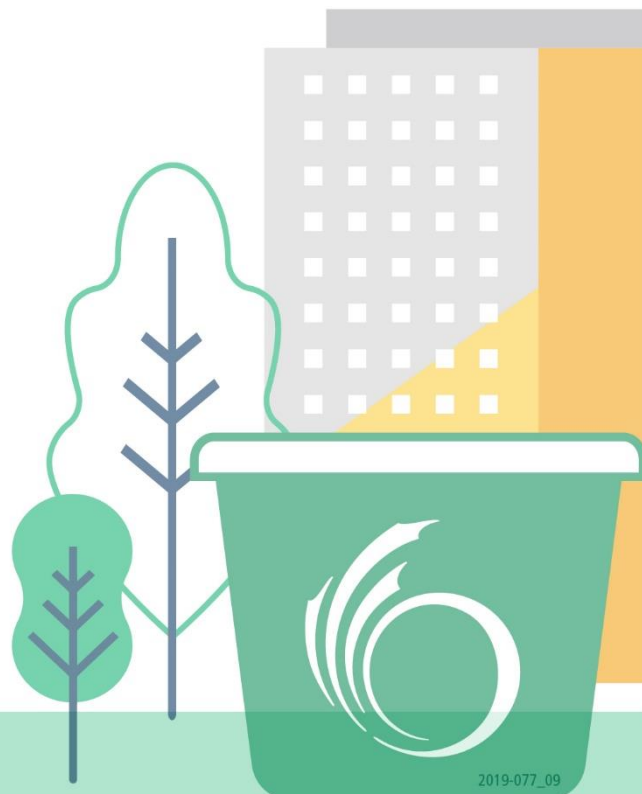




Legislative Review

Technical Memorandum #2
January 2020



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This technical memorandum was prepared by HDR Corporation, Dillon Consulting Limited Love Environmental Inc. and Robins Environmental.





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Executive Summary

The past three to five years have been a period of significant policy, program and legislative development across Canada in the solid waste area in general, and waste reduction and waste diversion in particular. All three levels of government have been very active in the field, which in itself is unusual (e.g. overall, waste has not been a focus for the federal government for some time). There is every indication that initiatives related to waste reduction and diversion especially will continue to increase, particularly with growing interest and concerns about the greenhouse gas (GHG) impacts of current waste management programs and practices, and the challenges and opportunities for waste related GHG mitigation at all levels of government, businesses and society.

The federal government has been unusually active, partly because of its international commitments (e.g. the Ocean Plastics Charter), its engagement on the issue of plastic waste - both through the Canadian Council of Ministers of the Environment (CCME) (e.g. the recently developed Zero Waste Strategy with a focus on plastics) - and independently through Environment and Climate Change Canada (ECCC) – e.g. the new strategy and plans for mercury-containing lamps. At the highest level, in June 2019, the Prime Minister spoke to the notion of European Union level action - the global leader - on waste plastics, singling out single-use plastics (SUPs). In addition, ECCC is in the midst of a process to determine whether plastics might be declared a toxic substance under the Canadian Environmental Protection Act (CEPA), which could be the most significant legislative action to be introduced at the federal level in many years to better address packaging and plastic waste issues nationally.

At the provincial level, Ontario, along with both B.C. and Quebec, has, again through CCME but more importantly on its own, been very active on provincial policies, programs and legislation, especially since 2016 with the passage of the *Waste Free Ontario Act (WFOA)*. Ontario was one of the first provinces to begin to frame its future waste policies and programs through the lens of circular economy thinking. The circular economy concept has recently been popularized by the UK-based Ellen MacArthur Foundation, using the definition that “A *circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.*” The Ellen MacArthur Foundation has linked the application of circular economy thinking to plastic waste specifically through the New Plastics Economy Global



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Commitment, a declaration of transformational change that has secured commitments from over 400 organizations, including national governments and multi-national corporations globally.¹

First through its Strategy for a Waste Free Ontario, and more recently in the new government's Made-in-Ontario Environment Plan, Ontario is developing waste legislation and resulting policies and programs with primary attention on three main areas:

- Extended Producer Responsibility (EPR), with a specific focus on Individual Producer Responsibility (IPR), as compared to collective responsibility programs for an increased range of materials;
- Increased food and organic waste diversion and reduction (in part driven by GHG concerns); and
- Plastic waste diversion and reduction, with a growing interest in single use plastics, litter and microbeads.

Interest and action on waste diversion also appears to be at an all-time high at the municipal level across Canada and around Ontario. For the past 25 years or more, municipalities have been the drivers, primary overseers and often operators of waste management programs, waste diversion innovations and best practice exchanges to improve both program cost effectiveness and environmental performance. With individual producer responsibility programs transitioning into effect in Ontario, decisions need to be made by municipalities like the City of Ottawa, regarding long-term roles and responsibilities in future waste management and waste diversion and reduction programs. What role does the City foresee for itself, for example, in the transition of tires, electronic and electrical equipment, municipal hazardous or special wastes, food and organic waste diversion programs and, perhaps most importantly, in Ontario's future Blue Box program under an individual producer responsibility regime?

Addressing these and other critical and timely questions will be central components of Ottawa's Solid Waste Master Planning process over the next 24 months.

¹ Member companies are listed on the Foundation website: newplasticseconomy.org



1 Introduction

The Task 3 deliverable for the City of Ottawa's Solid Waste Master Plan (SWMP) is a review of recent federal and provincial solid waste policies, programs and legislation, including an assessment of the potential impacts of these on the City's future waste management system.

This Technical Memorandum is intended to complement the information provided in Technical Memorandum #1: City of Ottawa - Solid Waste Management: Current State, developed as part of Task 2, with a focus on the recent policies, programs and legislation that will have the biggest impact on the City of Ottawa (City) and the development of the City's options for the SWMP. This Technical Memorandum is current until December 1, 2019 and may not reflect subsequent changes to Canadian and Ontario policies, programs and legislation. Additional information on policies and programs in other jurisdictions can be found in Technical Memorandum # 2 – Review of Policy and Trends and Best Practices.

This Technical Memorandum reports on the initial scan and research regarding the first research element (e.g. recent federal and provincial solid waste policies, programs and legislation), also includes both actions and plans from:

- Leading Canadian cities, municipal organizations and environmental non-governmental organizations (ENGOS);
- Selected U.S. municipal and state actions; and,
- The European Union.

This Technical Memorandum includes several appendices describing notable and related actions in Europe, recent Canadian and U.S. court decisions regarding municipal authority to manage/ban some waste streams, and important recent Business Association correspondence to the Ontario Minister of Environment, Conservation and Parks office. The Technical Memorandum prepared as part of Task 4 contains more detailed descriptions of the waste diversion and waste reduction activities of Canadian provinces, other than Ontario, and Canadian municipal waste management, diversion and reduction Best Practices.



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While it is difficult to be certain at this point (i.e. after the recent 2019 federal election) to what degree previous federal government policy and program initiatives will be pursued, it can be expected that federal action on plastic waste in particular, and links between waste diversion potential and GHG reduction, will continue to be priority areas for the new federal government and, by extension, for CCME.

2.1 Environment and Climate Change Canada Plastics Initiatives

On June 10, 2019, Prime Minister Justin Trudeau announced that the Government of Canada was “taking additional steps to reduce Canada’s plastic waste, support innovation, and promote the use of affordable and safe alternatives”. Canada’s proposed single-use plastics ban, while short on details, is modelled on the European Union’s wide-ranging Single-use Plastics Directive (see **Appendix 1** for a summary of the European Directive). The June 2019 announcement includes a primary focus on:

- banning harmful single-use plastics (such as plastic bags, straws, cutlery, plates, and stir sticks) as early as 2021 “where supported by scientific evidence and warranted, and take other steps to reduce pollution from plastic products and packaging”; and
- working with provinces and territories to “introduce standards and targets for companies that manufacture plastic products or sell items with plastic packaging so they become responsible for their plastic waste”.

The Prime Minister stated that “Measures will be grounded in scientific evidence and will

“With the longest coastline in the world and one-quarter of the world’s freshwater, Canada has a unique responsibility – and opportunity- to lead in reducing plastic pollution. From launching the Ocean Plastics Charter at the 2018 G7 Summit to investing in new Canadian technologies that turn plastic waste into valuable resources, we are doing just that.”

June 10, 2019, Prime Minister Justin Trudeau Announcement

align, where appropriate, with similar actions being taken in the European Union and other countries. They will also support the Canadian Council of Ministers of the Environment’s development of an action plan to implement the Canada-wide Strategy on Zero



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Plastic Waste”³ (described below). As part of the government’s Canada’s Plastics Science Agenda⁴ (also announced in June 2019), ECCC is conducting a scientific assessment of plastics (to be completed in 2020) under the Canadian Environmental Protection Act (CEPA).

To have the most impact across the country, some argue that declaring plastics a toxic substance under CEPA will be required if there is to be truly effective federal action on plastic waste and litter in the future. Plastics being declared “CEPA Toxic” would enable regulators to more easily and effectively impose bans and restrictions. This may be the single most important legislative action to be introduced at the federal level in the coming years to better address the plastics waste issue nationally. A recent report for ECCC by Deloitte ([Economic Study of the Canadian Plastic Industry, Markets and Waste](#)) estimates that only 9 percent of plastic waste in Canada is recycled, 87 percent of plastic waste ends up in landfills or the environment and the remaining 4 percent is incinerated for energy recovery.⁵

2.2 G7: Ocean Plastics Charter

In June 2018, as part of a G7 meeting, Canada, the United Kingdom (UK), Italy, Germany and France, along with the European Union (EU), endorsed the [Ocean Plastics Charter](#). At that meeting, Canada’s Minister of the Environment and Climate Change announced a “new partnership with business” to reduce plastic waste. Key backers included many global companies including those with significant operations in Canada – e.g. Loblaws, Walmart, IKEA, Dow Chemicals, BASF Canada and A&W Canada. In September that year, Coca-Cola, Unilever and Nestle Canada added their

Over the last 25 years, nearly 800,000 volunteers have removed over 1.3 million kilograms of trash from across Canada’s shorelines through Ocean Wise and World Wildlife Fund’s Great Canadian Shoreline Cleanup program, supported by the Government of Canada. The most commonly littered items on our shorelines are single-use or short-lived products, many made of plastics.

June 10 2019, Prime Minister Justin Trudeau

³ June 10, 2019 ECCC press release

⁴ See Environment and Climate Change Canada. (2019). *Canada’s Plastics Science Agenda*. Retrieved from: <https://www.canada.ca/en/environment-climate-change/services/science-technology.html>

⁵ Deloitte, *Economic Study of the Canadian Plastics Industry, Markets and Waste* (2019)



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support. As of the end of 2019, the list of partners supporting the Charter included 22 governments and 64 businesses and organizations. Adopted as a blueprint for action, the Ocean Plastics Charter advances ambitious targets and solutions for global action in five areas:

1. sustainable plastic design, production and markets;
2. waste collection, management and infrastructure;
3. sustainable lifestyles and education;
4. research and innovation; and,
5. coastal and shoreline clean-up.

Canada also announced that it will invest \$100 million to support developing countries to develop and implement sound waste management systems and prevent plastic waste from entering the environment, address plastic waste on shorelines, and better manage plastic resources.

The signatories to the Oceans Plastic Charter agreed to “*accelerate the implementation of the 2015 G7 Leaders Action Plan to Combat Marine Litter through targeted investments for clean-up activities on Abandoned, Lost or Otherwise Discarded Fishing Gear (ALDFG) and wastes generated and collected by fishing activities.*”⁶

The Ocean Plastics Charter also includes a commitment to work with industry towards reducing the use of plastic microbeads in rinse-off cosmetic and personal care consumer products, to the extent possible by 2020, and addressing other sources of microplastics.

In June 2017, Microbeads⁷ in Toiletries Regulations⁸ were published in the Canada Gazette. The types of toiletries covered include products such as bath and body products, skin cleansers and toothpaste. As of July 1, 2018, the manufacture and import and sale of all toiletries that contain microplastics are prohibited in Canada.

⁶ *Oceans Plastic Charter Press Release*, June 2018

⁷ For the purposes of the regulation, plastic microbeads are any plastic article equal or less than 5 mm in size.

⁸ <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-111/index.html>



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The Oceans Plastic Charter is most likely to have the greatest influence in Canada in cities and towns located on ocean waters and concerned about increasing ocean litter, including for example, discarded and abandoned fishing gear. Nonetheless, cities and towns on major lakes and rivers (such as Ottawa) can expect to see growing attention and action to address the build-up of microplastics in water courses.

