative health effects.⁷⁷ It has since attracted attention for its role as an endocrine disruptor (particularly as a xenoestrogen).⁷⁸ It has been linked to developmental issues, prostate effects, breast cancer, behavioural issues from early life exposures, heart disease, diabetes, and liver toxicity.⁷⁹ BPA is listed as a toxic substance in Schedule 1 of CEPA. Because its toxic effects occur most severely in infants, the use of BPA is regulated in some baby products. In Canada, the manufacture, import, advertisement or sale of baby bottles made of polycarbonate plastics containing BPA is prohibited and the use of packaging containing BPA for liquid infant formula products has been phased out.⁸⁰

⁷² Sai Sandeep Singh Rowdhwal and Jiayang Chen, “Toxic Effects of Di-2-ethylhexyl Phthalate: An Overview” (2018) 2018 Biomed Research International 1 at 1, online: <<https://www.hindawi.com/journals/bmri/2018/1750368/>>.

⁷³ Royal Society of Chemistry, publication, “Why do we worry about phthalates” (2014), online: <https://www.rsc.org/images/phthalates_tcm18-140737.pdf>.

⁷⁴ Government of Canada, *Toy Safety: Soft Vinyl Toys*, last modified: 1 December 2014, online: <<https://www.canada.ca/en/health-canada/services/toy-safety/soft-vinyl-toys.html>>; United States Federal Government, Consumer Product Safety Commission, “Prohibition of Children’s Toys and Child Care Articles Containing Specified Phthalates,” *The Federal Register* (27 October 2017), online: <<https://www.federalregister.gov/documents/2017/10/27/2017-23267/prohibition-of-childrens-toys-and-child-care-articles-containing-specified-phthalates>>; SGS, news release, “Accessing the Market: European Union Phthalate Regulations” (8 April 2019), online: <<https://www.sgs.com/en/news/2019/04/accessing-the-market-european-union-phthalate-regulations#:~:text=Additional%20Requirements-EU%20Regulations,REACH%20and%20several%20other%20regulations>>.

⁷⁵ Breast Cancer Prevention Partners, news release, “Groups Sue to Force FDA Decision on Petitions to Ban Phthalates in Food” (7 December 2021), online: <<https://www.bcpp.org/resource/groups-sue-to-force-fda-decision-on-petitions-to-ban-phthalates-in-food/>>.

⁷⁶ HBM4EU Project, “Bisphenols,” updated 2021, online: <<https://www.hbm4eu.eu/hbm4eu-substances/bisphenols/>>.

⁷⁷ Assembly of First Nations, factsheet, “Chemical factsheets: Bisphenol A” (5 November 2016), online: <<https://www.afn.ca/uploads/files/env/bpa.pdf>>.

⁷⁸ Beverly S Rubin, “Bisphenol A: an endocrine disruptor with widespread exposure and multiple effects” (2011) 127 *J Steroid Biochem Mol Biol* 27 at 27, online: <<https://pubmed.ncbi.nlm.nih.gov/21605673/#:~:text=BPA%20is%20a%20known%20endocrine,in%20stimulating%20some%20cellular%20responses>>.

⁷⁹ Environmental Working Group, research publication, “Timeline: BPA from Invention to Phase Out” (22 April 2008), online: <<https://www.ewg.org/research/timeline-bpa-invention-phase-out>>.

⁸⁰ Government of Canada, *Home and Garden Safety: Bisphenol A*, last modified 29 July 2020, online: <<https://www.canada.ca/en/health-canada/services/home-garden-safety/bisphenol-bpa.html>>.

However, BPA is still found in food packaging. In response to mounting consumer concerns, some retailers and producers have removed BPA from their products.⁸¹ However, in many of these products, BPA has been replaced with bisphenol S (BPS) and bisphenol F (BPF), which are also endocrine disruptors.⁸² BPS is correlated with metabolic disorders (like gestational diabetes) and breast cancer, and may be more toxic to the reproductive system than BPA.⁸³ It also may increase the risk of cardiovascular disease and coronary heart disease.⁸⁴ Recent research suggests that BPS and BPF may be more toxic than BPA.⁸⁵

In addition to government's current proposed ban on single-use foodservice ware made from PVC (which commonly contains BPA), we propose bans on single-use foodservice ware containing BPA, BPS and BPF.

