CCME

Canadian Council of Ministers of the Environment

Le Conseil canadien des ministres de l'environnement

A ROADMAP TO STRENGTHEN THE MANAGEMENT OF SINGLE-USE AND DISPOSABLE PLASTICS

PN 1635
ISBN 978-1-77202-085-4 - PDF

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1. INTRODUCTION

1.1 Overview

Many single-use and disposable plastics can help to reduce food waste, protect health, improve safety and lower transportation emissions and costs. However many can be avoided, designed to be readily recyclable, redesigned, or replaced by alternatives that are more durable, have a lower environmental footprint and/or are easier to recover at end-of-life.

Single-use and disposable items are often difficult to collect, particularly when used away from home, and can be difficult to recycle if they are small or made of hard to recycle plastics. In Canada, packaging, including single-use and disposable plastics, makes up nearly half of all plastic waste (Deloitte Canada 2019). Single-use and disposable plastics are among the top twelve most collected items during Great Canadian Shoreline Cleanups, and are commonly littered items in neighbourhoods, parks and natural landscapes (Ocean Wise 2022).

As committed to in Priority Area 2 of the Phase 1 *Canada-wide Action Plan on Zero Plastic Waste*, the Canadian Council of Ministers of the Environment (CCME) has developed this roadmap to strengthen the management of single-use and disposable plastics (CCME 2019).

For the purposes of this roadmap, single-use and disposable plastics are defined as items made with plastic that are designed with the intent to be used only once or for a short period of time for their original purpose before they lose their original functionality, physical capacity or quality, or before they are discarded.

1.2 Purpose

The roadmap is intended to support jurisdictions in reducing the negative environmental and socio-economic impacts of single-use and disposable plastic items by:

- identifying and defining the single-use and disposable plastic items that are most likely to be released into the environment or to pose other end-of-life management challenges
- prioritizing the identified single-use and disposable plastic items for management action
- identifying the range of existing and potential instruments available to manage single-use and disposable plastic items[1]
- encouraging jurisdictions to monitor progress on the adoption of instruments to reduce, and improve the management of, single-use and disposable plastic items.

[1] See CCME 2021 and CCME 2022 for more detailed analysis and comparison of instruments that promote a circular economy.

This roadmap is not a prescriptive "how-to" guidance document, but rather a toolbox of options. Every jurisdiction is different in terms of its location, size, infrastructure, existing programming, priorities and waste policy situation. For this reason, the roadmap also contains a generic flowchart that demonstrates how jurisdictions may choose to refine the prioritization of single-use and disposable plastics to determine one or more suitable instruments for each, considering their unique circumstances. Jurisdictions can use the roadmap as a collaborative tool to work with industry, consumers and communities to adapt the suite of instruments described in this document to support their situation and context. As such, the roadmap is intended to serve as a useful reference point in identifying appropriate instruments to reduce plastic waste and pollution from single-use and disposable plastics.