2.3 CCME Zero Waste Strategy

The flow of materials and energy in the Canadian economy is mostly linear as resources are extracted, transformed into products and then the vast majority of them are disposed as waste. In contrast, a circular economy aims to keep products and materials in use as long as possible and to maximize their value. This system closes the loop in the use of natural resources by reducing, reusing, repairing, remanufacturing, recycling and composting materials or, if no other option exists, recovering energy at their end of life. Studies suggest that, by 2030, circular economy strategies could deliver more than \$4 trillion U.S. in global economic benefits, while reducing GHG emissions and primary resource consumption by 30 to 40 percent.

CCME, Zero Waste Strategy, Nov. 2018

In November 2018, CCME approved its [Strategy on Zero Plastic Waste](#) (Strategy) that lays out a path to treat plastics as an ever-valuable resource and defines areas of work that will contribute to reaching the ambitious plastic waste reduction targets laid out in the Ocean Plastics Charter. The Strategy and its implementation are intended to both help achieve a circular and low-carbon economy, and reduce the impact of plastic waste on the environment. It is also intended to be a driver for innovation and create opportunities that will increase Canada's competitiveness in new business models, product design solutions, and waste prevention and recovery technologies.

Canada is moving toward a circular economy for plastics by pursuing zero plastic waste. The vision is to keep all plastics in the economy and out of the environment. While there are well-established waste management programs already in place, these systems need to be improved in order to move away from the existing disposal-oriented situation.



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CCME's Strategy contains ten priority "result areas" for action identified based on Canadians' and stakeholders' views about plastics waste and findings from evidence-based analysis as follows:

1. All plastic products are designed for greater durability, reuse and recycling.
2. The responsible use and recycling of single-use plastics is significantly increased.
3. Expanded collection systems keep all plastic products in the economy and out of the environment.
4. Strong domestic markets and varied end uses drive demand for recycled plastics.
5. Canada's recycling capacity is world-leading and can process and recover value from all types of plastic waste.
6. Canadian households, businesses and institutions are empowered to prevent and manage plastic waste responsibly.
7. Plastic pollution generated by aquatic activities is significantly reduced.
8. Effective research and monitoring systems inform decision-making and measure performance.
9. Effective capture and clean-up of plastic pollution protects Canada's environment, shorelines and waterways.
10. Canadian leadership has accelerated global action to address marine litter and plastic pollution.

These action areas are similar to those documented in the Ellen MacArthur Foundation; New Plastics Economy Project: A Vision of a Circular Economy for Plastic. Highlights of the Foundation's leading-edge work are presented in **Appendix 2**.

Two of the top priority actions identified by CCME from the Zero Waste Strategy were EPR for Plastics and the Compostability of Plastics. These two action areas are described in the following sections.



2.3.1 EPR for Plastics

In June 2019, CCME issued its [Phase 1 report](#) on priority actions to be taken to implement the Canada-wide Action Plan on Zero Plastic Waste. As noted above, the first priority action was EPR for plastics; EPR and the remaining priorities are as follows:

- CCME will facilitate consistent EPR programs for plastics;
- National performance requirements and standards will be developed;
- Incentives will be established to help create a circular economy;
- Infrastructure and innovation investments will be made;
- Public procurement and green operations will be supported; and,
- A single-use plastics (SUP) roadmap to address priority single-use and disposable plastic products will be written.

Three specific issues are to be addressed in the SUPs roadmap:

- Defining priority items to be targeted for waste reduction;
- Establishing targets to support plastic waste reduction; and,
- Identifying mechanisms to reduce plastic waste.

The roadmap is to be completed by December 2021.

In October 2019, CCME released its [“Discussion paper: Guidance to facilitate consistent extended producer responsibility policies for plastics.”](#)⁹ The Discussion paper states that *“EPR is a key tool for reaching the diversion rates necessary to achieve the CCME goal of zero plastic waste. It makes companies responsible for the end-of-life management of the products or packaging they create. CCME is seeking input that will be used to inform the development of guidance materials that will facilitate consistent EPR programs for plastics across Canada.”*¹⁰

Table 1 summarizes existing EPR policies related to plastic waste flows from the CCME discussion paper (which was open for comment until December 2019). Diversion rates of plastics (defined as the share of plastic diverted from direct disposal and sent to a sorting facility divided by the amount of plastic waste available for collection) and recycling rates (defined as the share of plastic that is ultimately re-processed (chemically or mechanically) from diverted waste, divided by the amount of waste available for

⁹ <https://www.ccme.ca/files/CCME%20EPR%20discussion%20paper%20EN%201.0%20secured.pdf>

¹⁰ CCME, *Discussion paper: Guidance to facilitate consistent EPR policies for plastics*, Oct 2019



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collection) are also presented in this table. The materials listed in Table 1 comprise 85 percent of the plastics end-use markets. The remaining 15 percent includes plastics in medical, dental and personal care, toys, furniture, mattresses and industrial machinery

Table 1: Major Sectors of the Plastics End-Use Market

| Sector Generating Plastic waste | Share of Plastics End-use Market | Diversion Rate | Recycling Rate | Description |
|-------------------------------------|----------------------------------|----------------|----------------|---|
| Packaging | 33% | 23% | 15% | Includes commonly recycled PET bottles, as well as bags and films, HDPE bottles, toiletries and pharmaceuticals |
| Construction | 26% | 11% | 1% | Includes vinyl, paints and coatings, re-constituted wood products and PVC pipes |
| Automotive | 10% | 100% | 0% | Includes interior trims, seats, seat parts and body panels |
| Electronic and Electrical Equipment | 6% | 16% | 13% | Includes computers, computer peripherals and parts, telephones and wiring |
| Textiles | 6% | 5% | 0% | Includes fabrics except cotton, linen, wool, hemp, silk, etc. |
| White Goods | 3% | 64% | 0% | Major small and large appliances – fridges, stoves, food processors, kettles, etc. |
| Agriculture | 1% | 9% | 5% | Grain and seed bags, fertilizer and pesticide packaging, ag films |



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| Sector Generating Plastic waste | Share of Plastics End-use Market | Diversion Rate | Recycling Rate | Description |
|---------------------------------|----------------------------------|----------------|----------------|-----------------------------------|
| Totals | 85% | 25% | 8% | (9% including chemical recycling) |

Source: CCME Discussion paper: Guidance to facilitate consistent extended producer responsibility policies for plastics, Table 1,
<https://www.ccme.ca/files/CCME%20EPR%20discussion%20paper%20EN%201.0%20secured.pdf>
 Accessed October 2019

The development of national standards on issues such as labelling and mandatory recycled content for plastics is an area of strong consensus between the federal government and its provincial partners around the CCME table. That is one of the reasons it has been selected as an area of immediate importance and action by CCME and ECCC, likely to begin during 2020



2.3.2 Compostability of Bioplastics

As noted above, as part of the move towards zero plastic waste in Canada, CCME approved a Canada-wide Strategy on Zero Plastic Waste. A Plastics Challenge was announced as part of the Strategy through Innovation, Science and Economic Development Canada (ISED) in 2018 as Innovative Solutions Canada, a \$140 million funding program dedicated to Canadian research and development and

Bioplastics - plastics derived from agricultural OR wood-based biomass

testing prototypes for innovators. This included funding for small and medium-sized businesses to reduce waste and turn waste into resources. Among the seven innovation challenges related to plastics were food packaging and the improved compostability of bioplastics.

Through the Strategy, Canada is seeking to develop updated national performance requirements and standards for plastics. The following key activities and timelines may affect waste reduction strategies in current development:

- Recycled content targets, timelines and standards (2020); and
- Standards for bio-based plastic products such as certified compostable packaging and single-use products (2021).

Compostable packaging and/or including/improving the compostability of bioplastic products, is seen by some as an antidote to the current requirements for plastic take-out/single-use items, particularly as they relate to the food service industry. For example, Berkeley, CA (starting January 1, 2020) requires food service packaging to be ONLY

TERMINOLOGY

BPI – refers to the Biodegradable Products Institute certification program.

BPI and Compostable are the most common certifications available for compostable plastics and single-use items in the Canadian market.

To receive certification, a product must satisfactorily demonstrate 90% conversion to CO₂ within 180 days at 58°C (± 2°C) when compared to a reference cellulose material (National Standard of Canada, 2010; ASTM International, 2012; ASTM International, 2017) and no more than 10% solids remaining within 84 days.

Standards for compostable products and packaging other than those referenced by BPI and Compostable certifications (e.g., ISO) require the same specifications.

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compostable.¹¹ Seattle requires recyclable or compostable packaging; however, straws and utensils are to be compostable only.

Although the City of Vancouver has prohibited all food vendors from serving prepared food in polystyrene foam cups or take-out containers (effective January 1, 2020), the ban on plastic straws has been postponed to further investigate alternatives that include compostable options. Consultations have shown that many businesses are making the switch to compostable single-use items for take-out, to-go meals and beverages, believing that this is a solution to the plastic problem.

There are many considerations related to compostable plastics and single-use items (SUI). It is understood these are seen as a hierarchical level up from disposal on the way to reaching waste diversion and/or zero waste goals. They also provide ease of use for foodservice operators and potentially the consumer, if they can dispose of food and packaging together in one bin.

It is important to use proper terminology when describing plastic and single-use items, as the terms “compostable”, “biodegradable” and “oxo-biodegradable” are not interchangeable. A compostable item is biodegradable; however, a biodegradable item is not always compostable. Biodegradable means a product will be broken down by microbes over time. The U.S. based Biodegradable Products Institute (BPI) does not support using the term “biodegradable,” preferring “compostable”, which means a product will break down in a reasonable amount of time, leave behind no toxic residue, and safely become an additive to soil.

Even after an item is deemed compostable by a certification program like BPI based on ASTM¹² standards using internationally recognized test methods and third-party verification, it does not mean that:

- The material will be accepted in a municipality’s collection program;
- The material will be accepted by a municipality’s organic waste processing facility; and/or,

¹¹ <https://www.seattle.gov/utilities/businesses-and-key-accounts/solid-waste/food-and-yard/commercial-customers/food-packaging-requirements>

¹² ASTM International, formerly known as American Society for Testing and Materials, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.



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- The material will actually be composted in that processing facility, given their operational process (accepting/rejecting inbound material, pre-sorting, composting, post-screening) and requirements (processing temperature and time).

The issue is complex and requires consideration of the many compostable alternatives (e.g. compostable plastic, paper, bamboo, etc.). Potentially compostable materials include:

- paper/fibre - e.g. uncoated paper; Poly Lactic Acid (PLA)-coated paper (coffee cups);
- molded fibre made from trees, bagasse, wheat straw, etc.; and,
- plastics, mostly PLA; and other compostable plastics (e.g. Polyhydroxy acids (PHA)).

¹³

See the section on Organics Bans/Mandatory Diversion for further discussion of compostable plastics issues and considerations.

2.4 Pan-Canadian Framework on Clean Growth and Climate Change

The [Pan-Canadian Framework on Clean Growth and Climate Change](#) is Canada's plan, developed with the provinces and territories and in consultation with Indigenous peoples, to meet the country's GHG emissions reduction targets, grow the economy, and build resilience to a changing climate. The plan includes a pan-Canadian approach to pricing carbon pollution, and measures to achieve reductions across all sectors of the economy. It aims to drive innovation and growth by increasing technology development and adoption to ensure Canadian businesses are competitive in the global low-carbon economy. It also includes actions to advance climate change adaptation and build resilience to climate impacts across the country. The plan includes:

- A price on **carbon pollution** across Canada that encourages businesses to improve their efficiency and adopt new, innovative clean technologies, with proceeds returned to the jurisdiction of origin.
- Developing a **clean fuel standard** to reduce emissions from fuels used in transportation, buildings, and industry, which will help businesses choose to save energy and money by protecting the environment.

¹³ PLA (Polylactic Acid) and PHA (polyhydroxyalkanoate) are type of bioplastics, or biodegradable plastics.



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- Making \$3 billion in investments to **spur innovation and bring clean technologies to market**, such as funding to support technology to pull carbon dioxide directly from the air, as well as \$75 million to support clean technology.
- Supporting **clean energy and power generation** from solar, wind, biomass and geothermal sources, along with new ways for homes and businesses to harness this clean and affordable energy.
- Regulations to **reduce methane emissions from the oil and gas sector** by 40 to 45 percent by 2025 to encourage companies to find cleaner, more efficient ways to run their operations.
- **Reducing pollution from buildings** by developing “net-zero ready” Building Codes, a model code to guide efficiency improvements for retrofitting existing buildings by 2022, and supporting provinces and territories with mandatory labelling to provide businesses and consumers with information on energy performance.
- Setting new standards to improve the energy efficiency of appliances and equipment and to encourage innovation.
- Providing \$1.01 billion in funding for energy- and cost-saving upgrades in residential, commercial, and multi-unit buildings, including support to improve efficiency in **affordable housing** developments.
- Making it easier and more affordable for Canadians to choose **zero-emission vehicles** through new federal rebates and investing in building more charging stations.
- Supporting renewable energy projects to create jobs for Canadians through investments in green infrastructure.
- Investing \$28.7 billion in the **development and expansion of public transit** so that Canadians and businesses can get where they need to go, quickly and safely, while reducing pollution.
- The creation of the **Clean Growth Hub**, which helps Canadian clean-technology companies access federal government programs and services.

