



A proposed integrated management approach to plastic products to prevent waste and pollution

DISCUSSION PAPER



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Purpose

The Government of Canada is taking steps toward eliminating plastic pollution in Canada, including potentially banning or restricting certain harmful single-use plastic products, where warranted and supported by science. This discussion paper is seeking input on a proposed integrated management approach to plastics to take a number of actions, including regulations which would be developed under the provisions of the *Canadian Environmental Protection Act, 1999* (CEPA).

Introduction

Plastic plays an important part in the lives of Canadians and in the Canadian economy, including in helping Canadians protect themselves from the spread of COVID-19. Plastic is low-cost, durable, and useful in a wide range of applications, including packaging, clothing, medical and personal protective equipment (PPE) and construction materials. However, the way plastic waste is managed in Canada is an issue of growing concern. According to a recent study conducted by Deloitte,¹ over 3 million tonnes of plastics were discarded as waste in Canada in 2016, and only 9% was recycled. Plastic waste burdens our economy, representing a \$7.8B lost opportunity. When leaked into the natural environment, plastic threatens the health of our wildlife, ecosystems, rivers, lakes and oceans. In 2016, 29,000 tonnes of plastic waste entered the Canadian environment as pollution.

Achieving zero plastic waste

Action is needed to eliminate plastic pollution at its source by reducing the amount of plastic waste that ends up in landfills or the environment. This can be achieved through greater prevention, collection, innovation and value recovery of plastic waste and transitioning to a more circular economy for plastics. The development and scaling up of new forms of plastic and new technologies provides opportunities to incentivize and support improved recovery of resources from products and packaging at the end of their useful life. Retaining materials and products in a circular economy not only reduces greenhouse gases emissions and pressure on the environment, but also has significant economic benefits. The transition to a more circular economy would save costs, increase competitiveness, stimulate innovation, support prosperity by creating new jobs and reduce the amount of plastic entering the environment.

Under Canada's G7 presidency in 2018, the Government of Canada championed the development of the Ocean Plastics Charter,² which commits to a more resource-efficient and lifecycle approach to plastics stewardship, on land and at sea. The Charter establishes targets to improve management of plastics, including:

- working with industry towards 100% reusable, recyclable, or, where viable alternatives do not exist, recoverable, plastics by 2030;

¹ *Economic Study of the Canadian Plastic Industry, Markets and Waste* (2019), available at:

http://publications.gc.ca/collections/collection_2019/eccc/En4-366-1-2019-eng.pdf

² Available at: <https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/international-commitments/ocean-plastics-charter.html>.

- working with industry towards increasing recycled content by at least 50% in plastic products where applicable by 2030;
- working with industry and other levels of government, to reuse and/or recycle at least 55% of plastic packaging by 2030 and recover 100% of all plastics by 2040; and
- working with industry towards reducing the use of microbeads in personal care products, and addressing other sources of microplastics.

In November 2018, through the Canadian Council of Ministers of the Environment (CCME), the federal, provincial and territorial governments approved in principle a Canada-wide Strategy on Zero Plastic Waste.³ Building on the Ocean Plastics Charter, the strategy takes a circular economy approach to plastics and provides a framework for action in Canada. Federal, provincial and territorial governments are collaborating on implementing the Strategy via an Action Plan⁴ by developing, among other things:

- guidance to facilitate consistent extended producer responsibility policies for plastics;
- national performance requirements and standards for plastics, including targets and timelines for increasing recycled content; and
- assessing infrastructure needs for improved plastic lifecycle management.

Science assessment of plastic pollution

In October 2020, the Government of Canada released a Science Assessment of Plastic Pollution.⁵ The Science Assessment presents a thorough scientific review of the occurrence and potential impacts of plastic pollution on human health and the environment. Information included in this assessment indicates that:

- plastic pollution, in both macroplastic and microplastic form, is everywhere in the environment;
- macroplastics have been shown to cause physical harm to individual animals and to have the potential to negatively affect the habitat of animals;
- exposure to macroplastics is not expected to be of concern for human health;
- the evidence is less clear and requires more research for potential effects of microplastics on individual animals and the environment; there is also limited information about the potential human health effects of microplastics, and while a concern for human health has not been identified at this time, further research is needed in this area; and
- there are a multitude of sources that contribute to plastic pollution

The Science Assessment recommends pursuing actions to reduce macroplastics and microplastics that end up in the environment, in accordance with the precautionary principle, which states that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".⁶

³ Available at: <https://www.ccme.ca/en/resources/waste/waste/plastic-waste.html>.