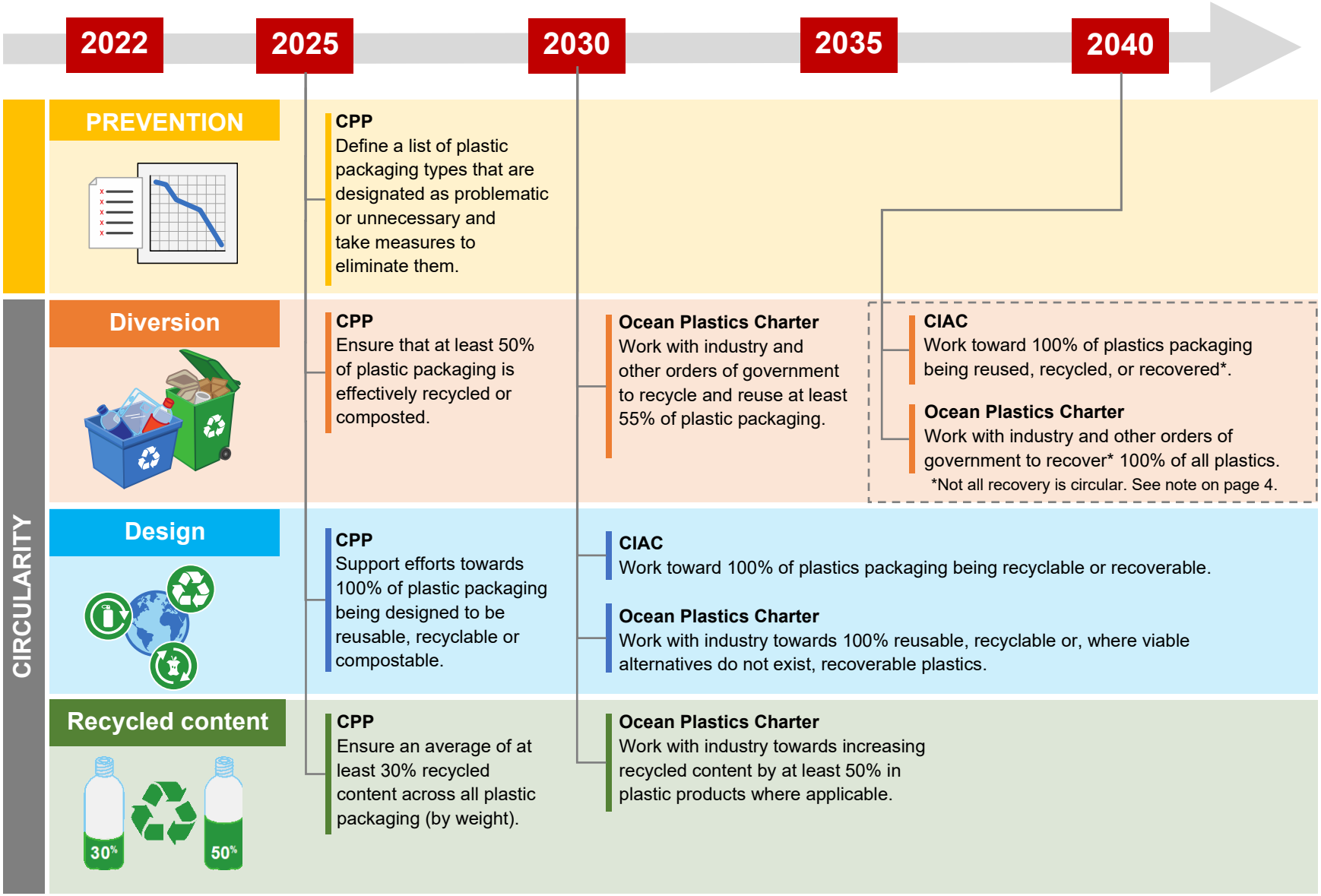
1.3 Context

CCME is not alone in taking action on single-use and disposable plastic items. Both within Canada and internationally, a range of targets have been set by governments and industry that collectively aim to move towards "a circular economy for plastic, in which it never becomes waste or pollution" (Canada Plastics Pact [CPP] 2021a). CCME's Strategy on Zero Plastic Waste outlines a circular economy approach that "aims to keep products and materials in use as long as possible and to maximize their value" (CCME 2018a). The Strategy uses a generally agreed-upon waste management hierarchy, applied to plastics, which focuses on preventing plastic waste as the preferred approach, followed by actions to divert waste (i.e., repair/reuse, remanufacture/refurbish, recycle, energy recovery).

In 2018, environment ministers endorsed an aspirational Canada-wide waste reduction goal to reduce waste disposed per capita by 30% by 2030, and by 50% by 2040 (based on 2014 data) (CCME 2018b). Applying more circular approaches for single-use and disposable plastics, that are higher on the waste hierarchy, will help achieve this goal.

Table 1 highlights other relevant targets and goals from the CPP, the Chemistry Industry Association of Canada (CIAC) and the Ocean Plastics Charter that support CCME's overall waste reduction goal. As shown in Table 1, there is a great deal of alignment across these goals and targets in terms of waste prevention and circularity. By working together with stakeholders and partners, Canadian jurisdictions can make important contributions to achieving zero plastic waste.

Table 1: Overview of established government and industry targets for achieving zero plastic waste



CIAC: Chemistry Industry Association of Canada
CPP: Canada Plastics Pact

2. METHODOLOGY

A list of single-use and disposable plastic items was identified based on data and information from[2]:

- the Great Canadian Shoreline Cleanup
- other coastline and roadside litter audits within Canada
- Canadian and international jurisdictions' initiatives
- the National Zero Waste Council's 2019 report on Regulatory Approaches for Priority Plastic Wastes
- the Government of Canada's Science Assessment of Plastic Pollution
- jurisdictional subject-matter experts.

Each single-use and disposable plastic item was then assessed and prioritized using an equal weighting of environmental criteria (prevalence and harm) and socio-economic criteria (recyclability and damage to infrastructure). The weighting criteria were adapted from those found in Environment and Climate Change Canada's Management framework approach for single-use plastics (ECCC 2020a). Appendix 1 provides a description of each single-use and disposable plastic item. Figure 1 provides further details on the prioritization criteria.

Items that are part of the federal proposed single-use plastics ban were not included in the prioritization. These items will be subject to proposed federal prohibitions, which would apply across Canada. These items are single-use plastic checkout bags, cutlery, foodservice ware made from or containing problematic plastics (e.g., black plastic or foam takeaway containers, plates and bowls), ringed beverage carriers, stir sticks and straws.