To date, waste has not been a primary or significant focus of the Pan Canadian Framework on Growth and Climate Change. The Province of Ontario has rejected one of the core tenets of the Framework by opposing the introduction of carbon taxes. A “Clean Growth Hub” has been created at the federal level to serve as a single easy point to connect to all cleantech funding and support programs. Changes in waste management regulations has been noted as one area of impact that will help drive cleantech adoption across the waste sector.



2.5 ECCC and CCME Strategy and Plans for Mercury Containing Lamps

In 2009, the CCME adopted the [Canada-wide Action Plan for Extended Producer Responsibility](#), wherein jurisdictions committed to working toward managing lamps containing mercury through EPR programs by 2015. Four provinces have implemented EPR programs for lamps containing mercury (B.C., Manitoba, Quebec and Prince Edward Island). ECCC placed limits on the amount of mercury in most lamps through the *Products Containing Mercury Regulations* (2014). ECCC has also published the voluntary Code of Practice for the Environmentally Sound Management of End-of Life Lamps Containing Mercury (2017) to encourage lamp collectors, transporters, and processors to adopt best practices aimed at preventing releases of mercury to the environment.

There remains, however, much room for improvement. In 2017, 20 percent of lamps sold in Canada contained mercury. In that same year, only about 34 percent of lamps containing mercury were diverted, with EPR program results ranging from about 15 percent to 46 percent diversion. As a result, lamps contributed about 300 kilograms of mercury – a highly toxic substance - that was improperly disposed in Canadian landfills.

In June 2019, ECCC released its [National Strategy for Lamps Containing Mercury](#).¹⁴ The vision in the Strategy is to eliminate lamps as a source of mercury pollution in Canada. The goals support the vision, and were developed with organizations across Canada that play a role in delivering environmentally sound management of lamps containing mercury. The three goals are:

- **Canadians increasingly use mercury-free alternatives** – Canadians are aware of lamps containing mercury, they purchase mercury-free alternatives where feasible, and fewer lamps containing mercury are available in the marketplace.
- **Canadians do their part to properly manage lamps containing mercury** – Canadians are aware of and participate in diversion programs.

Examples of Mercury-Containing Lamps



Source:
Government of
Canada

¹⁴ National Strategy for Lamps Containing Mercury, Government of Canada, June 2019



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- **Diversion is performed in an environmentally sound manner** – Collection, processing and disposal/recycling activities are conducted in a manner that minimizes the risk of mercury releases to the environment.

The consultations highlighted six priorities for the strategy:

- Prohibit the manufacture and import of the most common types of lamps containing mercury – Amend federal regulations to prohibit the manufacture and import of the most common lamps containing mercury in Canada.
- Increase awareness – Increase awareness that some lamps contain mercury, encourage Canadians to purchase mercury-free alternatives and dispose of existing lamps containing mercury in an environmentally sound manner.
- Increase participation in diversion programs by strengthening requirements and reducing barriers – Significantly increase diversion across Canada by building on existing initiatives and adding new ones.
- Improve government operations – Purchase mercury-free alternatives where feasible, ensure lamps containing mercury are diverted, and track and report on progress.
- Increase accessibility and implementation of guidelines and best practices – Promote the use of guidelines and best practices for purchasing mercury-free lamps and managing existing lamps containing mercury in ways that are environmentally sound.
- Improve performance measurement and reporting – Consistent performance measurement and reporting are in place to evaluate the implementation and effectiveness of the national strategy.

ECCC is studying existing mandatory and voluntary end-of-life management programs for lamps containing mercury in Canada to determine lessons learned, and develop best practices or a model approach to improve diversion.

3 Recent Ontario Provincial Solid Waste Policies, Programs and Legislation

This section describes three major policy, program and legislative initiatives in Ontario that are actively shaping the current waste management/waste diversion landscape in the province:

- The Waste Free Ontario Act
- The “New” Made-in-Ontario Environment Plan



- The transition of residential waste diversion plans for tires, electronics and batteries, Municipal Hazardous or Special Waste and the provincial Blue Box program

3.1 Waste-Free Ontario Act

On June 1, 2016, the Ontario Legislature passed Bill 151, the *Waste-Free Ontario Act, 2016*¹⁵ (*WFOA*). *WFOA* replaced the *Waste Diversion Act, 2002* (*WDA*) with a new producer responsibility framework that makes producers individually responsible and accountable for their products and packaging at end-of-life. Under this regime, producers become directly accountable for recovering resources and reducing waste as required by regulation. *WFOA* set a new course for waste diversion in Ontario and this new course is resulting in changes in the way local and regional municipalities in Ontario will deliver some waste management services in the future. Some of the key anticipated changes for the City of Ottawa are summarized later in this Technical Memorandum.

There are two Schedules to the *WFOA*:

- Schedule 1 – The *Resource Recovery and Circular Economy Act, 2016* (*RRCEA*) that sets out the new producer responsibility framework; and
- Schedule 2 – The *Waste Diversion Transition Act, 2016* (*WDTA*) that sets out the operation of existing waste diversion programs (including their wind up).

In late 2016, sections of the *WFOA* were proclaimed including the continuation of the former Waste Diversion Ontario (WDO), established under the *WDTA* as the Resource Productivity and Recovery Authority (RPPRA). RPPRA is the not-for-profit, non-Crown organization that is responsible for registration, oversight, compliance and, perhaps most importantly, enforcement under the new producer responsibility regime. Its enforcement powers extend beyond what was the case with WDO. Its staff is also much larger, with a broad, electronically-based data registry to build and manage, and dedicated enforcement officers.

The introduction of “circular economy” thinking in the *WFOA* is a key distinguishing feature of this legislation for Canada. One of the important components of the new *Act* is the declaration of 17 specific “provincial interests” (Part 1 of the *Act*) that serve as the framework for policies to be developed by the Ministry of Environment, Conservation and

¹⁵ <https://www.ontario.ca/laws/statute/s16012> (accessed November 2019)



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Parks (MECP). These “interests” are very consistent with circular economy and zero waste thinking including:

- “Minimize greenhouse gas emissions;
- Increase the durability, reusability and recyclability of products and packaging;
- Minimize the need for waste disposal;
- Increase the reuse and recycling of waste across all sectors of the economy; and
- Hold persons who are most responsible for the design of products and packaging responsible for the products and packaging at the end of life.”

Several specific elements of the two *Acts* have a direct impact on the roles of municipalities (and producers) regarding the management of Ontario’s waste stream in the future:

- The Ministry has broad discretion under the *Act* to create policies that support specific provincial interests enumerated in the *Act*. In fact, *RRCEA* overrides, in some cases, obligations under other *Acts*. Municipalities could be required, for example, to amend official plans, zoning by-laws and other by-laws to be consistent with the policy statements contained within *RRCEA*.
- Under *RRCEA*, the Minister develops regulations, sets performance outcomes and operating standards. The Minister oversees the RPRA (the Authority) and appointed 5 members of the initial Board.
- Under the *WDTA*, the Minister directs the wind-up of existing diversion programs and industry funding organizations. On February 17, 2017 the Minister issued notice of the wind-up for the used tires program and Ontario Tire Stewardship (OTS). The tire wind-up plan was approved by the Authority and OTS ceased operations on December 31, 2018. This was the first operating diversion program to be wound up. Wind-up consultations and plans for Waste Electrical and Electronic Equipment (WEEE) and Municipal Hazardous or Special Waste (MHSW) are either planned or underway. The Blue Box Program will be the last program to be transitioned.
- *WFOA* is silent regarding any on-going role (i.e. beyond the transition period as laid out in the companion *WDTA*) for municipalities in waste diversion program delivery. *RRCEA* makes no provisions for producers’ responsibilities to municipalities; nor does the *Act* provide any authority to RPRA, the oversight agency, related to municipalities.
- A key function of the new Authority is the development and operation of the Registry in which regulated parties (e.g. brand holders/producers and likely service providers) are required to register and report information as specified by the Minister through



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Regulations (such as sales of regulated products and packaging, recovery performance, service standards, the regulation of service providers, etc.).

- The Authority has no policy-making function. That role lies solely and explicitly with the Province. While the Authority oversees the existing waste diversion programs during the transition period, it is no longer responsible for jointly operating these programs (a significant difference from the WDA/WDO regime).
- Finally, *WFOA* fundamentally changes how *EPR* programs are delivered in the Province. Under the previous *WDA*, each regulation stipulated one Industry Funding Organization (IFO) that municipalities could deal with to be paid for waste diversion services delivered. Under *WFOA*, individual “brand holders” are ultimately liable for meeting their waste diversion obligations, although they may still do so through a collective Producer Responsibility Organization (PRO). *RRCEA* makes no attempt to regulate the relationships between brand holders and PROs that may be contracted to discharge brand holders’ obligations; brand holders are free to form relationships and enter into agreements without any interference from the new Authority or the Province. True to the concept of “full *EPR*”, brand holders retain ultimate responsibility for fulfilling their environmental obligations. For all Ontario municipalities, this means a more complex landscape for any future partnerships where they want payment from brand holders for service delivery.

Under *RRCEA*, the Minister was also responsible for developing a “*Strategy for a Waste-Free Ontario*” intended to build a system that puts valuable materials destined for landfill back into the economy. On February 28, 2017, the Minister released the final “*Strategy for a Waste-Free Ontario*” (Strategy), after several months of active consultation. The government’s two primary goals in the Strategy were: 1) to achieve zero waste, and 2) to achieve zero GHG emissions from the waste sector. The Strategy was a roadmap to shift Ontario towards a circular economy and zero waste in the future.

The central importance of circular economy thinking to the new waste management legislation in Ontario was equally evident in the Strategy document. A circular economy aims to eliminate waste, not just from recycling processes, but also throughout the lifecycles of products and packaging. A circular economy aims to maximize value and eliminate waste by improving the design of materials, products and business models. A circular economy was described in the Strategy as an economy in which participants strive to:

1. Minimize the use of raw materials;



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2. Maximize the useful life of materials and other resources through resource recovery; and
3. Minimize waste generated at the end-of-life of products and packaging.

3.2 The New “Made-in-Ontario Environment Plan”

On November 29, 2018, the new Ontario government’s Minister of the Environment, Conservation and Parks presented his government’s [“Made-in-Ontario Environment Plan”](#). This plan essentially “supersedes” the former provincial government’s Waste-Free Ontario Strategy, although the *WFOA* and the two schedules (*RRCEA* and *WDTA*) remain in effect. This new plan retains a circular economy perspective and outlines four main areas of environmental action:

- Help protect our air, land, and water;
- Address litter and reduce waste;
- Support Ontarians to do their share in reducing GHGs; and
- Help communities and families prepare for climate change.

In the area of reducing waste (and addressing litter), two specific actions were identified:

1. Reduce plastic waste by: working with other provinces/territories and the federal government to develop a waste strategy to reduce plastic waste including microplastics to lakes and rivers (e.g. including the Great Lakes national/international agreements) and improve national standards that address recyclability and labelling for plastic products and packaging to reduce the cost of recycling.
2. Make producers responsible for the waste generated from their products and packaging by moving Ontario’s existing waste diversion programs to the producer responsibility model. This will provide relief for taxpayers and make producers of packaging and products more efficient by better connecting them with markets that recycle what they produce.