3. OTHER FEDERAL INITIATIVES THAT CAN COMBAT SINGLE-USE PLASTICS

While the proposed *Single-Use Plastics Prohibition Regulations* are a positive preliminary step toward a sustainable future, it is important that they are viewed as a starting point. Regulating the six harmful single-use plastics is just a small part of the work that Canada must put into reducing the harm caused by plastic. For example, exports of the banned items should also be prohibited, as discussed below. If these items are bad for Canada, why should we export them? There are also a number of other pervasive and harmful single-use plastic products that should be added to the banned list. Furthermore, it is important to create national standards for alternative plastics and include Extended Producer Responsibility programs to the regulatory framework. It is similarly important to implement a monitoring program to evaluate the effectiveness of the proposed regulations, so necessary changes can be made, and so items selected to be banned in the future reflect an accurate understanding of the most pervasive and harmful plastics in the environment. Finally, the authority of the federal government to legislate plastics and take other effective action does not end with CEPA – there are other important avenues to be taken alongside these regulations.

3.1 TARGETING OTHER KINDS OF HARMFUL PLASTICS:

Below are suggestions of other harmful single-use plastic products that should also be considered. These include single-use plastic water bottles, coffee pods, cigarette filters, and plastic used to package produce.

⁸¹ Sarah A Vogel, "The Politics of Plastics: The Making and Unmaking of Bisphenol A "Safety" (2009) 99:53 Am J Public Health 559 at 564, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2774166/>>.

⁸² Min Kyong Moon, "Concern about the Safety of Bisphenol A Substitutes" (2019) 43(1):46-48 Diabetes Metab J 46 at 46, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6387873/>>.

⁸³ Michael Thoene *et al*, "Bisphenol S in Food Causes Hormonal and Obesogenic Comparable to or Worse than Bisphenol A: A Literature Review" (2020) 12(2):532 Nutrients 1 at 1, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7071457/>>.

⁸⁴ Ruihua Wang *et al*, "The bisphenol F and bisphenol S and cardiovascular disease: results from NHANES 2013-2016" (2022) 34:4 Environ Sci Eur 1 at 6 and 8, online: <<https://enveurope.springeropen.com/articles/10.1186/s12302-021-00586-9>>.

⁸⁵ Michael Thoene *et al*, "Bisphenol S in Food Causes Hormonal and Obesogenic Comparable to or Worse than Bisphenol A: A Literature Review" (2020) 12(2):532 Nutrients 1 at 10, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7071457/>>.

WATER BOTTLES:

Single-portion water bottles are both resource-intensive to produce and recycle,⁸⁶ and serve very little purpose for most Canadians. High quality tap water is being supplied to most communities,⁸⁷ and in many cases is regulated and tested even more rigorously than bottled water.⁸⁸ The Regulatory Impact Analysis notes that plastic water bottles are made of a highly recyclable plastic.⁸⁹ However, these theoretically recyclable plastic bottles often end up in the environment, sometimes due to wind or storms, and have been documented as one of the top plastic items found in shoreline cleanups conducted by community groups.⁹⁰ Furthermore, much of the damage to the environment is done in the process of creating massive quantities of these largely unnecessary plastic items themselves – which occurs during oil and gas extraction and manufacturing.⁹¹

San Francisco's bottled water ban prohibits the sale of plastic water bottles on city-owned property⁹² and is one of the contributing factors to the city achieving 80% landfill diversion rates.⁹³ Plastic water bottles of less than 1 litre have also been subject to a strict ban in Concord, Massachusetts.⁹⁴

COFFEE PODS:

Coffee pods have caused well-documented damage not just to the environment, but also to municipal recycling infrastructure in a number of Canadian cities. City of Toronto officials have documented how well-intentioned recycling of single-serve coffee pods contaminates their plastic recycling stream and costs the City enormous sums to manage.⁹⁵ City officials have noted that an audit of coffee pods found in

⁸⁶ PH Gleick & HS Cooley, "Energy implications of bottled water" (2009) 4:014009 *Environ Res Lett* 1 at 2, online: <<https://iopscience.iop.org/article/10.1088/1748-9326/4/1/014009/meta>>.