⁴ *Ibid.*

⁵ Available at: <https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/science-assessment-plastic-pollution.html>

⁶ *Canadian Environmental Protection Act, 1999*, SC 1999, c 33, preamble.

Managing plastics using CEPA

In order to take action as recommended in the Science Assessment, the Government of Canada has proposed using enabling authorities under CEPA to regulate certain plastic manufactured items⁷. This will allow the Government to enact regulations that target sources of plastic pollution and change behaviour at key stages in the lifecycle of plastic products, such as design, manufacture, use, disposal and recovery in order to reduce pollution and create the conditions for achieving a circular plastics economy.

Rationale and objectives for an integrated management approach to plastics

Currently, Canada's large, complex and important plastics economy is mostly linear, which results in a significant amount of plastics waste being landfilled or released into the environment. The report prepared by Deloitte estimates that in 2016, 86% of plastic waste ended up in landfills, while 1% or 29,000 tonnes entered the environment as pollution.⁸ Actions across the value chain or that promote innovation most likely will result in the systemic changes necessary to achieve zero plastic waste and eliminate plastic pollution.

While various governments, industry, scientists, civil society groups and others are working hard to move towards a circular plastics economy, a number of key challenges stand in the way. These include:

- **primary and secondary plastics compete:** competition is difficult for the recycling industry because of inconsistent feedstock composition and a more labour-intensive cost structure compared to primary resin production which can take advantage of economies of scale;
- **weak end-markets for recycled plastics:** in some cases, recycled resins are a cheaper alternative for product manufacturers, for example for use in less demanding applications, but overall the inconsistent supply of quality feedstock at a competitive price undermines the establishment of viable and lasting end-markets;
- **collection rates are low:** only 25% of plastics are collected and sent to a sorting facility (e.g., through curbside collection, recycling depots, or deposit-refund systems),⁹ and only a fraction of collected plastics is recycled because of contamination, infrastructure deficiencies, and lack of markets;
- **insufficient recovery options:** current near absence of high volume recovery options, losses from existing processes, and competition from low cost disposal alternatives, such as landfills, point to the need for investments in innovation and infrastructure, in particular to commercialize and scale up new technologies; and
- **cost of plastic pollution is shouldered by individuals and communities:** the responsibility for preventing and managing land-based sources of plastic pollution, such as urban and

⁷ Available at: [LINK]

⁸ *Supra* note 1.

⁹ *Ibid.*

roadside litter, is largely shouldered by municipalities, civil society organizations and volunteers, at great cost.

No one measure can overcome these challenges. As part of its comprehensive agenda, the Government of Canada is developing an integrated management approach to plastics, which over time would seek to achieve the following objectives:

- **eliminate certain sources of plastic pollution:** reduce environmental harm caused by plastic products, in particular single-use plastics, by managing or, where necessary, prohibiting their use;
- **strengthen domestic end-markets for recycled plastics:** stimulate demand for recycled plastic that can drive the development of sustainable and resilient recycling markets and spur the investment in recovery infrastructure;
- **improve the value recovery of plastic products and packaging:** raise collection and recycling rates of plastic products and packaging, reduce the amount of plastic waste that ends up in landfills or the environment, and incentivize investment in infrastructure that can supply secondary end-markets with sufficient quantities of high-quality recycled plastics; and
- **support innovation and the scaling up of new technologies:** provide the incentives and regulatory space for businesses and researchers to develop, test and scale up technologies that help prevent plastic waste and pollution, such as new forms of plastic, new technologies for recovering value from plastic waste, and innovative business practices to improve the management of plastics throughout the value chain.

This integrated management approach to plastics will involve regulatory and non-regulatory actions. Non-regulatory instruments could be used by governments, industry and civil society to improve the management of plastics within their jurisdictions or control. Regulatory instruments are intended to ensure that rules are in place at key stages of the plastics lifecycle to drive the change necessary to achieve the objectives described above.

Choosing the best instruments

A broad range of regulatory and non-regulatory instruments is available, allowing the government to choose the type of intervention. A number of considerations factor into the choice of instrument or mix of instruments that are best suited to help achieve the management objective on a sustained basis while supporting innovation. These include environmental effectiveness, economic efficiency, health and safety, and distributional impacts across sectors, regions, and segments of the Canadian population.