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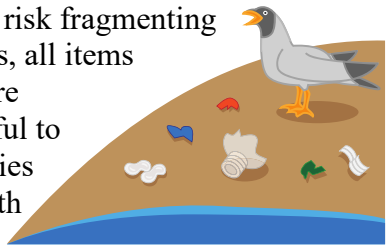
* Diversion can include all activities at end of life that recover value from plastics waste, rather than disposing of them in landfills or through incineration without energy recovery. Diversion activities are prioritized from high to low value and desirability in accordance with the waste management hierarchy and circularity:

- Reuse activities provide the highest value and include direct reuse, servicing and repairing products, followed by remanufacturing, refurbishing and parts harvesting.
- Conventional mechanical recycling separates, grinds and heats products to produce plastic feedstocks or resins.
- Recycling can also include composting and digestion of some plant-based plastic-like materials. Biological materials can be recycled into soil amendments through composting and digestion.
- Chemical or thermal processes such as depolymerization, pyrolysis or gasification that convert plastics into monomers or petroleum products (e.g., methanol, diesel). These outputs that can be directly used in the manufacture of plastic products or can be refined back into plastics or other products, at desired levels of efficiency for example, could be considered as recycling.
- Energy recovery that involves converting plastic wastes into fluid or solid fuels to generate heat and/or electricity is not considered circular.

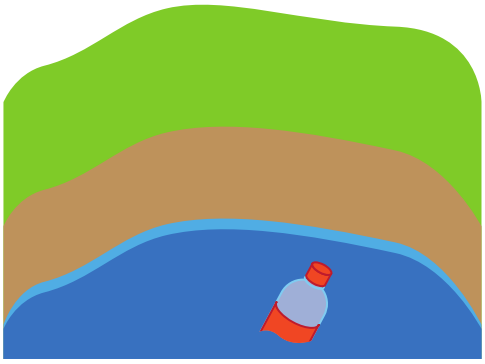
[2] See references for: Ocean Wise (2021), AET Group Inc. (2019), Multi-Materials Stewardship Board (2020), Recycle NB (2012), National Zero Waste Council (2019), and Environment and Climate Change Canada and Health Canada (2020).

Environmental criteria

(1) "Harmful to habitats and species" means impacts on habitat integrity or the health of wild species. This may include ingestion, entanglement, or the decomposition or fragmentation of plastic that may have eco-toxicological effects. The degree of harm was not determined for each specific item. Based on the findings of the ECCC and Health Canada Science Assessment of Plastic Pollution that all macroplastics risk fragmenting into microplastics, all items in the roadmap are considered harmful to habitats and species (ECCC and Health Canada 2020).



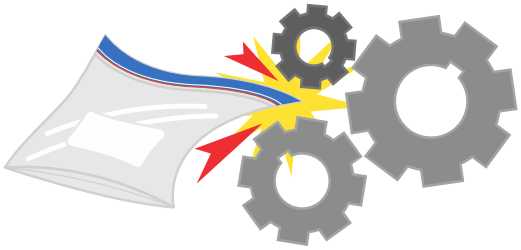
(2) "Prevalent in the environment" means present in local, regional or jurisdictional litter audits or in the Great Canadian Shoreline Cleanup's Dirty Dozen List (2019).



Socio-economic criteria

(1) "Difficult to recycle" may be due to an item's size and shape, composition or contamination of a waste stream.

(2) "Harmful to infrastructure" means an item may cause damage to wastewater treatment plants or collection and sorting equipment (e.g., becoming tangled in the equipment).



RANKING

Items that meet all four of the criteria above were ranked as Priority 1.
Items that meet three of the criteria above were ranked as Priority 2.
Items that meet two of the criteria above were ranked as Priority 3.

Figure 1. Weighting criteria

Next, an extensive list was developed of the economic, regulatory and other instruments in use across Canada for the identified single-use and disposable items. An instrument may fall under one or more of the categories depending on who implements it or how it is applied. It should also

be noted that instrument development and implementation could be led by governments, industry or non-governmental organizations (NGOs) or via collaborations. Appendix 2 provides a description of each instrument that applies for the purposes of this roadmap.

Both existing instruments (i.e., instruments that are in use in Canada) and potential instruments (i.e., instruments that are in development, at the pilot stage or in use internationally, or that may be suited for managing single-use and disposable plastic items) were identified for each single-use and disposable plastic item. This was done by seeking confirmation from federal, provincial and territorial governments regarding what instruments their jurisdiction has in place for each item. Actions by other stakeholders and partners were also examined to the extent possible, including those of Canadian non-governmental organizations and the CPP (e.g., Golden Design Rules for packaging design). The National Zero Waste Council's 2019 report also provided an indication of potential or existing instruments.

3. PRIORITY SINGLE-USE AND DISPOSABLE PLASTICS, PRIORITIZATION RESULTS AND POSSIBLE MANAGEMENT INSTRUMENTS

3.1 Results

Table 2 presents the results of the analysis described in the previous section. The single-use and disposable plastic items are organized into three categories: rigid packaging, film and flexible packaging, and single-use and disposable products. Within each category, the items are grouped by priority level. Items within a priority level are not ranked further. Additionally, Table 2 indicates whether there are current or potential instruments that could be applied to manage the environmental and socio-economic impacts of the single-use and disposable plastic item.