⁸⁷ Note that an exception to this statement is the situation of First Nations communities, which too often have water quality supply problems. This latter issue needs to be dealt with urgently. In the meantime, the suggestion of banning single-portion water bottles should take into account the water supply issues in First Nations communities. Government should consult with Nations about possible exceptions to the water bottle proposal below, and ensure that high quality water is provided to all Nations.

⁸⁸ David Suzuki, "Column: Plastics ban should include beverage containers," *The Rossland Telegraph* (18 November 2020), online: <http://rosslandtelegraph.com/news/column-plastics-ban-should-include-beverage-containers?qt_nelson_regional_international=1#Yh0VjejMI2w>.

⁸⁹ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999) at subheading: Ban is not comprehensive enough, online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

⁹⁰ Emily Chung, "Nestlé, Tim Hortons named Canada's top plastic polluters again," *CBC News* (9 October 2019), online: <<https://www.cbc.ca/news/science/greenpeace-plastic-brand-audit-1.5314739>>.

⁹¹ Charles Wilkins, "Canada's dirty secret," *Canada's Geographic* (4 November 2017), online: <<https://www.canadiangeographic.ca/article/canadas-dirty-secret>>.

It is estimated that if plastics continue to be produced at the current rate, emissions from plastics production could make up 15% of the global climate budget by 2050. See: Jiajia Zheng, "Strategies to reduce the global carbon footprint of plastics" (2019) 9:5 *Nature Climate Change* 374 at 374, online: <<https://www-nature-com.ezproxy.library.uvic.ca/articles/s41558-019-0459-z>>.

⁹² Recycling Council of Alberta, news release, "San Francisco Becomes the First City to Ban the Sale of Plastic Water Bottles" (Spring 2016) at para 1, online: <<https://recycle.ab.ca/newsletterarticle/san-francisco-becomes-the-first-city-to-ban-sale-of-plastic-bottles/#:~:text=In%20a%20bold%20move%20toward,billion%2Ddollar%20plastic%20bottle%20industry>>.

⁹³ SF Environment, press release, "Mayor Lee Announces San Francisco Reaches 80 Percent Landfill Waste Diversion (December 2013), Leads all Cities in North America," online: <<https://sfenvironment.org/news/press-release/mayor-lee-announces-san-francisco-reaches-80-percent-landfill-waste-diversion-leads-all-cities-in-north-america>>.

⁹⁴ Town of Concord, MA, *Water Bottle Bylaw* (5 September 2012), s 1, online: <<https://concordma.gov/DocumentCenter/View/4024/Water-Bottle-Bylaw-PDF>>.

⁹⁵ Toronto Solid Waste Management Service Toronto Report PW 28.9 "Review of Single-Serve Coffee Pods," online: <<https://www.toronto.ca/legdocs/mmis/2018/pw/bgrd/backgroundfile-113676.pdf>>

the recycling system found that 97% of pods were improperly cleaned and contained coffee grounds.⁹⁶ This contamination caused by the improper recycling of such coffee pods has caused serious problems for the recycling system and imposed significant additional costs on city taxpayers. The German city of Hamburg has banned the use of coffee pods in certain places, such as government-run buildings, offices and institutions like schools and universities, stating that they cause "unnecessary resource consumption and waste generation."⁹⁷

PLASTIC CIGARETTE FILTERS:

Plastic cigarette filters are considered by some to be the "world's number one litter problem."⁹⁸ The Great Canadian Shoreline Cleanup, which occurs across Canada on World Environment Day, shows staggering numbers of filters, in some areas making up over 50% of the litter found on shorelines.⁹⁹ Cigarette filters are made out of a wood-based plastic that takes generations to fully decompose. Animals can choke on the butts, or be poisoned by the toxins they contain.¹⁰⁰ A recent bill introduced to the New York State Senate aims to ban the use of single-use filters for cigarettes due to their negative public health effects, and their tendency to "break down into small particles that end up in waterways, in the bodies of fish and other animals, and eventually back in our food supply."¹⁰¹

PLASTIC PACKAGING AROUND PRODUCE:

Plastic packaging wrapped around produce is another unnecessary form of single-use plastic that should be phased out. France has recently implemented a law that will require most fruits and vegetables to be sold without plastic packaging, which is estimated to prevent the use of more than one billion packaging items each year.¹⁰² The government is allowing more time for retailers to adapt to the new laws for cut fruit and some "delicate produce," with the ultimate goal of no plastic packaging by 2026. The reasons cited for this ban include harm to marine life and the fishing industry, carbon dioxide emissions from plastic production, and the dangers of human exposure to phthalates.¹⁰³

⁹⁶ David Rider, "Grounds for a brouhaha?: Keurig, Toronto spar over whether coffee pods belong in blue bin" *The Star*, online: <<https://www.thestar.com/news/gta/2018/04/20/grounds-for-a-brouhaha-keurig-toronto-spar-over-whether-coffee-pods-belong-in-blue-bin.html>>.

⁹⁷ Esme Nicholson, "Why This German City has Banned Coffee Pods in Government Buildings," *NPR* (1 March 2016) at para 1, online: <<https://www.npr.org/sections/thesalt/2016/03/01/468631065/why-this-german-city-has-banned-coffee-pods-in-government-buildings>>.

⁹⁸ Brian Clark Howard, "Cigarette Butts, World's #1 Litter, Recycled as Park Benches: A Growing Movement Targets Cigarette Waste as a Solvable Problem" (5 May 2015) *National Geographic*, online: <<https://www.nationalgeographic.com/science/article/150504-cigarette-butt-litter-recycling-environment>>.

⁹⁹ WWF, "Get Your Butts Off the Beach" (9 May 2019) at para 2, online: <<https://www.wwf.ca/stories/get-your-butts-off-the-beach/#:~:text=According%20to%20the%20Great%20Canadian,the%20litter%20found%20on%20shorelines>>.

¹⁰⁰ Brian Clark Howard, "Cigarette Butts, World's #1 Litter, Recycled as Park Benches: A Growing Movement Targets Cigarette Waste as a Solvable Problem" (5 May 2015) *National Geographic*, online: <<https://www.nationalgeographic.com/science/article/150504-cigarette-butt-litter-recycling-environment>>.

¹⁰¹ Liz Kreuger, "Krueger, Kaminsky, Jaffee Introduce Bill To Ban Cigarette Filters," (16 January 2020), *The New York State Senate*, at para 14, online: <<https://www.nysenate.gov/newsroom/press-releases/liz-krueger/krueger-kaminsky-jaffee-introduce-bill-ban-cigarette-filters>>.

¹⁰² News Wires, "France to ban plastic packaging for most fruit and vegetables from January 2022" (Nov 10 2021) *France 24* at para 3, online at: <<https://www.france24.com/en/europe/20211011-france-to-ban-plastic-packaging-for-fruit-and-vegetables-from-january-2022>>.

¹⁰³ New York City Food Policy Snapshot, "France to Eliminate Plastic Packaging from Fruits and Vegetables" (19 October 2021), online: <<https://www.nycfoodpolicy.org/food-policy-snapshot-france-ban-plastic-packaging-fruits-and-vegetables/>>.

