Breaking the PLASTIC CYCLE

A Policy Roadmap to Eliminate One-Third of Canada's Plastic Packaging Waste



Today, Canada produces nearly 2.4 million tonnes of plastic packaging waste each year. And that number keeps growing dramatically.

Typically, this plastic is used just once, sometimes for minutes. But it lasts for centuries in the environment, where it harms oceans, ecosystems and life itself.

Oceana Canada's roadmap provides an evidence-based guide to eliminating one-third of our country's plastic packaging. By implementing the recommended interventions, Canada can prevent the generation of nearly nine million tonnes of single-use plastic by 2040:

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This report is based on A Roadmap to Reducing Single-use Plastic Packaging at Source, a 2023 study conducted by JTL Squared Consulting Inc. and Avaanz Ltd. available at oceana.ca. Contributing research was provided by Policy Integrity Consulting, Lichens Recyclability and Millette Environmental Research and Consulting.

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EXECUTIVE SUMMARY

CONFRONTING CANADA'S PLASTIC CRISIS

How to eliminate one-third of Canada's plastic packaging waste: A roadmap for federal policymakers

Credit: iStock/Philip Thurston

Each year, the world produces hundreds of millions of tonnes of plastic¹ and generates nearly two billion tonnes of greenhouse gas emissions in the process.² And that's just the beginning of the problem. About half of all plastic discarded in Canada was used only once, sometimes for just minutes. Once we're done with it, far too much ends up in the environment. There it lasts for centuries, killing wildlife, polluting ecosystems and leaching chemicals that threaten human and animal health.

Plastic waste is one of the world's biggest environmental threats. And as highlighted in Oceana Canada's 2020 report, *Drowning in Plastic*,³ Canada produces a disproportionate share of that waste per capita — up to twice that of some Scandinavian countries. Not only that, our production and use of throw-away plastic is growing dramatically.

The federal government has committed to eliminating plastic waste. It has already banned six single-use plastics categories, representing approximately 160,000 tonnes of waste — an estimated five per cent of the total plastic waste generated per year in Canada⁴ — and more regulations are in the works to tackle other sources. Now, the government needs to rigorously implement, enforce and build on these important interventions.

With the right actions, starting now, Canada can stop the ever-increasing production of plastic waste. We can hit peak plastic as soon as 2026 and reduce production and consumption of single-use plastic in every year that follows. By 2040, we can prevent the generation of nearly nine million tonnes of single-use, planet-polluting plastic waste compared to business as usual without these interventions. Ninety-one per cent of Canadians support action to eliminate single-use products as much as possible, according to a 2022 Oceana Canada survey conducted by Abacus Data.⁵ Meanwhile, 92 per cent feel a plastic reduction strategy should include methods other than recycling, such as reusable alternatives.

¹ <u>https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/</u>

² https://www.oecd.org/environment/plastics/increased-plastic-leakage-and-greenhouse-gas-emissions.htm

³ Available at <u>https://oceana.ca/en/reports/drowning-plastic/</u>

⁴ https://www.gazette.gc.ca/rp-pr/p1/2021/2021-12-25/html/reg2-eng.html

⁵ The survey was conducted with 1,500 Canadians aged 18 and over from May 27 to 29, 2022. The margin of error for a comparable probability-based random sample of the same size is +/- 2.53%, 19 times out of 20.

This roadmap supports federal government initiatives to significantly reduce non-essential single-use plastic. It's based on an in-depth analysis of the largest sources in Canada, their impact on plastic waste, the alternatives available, best practices around the world and the policy interventions that can make a difference here at home.⁶

That analysis revealed several key insights:

- Half the plastic thrown away in Canada is packaging, a broad category that covers water bottles, foodservice ware, pallet wrap and more. This makes it a prime target for reduction efforts.
- Canada cannot recycle its way out of the plastic pollution crisis. Instead, we need solutions that stop single-use plastic generation at the source.
- Intervention is needed at a sectoral level, focusing on single-use plastics that contribute the most to pollution.
- The federal government's two most powerful policy tools are (1) bans that can eliminate unnecessary plastics and (2) pollution prevention plans that work to establish industry-wide targets of: plastic reduction, refill and reuse, recyclability requirements and ambitious recycling rates.

This roadmap identifies seven priority categories, where government interventions would create the biggest impact, as well as three additional opportunities to reduce single-use plastic quickly and with minimal disruption to current systems. Together, these sources currently account for 41 per cent of Canada's plastic packaging waste and 23 per cent of all plastic waste across the country. The numbers are clear. Without continued, ambitious and collaborative action by federal, provincial and territorial governments — backed by industry leadership — our volume of plastic waste will continue to increase dramatically year over year.

But with the right federal actions, Canada can start shrinking its single-use plastic footprint as early as 2026.

By implementing the recommendations outlined in the pages that follow, action by the federal government can eliminate more than 720,000 tonnes of plastic waste production a year. That's the equivalent of roughly 6,000 blue whales the largest animal that has ever lived— and represents more than one-third of Canada's current annual plastic packaging waste production.

The key is fully implementing these recommendations. Oceana Canada's modelling shows that population growth will outpace the impact of lower targets and slower implementation, leading to an overall growth of plastic use and pollution over time. Only through ambitious action can Canada reduce single-use plastic waste and become a global leader on the path to a single-use plastic-free future.

⁶ Oceana Canada. 2023. <u>A roadmap to reducing single-use plastic packaging at source</u>. Prepared for Oceana Canada by JTL Squared Consulting and Avaanz.



Credit: flickr/U.S. Fish and Wildlife Service Headquarters

POLICY ROADMAP AT A GLANCE

PRIORITY SINGLE-USE PLASTIC TARGETS

Oceana Canada's roadmap calls on the federal government to target seven priority sectors, in some cases through bans of specific items and in other cases by requiring sectoral pollution prevention plans. For all target sectors, it was assumed that the federal government would enact new policies or regulations by 2026 and implement those policies or regulations by 2030, giving these sectors time to innovate supply chains and transition to effective solutions.