Regulations and voluntary instruments (for example, guidelines) will be developed using CEPA or another effective mechanism. These will seek to:

- **manage single-use plastics**, including banning or restricting certain single-use plastics that cause harm, where warranted and supported by scientific evidence;
- **establish performance standards** for plastic products to reduce (or eliminate) their environmental impact and stimulate demand for recycled plastics; and
- **ensure end-of-life responsibility**, so that companies that manufacture or import plastic products or sell items with plastic packaging are responsible for collecting and recycling them.

These instruments and measures will be designed to complement each other as well as other policies, programs and actions implemented by federal, provincial, territorial and local governments. The success of one instrument will enhance the outcomes of all the others and contribute to achieving zero plastic waste. All instruments and measures are the subject of consultation and in-depth socio-economic analysis. A regulatory instrument is also always accompanied by a comprehensive Regulatory Impact Analysis Statement that is posted on the *Canada Gazette*, and which includes a cost-benefit analysis, as well as estimates of the administrative burden on regulated entities and impacts to small businesses.

Roles and responsibilities

The integrated management approach to plastics proposed in this discussion paper recognizes that everyone has a role to play in achieving zero plastic waste and eliminating plastic pollution, including:

- **Government of Canada:** Environment and Climate Change Canada (ECCC), as well as other federal departments and agencies, will design regulatory instruments and other measures, work with other levels of government to avoid duplication, promote and ensure compliance, monitor outcomes, and be receptive to feedback in implementing programs, as well as monitor and work with other governments to address any trade implications.
- **provinces and territories:** the Government of Canada recognizes the leadership role provided by provinces and territories in developing, regulating and overseeing waste management systems, including recycling programs, and will support provincial and territorial governments in working to increase diversion rates for plastics, among other things.
- **local governments:** in response to provincial and territorial regulations, waste management services in Canada have traditionally been delivered or coordinated by cities, towns and regional authorities, which includes curbside or depot collection, sorting and separation operations, disposal facilities (landfills or incinerators), plus public education and promotion. Local authorities also deal with litter issues and street cleaning. In all cases, plastics waste is present and must be managed appropriately.
- **indigenous Peoples:** Indigenous peoples have an important role to play as traditional stewards of lands affected by plastic pollution, rights holders, and decision-makers for waste management issues in Indigenous communities, including on reserve land.
- **plastic producers and product manufacturers:** industry leadership and innovation is essential for better management of plastics. Producers of plastic resins and manufacturers of plastic products and packaging are best-placed to innovate and develop new solutions to address plastic waste in addition to meeting obligations established by regulatory instruments.
- **recyclers:** the Government of Canada will look to recyclers to support and enable systemic change in the plastic economy by effectively and efficiently recycling all the plastics collected and providing high-quality recyclable plastics to use as feedstock for new and innovative products.
- **Canadians:** all Canadians can do their part by reducing the amount of plastic waste they create, correctly sorting and binning recyclable plastics, and avoiding littering.

Working with provinces and territories

The integrated management approach to plastics recognizes the central role played by provinces and territories in reducing plastic waste, eliminating plastic pollution and managing waste more generally. This is why the Government of Canada worked with its provincial and territorial counterparts in the CCME to develop the Canada-wide Strategy on Zero Plastic Waste. All jurisdictions must work together

to drive the change necessary to move to a more circular economy for plastics across Canada. Among other things, a circular economy for plastics will:

- help businesses use resources and capital assets more efficiently;
- create new revenue streams through improved value recovery, and markets for new technologies and materials; and
- support the transition to a low-carbon economy by moving Canada away from linear models of resource use.

The Government of Canada will align measures developed under the integrated management approach to plastics with the guidance, standards and targets being developed in support of the CCME Strategy and Action Plan on Zero Plastic Waste.

Consideration of measures and programs already in place and complementarity with the roles of provincial, territorial and municipal governments will also be an important factor in the choice and design of instruments. The Government will work with its partners and stakeholders in Northern, remote and Indigenous communities to take into account their unique circumstances. Where appropriate, the Government of Canada will also seek agreements with provincial and territorial governments to minimize or eliminate duplication or overlapping rules.