3.2 BANNING EXPORTS OF THE LISTED SINGLE-USE PLASTICS

We strongly disagree with the decision to exempt exports of single-use plastic products from the ban, as it will greatly reduce the efficacy of the regulations. It allows companies to harm wildlife and pollute environments elsewhere – and ignores the global impact of single-use plastic, regardless of the country in which it is being used.¹⁰⁴ Banning the export of single-use plastic products would be a straightforward way to meaningfully curb plastic waste pollution.

Countries such as Rwanda and Benin have already banned the export of single-use plastic products. In Rwanda, exports are prohibited by consequence of the ban on the manufacture, import, sale, and use of plastic carry bags and single use items. Exceptions to these bans are available, but only for “exceptional reasons.”¹⁰⁵ Benin’s law bans the production, import, export, sale, distribution, and possession of non-biodegradable plastic bags. Biodegradable bags may be exempted under ministerial order.¹⁰⁶

Fourteen Senators in the US Senate have introduced the “Break Free From Plastic Pollution Act of 2021” which, among other provisions, proposes to ban the export of single-use plastic products. Introduced on March 25, 2021, the bill has been referred to the Committee on Finance for review. This bill contemplates a final rule that would prohibit “the export of covered products to purchasers that convert those plastics into single-use plastics or energy”¹⁰⁷

We urge the Canadian government to revise the proposed regulations to emulate the export bans of Rwanda and Benin, and the proposed ban in the USA.

Canada should rescind the export exception in the proposed regulations, and consider the examples of other national single-use plastic bans, particularly those in Rwanda, Benin, and the US Congressional proposal. Canada should work with the US to ban the exports of single-use plastics while navigating World Trade Organization and Canada-United States-Mexico Agreement rules.

¹⁰⁴ Karen Wirsig, “Government Must Ban Harmful Single-Use Plastics Now, Not in Two Years” (12 January 2022) *Environmental Defence*, at para 3, online: <<https://environmentaldefence.ca/2022/01/12/ban-plastics-now/>>

¹⁰⁵ ELAW, “Rwanda: Select plastic laws” *Environmental Law Alliance Worldwide*, online: <https://elaw.org/plastic/RW_PlasticLaws#:~:text=Rwanda%27s%20Law%20No.,publishing%20on%2023%20September%202019.&text=%E2%80%9CThe%20manufacturing%2C%20importation%20or%20sale,items%20is%20prohibited.%E2%80%9D%20Art>

¹⁰⁶ ELAW, “Benin: Select plastic laws” *Environmental Law Alliance Worldwide*, online: <https://elaw.org/plastic/RW_PlasticLaws#:~:text=Rwanda%27s%20Law%20No.,publishing%20on%2023%20September%202019.&text=%E2%80%9CThe%20manufacturing%2C%20importation%20or%20sale,items%20is%20prohibited.%E2%80%9D%20Art>

¹⁰⁷ US, Bill S 984, *Break Free From Plastic Pollution Act of 2021*, 117th Cong, 2021

subsection (g) of Section 4 of the Extended Producer Responsibility For International Plastic Exports:

“The temporary pause on the export of covered products under subsection (b)(4) shall remain in place until the Secretary of Commerce promulgates a final rule that—

- (1) requires the tracking of covered products from sale to disposal;
- (2) prohibits the export of covered products to purchasers that convert those plastics into single-use plastics or energy;
- (3) requires the Secretary of Commerce, not less frequently than once every 2 years and in consultation with the Administrator and the Secretary of Health and Human Services, to publish a report measuring and evaluating the environmental and environmental justice impacts of exporting covered products from sale to disposal; and
- (4) establishes enforceable mechanisms for sellers or purchasers of covered products to mitigate the environmental and environmental justice impacts of those covered products from sale to disposal.”