Target category of single-use plastics		Recommended policy interventions	Reduction from peak waste when fully implemented
101	DINE-IN Foodservice ware	Implement a 100 per cent distribution ban.	100%
	DINE-OUT FOODSERVICE WARE	Require a pollution prevention plan that sets a 100 per cent recyclability target and sets reuse and recycling rate targets to result in 100 per cent waste reduction.	100%
	GROCERY RETAIL PACKAGING	Require a pollution prevention plan to reduce single-use plastic generation that phases in refill and reuse targets, beginning at 20 per cent and increasing to 52 per cent, and sets a 100 per cent recyclability target, with recycling rate targets beginning at 57 per cent and increasing to 73 per cent. Implement a distribution ban on single-use plastics that do not meet minimum recyclability and recycling targets.	45%
₽	PALLET WRAP	Require a pollution prevention plan that phases in reusable material targets beginning at 30 per cent and increasing to 90 per cent, sets a 100 per cent recyclability target, and recycling rate targets beginning at 50 per cent and increasing to 80 per cent. Implement a distribution ban on single-use plastics that do not meet minimum recyclability and recycling targets.	89%
9	PACKAGING MADE FROM POLYVINYL CHLORIDE (PVC) AND POLYSTYRENE (PS)	Implement a 100 per cent distribution ban.	100%
	E-COMMERCE PACKAGING	Implement a distribution ban on single-use plastics where alternatives are readily available. Require a pollution prevention plan that has a target of a 100 per cent reduction in the use of single-use plastic packaging for shipping large electronics and appliances. Allow reduction to be achieved via reusables and/or non-plastic materials.	100%
	BEVERAGE BOTTLES	Implement a distribution ban on all non-recyclable containers. Require a pollution prevention plan that sets a 100 per cent recyclability target inclusive of caps and other packaging components, phases-in refill and reuse targets beginning at 30 per cent and increasing to 70 per cent, and phases in recycling rate targets beginning at 30 per cent and increasing to 70 per cent. Implement a distribution ban on single-use plastics that do not meet minimum recyclability and recycling targets.	66%

OTHER STRATEGIC OPPORTUNITIES

The federal government can also take advantage of strategic opportunities in three other areas. Although these won't achieve the same volume of reductions as the priority single-use plastics listed on the left, the solutions already exist and simply need to be implemented or enforced.

Target category of single-use plastics	Recommended interventions
CANNABIS PACKAGING	Require a pollution prevention plan with a zero-waste target, a requirement for full recyclability of materials and high interim recycling rate targets to allow phase-in of high reuse targets.
BOAT SHRINK WRAP	Require a pollution prevention plan that sets a 100 per cent recyclability target and a 100 per cent recycling rate target.
AUTOMOTIVE FLUID CONTAINERS	Require a pollution prevention plan that phases-in bulk-fill requirements at gas stations. Consider expanding the phased-in requirements to other retail outlets over time.

IMPACT

Fully implementing the recommendations in this roadmap will cut the volume of these targeted categories by more than 70 per cent. As a result, it will eliminate a third of Canada's total plastic packaging waste.

Plastic packaging waste generation by target sector under status quo (2026 and 2040) and full implementation of recommendations (2040)



A ROADMAP TO REDUCING PLASTIC WASTE

Credit: flickr/Chesapeake Bay Program

The federal government has committed to tackling the country's enormous plastic waste crisis. But what's the best way to do that? In this policy roadmap, Oceana Canada lays out a plan to dramatically reduce unnecessary single-use plastics, based on a deep dive into current data and an analysis of best practices around the world. It focuses specifically on packaging, which accounts for about half of Canada's plastic waste.

PLASTIC WASTE IS A GLOBAL DISASTER

Scientists have found plastic in the deepest parts of the ocean, in Arctic ice and desert air. It's in the water we drink, the air we breathe and the food we eat. It's choking sea turtles and killing seabirds. And the toxic chemicals it contains – chemicals that can cause cancer, affect development and alter genes – are harming humans and animals.

Today, we're tossing away more plastic than ever. Between 2012 and 2019, the amount of plastic waste discarded in Canada rose by 13 per cent,⁷ outpacing both economic and population growth. Without strong action, the volume will continue to rise.

WE CAN'T RECYCLE OUR WAY OUT OF THIS CRISIS

Recycling alone can't solve the problem. Of the 4.3 million tonnes of plastic waste discarded in Canada in 2019, only eight per cent was recovered, sorted and ultimately recycled into plastic pellets or flakes that can be used to make new plastic products (Figure 1).

Instead, we need solutions that stop single-use plastic generation at the source. To do that, the federal government must adopt a mix of innovative regulations, prioritizing sectors that represent the largest contributors to plastic pollution.

How plastic pollution is killing our oceans

Each year, more than eight million metric tonnes of plastics end up in our oceans. That's roughly equivalent to dumping an entire garbage truck filled with plastics into the ocean every minute. It starves marine creatures, who fill their stomachs with plastic material they've mistaken for food. It also breaks up into microplastics, entering the food chain where it can cause harm for centuries. Without action, the annual global flow of plastic into the ocean will nearly triple by 2040.



Credit: iStock/Robert Pleško

⁷ https://publications.gc.ca/collections/collection_2019/eccc/En4-366-1-2019-eng.pdf

What happens to the plastic we throw away (Environment and Climate Change Canada, 2019)

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TOTAL PLASTIC DISCARDED: **4.3 MILLION TONNES**

86% LANDFILLED

INCINERATED OR CONVERTED TO FUEL FOR INCINERATION. **MECHANICALLY RECYCLED** 8% 1%

pollutes the environment through littering, mismanaged disposal and microplastics from laundry, tire wear, etc.