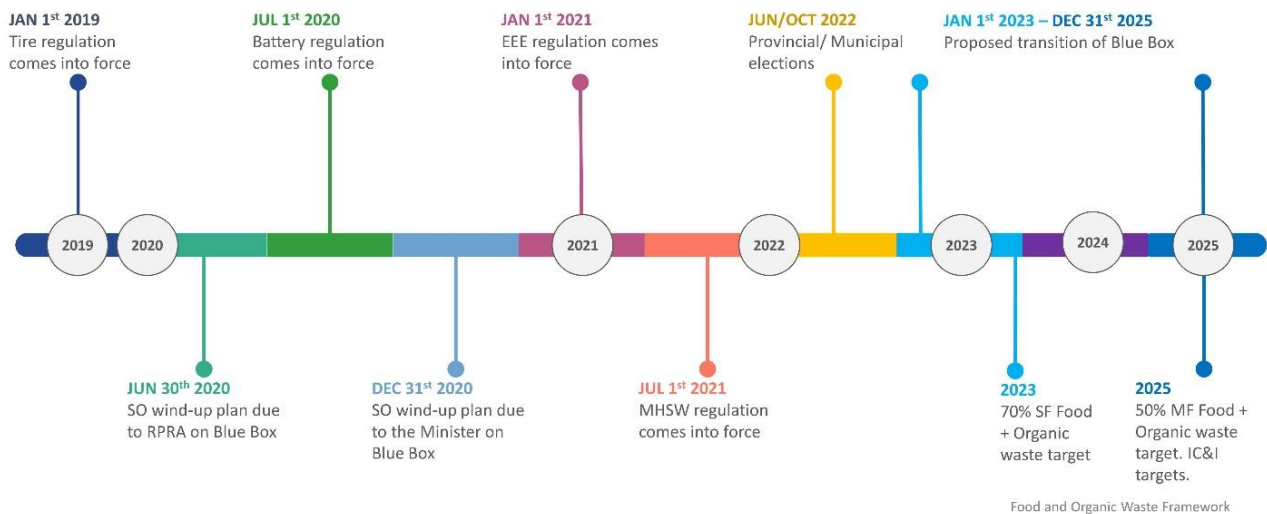
Reducing and diverting food and organic waste from households and businesses is also a key part of the plan as part of the Food and Organic Waste Framework.

The following image presents an overview of the timeline for the transition of diversion programs and the Food and Organic Waste Framework. These are further discussed in the following sections.



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Figure 1: Transition of Diversion Programs



3.2.1 Transition of Residential Waste Diversion Programs in Ontario

In addition to the transition of the Blue Box Program to a regime of Individual Producer Responsibility¹⁶ (IPR), three other material programs (for tires, WEEE, and MHSW) were selected for transition prior to the Blue Box Program. The Blue Box Program transition is expected to be the most complex and time-consuming. As described below, the transition of each of these three materials are in different stages of progress.

¹⁶ EPR is a broad policy approach, under which IPR falls as an implementation model. The individual brand owner/manufacture is responsible for end-of-life management through direct management of materials or contracting with service providers to manage materials on their behalf. For the purpose of this Technical Memorandum, Ontario's program will be referred to as IPR.

**Plan directeur des déchets solides****Tires**

In February 2017, the Minister of the Environment and Climate Change directed the wind up of the Used Tires Program on December 31, 2018 and OTS soon after. The Used Tires Program was the first waste diversion program to be wound up under the *WDTA* and, therefore, tires were the first material designated under Ontario's IPR requirements. On January 1, 2019, tire producers became directly responsible and accountable for meeting mandatory and enforceable targets for collecting and recycling used tires. Tire producers, PROs, and service providers (collectors, haulers, re-treaders and processors) are now regulated by the RPRA.

As directed by the Minister, OTS submitted its wind-up plan to the Authority on November 30, 2017. The Authority consulted on the wind-up plan between December 2017 and March 2018, and approved the wind-up plan with conditions in April 2018. Although the Used Tires Program ended on December 31, 2018, OTS continued to operate as a corporation for a period to finalize legal, financial and operational obligations. This included:

- Collection and reconciliation of outstanding steward fees for 2018; and
- Processing of payments for collection allowances, transportation incentives, processing incentives and manufacturing incentives in relation to 2018.

During the fall of 2019, a liquidator was retained to formally wind up and dissolve OTS as a corporation. The liquidator will initiate a process to sell off any remaining eligible OTS assets lay off remaining OTS staff and wind down OTS as a corporation. Following this process, and if there are any excess funds, stewards will receive a rebate.

To ensure the flow of used tires during the wind-up of the Used Tires Program and the transition to the new regulatory framework, the Authority changed the deadlines in the wind-up plan for collectors, haulers and processors to be eligible for incentives.

There are three notable features about the start-up of the Province's first IPR program for a designated material:

1. The new IPR regime has replaced OTS as the single IFO with multiple (currently five) PROs. The final number of Tire PROs is not yet certain, but it indicates RPRA's move away from a "monopolistic" IFO system;



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2. Under the new regime, producers selling tires are required by law to accept tires from Ontario consumers. Thus, the new regime effectively sets a 100 percent collection target for tires in Ontario going forward; and
3. Based on the launch of the registry for the tire program, RPRA is proposing to make reporting easier and faster for regulated communities by changing the mandate of the RPRA. To do this, amendments to the *RRCEA*, the *Environmental Protection Act* (EPA) and the *WDTA* are required and being asked for. This would allow RPRA to offer digital reporting services for a wider range of waste and resource recovery programs. Currently RPRA only collects information related to resource recovery and waste reduction programs. It is being proposed that RPRA collect information for other programs beyond resource recovery and waste reduction. This would include having RPRA carry out registration of programs and overseeing reporting, data management and fee collection for duties related to waste, beyond waste reduction, or resource recovery. This issue is now before the MECP for its consideration. At this time, there is no further information on this initiative, nor its potential impacts on municipalities.

Waste Electrical and Electronic Equipment (WEEE)

In February 2018, the Minister of the Environment and Climate Change (MECC) directed Ontario Electronic Stewardship (OES) to wind up the WEEE Program. After wind up, electrical and electronic equipment (EEE)¹⁷, as with the other designated materials, will be managed under the new, mandatory IPR framework. This means that producers of EEE will be responsible for ensuring their products and packaging are collected and reused or recycled at end-of-life. The Minister directed OES to submit a wind-up plan to the Authority by December 31, 2018. OES submitted its plan on time for the Authority's approval. As part of its approval process, the Minister directed the Authority to consult on the proposed plan. The WEEE Program is to be wound up on December 31, 2020.

On April 2, 2019, the Minister of the Environment, Conservation and Parks requested that the Authority conduct additional consultation on OES's wind-up plan. The additional consultation sought feedback on options to ensure that OES's surplus funds be used for the benefit of Ontario consumers; for example, through a consumer rebate program.

¹⁷ EEE includes products such as televisions, laptops, printers, mobile phones, etc. and is the new term for what was WEEE in Ontario.



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Ontario is continuing its shift to a full producer responsibility framework for reduction, reuse and recycling of resources by proposing new regulations that will require producers to manage EEE and batteries at end-of-life in a safe and environmentally-sound manner. The proposed new regulations would require:

- producers to establish free collection networks for consumers;
- producers to achieve resource recovery (i.e. reduction, reuse and recycling) targets;
- producers to provide promotion and education materials to increase consumer awareness; and
- producers and service providers to register, report and keep records.

The regulation proposal sets out, in two regulations, the designation of two classes of materials under the *RRCEA* – EEE and batteries. Further, each class of material includes defined categories that are used to specify the responsibilities that producers of such materials in the category will be required to undertake. The proposal sets out four defined categories within the EEE class:

1. Information technology, telecommunications and audio visual equipment;
 2. Lighting, including lighting equipment, fixtures and bulbs;
 3. Large equipment, including appliances, power tools and fitness equipment, with at least one external dimension measuring more than 50 centimeters; and,
 4. Small equipment, including appliances, power tools, monitoring and control equipment, which has no external dimension that measures more than 50 centimeters.
5. The proposal sets out three defined categories within the battery class:
6. Small single-use batteries weighing 5 kilograms or less;
 7. Small rechargeable batteries weighing 5 kilograms or less; and,
 8. Large batteries weighing more than 5 kilograms.

It is proposed that producers of all categories of batteries and certain categories of EEE (e.g. information technology, telecommunications and audio visual equipment, and lighting) will be subject to all of the responsibilities relating to collection, management, promotion and education, registration, reporting and auditing. The producers of the



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Minister directed the Authority to consult on the proposed plan before considering approval. RPRA consulted on SO's proposed MHSW Program wind-up plan by hosting several regional meetings until November 21, 2019. The consultations were open to all MHSW Program participants, municipalities, the public and other interested stakeholders. SO's [Wind-Up plan](#) is now posted on RPRA's website. Following the consultation period and, as directed by the Minister, the Authority anticipates its approval of the plan by the end of 2019. The new MHSW regulation comes into force on July 1, 2021.

Consultations on the new MHSW regulation have not yet started or been scheduled, but it is anticipated that they will be initiated some time in 2020. All key stakeholders (including municipalities like the City of Ottawa) will be invited and encouraged to participate. In October 2019, the MECP confirmed it will move forward with an electronic system to allow businesses and governments to better track and report on hazardous wastes.¹⁸ This system will be developed and managed by the RPRA. Amendments will affect the *RRCEA*, the *EPA* and the *WDTA*.

3.3 Food and Organic Waste Framework

[Ontario's Food and Organic Waste Framework](#), consists of Part A (Food and Organic Waste Action Plan) and Part B (Food and Organic Waste Policy Statement). The Framework supports the vision originally put forward in the *Strategy for a Waste-Free Ontario*. The main tenets of the Framework include:

- Reduce food and organic waste
- Recover resources from food and organic waste
- Support resource recovery infrastructure
- Promote beneficial uses of recovered organic resources

3.3.1 Part A: Food and Organic Waste Action Plan

The Food and Organic Waste Action Plan lays out a number of actions highlighted in the following sections.

¹⁸ <https://news.ontario.ca/medg/en/2019/10/making-ontario-work-better-for-people-smarter-for-business.html>
(Accessed November 2019)



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Reducing Food Waste

- Working with partners (e.g. Foodland Ontario, municipalities, Industrial, Commercial and Institutional (IC&I) sector, non-profits) to develop promotion and education tools to support food waste prevention and reduction.
- Enhancing and incorporating waste reduction and resource recovery activities in schools (e.g. waste audits, workshops, guidelines and training).
- Working with the Government of Canada on initiatives to prevent food waste (e.g. best before dates, food labelling modernization).
- Innovative approaches and tools to rescue surplus food (e.g. food donations).
- Develop food safety guidelines to support the safe donation of surplus foods.
- Research aimed at reducing and recovering food and organic waste (e.g. through MECC research programs, investments in innovation, and Ministry of Agriculture, Food and Rural Affairs).
- Developing data collection mechanisms to measure progress in waste reduction and resource recovery.

Recovering Resources from Food and Organic Waste

- Amend the 3Rs regulations to include food and organic waste and increase resource recovery across the IC&I sector. This could include different thresholds depending on geographic location, sector and facility size.
- Ban food and organic waste from disposal. The Province will develop, consult on, and implement a food and organic waste disposal ban regulation under the *EPA*.
- Support recovery of food and organic waste from multi-unit residential buildings through a review of the *Building Code* to assess the requirements for new construction to enable and promote design and construction options.¹⁹
- Develop best management practices to encourage better use of public waste receptacles.

Support Resource Recovery Infrastructure

- Review existing approval processes and requirements for resource recovery systems using a modern regulator approach, which may include: pre-determined

¹⁹ The enforcement of the Building Code Act is primarily in the hands of municipalities. In the event that the Building Code is amended as proposed, the City of Ottawa Building Code Services will have the responsibility to enforce the requirement(s) for resource recovery in multi-unit buildings through the issuance of Building Permit.



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setbacks and standards for small-scale and low-risk food and organic waste processing sites such as community composting; on-site composting etc.; updating the checklist for technical requirements for complete Environmental Compliance Approval (ECA) submission for all medias (e.g. air, noise, waste – including food and organic waste); to reduce risk of incomplete applications and supporting opportunities for innovative demonstration projects (e.g. waste pilot projects) to assist designing, assessing, or demonstrating the merits of a new technology.

- Requiring standardized training for owners and operators of resource recovery systems that undertake composting and anaerobic digestion.
- Review its *D-Series Land Use Compatibility Guidelines* to support the development of resource recovery systems which could include, consideration of buffers and setbacks for processing facilities, requirements for studies and feasibility analyses to identify and address nuisance impacts as they relate to organic-related odour issues.

Promote Beneficial Uses

- Support healthy soils with strong standards and clear requirements for the use of soil amendments, while protecting the environment and human health.
- Support development of renewable natural gas including consideration for linkages to food and organic waste (e.g. markets for biogas).
- Support green procurement practices, including the use of end-products, such as compost and digestate.

Timing

The majority of these initiatives are scheduled to occur from 2018 to 2020. Long-term strategies (2021 and beyond) include amending the *3Rs Regulations* for the IC&I sector, banning food and organic waste from ending up in disposal sites (phased in beginning in 2022), supporting organics recovery in multi-unit buildings, and supporting the development of renewable natural gas.

In June 2019, the Province announced that a Compostable Products Technical Working Group had been established to set rules for compostable packaging materials and to ensure these materials would be accepted by emerging and established Green Bin programs in Ontario. The Working Group is made up of experts from municipalities, industry and the waste management sector. To-date, no results of this group have been made available to the public.