3.3 CREATING NATIONAL STANDARDS

National standards for compostable and biodegradable products must be created in order to effectively move towards a circular economy. Terms such as “compostable” and “biodegradable” can be deceptive and are not clearly defined, which leads to confusion and environmental harm. For example, there is not always a clear distinction between compostable/biodegradable materials that are environmentally acceptable – and ‘oxo-fragmentable’ plastics that are technically “degradable,” but actually degrade into long-lasting and problematic microplastics.¹⁰⁸ As another example, in BC most so-called “compostable” plastics do not fully compost in municipal composting systems and end up contaminating both composting and recycling streams.¹⁰⁹

There is a critical need for standardized testing and criteria for certification to allow consumers to know if the “green” plastic they are buying will truly biodegrade if left in the environment, or if it can be properly composted in facilities across Canada. This may also lead to more innovative and sustainable plastic alternatives becoming available for consumers.

One way to ensure that alternatives are acceptable is through the development of a reliable third-party certification program. Ensuring that all acceptable plastics are readily identifiable and are actually compostable in at-home or commercial facilities is the only way to allow non-conventional plastics without causing even more harm to the environment. This can be done through the creation of a government certifying body, using a credible private certification such as the Biodegradable Products Institute Label,¹¹⁰ or expanding product labeling models like ECOLOGO Product Certification to convey this kind of information to consumers. Whether a product is labeled “compostable” should be based on whether it is actually compostable in existing facilities, as opposed to whether the material can theoretically be composted.¹¹¹

Ensuring that producers are responsible for adhering to national certification standards should be part of a larger principle of accountability for the environmental harms that single-use plastics cause. This accountability may also include environmental cleanups funded by major polluters, and Extended Producer Responsibility programs for the collection and management of recyclable and compostable products.

¹⁰⁸ European Bioplastics, “What is the difference between oxo-fragmentable and biodegradable plastics?,” at para 1 online: <<https://www.european-bioplastics.org/faq-items/what-is-the-difference-between-oxo-fragmentable-and-biodegradable-plastics/>>.

¹⁰⁹ For example, Vancouver City Council has noted that “compostable” plastic does not break down in most local composting facilities, and contaminates both composting and recycling streams.

See: Susana da Silva, “Don’t put compostable plastics in green bin, Metro Vancouver says” *CBC*, online at:

<<https://www.cbc.ca/news/canada/british-columbia/compostable-items-confusion-more-infrastructure-needed-1.4665757>>.

City of Vancouver, Report to Council: Standing Committee of Council on City Finance and Services (24, 29 April, 2019), online (pdf) at: <<https://council.vancouver.ca/20190424/documents/cfsc20190424min.pdf>>.

¹¹⁰ Biodegradable Plastics Institute, online at: <<https://bpiworld.org/About>>.

¹¹¹ For example, Vancouver City Council has noted that “compostable” plastic does not break down in most local composting facilities, and contaminates both composting and recycling streams.

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City of Vancouver, Report to Council: Standing Committee of Council on City Finance and Services (24, 29 April, 2019), online (pdf) at: <<https://council.vancouver.ca/20190424/documents/cfsc20190424min.pdf>>.

3.4 IMPLEMENTING A MONITORING PROGRAM

Implementing a comprehensive monitoring program for the presence of plastic litter in the marine environment (including the shoreline, the sea surface and water column, the sea floor, and the marine biota) is essential to evaluating the effectiveness of the proposed single-use plastics ban so that, if need be, the regulations can be amended.¹¹²

The Regulatory Impact Analysis Statement estimates that, over the next 10 years, the proposed regulations will reduce plastic waste by approximately 1.4 million tonnes and reduce plastic pollution by approximately 23,000 tonnes.¹¹³ Removing certain single-use plastic items from the supply chain entirely will undoubtedly help reduce lifecycle impacts of plastic, but monitoring is necessary to ensure that the regulations are achieving these numerical benchmarks. Monitoring is also essential to ensure that the reductions in plastic waste and plastic pollution are having the desired effect on organism health in the marine environment.