Table 2: Single-use and disposable plastic items[3] with their associated prioritization results and instruments[4]

				Prioritization criteria				Instruments																				
				Environmental		Socio-economic		Economic instruments		Regulatory instruments									Other instruments									
			Item	Harmful to habitats & species	Prevalent in the environment	Difficult to recycle	Harmful to infrastructure	Incentives	Levies	Disposal bans	EPR	Partial EPR	Production, importation & distribution bans	Product stewardship	Public curbside/ designated place collection	Public procurement	Recycled content requirements	Agreements between government & industry	Alternative business model	Alternative materials	Bulk or refill commercialization	Eco-design	Event & public recovery	Labelling	Promotion & education	Voluntary EPR
Rigid packaging			Caps for bottles and other containers	✓	✓	✓	✓	●	●	◒	●	●		●	●			●				●	●	●		●
			Protective packaging and inserts	✓	✓	✓	✓	●	◒	◒	●	●			●		◒	●		●		●		●		
			Takeaway cup lids	✓	✓	✓	✓	●	◒		●	●	◒		●			●	●	●	●	●	●	●	●	●
			Foam food trays	✓	✓	✓	x	●	◒	◒	●	●			●			●	◒	●		●	●	●	●	
			Takeaway cups	✓	✓	✓	x	●	◒	◒	●	●	◒		●			●	●	●	●	●	●	●		
			Beverage containers	✓	✓	x	x	●	●	◒	●	●		●	●		◒	●			◒	●	●	●	●	
			Hazardous material containers	✓	x	✓	x	●		●	●				●		◒	●			◒	●	●	●	●	
			Other clear and coloured rigid containers	✓	x	x	x	●		●	●	●	◒		●		◒	●	◒	◒	●	●	●	●		
			Single-serve capsules and pods (e.g., coffee pods)	✓	x	✓	x				●	●			●			●	●	●	●	●		●	●	
Film and flexible packaging			Bags (other than checkout)	✓	✓	✓	✓	●	◒	●	●	●	●		●		◒	●		●		●	●	●	●	
			Strapping bands	✓	✓	✓	✓			◒	●						◒	◒		◒		●		●		
			Wrap for non-food products	✓	✓	✓	✓	◒	◒	●	●	●			●		◒	●	●	●	●	●		●		
			Food wrappers	✓	✓	✓	x	●			●	●			●			●	●	◒	●	●		●		
			Wrap for food products	✓	x	✓	✓			●	●	●			●			●	●	●	●	●		●		
			Food and beverage pouches	✓	x	✓	x	●	●		●	●		●	●			●		◒		●	●	●	●	
			Woven and net produce bags	✓	x	✓	x				●	●			●			●		◒	●	●		●		
Single-use and disposable products			Disposable masks	✓	✓	✓	✓	●							◒	◒	◒	◒	●	●				●	●	●
			Balloons	✓	x	✓	✓		◒		◒		◒					◒		◒	●			◒		
			Cigarette butts	✓	✓	✓	x		◒	◒	◒	◒	◒		◒		◒	◒		◒			●	●	●	●
			Cotton buds with plastic stems	✓	x	✓	✓			◒			◒					◒		◒						
			Disposable diapers	✓	x	✓	✓										◒	◒		●					●	
			Disposable gloves	✓	x	✓	✓				◒				◒	◒		◒							●	
			Disposable wipes	✓	x	✓	✓		◒						◒		◒	◒		◒		◒	●	●	●	
			Shotgun shells	✓	✓	✓	x										◒	◒	◒	◒		◒	●		●	
			Plastic tubes for cosmetic and personal hygiene products	✓	✓	✓	x				●	●		◒	◒	◒	◒	◒	●	●	●		●		●	
			Dental floss	✓	x	✓	x								◒		◒	◒				◒				
			Novelty items	✓	x	✓	x		◒		◒							◒				◒				
			Razors	✓	x	✓	x	◒		◒	◒							◒		◒		◒				
			Single-use vaping sticks	✓	x	✓	x				◒	◒		◒				◒	◒	◒		◒		◒		
			Tampon applicators	✓	x	✓	x			◒							◒	◒		◒						
			Toothbrushes	✓	x	✓	x	◒			◒							◒		●		●	●		●	

[3] Appendix 1 provides a description of each single-use and disposable plastic item.
[4] Appendix 2 provides a description of each instrument.

3.2 Analysis

There are seven Priority 1 items: three from the rigid packaging category, three from the film and flexible packaging category and one from the single-use and disposable products category.

Table 3: Priority 1 items and categories

1	Category	Item
	Rigid packaging	Caps for bottles and other containers
		Protective packaging and inserts
		Takeaway cup lids
	Film and flexible packaging	Bags (other than checkout bags)
		Strapping bands
		Wrap for non-food products
	Single-use and disposable products	Disposable masks

Appendix 1 provides a description of each single-use and disposable plastic item.