CANADIANS WANT REAL SOLUTIONS

In 2021, an Abacus Data poll commissioned by Oceana Canada found that more than 90 per cent of Canadians are concerned about the impact plastic pollution has on oceans and the thousands of sea creatures that are killed every year because of it. A follow-up poll in 2022 revealed that 91 per cent support a plastic waste reduction strategy that works to eliminate single-use products as much as possible. At the same time, 92 per cent believe a plastic reduction strategy should include more than just recycling measures.

TAKING AIM AT SINGLE-USE PLASTIC PACKAGING

Half of the plastic we discard is packaging (Figure 2). Plastic packaging is synonymous with single-use plastic in Canada, as nearly all packaging sold is discarded as waste.⁸ Single-use plastic is everywhere - in takeout food containers, water bottles and foam packing peanuts.

Tackling this massive segment requires a plan that crosses sectors and incorporates global best practices. That's why Oceana Canada developed this first-of-its-kind policy roadmap. Based on detailed modelling and analysis,⁹ it offers the federal government clear guidance on how to reduce single-use plastic pollution.

Half the plastic thrown away in Canada in 2019 was packaging

(all figures in tonnes)



⁸ https://publications.gc.ca/site/archivee-archived.html?url=https://publications.gc.ca/collections/collection_2019/eccc/En4-366-1-2019-eng.pdf

^{*} For full details and methodology, see A Roadmap to Reducing Single-use Plastic Packaging at Source; Oceana Canada, 2023

What are single-use plastics?

These consumer packaging products are made wholly or partly from plastic and are not intended to be returned to a producer to refill or reuse. Examples include plastic utensils, potato chip bags, packaging peanuts, bubble wrap, bags and plastic water bottles. This definition also includes polycoat cups and cartons that are lined with plastic, such as takeout coffee cups, milk cartons and ice cream containers.

This analysis identified the categories where interventions would create the biggest impact, based on the following criteria:

- They make up a significant proportion of Canada's singleuse plastic waste stream.
- Non-plastic alternatives exist in Canada, or the single-use plastic is difficult to recycle.
- Canada or other countries are already targeting the singleuse plastic with existing policy tools, providing the greatest opportunity to quickly adapt and apply lessons learned.
- There is baseline data on how much is generated.

Based on those criteria, Oceana Canada focused on seven target single-use plastics:

1	Foodservice ware used in restaurants, venues, and other dine-in establishments
2	Foodservice ware used for take-out
3	Retail packaging in grocery stores
4	Pallet wrap
5	Packaging made from difficult-to-recycle plastic like polyvinyl chloride (PVC) and polystyrene (PS)
6	E-commerce packaging
7	Beverage bottles

Target single-use plastic waste generation by type in 2023



Oceana Canada also identified three additional strategic areas where we can reduce single-use plastic quickly and with minimal disruption to current systems: cannabis packaging, boat shrink wrap and automotive fluids.

Together these single-use plastics represented 1.1 million tonnes of plastic packaging in 2023. They make up 41 per cent of all plastic packaging waste generated and 35 per cent of all plastic packaging disposed of in landfill in Canada.

THE FEDERAL GOVERNMENT HAS TOOLS AT ITS DISPOSAL

The Canadian government — like many other countries has recognized the seriousness of the plastic pollution problem and committed to zero plastic waste. The question is how. Although a number of jurisdictions are implementing taxes, reuse requirements and extended producer responsibility fees paid by companies to cover the environmental costs of their packaging, it's too early to assess how effective these measures are. Here in Canada, the *Canadian Environmental Protection Act* gives the federal government the authority to develop regulations to limit single-use plastics. Within the suite of regulatory tools available, Oceana Canada's analysis determined two policy interventions are best suited for targeting single-use plastics: distribution bans and sectoral pollution prevention plans.

Distribution bans restrict the manufacture, sale, import, export and/or distribution of specific types of plastics while excluding essential uses, such as medical purposes. They can focus on:

- a specific material, such as expanded polystyrene
- a product category, such as foodservice ware
- products with specific features, such as carrier bags with a certain thickness
- intermediate components of a product
- types of products used in specific situations, such as disposable cups used at events

Meanwhile, the federal government can require sectors or industries to create **pollution prevention plans** and stipulate that those plans include specific requirements for recyclability, collection and recycling rates, and reuse and refill targets. Through these plans, the federal government would work collaboratively with industry to prevent the use or distribution of items that contribute to plastic pollution. A sector-wide approach to reducing plastic pollution can increase efficiency and harmonization, and can encourage innovations in product packaging, product distribution/ collection systems and packaging materials, all of which minimize regrettable substitution of materials.



THE KEY IS STRONG IMPLEMENTATION

This roadmap models how much impact these interventions would achieve, individually and as a collective suite, drawing on policy data from other jurisdictions and Canadian waste data. It assumes that 2026 is the earliest a new regulation could be passed, given the time needed to draft, consult on and finalize regulations. It also assumes a transition period before full implementation, allowing industry time to establish appropriate supply chains and avoid investments in less-thanideal solutions.

With these measures, we can hit peak plastic waste generation and start bending the trajectory downward as early as 2026. When all recommendations are fully implemented, Canada will reduce single-use plastic waste by more than 720,000 tonnes a year. However, full implementation is crucial. Because Canada's population is growing, anything less will mean the absolute volume of single-use plastic waste will continue to rise each year.

Recyclability vs. recycling rate

Recyclability refers to the ability of a material to be collected, deconstructed and made into another product. A recycling rate is the percentage of recyclable materials that are actually mechanically recycled from waste and not sent to end markets like incineration or energy from waste. In Canada, many plastic products are *technically recyclable* but not *realistically recyclable* due to a lack of necessary facilities and infrastructure.