Managing single-use plastics

Canadians and businesses rely on single-use plastics and packaging for various purposes, from convenience to essential health and safety applications, and their use is increasing. Many of these plastic products are poorly managed at their end-of-life and have low recycling rates. Some single-use plastics that end up in the environment cause harm to ecosystems and wildlife, and those that are not recycled are a lost resource for the economy. The Government of Canada has committed to banning or restricting certain harmful single-use plastics, where warranted and supported by science.

Scope

Single-use plastics have been defined in recent work as “designed to be thrown away after being used only once”.¹⁰ These items include, among others:

- **packaging:** primary packaging (for example, food wrappers, retail product packaging, beverage and shampoo bottles), secondary or short lived packaging (for example, shopping bags, fruit & vegetable bags, containers), and sanitary packaging for sterile items (for example, syringes);
- **convenience items:** utensils, hot and cold drink cups and lids, straws, stir sticks, disposable wipes, and quick-serve containers; and
- **essential items:** masks and latex gloves in the dental and medical field, sterile packaging.

¹⁰ United Nations Environment Programme, *Single-use Plastics: a Roadmap for Sustainability: Fact-sheet for Policymakers* (2018), https://wedocs.unep.org/bitstream/handle/20.500.11822/25523/singleUsePlastic_sustainability_factsheet_EN.pdf

In addition to single-use plastics, there is a category of **short-lived disposable products or their components**, which includes pens, toothbrushes and their parts such as cotton swabs stems, cigarette butts and bottle caps.

The growing use of these items can present different challenges, such as:

- pollution in the environment and harm to wildlife through litter or accidental releases from commercial and industrial facilities or during transport;
- hampering of recycling, composting or wastewater treatment processes, due to small format, material choice and contamination; and
- inefficient use of material resources when cost-effective and low-impact alternatives are available.

Management of single-use plastics should also reflect the vital functions some single-use plastics play in keeping Canadians safe and healthy, assisting people with accessibility needs, and preserving food. For example, personal protective equipment includes some single-use plastics, such as masks and gloves. These are necessary to keep Canadians safe from the transmission of disease, in particular COVID-19. The Government of Canada will consider whether products that play vital roles such as these should be exempted from management measures, or whether measures should be designed to avoid limiting supply and accessibility (for example, by focusing on areas such as end-of-life management or litter prevention and clean-up) or stipulate acceptable alternatives.

The Government also recognizes the potential for new and innovative technologies to improve the environmental outcomes of some single-use products. For example, the use of compostable, bio-based or biodegradable plastics may in some cases improve a product's environmental footprint or increase recovery rates of single-use items when they become waste. The Government will consider how the ban or the restriction on certain harmful single-use plastics might be designed to support the growth of new and innovative technologies that further the goals of environmental protection and the transition to a circular economy.

Banning or restricting certain harmful single-use plastics as early as 2021

ECCC has conducted an analysis of available data to determine which items meet the requirements for a proposed ban or restriction. Sources of data include:

- Canadian citizen science and civil society data on which single-use plastics are most commonly found on Canadian beaches and shorelines;¹¹
- ECCC-commissioned reports, Single-use Plastics in Canada (Cheminfo, 2018) and Economic Study of Canada's Plastics Industry, Markets and Waste (Deloitte, 2019);
- sector-specific research on commonly used single-use plastics in Canada;
- work on single-use plastics prioritized for reduction actions by other jurisdictions within Canada; and
- work on single-use plastics prioritized for reduction by international organizations.

¹¹ <https://www.shorelinecleanup.ca/impact-visualized-data>

In addition, while there is little data currently available on the plastic waste impacts of COVID-19, ECCC is aware of the potential increase in plastic waste and pollution caused by essential personal protective equipment.

Items were identified using the information sources above to provide a preliminary list of products that may be environmentally or value-recovery problematic, and which merited further analysis through a Management Framework for Single-use Plastics:

- Bags, including
 - checkout bags,
 - produce and bulk food barrier bags,
 - garbage bags, and
 - dry cleaning bags
- Packaging not necessary for the protection of food or goods, including:
 - multi-packaging,
 - produce stickers, and
 - some films
- Cosmetic and personal care products and packaging, including
 - cotton swab sticks
 - flushable wipes, and
 - disposable personal care items
- Plastic packaging used in aquaculture and coastal industries (for example., strapping bands)
- Food packaging, including:
 - beverage bottles and caps,
 - snack food wrappers, and
 - some films
- Food packaging and service ware (for example., takeout containers and lids, plates, bowls and cups) made from problematic plastics, including:
 - foamed plastics,
 - black plastic,
 - polyvinyl chloride (PVC),
 - oxo-degradable plastic, or
 - multiple (composite) materials including one or more plastics
- Coffee pods
- Plastics used in medical applications, including personal protective equipment such as:
 - masks,
 - gowns, and
 - gloves
- Cigarette filters
- Contact lenses and packaging
- Food service ware, including:
 - hot and cold drink cups and lids
 - straws
 - stir sticks
 - cutlery, and
 - condiment portion cups and sachets

The Management Framework for Single-use Plastics establishes a three-step process to determine if management is needed, and identifies the options for meeting management objectives:

Management framework approach for single-use plastics

Steps	Details
1. Categorize:	Group single-use plastic items into categories and identify considerations for exemptions: <ol style="list-style-type: none"> 1. environmentally problematic 2. value recovery problematic
2. Set management objectives:	For priority categories, determine which objective in the waste management hierarchy should be pursued: (1) eliminate or reduce from the Canadian market, or (2) increase recycling or recovery rate.

Steps	Details
3. Choose an instrument:	Based on the objective chosen for each product, choose the appropriate instrument to achieve the goal informed by the <i>Instrument Choice Framework for Risk Management under the Canadian Environmental Protection Act</i> .

Step 1: Characterizing single-use plastics

The first step is to categorize single-use plastics as environmentally problematic, value-recovery problematic, or both. In addition, considerations should be identified for possible exemptions to management action. This is done using the following criteria:

Table 1: Criteria for the characterization of single-use plastics

Categories of single-use plastics	Criteria
1) Environmentally problematic	<ul style="list-style-type: none"> Prevalent in natural and/or urban environments, according to citizen science, civil society and/or municipal litter audit data Known or suspected to cause environmental harm (for example., ingestion by wildlife or entanglement risk to wildlife, etc.)
2) Value recovery problematic	<ul style="list-style-type: none"> Hampers recycling systems or wastewater treatment (nutrient or additive contamination, material or size/shape incompatible with recycling technology, etc.) Low to very low recycling rate (lower than average recycling rate for packaging, from 0-22%) Barriers to increasing their recycling rate exist
Considerations for exemptions	<ul style="list-style-type: none"> Perform an essential function (for example., accessibility, health and safety, security) No viable alternative exists that can serve the same function Specification of acceptable & available alternative material

A single-use plastic can be considered environmentally problematic and/or value-recovery problematic if it meets the criteria in the above table. Table 2 illustrates how ECCC categorized select single-use plastics, drawing from the best available information listed above:

Table 2: Analysis of information of selected single-use plastic products

	Environmentally problematic		Value recovery problematic			Exemption considerations	
	Prevalent in environment	Known or suspected to cause environmental harm	Hampers recycling and/or wastewater treatment	Non-recyclable, low or very low recycling rate	Barriers to increasing recycling rate	Performs essential function	No viable alternatives
Plastic checkout bags	✓	✓	✓	✓	✓		
Stir sticks	✓	✓	✓	✓	✓		
Six-pack rings	✓	✓	✓	✓	✓		

	Environmentally problematic		Value recovery problematic			Exemption considerations	
	Prevalent in environment	Known or suspected to cause environmental harm	Hampers recycling and/or wastewater treatment	Non-recyclable, low or very low recycling rate	Barriers to increasing recycling rate	Performs essential function	No viable alternatives
Cutlery	✓	✓	✓	✓	✓	In some cases, for security	
Straws	✓	✓	✓	✓	✓	In some cases, for accessibility	
Food packaging and service ware made from problematic plastics	✓	✓	✓	✓	✓		
Other bags (for example, garbage)			✓	✓	✓		
Snack food wrappers	Some kinds		Some kinds (for example, bioplastics)	✓	✓	✓	
Multi-packaging			✓	✓	✓		
Disposable personal care items			✓	✓	✓		
Beverage bottles and caps	✓	✓					
Contact lenses and packaging	✓			✓	✓	✓	✓
Hot and cold drink cups and lids	✓		✓	✓	✓		
Cigarette filters	✓	✓		✓	✓		✓

Step 2: Setting management objectives

The proposed environmental objectives of the Management Framework for Single-use Plastics are to:

- 1) eliminate or significantly reduce single-use plastics entering Canada's environment;
- 2) reduce the environmental impact of plastic products overall; and
- 3) conserve material resources by increasing the value recovery of plastics.