There are 12 Priority 2 items: two from the rigid packaging category, two from the film and flexible packaging category and eight from the single-use and disposable products category.

Table 4: Priority 2 items and categories

	2	Category	Item
		Rigid packaging	Foam food trays
			Takeaway cups
		Film and flexible packaging	Food wrappers
			Wrap for food products
		Single-use and disposable products	Balloons
			Cigarette butts
			Cotton buds with plastic stems
			Diapers
			Disposable gloves
			Disposable wipes
			Shotgun shells
			Plastic tubes for cosmetic and personal hygiene products

Appendix 1 provides a description of each single-use and disposable plastic item.

There are 12 Priority 3 items: four from the rigid packaging category, two from the film and flexible packaging category and six from the single-use and disposable products category.

Table 5: Priority 3 items and categories

3	Category	Item
	Rigid packaging	Beverage containers
		Hazardous material containers
		Other clear and coloured containers
		Single-serve capsules and pods
	Film and flexible packaging	Food and beverage pouches
		Woven and net produce bags
	Single-use and disposable products	Dental floss
		Novelty items
		Razors
		Single-use vaping sticks
		Tampon applicators
		Toothbrushes

Appendix 1 provides a description of each single-use and disposable plastic item.

4. SINGLE-USE AND DISPOSABLE PLASTICS DECISION-MAKING FLOWCHART

The purpose of Figure 2 is to provide a generic decision-making flowchart demonstrating how jurisdictions could refine the prioritization of single-use and disposable plastics to their unique circumstances, if they so choose, and to guide them in identifying the most suitable instrument or instruments for each. The process has five basic steps: (1) select priority single-use and disposable plastic items based on the realities in a given jurisdiction, (2) determine the specific challenges associated with the single-use and disposable plastic item, (3) select the most effective management approaches to reduce its harmful effects, (4) develop and implement the selected instrument or instruments and (5) evaluate the success of the instrument or instruments. Consultation and engagement with partners, stakeholders and the public improves decision-making and could be undertaken at any or all of the five steps in the flowchart.