3.3.2 Part B: Food and Organic Waste Policy Statement

Ontario's Food and Organic Waste Policy Statement²⁰, approved by the Ontario Cabinet in 2018, sets a policy direction for the Province for food and organic waste. It was issued under section 11 of the *RRCEA* and provides direction to public and private parties on *"waste reduction and resource recovery through preventing and reducing food waste, effectively and efficiently collecting and processing food and organic waste, and reintegrating recovered resources back into the economy"*.

It is intended to support the Province's goals of building a circular economy, reducing GHGs, zero waste, and the Province's Climate Change Action Plan targets.

It states that certain sectors must ensure that they act in a manner that is consistent with the policy statement when engaging in actions related to resource recovery and waste reduction. The Policy Statement should be cross-referenced and considered alongside other existing policies, e.g., *EPA, Planning Act, Environmental Assessment Act, Water Resources Act*, etc.

The Policy Statement references the Ontario Food Recovery Hierarchy, which provides the following priorities in order of importance:

²⁰ <https://www.ontario.ca/page/food-and-organic-waste-policy-statement#section-11>



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- I. **Reduce:** prevent or reduce food and organic waste at the source.
- II. **Feed People:** safely rescue and redirect surplus food before it becomes waste.
- III. **Recover Resources:** recover food and organic waste to develop end products for beneficial reuse.

The Policy Statement has established targets for waste reduction and resource recovery by sectors. Section 4 of the Statement has policy directions and targets for each of the residential, multi-family and IC&I sectors. The following table summarizes the Policy Statement's diversion percentage targets and timelines for food waste and organics by each sector's generator of relevance to the City. Highlights of other sections of the Policy Statement are provided in Table 2.

Beneficial use means the use of recovered food and organic waste to recover nutrients, organic matter, or moisture to improve soil fertility, soil structure or to help build soils where they do not exist.

Resource recovery means the extraction of useful materials or other resources from things that might otherwise be waste, including through reuse, recycling, reintegration, regeneration or other activities. This includes the collection, handling, and processing of food and organic waste for beneficial uses.

Waste Reduction means the minimization of waste generated at the end of life of products or packaging, including through activities related to design, manufacturing and material use (as defined in the Resource Recovery and Circular Economy Act, 2016).

Source: Ontario Food and Organic Waste Policy Statement



Table 2: Waste Reduction and Resource Recovery Targets by Sector

| Section Reference | Requirement | Target and Date |
|-------------------|---|---|
| 4.1 | Municipalities that provide source separated food and organic waste collection shall maintain or expand these services to ensure residents have access to convenient and accessible collection services. Other collection methods, such as directing disposal streams to mixed waste processing, may be used to support collection of additional materials. | 70% waste reduction and resource recovery of food and organic waste generated in urban settlement areas by 2023. |
| 4.10 to 4.13 | Multi-unit residential buildings shall provide collection of food and organic waste to their residents. Source separation is preferred but like 4.1, alternatives to collecting this stream may be used if it demonstrates that provincial targets can be met. Best practices need to be implemented and buildings need to promote and educate residents to increase participation. | 50% waste reduction and resource recovery of food and organic waste generated at the building by 2025. |
| 4.14 to 4.17 | The Statement provides direction to certain groups (i.e. subject to <i>O.Reg.103/94</i>) under the industrial and commercial sectors (e.g., retail, office, restaurants, hotels, motels, large manufacturing) based on the quantity of food and organic waste generated each week. | Ranges from 50% to 70% waste reduction and resource recovery of food and organic waste depending on the quantity of food and organic waste generated in the facility by 2025. |



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| Section Reference | Requirement | Target and Date |
|-------------------|---|--|
| 4.14 | All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels and large manufacturing establishments, subject to <i>O. Reg. 103/94</i> that generate 300 kilograms or more of food and organic waste per week <u>shall</u> source separate food and organic waste. | 70% waste reduction and resource recovery of food and organic waste generated in the facility by 2025. |
| 4.15 | All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels, and large manufacturing establishments, not subject to <i>O. Reg. 103/94</i> , that generate 300 kilograms or more of food and organic waste per week <u>shall</u> source separate food and organic waste. | 50% waste reduction and resource recovery of food and organic waste generated in the facility by 2025. |



| Section Reference | Requirement | Target and Date |
|-------------------|---|--|
| 4.16-4.17 | <p>All other retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels and large manufacturing establishments that generate less than 300 kilograms of food and organic waste per week <u>should</u> source separate food and organic waste.</p> <p>All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels, and large manufacturing establishments shall provide users of these facilities promotion and education materials that support and increase participation in resource recovery efforts.</p> | No target or date specified. |
| 4.18 | Educational institutions and hospitals, subject to <i>O.Reg. 103/94</i> , that generate more than 150 kg of food and organic waste per week <u>shall</u> source separate that stream. | 70% waste reduction and resource recovery generated in the facility by 2025. |

Municipalities can achieve their targets through waste reduction and resource recovery efforts for food waste and soiled paper. Additionally, leaf and yard waste, seasonal outdoor wastes, flowers and houseplants may contribute towards achieving targets.

Section 2.4 of the Policy Statement encourages persons or entities to engage in additional efforts to reduce and recover the following types of organic waste: personal hygiene and sanitary products, shredded paper and additional fibre products, pet food and waste, and compostable products and packaging.



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It is important to note that beyond the general definitions provided in the Policy Statement, definitions of waste reduction and resource recovery have not been provided in the context of organics. The Policy Statement notes that waste reduction and resource recovery activities shall be achieved through:

- The prevention or reduction of food and organic waste at the source;
- The safe rescue and redirection of surplus food before it becomes waste; and
- The recovery of food and organic waste to develop end-products for a beneficial use;

It also notes the following do **not** count as waste reduction and resource recovery activities:

- The use of food and organic waste to generate alternative fuels or energy from waste without the concurrent recovery of nutrients;
- The direct discharge of food waste or organic waste into a municipal sewer, including when facilitated by food waste disposers or other grinding devices²¹; and
- The use of recovered organic resources for landfill cover.

Additional relevant sections of the Policy Statement include:

- Section 5 - covers the new and emerging waste stream of compostable products and packaging. It is stated that this stream should be recovered for a beneficial use and not sent to disposal and acknowledges producer responsibility should be taken into account.
- Section 6 - gives direction on resource recovery infrastructure planning, approvals, sustainability (e.g., reducing greenhouse gases, creating digestate), other methods to recover food and organic waste (e.g., mixed waste processing, wastewater treatment) and biosolids management.
- Section 7 - covers promotion of beneficial reuse.
- Section 8 - provides details on implementation and interpretation of the Policy Statement including a progress review every five years.

3.4 Changes to the Environmental Approvals Process

In the Made-in-Ontario Environment Plan (released in November 2018), the government committed to modernize Ontario's environmental assessment program to ensure strong environmental protection, while eliminating duplication, streamlining processes, providing

²¹ Note, this would preclude the use of in-sink garbage disposals.



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clarity to applicants, improving service standards to reduce delays, and better recognize other planning processes that have evolved over the past four decades.²²

In May 2019, the Ontario Government introduced Bill 108, the *More Homes, More Choice Act, 2019*. An amendment to the *Environmental Assessment Act (EAA)* was included in this Bill. MECP published a discussion paper²³ to guide public consultation on a section of this Act, *Modernizing Ontario's Environmental Assessment Program*, which was available for comment in April/May 2019. The Bill received Royal Assent in June 2019.

Amendments to the *EAA* include;

- Exempting certain low risk undertakings from Class EAs;
- Limiting the application of Part II or Bump up Orders

It does not appear that these changes would impact most waste management projects, as the current process of permitting would still be required.

It should be noted that changes to the *Development Charges Act* as part of this Bill will eliminate the 10% statutory reduction for solid waste diversion costs.

The application of the *EAA* to waste management projects in Ontario has been standardized and applies equally to public and private sector proponents. *Ontario Regulation 101/07 Waste Management Projects*, under the Act, and its accompanying Guide to Environmental Assessment Requirements for Waste Management Projects outlines three potential environmental assessment process streams depending on the type of project and the potential for environmental effects. These process streams include the requirement for an individual environmental assessment, an environmental screening, or being exempt from the requirements of the Act.

4 Strategies Relevant to the SWMP

While there are a number of federal and provincial strategies regarding waste management described in this Technical Memorandum, the strategies particularly relevant to the development of Ottawa's SWMP include EPR (particularly the Blue Box

²² <https://ero.ontario.ca/notice/013-5102>

²³ <https://prod-environmental-registry.s3.amazonaws.com/2019-04/EA%20Discussion%20Paper.pdf>



Program transition), organics bans or mandatory organics diversion, and single-use items/plastics strategies. These are more fully discussed in the following sections.

4.1 EPR and Ontario's Blue Box Program Transition

At the end of July 2019, Special Advisor David Lindsay issued a report (requested by the Minister of Environment, Conservation and Parks) on recycling and plastic waste called "[Renewing the Blue Box: Final Report on the Blue Box Remediation Process](https://www.ontario.ca/page/renewing-blue-box-final-report-blue-box-mediation-process)".²⁴ This report, completed in a little more than a month with active consultation with producers, the Association of Municipalities of Ontario (AMO) and other key stakeholders, was intended to develop a path for the transition of the Blue Box Program to full producer responsibility. Seven key "mediation issues" were identified in the report, areas of consensus/no consensus among the groups consulted on the issues were noted and recommendations presented for actions to move towards draft regulations. The key mediation considerations were:

1. A measured timeframe for the transition to a new EPR framework of 100 percent producer responsibility for the Blue Box Program (from 2019 through 2025).
2. Ensuring a common collection system with uninterrupted service during the transition period.
3. Transitioning municipal assets in a way that municipalities may bid on future services, but producers are free to determine what (public and private) assets are used.
4. Standardizing what's in the Blue Box – regulations are to establish a common set of materials and set clear diversion goals from landfill.
5. Determining eligible sources for Blue Box materials - e.g. include multi-residential buildings, selected businesses, parks and other public spaces but NOT major IC&I sources.
6. Setting effective design targets - i.e. material specific targets by category that drive diversion and challenge industry to innovate.
7. Promote increased diversion from landfills - materials entering the Blue Box should be reused or recycled; incineration and energy from waste should NOT count as diversion.

²⁴ <https://www.ontario.ca/page/renewing-blue-box-final-report-blue-box-mediation-process> (Accessed November 2019)



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On August 15, 2019, the Minister made a three-part announcement to “Improve Recycling and Tackle Plastic Waste.”²⁵ First, to move Ontario forward immediately by issuing direction to SO outlining the next steps and timelines to transitioning the program to producer responsibility, starting in 2023. Secondly, over the coming year, to begin consultations and develop regulations to support the new producer responsibility framework. And thirdly, to work with municipalities to begin transferring responsibility for their programs to producers starting January 1, 2023 with complete transfer finished by December 31, 2025.



On August 15, 2019 the Minister also sent wind-up direction letters simultaneously to RPRA and SO. SO’s Blue Box Program wind-up plan is due to the Authority on June 30, 2020 and the Authority anticipates reviewing and approving the plan by December 31, 2020. This represents the most concrete step thus far in transitioning the Blue Box Program in Ontario to full producer responsibility. The direction letters align with Ontario’s Special Advisor’s Recycling and Plastic Waste report submitted on August 6, 2019. The key principles to guide the development of the plan are:

- Parties affected by the transition should be consulted and have the opportunity for meaningful engagement during the development and implementation of the plan;
- The plan shall support competition in, and not adversely affect, Ontario’s current and future marketplace for the collection and recovery of paper products and packaging; and,

²⁵ <https://news.ontario.ca/ene/en/2019/08/ontario-announces-next-steps-to-improve-recycling-and-tackle-plastic-waste.html> (Accessed November 2019)



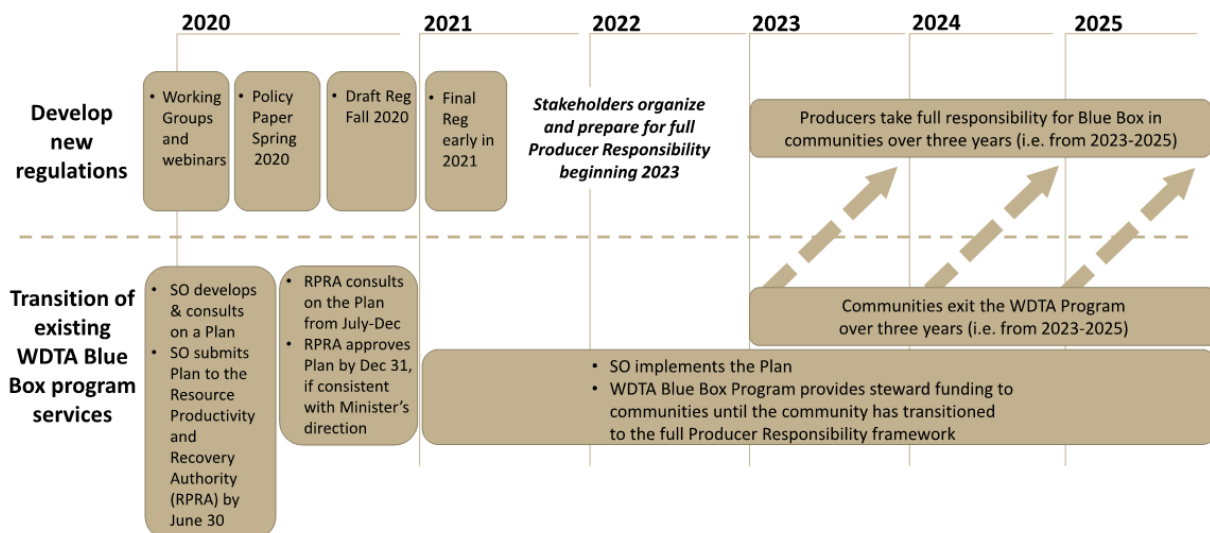
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- Ontarians' access to and experience with the Blue Box Program shall not be negatively impacted during the transition.