POLICY INTERVENTIONS BY SECTOR

DINE-IN FOODSERVICE WARE

Canada can eliminate single-use plastic waste in restaurants and other dine-in establishments

Credit: iStock/Pathlord



Although most small to medium-sized dine-in restaurants rely on reusable dishware, this sector still produces more than 70,000 tonnes of single-use plastics each year. Much of that comes from national fast-food chains, movie theatres and concert and festival venues. The waste ranges from disposable cups for smoothies and iced coffees to throw-away plates and bowls. Without intervention, that figure is predicted to grow to more than 80,000 tonnes annually by 2040 due to population growth.

RECOMMENDED FEDERAL APPROACH

Implement a complete distribution ban by 2030



Credit: iStock/ysphotomedia

Oceana Canada's modelling shows that a stringently enforced ban for dine-in restaurants, fast food chains, cafés and other venues would eliminate single-use plastics in this sector by 2030.

Canada has already made strides along this path. In 2022, the federal government passed the *Single-use Plastics Prohibition Regulations*, which ban six categories of singleuse plastics. Those include plastic straws, cutlery and other foodservice ware. Expanding and enforcing this ban will be crucial to reducing single-use plastic waste.



Impact Single-use plastic generated: In 2026 By 2040* Impact By 2040* Impact Impact

$\operatorname{AH}^{\mathbb{P}}$ OVERCOMING OBSTACLES

CASE STUDIES

A ban on single-use plastic in the dine-in sector would align Canada with a growing number of countries, including key trading partners. In 2023, France implemented a ban on disposable plastic dine-in foodservice ware for restaurants, hotels and other establishments, requiring reusable alternatives instead. The *German Packaging Act* now requires restaurants over a certain size to use reusables onsite. Similarly, Chile has banned dine-in single-use foodservice ware in restaurants, casinos, airports and other establishments.

POTENTIAL OBSTACLES	FEDERAL MITIGATION	PROVINCIAL/TERRITORIAL MITIGATION
Material switching to other disposables	Ban all packaging that is not recyclable and does not meet a recycling target under a regulated extended producer responsibility (EPR) system.	Implement bans on non-single-use plastic disposables or set reusable requirements.
Canada-wide enforcement is needed	Consider consumer-driven reporting to help identify non-compliance.	Support local enforcement.
Restaurants do not have dishes or dishwashing capacity	Provide grants to support purchasing dishwashers, sinks, portable washing facilities and reusable dishes.	Provide grants to support purchasing dishwashers, sinks, portable washing facilities and reusable dishes.
		Ensure there is a local convenor to identify portable washing facilities, especially for events.
Small business transition	Provide grants to support business transition.	Provide grants to support business transition.



POLICY INTERVENTIONS BY SECTOR

DINE-OUT FOODSERVICE WARE

Canada can eliminate single-use plastic waste from dine-out sources



The demand for takeout food and delivery has skyrocketed in recent years, with the COVID-19 pandemic accelerating the trend. As a result, there has been a huge surge in single-use plastic waste, including food containers, cups and condiment packets.

Credit: iStock/ClaudioVal

Canada's dine out sector will generate more than 130,000 tonnes of single-use plastic waste in 2026. Without immediate action, that amount is projected to rise to nearly 150,000 tonnes per year by 2040, due to population growth.

RECOMMENDED FEDERAL APPROACH

Require a pollution prevention plan to phase out plastic waste in the dine-out food sector, setting recycling and reuse targets and a target for fully recyclable materials. The best way to keep single-use plastic containers out of landfills is by providing easy and affordable access to reusable foodservice ware, as well as fully recyclable single-use packaging that actually gets recycled.

However, banning the distribution of single-use plastics in the dine-out sector would require time for transition, as reusable takeout systems are not yet available at scale and readily available alternatives for all types of takeout packaging do not yet exist.

The federal government can accelerate this transition by requiring a robust sectoral pollution prevention plan that could eliminate single-use plastic waste from the dine-out sector by 2035. A zero-waste target for the sector can be achieved via a combination of the following:

- Reusable targets that progressively increase to a minimum of 30 per cent until 2040.
- A 100 per cent recyclability target and a ban on items that do not pass a pre-market recyclability test.
- Minimum 70 per cent recycling rate targets phased in until 2035 and a ban on items that are not collected and recycled by regulated recycling systems.



CASE STUDY

In 2022, California amended its solid waste laws, setting recyclability requirements for foodservice ware made from Styrofoam and expanded polystyrene products (e.g., foam takeout containers). The requirements become increasingly stringent over time, from a minimum recyclability of 25 per cent in 2025 to 65 per cent by 2032. Given the challenges associated with recycling these items, this policy creates a de facto ban on the materials.

$\textcircled{\begin{tabular}{ll} \hline \end{tabular}}$ Overcoming obstacles

In addition to those listed below, many of the obstacles and mitigation strategies for the dine-in sector (page 13) also apply to the dine-out sector.

POTENTIAL OBSTACLES	FEDERAL MITIGATION	PROVINCIAL/TERRITORIAL MITIGATION
Lack of at-scale reusable takeout container options	Provide funding to help with cross-industry collaboration and innovation.	Provide funding to help businesses adopt reusable systems.
	Establish a standard for reusable containers to facilitate system interoperability.	Require reusable containers and items to meet standards.
	Establish a Canada-wide clearinghouse and convenor to share information on reusables, fund pilots, etc.	
The current patchwork of deposit return systems and collection systems for reusables	Establish a common collection infrastructure for reusable containers and items.	Establish a common collection infrastructure for reusable containers and items.
The financial impact of deposit return systems on consumers	Work with provinces and territories to enable a "just transition" to reusable systems, so vulnerable populations aren't forced to pay unaffordable deposits or use unaffordable technologies.	Consider establishing provincial/territorial consumer bills of rights to enable all consumers to use their own containers for takeout.