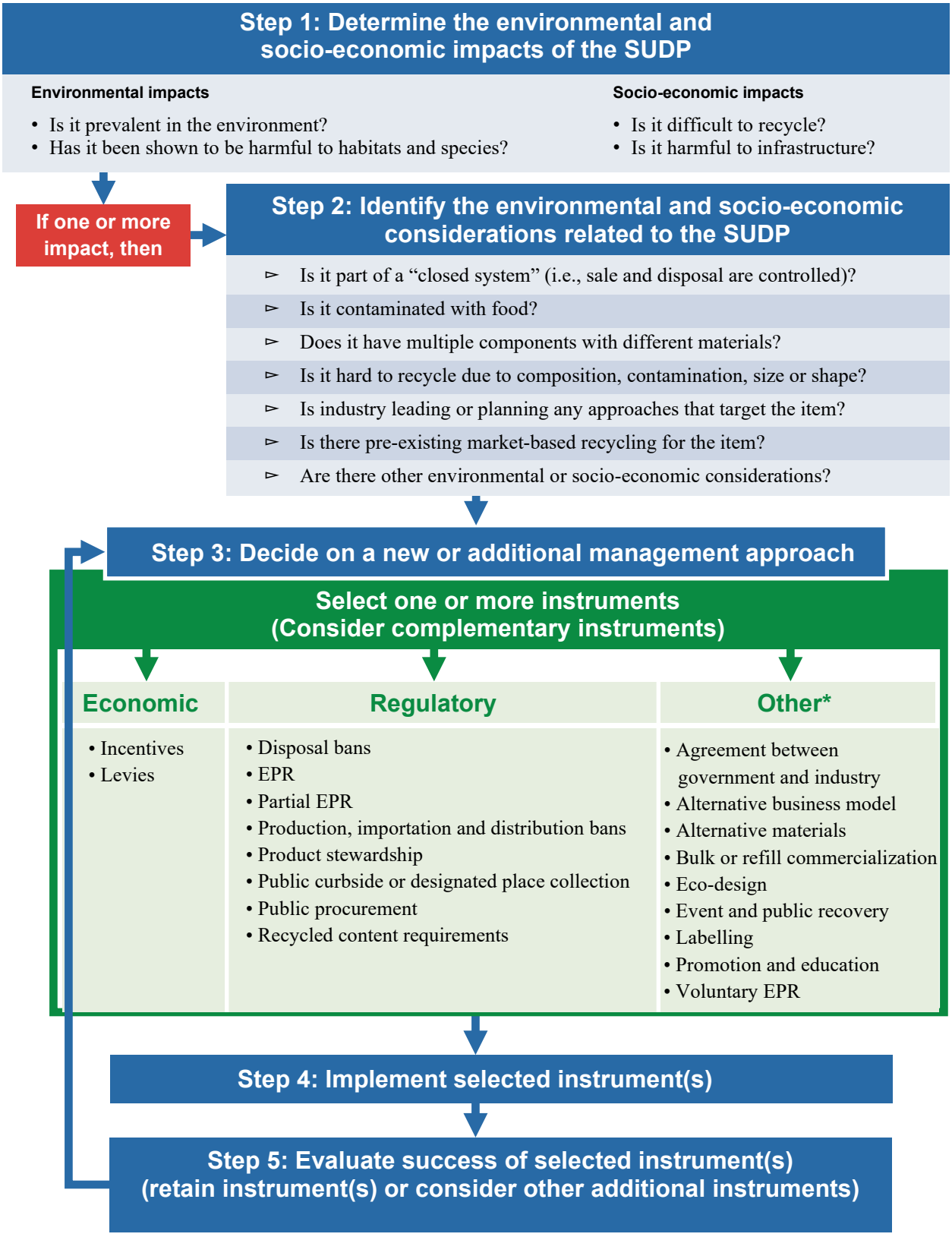


Figure 2. Process flow for selecting SUDP management instruments

*Some of the instruments in the Other category may be led by industry or other organizations with limited or no input from jurisdictions.

Step 1: Determine the environmental and socio-economic impacts of the single-use and disposable plastic item

Table 2 indicates the assigned priority levels for single-use and disposable plastic items based on the environmental and socio-economic challenges they present at a pan-Canadian level. However, this prioritization may not be universal. As such, as shown in Step 1 of the flowchart, jurisdictions are encouraged to review and refine the list of priority items. Individual jurisdictions face distinct challenges and may wish to address single-use and disposable plastic items in a manner that suits their own unique realities. For example, this could involve a closer examination of the environmental criteria related to prevalence in the environment. The results of litter audit and shoreline clean-up data specific to a jurisdiction could be considered. Also, the socio-economic criteria regarding how difficult an item is to recycle may vary based on the availability of recycling infrastructure that is within or accessible to a jurisdiction. Based on this review, jurisdictions may wish to refine the order in which they address the priority single-use and disposable plastics.

Step 2: Identify environmental and socio-economic considerations related to the item

Table 2 also identifies the range of existing and potential instruments that may be suitable to address each single-use and disposable plastic item. Step 2 of the flowchart outlines factors that jurisdictions could take into account when determining the most appropriate suite of instruments for a given single-use and disposable plastic item. It includes a series of non-exhaustive environmental and socio-economic considerations that could help jurisdictions decide on the best path forward for them. It is also important to consider any potential disproportionate impacts on certain population groups, or whether items perform an essential function or have a cultural value.

Step 3: Decide on a new or additional management approach

When selecting the management approach for an item, allowing for actions across the various sectors of society (e.g., government, industry and the general public) is encouraged, in order to ensure the effective management of the single-use and disposable plastic item across its life-cycle. The overall intent should be to promote a circular economy for plastics and prioritize approaches higher on the waste hierarchy (e.g., reuse, refill), regardless of who leads or implements an instrument. Energy recovery may continue to contribute towards keeping these items out of landfills and out of incinerators without energy recovery, which results in a loss of these resources from the economy. According to the United Nations Environment Programme (UNEP), challenges and barriers to reducing plastic waste and pollution exist at a range of different points in the life-cycle of plastic products and packaging. To achieve zero plastic waste, governments, businesses and others in Canada are tailoring solutions to fit the different challenges and barriers posed at different life-cycle stages. (UNEP 2021)

When selecting an instrument, jurisdictions should also consider its potential environmental and socio-economic impacts, and compare it against those that would occur under the status quo. This could involve conducting a cost-benefit analysis that analyzes elements such as the costs of implementing the instrument and which sectors of society will bear them (e.g., large or small- and medium-size enterprises, certain population groups, government), as well as the qualitative and quantitative benefits of implementing the instrument (e.g., benefits to nature and wildlife, benefits to the public). The findings of this analysis can then be compared with the impacts of the status quo (e.g., pollution, landfilling and other infrastructure costs). Many of the considerations in Step 2 have economic implications. For example, if there is pre-existing, market-based recycling for a single-use and disposable plastic item, this could minimize economic costs. Table 2 provides a good indication of whether there is information on current or potential instruments that could be applied to manage the environmental and socio-economic impacts of the single-use and disposable plastic item.

Table 2 may also be able to guide jurisdictions in finding potential instruments for problematic items that are similar to items listed in Appendix 1.

Lastly, it is important to recall that when applied in isolation, instruments might not be as successful as they would be with other complementary actions in place. For example, where disposal bans are identified as a potential action, they can be implemented in conjunction with other complementary programs that enhance the success of the disposal ban. CCME's *Best Management Practices for Disposal Bans, Levies and Incentives for End-of-life Plastics* identifies potential complementary actions, including supporting extended producer responsibility (EPR) regulations, distribution bans, performance targets, standardization of materials, procurement policies and mandatory recycled content (CCME 2021). Before the implementation of any instruments or complementary measures, an analysis should be undertaken to ensure that unintended consequences are minimized.