On November 27/28 2019, the MECP conducted public webinars describing the process for developing producer responsibility regulations for the Province's Blue Box system under the new IPR regime. The webinar presentation included a "Roadmap to Producer Responsibility for Blue Box" as presented as Figure 2.

Figure 2: MECP Roadmap to Producer Responsibility for the Blue Box Transition

Roadmap to Producer Responsibility for Blue Box



New Blue Box regulations will be developed under the *RRCEA*. In developing the regulations, the MECP has invited three stakeholder working groups (a Producer Group, a Municipal Group and a Circular Economy Group) to participate in the process and provide the MECP with a diverse and balanced range of perspectives. The contributions of the Working Groups will inform further public consultations on the proposed policy and regulations. MECP has indicated that there will be four key elements to developing Producer Responsibility regulations for the Ontario Blue Box System. They are:

1. Regulations under *RRCEA* replace government-approved stewardship plans



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2. Regulates outcomes in key areas, including:
 - a. A hierarchy of producers that are responsible for meeting outcomes
 - b. Materials to be collected
 - c. Collection and management requirements
 - d. Registration and reporting
3. The Authority (RPRA) provides oversight, compliance and enforcement
4. Regulated parties register with the Authority and have some reporting and recording requirements.

As per the schematic above, three series of webinars will be held at each milestone of regulatory development to allow all stakeholders to provide feedback:

- November 27/28, 2019 - the launch of the regulatory development process
- Spring 2020 – the release of a policy paper that describes the proposed regulatory system
- Fall 2020 – posting the draft regulations on the Environmental and Regulatory Registries

In summary, MECP will post two documents for public review and comment: a policy paper on the proposed details of the new Blue Box system (written with the input of each Working Group) and draft producer responsibility regulations and potential regulatory amendments. As noted earlier in this Technical Memorandum, this process will then culminate with transitioning the Blue Box Program from January 1, 2023 to December 31, 2025 to full producer responsibility.

The City of Ottawa has been offered the opportunity to engage in this process through its invitation/selection as one of 28 municipalities/municipal organizations to join the Municipal Working Group. Some of the key issues for the City's consideration as part of that and the City's own internal planning processes are discussed later in this document.

4.2 Organics Bans/Mandatory Diversion

Two of the actions in the Made-in-Ontario Environment Plan deal with plastic waste reduction and expanding producer responsibility. Two additional actions focus (in a general way) on organic waste management and reduction:

1. Reduce and divert food and organic waste from households and businesses, by:



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- i) Expanding green bin or similar collection systems in large cities and to relevant businesses.
 - ii) Develop a proposal to ban food waste from landfill (and consult with key partners).
 - iii) Educate the public and businesses about reducing and diverting food and organic waste.
 - iv) Develop best practices for safe food donations.
2. Provide clear rules for compostable products and packaging, by:
 - i) Ensure new compostable packaging materials in Ontario are accepted at existing and emerging green bin programs across the province by building a consensus around requirements for emerging compostable materials.
 - ii) Consider making producers responsible for the end of life management of their products and packaging.

Three of these actions merit consideration and potential action by the City of Ottawa:

- Food waste bans at landfill;
- Developing a consensus around requirements for emerging compostable materials; and,
- Making producers responsible for the end of life management of ALL their products and packaging (i.e. not just what ends up in the blue box).

Possible approaches to each of these and other waste diversion issues for the City of Ottawa are discussed later in this Technical Memorandum.

With regard to the issue of “making producers responsible for all of their products and packaging”, a recent development in the Recycle BC (RBC) province-wide EPR program for PPP is noteworthy. RBC’s revised 5-year plan²⁶ (submitted in October 2018 and approved in June 2019 by the B.C. government) raises the issue of collecting paper products in organics collection systems.

The RBC plan addresses the issue in this way:

“Recycle BC will also undertake research (initiated in the fall of 2019) through dedicated waste sorts) to determine the extent to which the quantity of PPP in organic waste collection programs is actually composted at end of life...If the

²⁶ https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/paper-package/recycle_bc_approval_letter_and_epr_plan_june_2019.pdf



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quantity is significant, and Recycle BC is able to determine the quantity of PPP recovered annually in organic waste collection programs, Recycle BC will include the end of life disposition of this PPP ...and will develop financial incentives to incentivize the management of appropriate types of PPP (e.g. soiled fiber and compostable bioplastics) in the organics stream.”²⁷

A further extension of this notion of EPR is the consideration that producers might also be held responsible in the future for obligated Blue Box materials that end up either in the waste stream (i.e. landfill) and/or as litter. It is worth noting that litter is a major new focus of the European Union’s Single-use Plastics Directive (summarized in **Appendix 1**).

With regard to current composting practices in Ontario, the “Guideline for the Production of Compost in Ontario (2012)”, the companion document to the “Ontario Compost Quality Standards” (“Standards”), notes the following regarding compostable plastic in Section 5.2.1 under Part III – Operating Guidelines:

“The use of certified compostable bags and paper bags may be suitable, but should also be thoughtfully considered with regard to processing capabilities. For example, the facility should be equipped with adequate processing technology (e.g., to break apart the bags) and adequate composting conditions and material retention time so that the bags, and their contents, fully decompose.”

Section 5.2.2 of the Guideline makes the following statement regarding compostable products and packaging: “Careful consideration should be given to the acceptance of compostable products or packaging. If accepted, preference should be given to “certified compostable” items or paper products. Not all biodegradable or compostable materials decompose under typical composting conditions.” However, certified compostables are required to meet specific performance criteria. Other factors to consider include:

- the compatibility of the product or packaging with the facility’s equipment;
- the duration of the active composting process relative to the criteria for certification; and,
- the means to educate waste generators on the compostability of the material and the collection method.

²⁷ Recycle BC , *Revised Recycle BC Program Plan*, p.19, October , 2018



4.3 Single-use Plastics

The issue of single-use plastics along with the concepts of the circular economy and EPR as described earlier in this memorandum have begun to be a dominant issue regarding the future of waste management, diversion and reduction in Canada. This section focuses in on the issue of single-use plastics (SUPs) and shows a wide range of research and current action that might help inform the City of Ottawa's future approach to single-use plastics as part of its master planning process.

4.3.1 Canadian Leaders

While there have been recent and notable actions regarding the issue of SUPs (e.g. a plastic bag ban in Montreal, plans for banning foam cups and other food containers in Vancouver starting in January 2020, CCME's recent plastics project work and the Prime Minister's announcement last June for "European-like" plastic legislation), it can't be said there is yet much evidence of "Best Practices" for managing SUPs. There has however, been much local, municipal (and very recently provincial) action focusing on SUPs reduction and/or elimination. This section of the report summarizes some of the most recent actions that might help inform plans and actions in this area for the City of Ottawa.

Prince Edward Island – Single-use Plastic Bag Ban

On July 1, 2019, Prince Edward Island (PEI) became the first province in Canada to ban single-use plastic bags, under the *Plastic Bag Reduction Act* (Bill 114). The intent of the law is to reduce waste and environmental damage resulting from single-use checkout bags and to encourage a shift to use of reusable bags.

The Act prohibits a business from providing plastic checkout bags to customers. The alternate use of paper bags or higher quality reusable bags is encouraged as they generally hold more, result in less waste and are more durable.

The law applies to all businesses that provide checkout bags (not just grocery stores). The following key points apply to businesses in PEI:

- businesses can no longer provide plastic checkout bags to customers;
- no biodegradable or compostable checkout bags are permitted as an option;
- paper bags are an option (with a minimum charge of \$0.15 per bag) or reusable checkout bags (with a minimum charge of \$1.00 per bag);



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- no free paper or free reusable checkout bags aside from providing small recyclable paper bags (less than 600 x 600 sq. cm) at no charge;
- limited exemptions include bags used to protect prepared foods, loose items, food safety, medications, dry cleaning or some bulk items; and
- businesses retain the fee (subject to HST) collected for both the paper and reusable checkout bags. The fee must be displayed on the customer receipt.

Vancouver's Single-Use Item Reduction Strategy

The City of Vancouver adopted a Single-Use Item (SUI) Reduction Strategy and plan that includes several specific measures targeted to licensed businesses:

- a ban on the distribution of polystyrene foam cups and foam containers (January 1, 2020);
- a ban on the distribution of plastic straws (April 2020);
- a ban on plastic and compostable SUP bags with fees on paper and reusable bags starting January 1, 2021;
- a minimum fee of \$0.25 on all disposable cups starting January 1, 2021; and
- a ban on SUP utensils unless requested by customers, again starting January 1, 2021.

By-law requirements for plastic straws, paper and plastic shopping bags, disposable cups and single-use utensils were presented by staff and approved by Vancouver City Council in November, 2019.

ABOUT PLASTIC WASTE IN BC

- Cups and take out containers make up about 50% of items collected in public waste bins and a significant portion of litter;
- 2.6 million plastic-lined paper cups are thrown into the trash in Vancouver each week;
- 22% of large litter items in Vancouver are cups, lids and sleeves;
- 19% of large street litter in Vancouver is take-out packaging;
- Canadians throw out 57 million plastic straws a day; straws and stir sticks make up 2% of shoreline litter in Vancouver;
- 2 million plastic bags are thrown into the garbage per week in Vancouver (63% are reused as garbage bags); plastic bags make up 3% of shoreline litter and 2% of large street litter; paper bags make up 1% of street litter; and
- Small foam items make up 9% of Vancouver shoreline clean-up items (2016).

Source: Vancouver Waste Audit Data



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The City also committed to: investigate options to reduce public space waste and bin costs, recover those costs from businesses that generate that waste and require businesses to collect SUIs for recycling or composting as markets develop. Some of the key components of the SUI Reduction Strategy are summarized below.

- To further waste reduction goals, the Strategy looked at requiring annual reduction plans and targets for paper/plastic bags and disposable cups (2019), issuing a REOI for a City mug/reusable straw program, increasing business license fees if SUIs remain pervasive in large businesses, looking at funding options for Small and Medium Enterprises during the foam ban transition and implementing extensive public and business education. Guidebooks explaining each of the material bans passed by Council are now being prepared by staff for citizen and business use.
- Some of the “initial lessons learned” from Vancouver’s years of experience dealing with SUIs include:
 - Bans on polystyrene foam take out cups and containers are seldom contested by residents (i.e., it appears to be a good starting point).
 - Straw bans are controversial and there is more concern about accessibility issues than had been anticipated. This topic is shifting from a full ban into providing straws upon request only, thereby eliminating the unnecessary distribution of straws. No compostable plastic straws are allowed as an alternative in Vancouver and there is no specific mention of paper/fibre-based straws.
 - Polycoat paper cups are accepted by Recycle BC so are considered part of the Province’s 100 percent EPR program for Packaging and Paper Products (PPP).
 - Compostable and recyclable packaging materials are usually mixed up when discarded, contaminating both streams and making them impossible to process.
 - Alignment among municipal, regional, provincial and federal initiatives is needed to eliminate SUIs and enhance Circular Economy objectives.

City of Toronto, ON - Single-use Plastics Strategy

The City of Toronto is currently conducting a two-phase consultation process on “single-use and takeaway items”.