POLICY INTERVENTIONS BY SECTOR

GROCERY RETAIL PACKAGING

Canada can cut single-use plastic waste from grocery retail roughly in half



The plastic used to package consumable products is an issue in many retail settings, but it's particularly problematic in grocery stores. More and more single-use plastics are appearing on shelves — and much of it is flexible, non-recyclable films or pouches. Packaging that was once metal, glass or paper has been replaced with plastic, while previously unwrapped produce is bundled together or individually wrapped.

RECOMMENDED FEDERAL APPROACH

Require a pollution prevention plan for the grocery sector, including:

- · a target to reduce single-use plastic generation
- a phased-in requirement for refill and reuse for food and non-food products, beginning at 20 per cent and increasing to 52 per cent when fully implemented
- a 100 per cent target for packaging recyclability
- recycling targets on all plastic packaging, beginning at 57 per cent and increasing to 73 per cent when fully implemented

Implement a distribution ban on single-use plastics that do not meet minimum recyclability and recycling targets.

By requiring a strong pollution prevention plan in this sector — and implementing a distribution ban if major grocers fail to meet minimum recyclability and recycling targets — the federal government can drive collaborative, system-wide changes that dramatically reduce the amount of retail plastic packaging that end up in landfills, lakes and oceans. This plan should take a multi-faceted approach that is supported by:

- Removing unnecessary packaging from products like fruits, vegetables and nuts
- Capturing food- and product-delivery under reuse, recyclability and recycling rate targets
- Enforcing existing excess headspace (empty space in packaging) laws under the *Consumer Packaging and Labelling Act* that force producers to use packaging that accurately reflects the volume of material inside



assuming policy interventions have fully taken effect

OVERCOMING OBSTACLES

FEDERAL MITIGATION **PROVINCIAL/TERRITORIAL MITIGATION** POTENTIAL OBSTACLES Time required by retailers and Provide funding to help with cross-industry Provide funding to help businesses adopt collaboration and innovation. reusable systems. supply chains to innovate and invest in new solutions Lack of container standardization. Establish a standard for reusable containers to Require reusable containers and items to meet facilitate system interoperability. standards. common collection systems and common facilities to facilitate Develop interoperable Canada-wide collection Work with the federal government to efficient washing infrastructure. establish interoperable Canada-wide collection infrastructure locally. Publish a standard for cleaning reusable packaging. The initial cost of bulk-fill Establish subsidies or incentives to purchase Ensure single-use plastic producers are paying their bulk-fill dispensers to de-risk investment. full costs through EPR (i.e., update regulations to dispensers or containers can include the cost of urban cleaning and disposal of make bulk products more expensive material not collected for recycling). than single-use products Financial impact of deposit return Work with provinces and territories to enable a Consider establishing provincial/territorial "just transition" to reusable systems, so vulnerable consumer bills of rights to enable all consumers systems on consumers populations aren't forced to pay unaffordable to use their own containers for takeout. deposits or use unaffordable technologies.



GROCERY RETAIL

CASE STUDY

reusable containers.

In 2022, Spain passed new laws requiring

must allocate at least 20 per cent of their

sales area for bulk products or products in

retailers that sell food and beverages in bulk to allow consumers to use reusable containers. Plastic packaging is banned for fruit and vegetable volumes under 1.5 kg. Meanwhile, larger food retailers

POLICY INTERVENTIONS BY SECTOR

PALLET WRAP

Canada can reduce the amount of pallet wrap waste by 90 per cent



Business-to-business shipping is a massive source of plastic waste. This includes pallet wrap — the flexible plastic films commonly used to secure items on a pallet during transit. In 2026, Canadian businesses will throw out more than 116,000 tonnes of single-use plastic pallet wrap. Without intervention, that number is expected to reach more than 132,000 tonnes a year by 2040.

Credit: iStock/Kameleo

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RECOMMENDED FEDERAL APPROACH

Require a pollution prevention plan for the sector, including:

- a phased-in target for reusable materials, beginning at 30 per cent and increasing to 90 per cent when fully implemented
- a 100 per cent target of material recyclability
- phased-in recycling targets, beginning at 50 per cent and increasing to 80 per cent when fully implemented

Implement a distribution ban if recyclability and recycling targets are not met.

By requiring a rigorous pollution prevention plan for this sector, the federal government can achieve a 90 per cent reduction in pallet wrap waste by 2040.

Although reusable alternatives to single-use pallet wrap exist, they are unlikely to be available at scale for several years. Current alternatives are also heavier than conventional options, which can increase shipping costs and carbon footprints.

In the short term, there is an opportunity to use new wrapping techniques or materials that achieve the same protection with less plastic. In the longer term, reusable options can be developed. As technologies improve, the federal government can raise recycling and reuse targets.

Meanwhile, to allow time to scale up the supply of reusable options, the federal government should initially focus on reducing disposable pallet wrap on domestically shipped items. Those policies can later be expanded to international items as supplies permit.









POTENTIAL OBSTACLES	FEDERAL MITIGATION	PROVINCIAL/TERRITORIAL MITIGATION
Material switching to other single-use items	Ban all packaging that is not recyclable and does not meet a recycling target under a regulated extended producer responsibility (EPR) system.	Require that all packaging distributed in the province or territory be recyclable.
Cost of investing in reusable alternatives	Provide funding to help with cross-industry collaboration and innovation.	Provide funding to help businesses adopt reusable systems.
	Establish a Canada-wide clearinghouse and convenor to share information on reusables, fund pilots, etc.	
Issues with coordinating supply chains	Focus policies on reducing disposable pallet wrap on domestically shipped items first, expanding to international items over time.	Establish EPR responsibilities for plastic packaging in the industrial, commercial and institutional sectors.