Step 4: Implement the selected instruments

In Step 4, the selected instruments are developed and implemented. It is considered a best practice to include performance targets, where appropriate, as part of regulations and policies.

Life-cycle assessments are a valuable source of evidence during instrument development. They can help prevent or mitigate unintended consequences from alternative products, materials or systems (UNEP 2021).

Step 5: Evaluate the success of the selected instruments

In Step 5, the critical task of evaluating the success of the selected instruments takes place. This will inform future actions, such as the need to strengthen a selected instrument or to apply a different one, and contributes to the establishment of best practices.

5. THE ROAD AHEAD

This roadmap is intended to serve as a guide to jurisdictions and support their efforts to reduce the negative environmental and socio-economic impacts of single-use and disposable plastics. In 2016, 3.3 million tonnes of plastic waste were generated in Canada, of which 2.8 million tonnes (86%) were landfilled, 300,000 tonnes (9%) were recycled, 137,000 tonnes (4%) were incinerated with or without energy recovery, and 29,000 tonnes (1%) became plastic pollution (Deloitte Canada 2019). It is estimated that the packaging sector accounted for 47% (approximately 1.4 million tonnes) of all plastic waste generated in Canada in 2016, since most packaging is designed to become waste after a single use (Deloitte Canada 2019). This current state of affairs presents many opportunities for improvement through focusing on prevention and circularity in accordance with the waste hierarchy.

Federal, provincial and territorial jurisdictions have a shared goal of zero plastic waste and want to move towards a circular economy for plastics. As discussed in Section 1, CCME has set an aspirational Canada-wide waste reduction goal of reducing waste disposed per capita by 30% Canada-wide by 2030 (based on 2014 data). According to ECCC's National Waste Characterization Report, in 2016 plastics represented 13% of residential waste and 16% of industrial, commercial and institutional waste in Canada (ECCC 2020b). Ultimately, action on single-use and disposable plastics will contribute to meeting this goal by reducing unnecessary plastic items in the first place or increasing their ability to be successfully diverted.

Actions from government, industry, consumers and communities can be complementary and work towards achieving zero plastic waste. By collaborating and building off each other's actions, tangible progress can be made. For example, in 2021, CPP members—including major brands, waste management companies, government institutions, and non-governmental organizations—supported the Golden Design Rules for packaging design set out by the Consumer Goods Forum. The Golden Design Rules include commitments to eliminate packaging that is unnecessary or challenging to recycle and to increase its recycling value. As part of the CPP Roadmap to 2025, they further commit to go "beyond the Golden Design Rules" (CPP 2021c).

In order to maintain momentum, share lessons learned and ensure continued advancement on the management of the priority single-use and disposable plastics, jurisdictions will monitor their progress and report to ministers to support the Canada-wide Action Plan on Zero Plastic Waste.

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APPENDIX 1. DESCRIPTIONS OF PRIORITY SINGLE-USE AND DISPOSABLE PLASTIC ITEMS

	Category	Item	Details
	Rigid packaging	Caps for bottles and other containers	Closures for bottles and other containers.
		Protective packaging and inserts	Protective packaging from e-commerce, in-store retail and wholesale, such as molded foam or other rigid protective materials and trays.
		Takeaway cup lids	Covers for takeaway cups.
		Foam food trays	Foam trays used to package food items such as produce, meats and fish.
		Takeaway cups	Plastic and paper cups lined with plastic or wax for the consumption of liquids.
		Beverage containers	Bottles, jugs, and tetra and gable containers. Excludes beverage pouches, which are covered by food and beverage pouches.
		Hazardous material containers	Containers for hazardous materials such as fuel and cleaners.
		Other clear and coloured containers	Clear and coloured containers used to hold or transport items such as food and personal care items.
		Single-serve capsules and pods	Single-serve capsules and pods for coffee, tea and soup.
	Film and flexible packaging	Bags (other than checkout)	Food-grade and non-food-grade bags such as film produce bags, bread bags, sandwich bags, resealable food barrier bags, dry-cleaning bags and air-filled bags for protective packaging. Excludes checkout bags and bags intended for containing waste.
		Strapping bands	Flexible bands used to bundle items or to transport materials.
		Wrap for non-food products	Plastic film packaging used to bundle or protect items. Includes all wrap except wrap for food products and food wrappers.