Monitoring would not only evaluate the effectiveness of this particular intervention, but it would also help generate information about the other types of plastic marine debris that are present in Canadian marine coastal environments and that should be addressed in future plastics regulations.¹¹⁴

For example, in 2014, Spain designed a national Monitoring Program for Marine Litter, the results of which are used to inform national policy and target heavily polluted areas.¹¹⁵ Similarly, in 2018, Vietnam developed the National Action Plan for Management of Marine Plastic Debris by 2030, which included annual monitoring as an objective to be implemented.¹¹⁶

3.5 OTHER AVENUES FOR THE FEDERAL GOVERNMENT TO CURB SINGLE-USE PLASTIC POLLUTION

Canada's jurisdiction over plastic pollution is far broader than just through *CEPA*. The federal government has constitutional authority to address this problem in a number of ways including, but not limited to, the authority over sea coast and inland fisheries, the federal spending power, federal taxes, trade and commerce, and the national concern power.¹¹⁷ Many of these avenues for addressing single-

¹¹² See: Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, "Guidelines for the Monitoring and Assessment of Plastic Litter in the Ocean," report 99, (United Nations Environment Program, 2019) at 13, online: <https://wesr.unep.org/media/docs/marine_plastics/une_science_division_gesamp_reports.pdf>.

¹¹³ *Single-Use Plastics Prohibition Regulations*, Part 1, Vol 155, C Gaz, 2021, (*Canadian Environmental Protection Act*, 1999) at subheading: Executive Summary, online: <<https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html>>.

¹¹⁴ For more information on effective monitoring programs for marine plastic litter, see: Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, "Guidelines for the Monitoring and Assessment of Plastic Litter in the Ocean," report 99, (United Nations Environment Program, 2019) at 13, online: <https://wesr.unep.org/media/docs/marine_plastics/une_science_division_gesamp_reports.pdf>.

¹¹⁵ Tony Walker, Eamonn McGuinty, and Doug Hickman, "Marine debris database development using international best practices: A case study in Vietnam" (2021) 173:112948 *Marine Pollution Bulletin* 1 at 2, online: <https://reader.elsevier.com/reader/sd/pii/S0025326X21009826?token=62469D6D37F302F3EEB39804797046CBA9E5DE3359D607D6969787D938DD650EF02711C16762C1D641C0C536E9E8BB88&originRegion=us-east-1&originCreation=20220303193200>

¹¹⁶ Tony Walker, Eamonn McGuinty, and Doug Hickman, "Marine debris database development using international best practices: A case study in Vietnam" (2021) 173:112948 *Marine Pollution Bulletin* 1 at 2, online: <https://reader.elsevier.com/reader/sd/pii/S0025326X21009826?token=62469D6D37F302F3EEB39804797046CBA9E5DE3359D607D6969787D938DD650EF02711C16762C1D641C0C536E9E8BB88&originRegion=us-east-1&originCreation=20220303193200>

¹¹⁷ *Constitution Act*, 1867 (UK), 30 & 31 Vict, c 3, reprinted in RSC 1985, App II, No 5 at s 91.

use plastic pollution can benefit from collaboration with the provincial government in order to create a strong and unified approach to protecting the environment. For a broader look at creating an effective national strategy to combat marine pollution, see: Environmental Law Centre, “A National Strategy to Combat Marine Plastic Pollution: A Blueprint for Federal Action.”¹¹⁸

3.5.1 USING AUTHORITY OVER SEA COAST AND INLAND FISHERIES

The federal government has the constitutional authority to enact new laws to combat marine plastic pollution. The *Fisheries Act*¹¹⁹ empowers the government to regulate pollution that may negatively affect fisheries. One way this can be done is by naming certain types or concentrations of plastic as a ‘deleterious substance,’ and fining those who leave these plastics where they might enter water frequented by fish.¹²⁰ The authority over “Sea Coast and Inland Fisheries” could also be used to ground new laws addressing marine plastic pollution that originates in federal waters or affects fish or navigation.