POLICY INTERVENTIONS BY SECTOR

PACKAGING MADE FROM PROBLEMATIC PLASTICS

Banning plastic packaging that can't be recycled will drive the adoption of more environmentally sustainable alternatives



In 2026, Canada will produce nearly 140,000 tonnes of single-use plastic packaging that cannot be easily recycled or reused. Polystyrene packaging (e.g., foam packing peanuts, meat trays, plastic egg cartons) and PVC packaging (e.g., plastic gloves, blister packs, clamshells) typically end up in landfills or incinerators. They are also a major source of litter.

Credit: iStock/Genevieve

2

RECOMMENDED FEDERAL APPROACH

Implement a distribution ban.



Credit: iStock/OutboundExplorer

Banning all forms of non-recyclable polystyrene and PVC packaging wouldn't radically reduce plastic production. However, it would drastically reduce waste. Oceana Canada's analysis predicts that industry would switch to highly recyclable packaging such as polyethylene terephthalate (PET) for the majority of applications. Fibre-based packaging would be used for some applications, and a small portion of products would go packaging-free.

As a result, the volume of single-use plastics produced would stay relatively constant, but the volume of landfilled or incinerated single-use plastics would drop.



PACKAGING MADE FROM PROBLEMATIC PLASTIC:

IMPACT SINGLE-USE PLASTIC GENERATED: In 2026 By 2040* 139.873 100% TONNES **TONNES**/ REDUCTION VEA: YEAR assuming policy interventions have fully taken effect

OVERCOMING OBSTACLES

POTENTIAL OBSTACLES FEDERAL MITIGATION **PROVINCIAL/TERRITORIAL MITIGATION** Material-switching to other Ban all packaging that is not recyclable Enact a distribution ban on containers that do not meet recyclability requirements. single-use plastics or and does not meet a recycling target under a regulated EPR system. disposable items Establish single-use plastic EPR systems and reuse targets for packaging. Lack of effective alternatives Exempt PVC used in medication packaging for PVC blister packs for (e.g., blister packs).

CASE STUDY

New Zealand is already making strides

in this sector. In 2022, it banned certain PVC food trays and containers, as well as polystyrene takeout packaging. By mid-2025, it aims to expand that to all PVC/ polystyrene food and beverage packaging.

Note that these figures focus on waste disposal, not generation, since the biggest impact will be to shift from non-recyclable

to recyclable materials.



medication

E-COMMERCE PACKAGING

A ban on single-use plastic packaging across Canada's e-commerce sector would eliminate the production of nearly 70,000 tonnes of plastic each year



The rapidly growing e-commerce sector makes extensive use of single-use bubble wrap, air pillows, Styrofoam, packing peanuts, sleeves, films and other plastic packaging. In 2026, Canada will produce more than 60,000 tonnes of unnecessary single-use plastics and is projected to grow to approximately 70,000 tonnes a year by 2040.

Sustainable non-plastic options exist that can protect products during shipment. These include molded pulp, mycelium-based packaging and corrugated cardboard. However, because of a lack of regulation in North America to drive demand, the supply of non-plastic alternatives is not currently large enough to cover the entire e-commerce market. Similarly, Canada lacks a sufficient supply of reusable packaging for large, sensitive shipments like televisions and refrigerators.

That's why Oceana Canada's roadmap recommends eliminating unnecessary packaging as soon as possible and working with industry to cut out all singleuse plastic. This is a unique opportunity to make a fast-growing industry plastic-free.

RECOMMENDED FEDERAL APPROACH

Implement a distribution ban on single-use plastics where alternatives are readily available (i.e., air pillows, packaging peanuts, plastic sleeves, Styrofoam inserts, bubble wrap, and mailers)

Require a pollution prevention plan for the e-commerce sector, including:

- a 100% reduction target in the generation of single-use plastic packaging for the shipment of large electronics and appliances
- allow reduction to be achieved via reusables and/or nonplastic materials



$\operatorname{AH}^{\mathbb{P}}$ OVERCOMING OBSTACLES

CASE STUDY

Amazon is cutting its use of single-use plastic packaging in Germany, one of the company's largest markets. In November 2021, Amazon announced it would ship smaller items in paper bags and use corrugated cardboard boxes for larger items. There will be exceptions, however, including using plastic bubble wrap to protect fragile products and plastic bags to protect deliveries that will be left outdoors in wet conditions. In this instance, Canada can set a global zero-plastic waste standard.

POTENTIAL OBSTACLES	FEDERAL MITIGATION	PROVINCIAL/TERRITORIAL MITIGATION
Risk of switching to non-plastic disposable alternatives with large environmental footprints	Work with provincial and territorial EPR systems to identify recycling targets and non-recyclable or regrettable packaging substitutions. Implement a ban on packaging items that are not recyclable or do not meet these recycling targets.	Require that all packaging distributed in the province or territory be recyclable.
Lack of at-scale reusable e-commerce options	Invest in reusable packaging specifically for e-commerce and ensure it as a service provided by Canada Post.	Establish EPR systems for all e-commerce packaging. Require that all e-commerce packaging be recyclable.



E-COMMERCE PACKAGING

POLICY INTERVENTIONS BY SECTOR

BEVERAGE BOTTLES

Canada can reduce plastic beverage bottle waste by two-thirds



In 2026, Canada will produce more than 185,000 tonnes of single-use plastic beverage bottles. By phasing in reuse requirements — building on wellestablished deposit return systems that already exist in parts of the country — Canada can ensure that two-thirds of bottles are refillable and reusable.

Standardizing reusable and refillable systems would improve their economic efficiency and reduce their environmental impact. That means enabling innovative beverage bottle design and delivery to optimize returns, sorting, washing and logistics.