More than 20,000 people participated in Phase 1 consultations in the fall of 2018 through public events, stakeholder meetings, webinars, polling, an online survey and email comments. The

A single-use or takeaway item is defined as any product designed for a single-use after which it is disposed of in the garbage, Blue Bin (recycling) or Green Bin (organics).



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majority of participants expressed support for the reduction of single-use and takeaway items, a desire for reusable items instead of disposable items, and support for the implementation of both mandatory and voluntary approaches to ensure reduction of these items in the City of Toronto.

Phase 2 consultation occurred from September 24 to November 4, 2019. The consultations presented examples of potential policies and programs to develop a Reduction Strategy for Toronto. Participants were invited to comment on the proposed timeline for implementation and the proposed regulatory and voluntary approaches and programs.

A series of stakeholder consultations will also take place to engage with representatives from sectors including: hospitality, food, restaurants, retail, manufacturing, waste management, accessibility, the environment, and research. The City is sharing information and inviting participation through an extensive stakeholder list that includes groups that involve youth, seniors and newcomers. Some initial feedback from Toronto staff provided at the September 24, 2019 consultation session is as follows:

- Have not decided on anything for certain but at least five materials will be targeted for reduction strategies
- Want to ensure actual reduction and not just substitution
- Trying to balance accessibility needs with environmental outcomes
- Five materials most likely to be targeted include:
 - Single-use plastic and paper bags
 - Single-use plastic straws
 - Single-use hot and cold drink cups
 - Single-use Expanded Polystyrene (EPS) takeout containers and cups
 - Single-use eating utensils
- May implement a by request/ask first by-law for eating utensils (2021) and plastic straws (2022)
- May implement a fee by-law for plastic and paper bags (2021), and for hot and cold drink cups (2022)
- May ban the sale of EPS takeout containers and cups (2022).

Montreal, QC - Bag Ban

The City of Montreal became the first major city in Canada to ban single-use plastic retail carryout bags when its by-law came into effect on January 1, 2018 (the Montreal suburb



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The B.C. Court of Appeal said, in its written ruling in July 2019, that the by-law is intended to regulate businesses from providing plastic checkout bags but its aim was to protect the environment, and the effects of the by-law are felt by businesses. As a result, the City would be required to get the approval of the Minister of the Environment and Climate Change Strategy. (Please see **Appendix 3** for more information on this ruling).

As of November 2019, the Minister has yet to give that approval and the City is currently looking at its legal options, including an appeal to the Supreme Court of Canada. According to the Victoria Downtown Business Association, retailers in downtown Victoria are continuing to offer only paper and reusable bags despite the court decision.

Peel Region, ON - Single-use Plastics Strategy

In the fall of 2018, the Region of Peel partnered with three students from the Master of Science in Sustainability Management Program from the University of Toronto to develop a region-wide *Single-Use Plastics Waste Reduction Strategy* as the students' capstone project. The purpose of the strategy was to reduce the amount of single-use plastic waste being sent to landfill through a sustainable approach that improves the quality of the environment, benefits society and does not harm the economy.

The strategy is divided into three focus areas.

Focus Area 1: Background Review and Analysis, builds a state of knowledge on the issue of single-use plastics from a global, federal, provincial and local context.

Focus Area 2: Engagement & Policy Instrument Selection, contains a portfolio of potential policy instruments which are described and analyzed based on their characteristics related to application method, implementation process, enforcement and success measures, and steps to be taken upon Council approval. Further, an engagement plan was developed to highlight the steps needed for stakeholder consultation.

Focus Area 3: Implementation, highlights the steps to implement the selected policy instrument and monitor its effectiveness.

Peel Region staff report that they plan to table a draft plan for single-use plastics based on the findings of this study/strategy by the end of the first quarter of 2020.



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National Zero Waste Council Actions

The National Zero Waste Council is a leadership initiative of Metro Vancouver bringing together governments, businesses and non-government organizations to advance waste prevention in Canada and the transition to a circular economy. A focus on waste prevention and on cross-sector collaboration uniquely positions the Council as an agent of change in Canada - driving innovation in the design, production and use of goods in support of a circular economy. By taking action on the factors that drive waste generation, the Council is supporting a high quality of life, environmental sustainability and economic prosperity while consuming fewer resources and less energy.

Founded by Metro Vancouver in collaboration with the Federation of Canadian Municipalities in 2013, the Council has united, among others, six of Canada's largest metropolitan regions including Metro Vancouver, Toronto, Montreal, Halifax, Calgary and Edmonton, with key business and government leaders, academia and non-profit organizations in a call for national action and systems change to address waste generation. Historically the Council has been best known for its leading-edge work in food waste reduction with the development and roll-out of its national, very successful "Love Food, hate waste" campaigns. In recent years, as noted above, the Council has been a leading and effective spokes-agent for circular economy thinking and actions, especially as related to the GHG impacts of municipal operations in general and waste management operations and opportunities in particular.



On May 7, 2019 the Council's Plastics Advisory Panel produced its first plastics-focused report on "Regulatory Approaches for Priority Plastic Wastes". It is a useful primer and resource tool to help Canadian municipalities identify a selection of priority plastic wastes for action and suggests a suite of regulatory measures to prevent and better manage those plastic wastes. It might be worthwhile for the City of Ottawa to track and engage with the Zero Waste Council on its recent work in this area.



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Council of Canadians Plastic-Free Community Declaration

In September 2018, the Village of Bayfield, ON (permanent population of about 1,000, but many times that in summer months) became the first community in North America to be recognized by the Council of Canadians²⁸ as a “Plastic-Free Community”. There are five actions that must be completed in order to be recognized as a Plastic-Free Community:

1. *Governance* – A resolution from council or governing body.
2. *Engage businesses* – Have at least three local businesses commit to eliminating the use of plastics.
3. *Alliances* – engage community groups.
4. *Form a steering committee* – bring people together to work on the issue.
5. *Hold rallies* – cleanups, speaking engagements or other ways to the community.

Bayfield has undertaken the following initiatives to earn the recognition:

- The Town Council passed a resolution in 2015 to ban the sale of bottled water at municipal buildings and events.
- 80 percent of Bayfield eateries have committed to eliminating all single-use plastics and polystyrene.
- Through the Friends of Blue Bayfield Association, 2,500 refillable bottles have been distributed and with the help of sponsors, five water refill stations have been installed in the village.

4.3.2 Selected U.S. Leading City and State Actions

Just as is the case in Canada, there is a huge, and growing, range of action in the U.S. at the state - but mainly local, municipal - level on the issue of plastic (especially Single-use Plastic waste) and litter. Some of the early leaders on this work in the U.S. are briefly profiled below.

San Francisco, California

Like Vancouver, the City of San Francisco has a world-leading program to help address the SUP issue that includes several initiatives:

- Banning polystyrene and other non-recyclable food service items in 2006 through the City’s Food Service waste reduction ordinance.

²⁸ A non-profit organization advocating for social action. <https://canadians.org/>

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Seattle, Washington

The City of Seattle has a number of bans and requirements related to plastics and food service packaging, including:

- Expanded polystyrene (EPS) foam food service products banned - 2009.
- Single-use food service ware required to be recyclable or compostable - 2010.
- Plastic carryout bags banned - 2012.
- Compostable bags required to be tinted green or brown and non-compostable bags cannot be tinted green or brown - 2017.
- Non-compostable plastic straws and plastic utensils banned - 2018.

The City of Seattle also requires a \$0.05 charge for paper carryout bags as part of its ban on thin-plastic carryout bags. This fee is kept by the retailer to help offset increased costs.

There are a number of considerations the City has recommended exploring with respect to retail bags:

- Existing local or state bag charge requirements should remain in effect and U.S. federal requirements should be in addition to and offset by the local fees. For instance, if Seattle has a \$0.05 fee and a federal fee were to be imposed at \$0.15, the local fee requirement of \$0.05 would remain in effect and the additional federal fee would be \$0.10.
- The fee should **not** be placed in a federal fund. These monies would be subject to “*raiding*” for other purposes and would create an unnecessary government bureaucracy. Instead, fees should be kept in whole or in part by retailers, or should be managed by a PRO type organization, that is established to manage the funds and finance related waste prevention efforts and other bag related system improvements, outreach, and education.
- Also, Seattle initially passed a similar fee approach in which the fee went to the City to fund related programs. This was perceived as a tax and a money grab by the City by some, and that approach was rescinded through a referendum vote. A federal fee with fees going into a federal fund would be expected to face similar challenges.

Seattle’s expanded polystyrene (EPS) ban has been in place since 2009 and has been effective at eliminating EPS use by food service businesses. There are many options to replace EPS food service packaging. Banning its use in disposable food coolers and



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shipping packaging is an important next step and would be important to include in federal legislation.

New York City, New York

New York City (NYC) has taken action against single-use styrofoam containers by outlawing the material on January 1, 2019, but businesses were given a six-month transition period. The ban largely affects food establishments that use styrofoam for take-out or large beverages, and it also prohibits stores from selling "packing peanuts." Violators will be fined \$250 for the first offense, \$500 for a second offense and \$1,000 for third offenses and beyond.

Charlotte, North Carolina

The City of Charlotte "*sees the circular economy as a way to both bridge a growing social divide and reduce environmental impacts*". Its approach is guided by the "Circular Charlotte: Towards a Zero Waste and Inclusive City" report. Through a circular economy approach, the City aims to achieve 98 percent diversion by 2050, to increasingly source materials from local cycles, to become a circular business and innovation leader and to have less than 0.5 percent of its population living in poverty.

The report suggests activities that may help the City achieve these goals which include:

- Banning SUPs as a priority action;
- Appointing a Chief Circularity Officer for the city, creating municipal circular economy programs and securing long-term staffing and financing;
- Creating a task force for high priority waste streams that represents stakeholders, including citizens, various levels of government and business, to identify ways that collection and processing of these streams can be scaled up;
- Completing a baseline assessment of Charlotte's 'circularity';
- Working with the public sector to develop and provide support for a circular economy and support entrepreneurs seeking to start circular businesses;
- Establishing competitions and awards for circular innovations;
- Developing a local circular economy showcase and innovation center called the Innovation Barn;
- Collecting and evaluating appropriate data to monitor performance;
- Removing taxation on circular services;
- Providing refunds and credits to incentivize recycling behaviour;



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- Developing circular procurement criteria for municipal purchases and circular procurement guidelines for retail stores;
- Enacting strict enforcement and fines for failure to sort waste appropriately;
- Establishing funds for small scale recyclers to start up/scale up;
- Developing reverse logistics and material storage locations;
- Investing in waste sorting equipment and introduce new waste collection systems;
- Building a circular marketplace; and
- Developing a Circular City Dashboard so that residents can see their city's circular economy performance.

Selected U.S. State Actions

New York

On April 22, 2019 (Earth Day), New York governor Andrew Cuomo signed into law a statewide ban on SUP bags that comes into effect in March 2020. It is estimated that New York uses 23 billion plastic bags every year with 50 percent of those plastic bags ending up in landfills or as litter in cities and waterways.

The legislation bans the provision of SUP carryout bags at any point of sale, and provides the Department of Environmental Conservation (DEC) exclusive jurisdiction over all matters related to plastic bags. Garment bags, trash bags and any bags used to wrap or contain certain foods, such as fruits and sliced meats are exempt from the ban. Counties or cities will also be permitted to charge a \$0.05 fee for single-use paper bags. Three cents from the fee will go to the State's Environmental Protection Fund, while the other two cents will go to the locality to pay for distribution of reusable bags.

The plastic bag ban will not only reduce plastic bags in New York landfills and waterways, but it will also eliminate an estimated 12 million barrels of oil used to make plastic bags each year. New York will be the third state to completely ban plastic bags after California and Hawaii.

California

On November 8, 2016, California voters approved Proposition 67, the state-wide Single-Use Carryout Bag Ban. As a result, grocery stores, retail stores with a pharmacy, convenience stores, food marts, and liquor stores are no longer able to provide SUP carryout bags to their customers. Instead, these stores may provide a reusable grocery



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bag or paper bag with a minimum of 40 percent recycled content to a customer at the point of sale at a charge of at least \$0.10.

Reusable carryout bags must be certified by CalRecycle prior to being offered for sale. The certification process requires in part that reusable bags be “designed for at least 125 uses, with a use defined as the capacity to hold 22 pounds while walking 175 feet”.

In February 2019, CalRecycle submitted a report to the California Legislature presenting the results of a survey of 1,500 retail stores. The survey found that in the six months after the bag ban went into effect, in 86 percent of transactions, customers brought their own bag and did not purchase a paper or reusable bag. As a result, there was an 85 percent reduction in the number of plastic bags and a 61 percent reduction in the number of paper bags provided to customers.