3.5.2 COLLABORATING WITH THE PROVINCES

It is important that the federal government coordinate with provinces regarding aspects of plastic pollution that fall under provincial jurisdiction. There are a number of ways that this can be done:

- Parliament’s spending power can be utilized to facilitate provincial action on marine plastic pollution, incentivizing provincial compliance with federal targets by making transfers conditional on performance. It can also be used to fund scientific and technological research that will allow industry and citizens to move towards a circular economy, and develop environmentally friendly alternatives to single-use plastics.
- The ‘National Concern’ doctrine can be used to reduce plastic pollution from all sources – by setting national targets and working with provinces to choose their own means of meeting them.
- Encourage provinces to tax or ban (or empower municipalities to ban or set minimum fees for) single-use products that fall outside of the federal ban.
- Encourage provinces and territories to expand existing container deposit refund schemes.

3.5.3 ADDRESSING POLLUTION FROM STORMWATER RUNOFF

Plastic debris often ends up in the ocean via storm drain systems that carry urban runoff to the sea. The federal government could make progress in this area by committing to:

- Fund or otherwise incentivize municipalities to install screens and catchment inserts.
- Use *Canada Water Act*¹²¹ powers to prevent plastic pollution from compromising water quality.
- Include plastics in the *Fisheries Act* definition of a ‘deleterious substance’, as discussed above.
- Enforce other *Fisheries Act* provisions to control stormwater plastic debris discharge.

¹¹⁸ See: Environmental Law Centre, “A National Strategy to Combat Marine Plastic Pollution: A Blueprint for Federal Action” (April 2018), online at: <http://www.elc.uvic.ca/wordpress/wp-content/uploads/2018/04/2017-01-11_National-Marine-Plastics-Strategy-FINAL.pdf>.

¹¹⁹ RSC 1985, c F-14.

¹²⁰ *Fisheries Act*, RSC 1985 c F-14, ss 43(1)(b), (e), (h).

¹²¹ RSC 1985, c C-11.

3.5.4 CREATING EDUCATIONAL CAMPAIGNS

Educational campaigns rolled out alongside these regulations may help teach consumers about the negative effects of plastic pollution and inspire the use of reusable products. The federal government can enhance public education and further minimize plastic pollution by committing to:

- Provide stable funding to organizations that are already teaching the public about plastics-related issues.
- Collaborate with existing organizations on a national education campaign about the importance of tackling marine plastic pollution through reduction, reuse, and recycling, marine cleanups, and support for broader laws and policies aimed at solving the plastics problem.
- Provide stable funding for community-led beach cleanups and shoreline cleanups, ideally modelled after a polluter-pays approach, where funds are collected from major polluters and diverted towards these initiatives.

Some examples of educational campaigns rolled out by governments include the European Commission's "Be Ready to Change" video campaign encouraging the use of reusable and plastic-free alternatives,¹²² the Government of Chile's "Bye Plastic Bags" and "Bye Straws" video campaigns,¹²³ and Jamaica's "Plastic Free Jamaica" social media campaign that includes information about the health impacts of styrofoam.¹²⁴

4. CONCLUSION

In conclusion, Surfrider Foundation Canada supports the proposed *Single-Use Plastics Prohibition Regulations* and hopes to see it further strengthened in order to reduce dependence on single-use plastics and protect the environment.

Sincerely,

"Calvin Sandborn"

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¹²² European Commission, "The Seductive Power of Single-Use Plastics," online: <<https://www.bereadytochange.eu/en/>>.

¹²³ Ministerio del Medio Ambiente, "Campaña ciudadana Chao Bombillas" (12 September 2018), online (video): YouTube <<https://www.youtube.com/watch?v=9gnm0PQB0pM>>.

¹²⁴ Plastic Free Jamaica, "Can you imagine a Jamaica free from 'styrofoam'? We can! Here's why YOU should say NO to foam!" (21 November 2019 at 8:05 am), online: Twitter <<https://twitter.com/PlasticFreeJA/status/1197546629693358080>>.