RECOMMENDED FEDERAL APPROACH

Require a pollution prevention plan for the beverage bottling sector, including:

- a phased-in refill and reuse target to reduce single-use plastic, beginning at 30 per cent and increasing to 70 per cent when fully implemented
- a phased-in recycling rate target beginning at 80 per cent and increasing to 90 per cent when fully implemented

Implement a distribution ban on all containers failing to meet recyclability and recycling rate targets.

Oceana Canada is not calling for a ban on plastic beverage containers. In some cases, such as when communities are under boil-water advisories, plastic beverage containers can facilitate emergency access to clean water. Also, Canada currently lacks an extensive network of drinking fountains and water bottle filling stations, which is a necessary precursor to banning water bottles.



assuming policy interventions have fully taken effect

CASE STUDY

Recyclability requirements have proven to be an effective tool in Canada and abroad. For example, Alberta's Beverage Container Management Board won't approve the sale of containers that aren't recyclable as part of its beverage container return system. Alberta operates Canada's largest depositbased beverage container collection system, gathering, sorting and processing used beverage containers from more than 220 depots across the province. In 2022 alone, it achieved a return rate of 79.44 per cent on plastics, diverting nearly 88 million kilograms of material from landfills.¹⁰



¹⁰ https://www.abcrc.com/assets/Uploads/ABCRC-2022-Sustainability-Report.pdf

$\operatorname{AH}^{\mathbb{P}}$ OVERCOMING OBSTACLES

FEDERAL MITIGATION	PROVINCIAL/TERRITORIAL MITIGATION
Pass a federal law defining the term "recyclable."	Update EPR regulations to require that all packaging distributed in the province or territory be recyclable through a regulated system.
Regulate the distribution of containers that do not meet recyclability requirements.	Regulate the distribution of containers that do not meet recyclability requirements.
Work with provinces and territories to update building codes and event permits to require more drinking fountains.	Adopt building codes that require all non-residential buildings to provide access to drinking fountains and filling stations.
	Require all events to provide access to drinking fountains and filling stations.
Enable exemptions for bans in emergencies (e.g., a boil water advisory) and prioritize ensuring that all Canadians have access to safe drinking water.	
Establish a Canada-wide clearinghouse and convenor to share information on reusables, fund pilots, etc.	
	PEDERAL MITIGATION Pass a federal law defining the term "recyclable." Regulate the distribution of containers that do not meet recyclability requirements. Work with provinces and territories to update building codes and event permits to require more drinking fountains. Enable exemptions for bans in emergencies (e.g., a boil water advisory) and prioritize ensuring that all Canadians have access to safe drinking water. Establish a Canada-wide clearinghouse and convenor to share information on reusables, fund pilots, etc.

CASE STUDIES In Germany, a regulation is proposed that will require the beverage industry to sell 70 per cent of its bottles in refillable containers. In 2021, France banned plastic water bottles at festivals, cultural events and sporting events. And across the European Union, member countries must implement mandatory deposit return systems for beverage containers.



OTHER STRATEGIC OPPORTUNITIES

In addition to the priority single-use plastics described in the previous pages, there are other strategic opportunities worth seizing. While these won't achieve the same scale of reductions, the solutions already exist and simply need to be implemented or enforced.

Credit: iStock/borchee

CANNABIS PACKAGING

Like the e-commerce industry, the Canadian cannabis sector has grown rapidly in the past years and relies almost exclusively on non-recyclable, single-use plastic packaging. However, several small Canadian companies are piloting reuse packaging and systems.

RECOMMENDED FEDERAL APPROACH

Require a pollution prevention plan for the cannabis sector, including:

- a 100 per cent recyclability target
- a 70 per cent recycling rate target married to high reuse targets, akin to the approach for foodservice ware (take-out), that results in zero plastic waste



BOAT SHRINK WRAP

In Canada's lakefront and coastal communities, boats are commonly shrink-wrapped with linear low-density polyethylene (LLDPE) for overwintering or new sales. LLDPE can be recycled if collected en masse. However, collection systems across Canada have failed to prove effective in this isolated sector. As a result, an estimated 74,250 tonnes of boat shrink wrap end up in landfills, incinerators and the natural environment each year.

RECOMMENDED FEDERAL APPROACH

Require a pollution prevention plan, including:

- a 100 per cent recyclability target
- a 100 per cent recycling rate
- incentives for reusable boat coverings at marinas

🖗 IMPACT

SINGLE-USE PLASTIC GENERATED:



* assuming policy interventions have fully taken effect



OTHER STRATEGIC OPPORTUNITIES

AUTOMOTIVE FLUID CONTAINERS

Canada has committed to transitioning to electric vehicles, which will eventually eliminate the need for plastic containers for motor oil, antifreeze and diesel exhaust fluids. However, all vehicles will continue to need windshield washer fluid.

Replacing jugs of windshield washer fluid with bulkfill options can reduce the nearly 40,000 tonnes of plastic containers discarded each year. And companies are already providing that option. For example, Station Lave-Glace allows vehicle operators in Quebec and France to fill up their vehicles or reusable jugs with windshield washer fluid from bulk dispensers, just like they do for gas at a gas station.

RECOMMENDED FEDERAL APPROACH

Require pollution prevention plans with a phased-in bulk-fill requirement at gas stations, beginning at 50 per cent and increasing to 100 per cent.

Consider expanding the phased-in bulk-fill requirements to other retail outlets over time.



SINGLE-USE PLASTIC GENERATED:



* assuming policy interventions have fully taken effect

CASE STUDIES

Two municipalities in Quebec – Terrebonne and Mascouche – are in the process of establishing bylaws requiring retailers to sell windshield washer fluid in bulk. To support a transition to a circular economy, both communities have established grant programs to subsidize the costs for retailers investing in refillable systems. For windshield-washer dispensing stations, each community will provide a grant of up to 75 per cent of pre-tax costs of up to \$5,000 for buying, installing or repairing a dispensing station.