Step 3: Instrument choice

When there are multiple possible actions to achieve the management objectives, the *Instrument Choice Framework for Risk Management under the Canadian Environmental Protection Act* will inform the

selection of appropriate instruments. The Instrument Choice Framework uses several criteria to guide these decisions:

1. environmental effectiveness and the achievement of the management objective;
2. economic efficiency including minimizing costs and maximizing benefits;
3. distributional impacts on groups and segments of society;
4. acceptability and compatibility, including stakeholder acceptability and compatibility with other programs in Canadian jurisdictions; and
5. international obligations, with a focus on international protocols and agreements as well as trade obligations.

The Government of Canada has committed to ban or restrict certain harmful single-use plastic items, where warranted and supported by science. This means that:

- for products to be considered “harmful” and for a ban or a restriction to be considered “warranted”, the criteria for both environmentally problematic and value recovery must be met;
- assessing a single-use plastic item using these criteria requires scientific evidence of both environmental prevalence and value recovery challenges; and
- in cases where a product meets all criteria but performs an essential function, exemptions to a ban or a restriction may be recommended in some cases.

Table 3 illustrates how the Management Framework for Single-use Plastics can be applied to choose instruments appropriate to meeting management objectives.

Table 3: Proposed instruments and the scope of their potential application

	Management Objective: Eliminate or reduce from the Canadian market, or restrict use		Management Objective: Increase recycling / recovery rate of single-use plastics and packaging	
	CEPA instruments: Ban, restrictions in use	Instruments: Incentives to encourage reusable products or systems	Instruments: Material specifications (for example., recyclable)	Instruments: Extended producer responsibility or other collection, recycling requirements
Environmentally problematic	<ul style="list-style-type: none"> • Plastic Checkout Bags • Stir sticks 	<ul style="list-style-type: none"> • Food service ware 	<ul style="list-style-type: none"> • Hot and cold drink cups and lids 	<ul style="list-style-type: none"> • Beverage bottles and caps • Cigarette filters
Value recovery problematic	<ul style="list-style-type: none"> • Six-pack rings • Food service ware made from problematic plastics • Straws • Cutlery 	<ul style="list-style-type: none"> • Personal care product bottles • Hot and cold drink cups and lids 	<ul style="list-style-type: none"> • Food wrappers • Other bags (for example., garbage) • Multi-packaging 	<ul style="list-style-type: none"> • Disposable personal care items

The analysis above generated **six plastic items that meet the requirements of a ban or a restriction**, supported by sufficient scientific evidence, data gathered from the Great Canadian Shoreline Cleanup and socio-economic considerations:

Table 4: Single-use plastic items that meet the requirements for a ban

<p><u>Certain single-use plastic items being considered for a ban or a restriction:</u></p> <ul style="list-style-type: none">• plastic checkout bags• stir sticks• six-pack rings• cutlery• straws• food service ware made from problematic plastics

For other single-use plastics, currently available data on the use, management and prevalence in the environment do not support a recommendation for a ban or a restriction at this time. The results of additional information gathering and consultations, as well as further analysis using the proposed Management Framework for Single-use Plastics, will indicate whether management action is needed and which measure should be considered.

The Government of Canada will continue to work with provinces, territories, industry and other stakeholders to implement this framework over time. How measures are chosen, designed and implemented will take into account factors such as best-placed jurisdiction, the potential for voluntary agreements and other industry-led actions, and the *Instrument Choice Framework for Risk Management under the Canadian Environmental Protection Act*. They will also be the subject of consultation and in-depth socio-economic analysis. A regulatory instrument is also always accompanied by a comprehensive Regulatory Impact Analysis Statement that is posted on the Canada Gazette. As a first step in this process, ECCC welcomes comments on the categorization and the proposed management approach described here.

Establishing performance standards

The proliferation of different types of plastics, formats, labelling, collection schemes and processing technologies together impede the transformation of waste plastics into materials that are cost-competitive with primary materials. This, in turn, hampers the establishment of viable markets for secondary and alternative materials. The introduction of new products across value-chains outpaces the deployment of regulations or programs to ensure collection and new technologies to process the growing variety of plastic products on the market. Recyclers need certainty that there will be buyers for the plastic they recycle to secure investments. To begin addressing some of these issues, the Government of Canada is considering how product performance standards for plastic products and packaging can contribute to generating a sufficient, stable and predictable supply of materials in order to support viable secondary plastics markets and investments in the recovery infrastructure in Canada.