	Category	Item	Details
		Food wrappers	Multi-layer and single-layer laminated films such as chip bags, chocolate bar wrappers and candy wrappers.
		Wrap for food products	Thin film packaging used to protect or preserve food items or to bundle food items, such as the wrap on cucumbers, baked potatoes and cheese.
		Food and beverage pouches	Stand-up packaging for food and beverages that typically features spouts or perforated areas for the insertion of straws.
		Woven and net produce bags	Netted bags typically used to contain produce such as onions, citrus fruit and potatoes.
	Single-use and disposable products	Disposable masks	Personal protective equipment used to protect wearers from accepting or spreading airborne particles or liquids. Excludes masks intended for reuse.
		Balloons	Devices that can be inflated with air or gas and sealed.
		Cigarette butts	The ends of cigarettes containing filters that are discarded after use.
		Cotton buds with plastic stems	Small sticks with balls of absorbent material used for cleansing small areas or applying makeup.
		Disposable diapers	Devices made from absorbent materials to retain urine and feces. Excludes diapers intended for reuse.
		Disposable gloves	Personal protective equipment used to protect wearers and others from infections. Excludes gloves intended for reuse.
		Disposable wipes	Moistened and often aseptic tissues used for cleansing or disinfecting skin or surfaces.
		Shotgun shells	Cylindrical cartridges loaded with shots or shotgun slugs designed to be fired through shotguns.
		Plastic tubes for cosmetic and personal hygiene products	Containers that cannot be cleaned by the user such as mascara, lipstick and toothpaste containers.
		Dental floss	Thread used to clean between teeth.

	Category	Item	Details
		Novelty items	Items for crafts and parties such as glitter, balloon holders, small toys and decorations.
		Razors	Devices with sharp blades or combinations of blades used to remove hair from the face or body.
		Single-use vaping sticks	Battery-operated devices used to inhale aerosols.
		Tampon applicators	Devices that assist in inserting tampons.
		Toothbrushes	Brushes used for cleaning teeth.

APPENDIX 2. INSTRUMENT DEFINITIONS

Instrument type	Instrument	Definition
Economic instruments	Incentive	An incentive payment, subsidy, tax credit or low-interest loan to encourage products, materials or practices that are less harmful to the environment and infrastructure or are easier to recycle.
	Levy	A tax, surcharge or fee levied on products, materials or practices that are harmful to the environment and infrastructure, or difficult to recycle.
Regulatory instruments	Curbside collection or depot and drop-off locations	Curbside collection or specified depot or drop-off locations for products or materials for management.
	Product stewardship	A policy approach in which manufacturers and importers are not directly responsible for program funding or for program operations (CCME 2009). [Reference: CAP EPR, direct]. Product stewardship programs are waste diversion initiatives funded by consumers or general taxpayers and are operated by public agencies or other public authorities. These programs may be mandated through legislation and regulations. Producers may play an advisory role but have no responsibilities for the program (Giroux Environmental Consulting 2014).
	EPR	A policy approach in which a producer's physical and financial responsibility for a product is extended to the postconsumer stage of a product's life cycle. EPR provides incentives to producers to incorporate environmental considerations into the design of their products. EPR also shifts the historical public-sector tax-supported responsibility for some

Instrument type	Instrument	Definition
		waste to the individual brand owner, manufacturer or first importer.
	Partial EPR	A policy approach in which a portion of a producer's financial responsibility for a product is extended to the postconsumer stage of a product's life cycle.
	Production, importation and distribution ban	A legislated or regulated restriction on the production, importation or distribution of specified items within a jurisdiction.
	Disposal ban	Municipalities can restrict access to their waste disposal facilities for select products and packaging and provincial authorities can regulate access to all waste disposal facilities within their jurisdiction. Such bans on the disposal of types of products or packaging help to ensure materials are directed away from disposal to an alternative waste management program.
	Public procurement	Governments can reduce the consumption of materials, resources and energy through the procurement of environmentally preferred goods and materials.
	Recycled content requirement	A policy approach that requires a minimum percentage of recycled content in a product or material.
Other instruments	Voluntary EPR	Industry-led programs where producers (e.g., manufacturers, brand owners and first importers) have come together to provide a province-wide or Canada-wide collection and recycling program for specific products that have reached their end of life. Governments have not regulated or otherwise mandated these EPR programs and are not involved with their operation (Giroux Environmental Consulting 2014).
	Eco-design	Designing products or materials in order to eliminate or reduce the

Instrument type	Instrument	Definition
		amount of plastic in the product or to increase the product or material's reusability, repairability, compostability or recyclability.
	Alternative materials	Replacing plastic with alternative materials that result in less harm when present in the environment.
	Bulk or refill commercialization	A business model that uses refillable containers for products typically sold in disposable containers in order to encourage the use of durable alternatives.
	Alternative business model	Replacing single-use and disposable items with more durable options to increase reuse, repairability, compostability or recycling.
	Labelling	Labelling can be used to identify products within a category that have leading environmental performance or to advise the public on safe practices and appropriate end-of-life management.
	Promotion and education	Promotion and education initiatives designed to increase awareness of waste prevention, reduction or recycling initiatives.
	Event and public recovery	Collection infrastructure or systems available in public spaces or at public events.
	Agreement between government and industry	Voluntary agreements, codes or memoranda of understanding to pursue products, materials or practices that are less harmful to the environment and infrastructure or that are less difficult to recycle. Agreements typically set the overarching goals but allow the private sector to choose how to achieve them.