POTENTIAL OBSTACLES	FEDERAL MITIGATION	PROVINCIAL/TERRITORIAL MITIGATION
Lack of bulk-fill stations for windshield washer fluid or antifreeze outside of Quebec and New Brunswick (although some stations exist for diesel	Invest in bulk-fill stations. Require co-location of bulk-fill stations with electric vehicle charging stations.	Implement distribution ban on containers that do not meet recyclability requirements. Invest in bulk-fill stations. Provide grants for bulk-fill stations.
exhaust fluid)		Establish reuse targets for packaging and EPR systems for single-use plastic.
Bans at gas stations would still enable containers to be purchased in-store	Consider extending the distribution ban to containers sold in stores as windshield washer fluid stations become more common.	Establish EPR systems for all automotive fluid containers, ensuring producers cover the full environmental costs.

ADDRESSING COMMON OBSTACLES

In addition to the sector-specific recommendations described in the previous pages, there are steps that federal, provincial and territorial governments can take to mitigate common obstacles to reducing single-use plastic packaging and support the transition to more sustainable practices:

- Develop common Canada-wide messaging on the safety and safe use of reusables.
- Address barriers to entry into the reusable packaging marketplace by establishing a central, Canada-wide reusables clearinghouse and convenor that can provide provincial/territorial-specific information. Task the convenor with information sharing, problem-solving across the plastics value chain, funding pilots, etc.
- Facilitate new reusable container systems by establishing either Canada-wide or province/territory-wide common collection infrastructure. If provincial and territorial systems vary, ensure they are interoperable to enable pooled collection systems and reduce the need to transport reusable containers across borders.
- Improve EPR systems to make reusable options more affordable compared to single-use plastics. Remove perverse tax incentives that reduce the costs of single-use plastics.
- Increase market demand for reusable containers and items by implementing sustainable procurement policies in the public sector.
- Eliminate federal duty drawbacks that incentivize companies to landfill usable overstocked products rather than donating them to second-hand stores or charities.

CONCLUSIONS

CANADA CAN MEET ITS AMBITIONS AND BECOME A GLOBAL LEADER

By implementing these recommendations, the federal government can start significantly reducing Canada's production of plastic packaging waste as early as 2026 and demonstrate global leadership on this pressing environmental issue.

The key is sustained action focused on reducing single-use plastic at the source, and this document provides the roadmap. In 2023, the target sectors discussed in this roadmap generated more than 1.1 million tonnes of single-use plastic waste. If these recommendations are fully implemented, Canada can start bending the plastic pollution curve in 2026. By 2040, we can bring that volume down to less than 400,000 tonnes a year, reducing our total single-use plastic packaging waste by one-third.



This isn't just a question of changing a policy or two. It's a concerted effort to change the trajectory of plastic waste production in Canada, from greater and greater volumes each year to substantial reductions. This will require rethinking, relearning and reinventing how we make, buy, use and manage goods and services.

We need to shift away from product-based approaches to reducing single-use plastic to using sector-wide approaches. Entire value chains will need to be redesigned. That's going to require collaboration between governments, industry and environmental scientists — and support from consumers. Canadians from all backgrounds have shown their overwhelming support to end plastic waste. It can be done.

The Canadian government has two key policy tools at its disposal: banning the use of single-use plastics and establishing pollution prevention plans for key sectors. **These interventions have already been successfully implemented in other jurisdictions and can be applied within the Canadian legal framework**, creating a measurable reduction in single-use plastic waste.

As our government carves the path forward, there are best practices to consider that have been adopted by countries leading the transition away from single-use plastic packaging.

For example, many leading jurisdictions are taking an **outcomes-based approach** to reducing plastic production instead of — or in addition to — prescribing specific activities (e.g., using reusable dishes for dine-in). This approach provides far greater flexibility for the marketplace to innovate solutions. It focuses on setting legal requirements for reduction, coupled with targets for achieving 100 per cent recyclability and/or carbon neutrality.

The Netherlands offers a good example. Here, the government has set a reduction target and is working with specific industry sectors to meet that goal. Now, packaging producers are actively collaborating along the plastics value chain to develop new solutions to improve recycling, reduce packaging and establish reusable options at scale.

At the same time, tackling the global plastic crisis will require **embracing the learning curve**. Any new approach involves some uncertainty. Today, even leading jurisdictions are in the early phases of their journey to shrink their plastic footprints. Canada can learn from the experiences of these innovators — while creating its own blueprint for success that other countries can follow.

With this report, Canada is now the first country with an evidence-based roadmap to cutting single-use plastic packaging. We know this journey toward zero plastic waste requires ambition and several different policy approaches, and this roadmap demonstrates that the federal government has the tools and resources to do so. This is our opportunity to lead the fight on plastic pollution – the second biggest threat to the environment after climate change. It's through innovative approaches and a bold vision that we can change the trajectory of plastic pollution and help protect our planet, our oceans and ourselves. Take the pledge to help tackle plastic pollution and join a passionate community of advocates by visiting **Oceana.ca/PlasticPledge.**

Oceana Canada was established as an independent charity in 2015 and is part of the largest international advocacy group dedicated solely to ocean conservation. Oceana Canada has successfully campaigned to ban single-use plastics, end the shark fin trade, make rebuilding depleted fish populations the law, improve the way fisheries are managed and protect marine habitat. We work with civil society, academics, fishers, Indigenous Peoples, and the federal government to return Canada's formerly vibrant oceans to health and abundance. By restoring Canada's oceans, we can strengthen our communities, reap greater economic and nutritional benefits, and protect our future. Find out more at <u>www.oceana.ca</u>.