Recycled content requirements

Recycled content requirements establish a market demand for recycled plastics which lessens the pressures for recyclers to compete with the cost of virgin resin. Robust domestic demand for recycled plastics would also drive investments in recycling operations, innovations in material separation and technologies, and opportunities to scale up emerging technologies. Recycled content requirements can also spur companies to reconsider the design of their products. The use of recycled plastics delivers

environmental benefits, such as extending the life of some resins and reducing greenhouse gas emissions, and contributes to the transition to a circular economy.

Recognizing the importance of recycled content requirements to drive demand for these markets, the Government of Canada has adopted a target of at least 50% recycled content in plastic products by 2030. As part of Phase 1 of the Canada-wide Action Plan on Zero Plastic Waste, the CCME supported this objective and further committed to establishing targets and timelines for increasing recycled content.¹²

Many leading companies are including recycled content in their plastic products and have made voluntary commitments to recycled content performance targets. To further support the development of secondary markets for recycled plastics, the Government of Canada is proposing regulations using CEPA to require recycled content in plastic products and packaging. Regulations and accompanying guidance will establish:

- **a minimum percentage of recycled content** as an outcome-based requirement that producers would need to meet to comply with the regulations;
- **rules for measuring and reporting** to evaluate a product's conformity with claims of recycled content; and
- **technical guidelines and related tools** to help companies meet their requirements, such as standards, specifications and terminologies.

The approach for requiring recycled content is under development. Options considered could be based on:

- **resin**: establish recycled content targets and requirements by resin type;
- **product or sector grouping**: establish recycled content targets and requirements by product category (for example., rigid containers, film packaging) or sector (for example., packaging, electronics); or
- **economy-wide**: establish an economy-wide recycled content target/requirements for plastic products without differentiating between sectors, products or resin types.

In addition, the approach as well as the selection of interim targets and timelines for recycled content requirements will recognize the current technical and regulatory barriers that must be considered when incorporating recycled plastics into new products and packaging. For example, food chemical safety is a consideration when using recycled plastics in food packaging. The use of recycled plastics, as with any other plastic material, in food packaging applications must comply with the safety provisions of the *Food and Drugs Act* and associated regulations. Any other existing requirements in laws and regulations related to product performance (for example., energy efficiency or consumer safety) would also still apply. Factors affecting the ability of recycled plastics to meet performance requirements include the quality of the feedstock, technologies and processing methods, and appropriate performance standards and test methods.

The approach for measuring and reporting on recycled content in products is also under development. Voluntary standards are currently used by industry and some new ones are being developed. Key issues to consider for measurement and reporting include, among others:

¹² *Supra* note 3.

- **definitions of recycled content**, and the potential applicability of different types (for example., post-consumer resin, pre-consumer resin) in meeting performance standards;
- **method of tracking chain-of-custody**, for example., certifications generated by recyclers based on the mass-balance of material flowing through recycling facilities; and
- **flexibility** in meeting performance standards, for example., applying recycled content requirements on an individual product basis or on an average across a company's product line.

Regulatory approaches to ensuring recycled content performance standards are met, such as reporting protocols and open data rules to create accountability and ensure compliance through transparent information, will be considered.

Ensuring end-of-life responsibility

As part of the integrated management approach to plastics, the Government of Canada is working to extend the life and improve the value recovery of plastic products and packaging. This means

- raising collection, repair and recycling rates;
- minimizing the amount of plastic sent to landfill;
- bringing more product categories under management frameworks across the country; and
- establishing the conditions for innovation and greater capacity throughout Canada to create a circular economy for plastics and stimulate investments in critical collection and recovery infrastructure.

Improving and expanding extended producer responsibility in Canada

The Government of Canada has committed to working with provinces and territories to develop consistent, national targets, standards and regulations that will make companies that manufacture plastic products or sell items with plastic packaging responsible for collecting and recycling them. This is known as extended producer responsibility. Federal, provincial and territorial governments agree that extended producer responsibility is one of the most effective and efficient ways of increasing collection and recycling rates and is a cornerstone to achieving our Canada-wide objective of zero plastic waste.

Provinces and territories are taking the lead by developing and implementing extended producer responsibility systems within their jurisdictions. To maximize the recovery of plastic products and packaging, the Government of Canada will work with provinces, territories and industry to advance extended producer responsibility across Canada that is:

- **consistent:** rules need to be consistent across jurisdictions to create a level playing field, reduce administrative burden and allow companies to take advantage of the efficiencies and economies of scale possible in larger markets that transcend provincial and territorial borders;
- **comprehensive:** to help achieve zero plastic waste, extended producer responsibility should extend to all major sectors of the Canadian plastics economy that generate large amounts of plastic waste; and

- **transparent:** companies are made responsible for meeting outcomes such as collection targets, but are given the freedom to decide how best to meet those targets, making accountability dependent on the transparent reporting of key data.

As part of Phase 1 of the CCME's Action Plan on Zero Plastic Waste,¹³ the Government of Canada is working with provincial and territorial governments to develop national guidance that will facilitate consistent, comprehensive and transparent extended producer responsibility policies for plastics. This guidance will include:

- common material categories and product definitions;
- performance standards to guide reuse and recycling programs;
- options to encourage innovation and reduce costs; and
- standard monitoring and verification approaches.

The Government of Canada will support provincial and territorial governments as they work to harmonize their extended producer responsibility systems. This will include exploring with provinces and territories how gaps and inconsistencies can be addressed, including through national actions.

Next steps and sending comments

The Government recognizes the importance of balancing environmental protection and clean growth with the economic importance of plastic and its role in protecting human health, in particular during this COVID-19 public health emergency.

Taking into account lessons from the current pandemic and mindful of continued constraints brought about by the pandemic, Canadians and Canadian businesses will be given the opportunity to participate meaningfully in informing any measures taken.

Next steps for ECCC will include engagement with provincial and territorial governments, Indigenous Peoples and stakeholders on the design of the regulatory instruments and the approaches outlined in this discussion paper.

Parties wishing to comment on any aspect of this paper, including the categorization of single-use plastics and proposed management approaches, are invited to provide written comments to the Director of the Plastics and Marine Litter Division of ECCC by December 9, 2020 at ec.plastiques-plastics.ec@canada.ca.

¹³ *Supra* note 3.

Questions for discussion

The Government is seeking input to inform the design and implementation of the proposals described in this discussion paper. Businesses, civil society groups, jurisdictions, Indigenous Peoples, and all Canadians are invited to provide their perspectives, expertise and opinions. To help focus input, the Government invites commenters to consider the following questions. Other comments and suggestions related to anything described in this discussion paper are also welcome.

Managing single-use plastics

1. Are there any other sources of data or other evidence that could help inform the development of the regulations to ban or restrict certain harmful single-use plastics?
2. Would banning or restricting any of the six single-use plastics identified impact the health or safety of any communities or segments of Canadian society?
3. How can the Government best reflect the needs of people with disabilities in its actions to ban or restrict certain harmful single-use plastics?
4. Should innovative or non-conventional plastics, such as compostable, bio-based or biodegradable plastics be exempted from a ban or a restriction on certain harmful single-use plastics? If so, what should be considered in developing an exemption that maintains the objectives of environmental protection and fostering a circular economy for plastics?

Establishing performance standards

5. What minimum percentage of recycled content in plastic products would make a meaningful impact on secondary (recycled resin) markets?
6. For which resins, products, and/or sectors would minimum recycled content requirements make the greatest positive impact on secondary (recycled resin) markets? Why?
7. Which resins, products or sectors are best-placed to increase the use of recycled plastic and why?
8. Which plastic products are not suitable for using recycled content due to health, safety, regulatory, technical or other concerns?
9. What should be considered in developing timelines for minimum recycled content requirements in different products?
10. What would be the advantages and disadvantages to setting minimum percentage requirements that are distinct for each product grouping, sector, and/or resin?
11. How could compliance with minimum recycled content requirements be verified? How can the Government and industry take advantage of innovative technologies or business practices to improve accuracy of verification while minimizing the administrative burden on companies?
12. Besides minimum recycled content requirements, what additional actions by the government could incentivize the use of recycled content in plastic products?

Ensuring end-of-life responsibility

13. How can the Government of Canada best support provinces and territories in making their extended producer responsibility policies consistent, comprehensive, and transparent?