However, a recent study of the California bag ban by University of Sydney economist Rebecca Taylor published in January 2019 reported that:

“...a 40-million-pound reduction of plastic per year from the elimination of plastic carryout bags is offset by an additional 12 million pounds of plastic from increased purchases of trash bags. In particular, sales of small, medium, and tall trash bags increased by 120 percent, 64 percent, and 6 percent, respectively. This means that 28.5 percent of the plastic reduction from disposable carryout bag policies is lost due to consumption shifting towards unregulated trash bags.”²⁹

It is also interesting to note one of the study’s conclusions:

“Alternatively, policymakers could incentivize the production and sale of inexpensive, thin grocery bags that are specifically designed and marketed to be used as trash bags after their use as carryout bags. These bags would need to be less than \$0.09 per bag to be price competitive with current four gallon trash bags and they would ideally be thin enough that their [carbon footprint](#) would not exceed traditional thin plastic grocery bags. In many ways, policies like this already exist. Instead of banning plastic grocery bags, some

²⁹ Rebecca Taylor, “Bag leakage: The effect of disposable carryout bag regulations on unregulated bags”, Journal of Environmental Economics and Management Volume 93, January 2019, P.255



jurisdictions such as Washington, DC, have implemented \$0.05 plastic bag fees. Bag fees allow customers to continue using plastic carryout bags as trash bags (for a small fee).³⁰

Other Notable State Actions on Single-use Plastics

Several U.S. states have enacted legislation banning SUP retail carry out bags. Some states (e.g., Maine and Vermont) also require that retailers charge a fee on paper carryout bags. As noted above, New York State allows municipalities to charge a \$0.05 fee on paper bags with \$.03 going to the State's Environmental Protection Fund. Strong state-wide plastic bag legislation such as seen in California is in stark contrast to "pre-emption" legislation passed in several other states (e.g., Florida, Wisconsin, Indiana, Iowa, Michigan, Mississippi, Missouri, and Arizona). These pre-emption laws prohibit municipalities from adopting local ordinances that further regulate a particular product, including bans or fees on carryout plastic bags and polystyrene foam containers.

The U.S. plastics industry (and industry generally) has found that they have more power at the state level and are increasingly focusing their legislative efforts on [pre-emption bills](#) in order to block all progress at regulating SUPs at the local level. The industry has developed a "[model pre-emption bill](#)" specific to banning local regulation of containers and this model is being pursued in several states. There have also been attempts to pre-empt local action on minimum wage, building efficiency rules, fracking, pesticide regulation, medicine take back programs and environment conservation efforts.

5 Initial Assessment of the Potential Impacts of Selected Federal & Provincial Solid Waste Policies, Programs and Legislation to the City of Ottawa's Waste Management System

A key development in the waste management/waste diversion landscape over the past few years - nationally and more recently in Ontario - has been significantly increased interest (and action) on EPR for a growing range of materials. This section describes some of those shifts and the opportunities and decisions these changes present to the

³⁰ *ibid*, P.270



City of Ottawa. This section also presents a discussion on other topical issues such as organics and SUPs.

5.1 Blue Box Transition Impacts

Probably the single most important change to Ottawa’s waste management system over the next five years will be the transition of the City’s Blue Box system to a full EPR regime. In Ontario, EPR is being implemented within the framework of Individual Producer Responsibility (IPR). Several important steps will be taken by the Province, by RPRA, by SO and (presumably) by new PROs yet to be created towards the system transition that is to occur between January 1, 2023 and December 31, 2025. The City will need to determine how it will engage with each of these organizations in each stage of this overall process. Clearly, it would be in the City’s interest to be an “early adopter” of the new system as the City’s current contracts³¹ for collection, processing and marketing of blue/black box materials expire on May 31, 2023. With regard to the City’s current processing contract, it’s not yet clear how that contract might be dealt with through the transition to full EPR.

However, many other Ontario municipalities are also expected to seek to be early in the “line-up” for transition. The rules about who goes first, who decides, based on what criteria, etc. still need to be determined. There is also a key decision for the City to make with regard to its potential future involvement in the Blue Box system (e.g. does the City want to serve as a collector and/or as a collection contract manager if those options are still on offer by one or more PROs?). Those decisions require more information than what is currently available in order for the City to make an informed decision in this area.

There are at least three Blue Box transition processes for the City to monitor and/or actively engage in:

1. Stewardship Ontario’s wind-up plan submission to RPRA

Stewardship Ontario’s (SO) wind-up plan is due to RPRA by the end of June 2020. The City of Ottawa, like every other city in the province, has a direct interest in how the current Blue Box Program is wound down (i.e. how funding will be maintained up to the final wind-up date). The Minister’s wind-up letter sent jointly to SO and RPRA requires that

³¹ The City’s curbside collection and MRF processing contracts expire on May 31, 2023 and the multi-residential contract expires in May 2025.

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interested parties be consulted on the plan (that ultimately requires the Minister's approval based on RPRA's recommendation). It is anticipated that SO's wind-up plan will be approved by December 2020. Either directly, through the Association of Ontario Municipalities (AMO) or both, Ottawa should participate in these wind-up consultations during 2020 to protect the city's and residents' interests.

2. The drafting of new Blue Box Material Regulations

As noted earlier, the Ontario Minister has directed his staff to begin consultations and develop regulations to support the new producer responsibility framework for Blue Box materials during 2020. The City of Ottawa was recently invited to participate in the Municipal Working Group. As noted earlier, each Working Group will play a pivotal role in informing the new Blue Box regulation development process. These regulations will provide the framework for how future Blue Box diversion services will be delivered to Ottawa (and all Ontario) residents. AMO and the Continuous Improvement Fund (CIF) held a series of Blue Box program update sessions for municipal and First Nations elected officials and staff in October/November 2019 which provided useful advice and direction to municipalities on some of the key issues that are expected to be addressed through the regulatory development process. MECP held webinars on November 27/28, 2019 which provided the most current overview regarding the issues, what, how and when the new Blue Box regulations are expected to be developed.³²

3. Detailed Blue Box Transition Planning

MECP has indicated (through the webinar cited above) that Ontario producers will transition out of the current SO funding system by about 250,000 tonnes per year (for three years) to full IPR by the end of 2025. The "rules" regarding who transitions when is strategically important to the City of Ottawa, as well as to every other municipality in the province. The City will also need to fully understand its options, and the impacts, if the City chooses the option (assuming it is available under the new IPR regime) to participate either as a collection contract oversight manager and/or as a direct collection service provider for one, or more than one, PRO(s) that will serve as the obligated parties in the future Blue Box program in Ontario.

³² Link to "Developing Producer Responsibility Regulations for Blue Box", November 2019



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Five additional future Blue Box material issues for consideration that might be raised by Ottawa and other Ontario municipalities in the consultations regarding the new Blue Box Regulations are:

- That Ontario municipalities have the “right of first refusal” to provide (and/or oversee) future Blue Box collection contracts as has been the case, for example, in the transition to 100% producer responsibility for PPP in British Columbia.
- A standardized list of Blue Box materials should be established for every municipality in Ontario. Ottawa (through AMO as well) should be engaged in ensuring that the accepted “to be recycled” product and packaging materials list is as extensive as possible, and that there is a robust process to continually add new packaging materials and eligible paper products as they are brought to market.
- Requiring future producers/PROs to pay for obligated recyclables that are recovered through Ottawa’s Green Bin program (e.g. pizza boxes, soiled paper towels, etc.). See for example Recycle BC’s response to this issue as described earlier in this report.
- Requiring future producers/PROs to pay for obligated materials that are collected by cities (like Ottawa) in cityscape litter clean-up programs. Again, there are public space pilot collection projects underway with Recycle BC and the City of Vancouver that might be informative for the City of Ottawa and other Ontario municipalities.
- Requiring producers/PROs to pay for obligated recyclables that end up in the City’s residential waste collection and landfills. This practice has been discussed in several European countries and is now in place in Austria. While it has been discussed as an idea in some parts of Canada, no municipality has thus far charged producers for managing obligated materials that end up in landfill.

5.2 Transition of Other Residential Waste Diversion Plans

IPR programs in Ontario for tires, a wider range of electronic and electrical equipment, and MHSW (e.g. potentially including mercury containing and other lamps) have recently been launched (in the case of tires) and/or are in the process of detailed regulatory consultations (for EEE and MHSW, regulatory consultation process timing has not yet been announced as of the end of November 2019 by MECP). In each of these cases, the City has two potential areas of interest and engagement:

Option 1 – Engage in consultations regarding the development of the regulations and subsequent EPR program delivery for the purpose of representing Ottawa’s residents regarding the details of each set of EPR regulations (and subsequent program delivery). A move towards full IPR presents an important potential new role for Ontario



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municipalities (including Ottawa), to act either individually or collectively, as “watch-dogs” over the evolution of these programs. For the past 25 years or more, Ontario municipalities have been the key delivery agents for residential waste diversion programs across Ontario. As the new full IPR regime is formed and comes into place (especially over the next three to five years) in Ontario, municipal experience and expertise can be used to help ensure the new programs are well designed and managed and meet their specified environmental objectives. Each municipality in the province has a choice to make as to whether or to what degree they might “watch-dog” the launch and performance of these new programs (i.e. on behalf of their citizens)

Option 2 – Alternatively, or in addition to, the City of Ottawa might choose to decide (for a variety of reasons) to take on some level of program delivery in one or more material areas, in the same manner that this option needs to be considered regarding the evolution of the City’s Blue Box Program. The new tire program is already underway and the City continues to accept residents’ tires at the landfill. Does the City of Ottawa have any interest or perceived need to be engaged (as a primary service provider or a partner) in the future delivery of either the expanded EEE program (which may, depending on the final regulation, include items such as large appliances, power tools and lighting) and/or in the new EPR program for MHSW (for batteries, paint, automotive materials, etc.)?

These two options are connected and not mutually exclusive. It is recommended that the City of Ottawa be involved in new IPR regulations and program development regardless, representing the long term interest of its residents. Through this engagement process, the City can also consider and determine its direct service interests and concerns in each and every aspect of Ontario’s new IPR programs. Whichever option the City pursues with respect to any program changes, extensive promotion and education (P&E) will be needed to educate the public on the new diversion programs.

5.3 Organic System Impacts

The implementation of the Food and Organic Waste Framework will have a dramatic impact on the City’s organics management program, as well as on processing facilities. In general, most municipalities in the Greater Toronto and Hamilton Area have already implemented SSO programs. Most municipalities in southwest and Northern Ontario have not yet implemented SSO programs. Some of the larger municipalities in Eastern Ontario have implemented SSO programs (e.g. Kingston, Belleville). There are in the



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order of a dozen organics processing facilities managing municipal source separated organics either privately or by municipalities themselves. There are a number of considerations regarding the implementation of this Framework for the City to actively engage in and monitor;

1. Processing Capacity

The City currently has a twenty year contract for organics processing with Renewi Canada Ltd. until 2030. This will ensure the City has sufficient processing capacity while other sectors are seeking processing capacity to fulfill provincial regulations. In advance of the contract expiration, the City will need to decide if it wants to develop its own facility or continue using private sector capacity, or some combination thereof. It is likely that there will be more processing capacity available by that time to meet the needs of the IC&I sector as industry moves to respond to the impending regulations.

2. Meeting Diversion Targets

The City will have to increase their promotion and education, and potentially enforcement efforts, in order to meet the provincial targets for reduction and recovery of organics, and to reduce quantities of organic waste ending up in disposal. This may also merit collection alternatives that encourage participation in diversion programs, such as clear bags or pay-as-you-throw.

3. Materials Accepted in the City's Green Bin program

With the impending changes and regulations related to single-use plastics and potentially a City of Ottawa strategy, the City may need to amend the types of bags accepted in the City's Green Bin program. Additionally, the City may need to develop policies on compostable products and packaging, including advocating for making generators maximize resource recovery and discourage disposal. As mentioned in the previous section, the City may also advocate for requiring producers/PROs to pay for obligated recyclables that are recovered through the City's Green Bin program.

The City may also need to decide if they will collect more organic materials (e.g. diapers) to meet their targets, particularly if the Province will be supporting generation of renewable natural gas and if the City utilizes a processing facility capable of capturing biogas.

4. Consultation



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The City should stay engaged in consultations regarding the implementation of a food waste disposal ban, EPR for products and packaging entering the Green Bin program, and timelines for implementation of recovery targets.

Banning food waste at landfills could have a significant impact on the Trail Waste Facility Landfill, through extending the life of the landfill, and decreasing the amount of methane generated. It could also have economic and environmental benefits, with increased employment associated with transportation and processing of organic waste, as well as reduced GHG emissions.

5.4 Single-use Plastics

SUPs have emerged as one of the most topical waste management issues around the world, including in Canada, and especially at the municipal level. The Ontario government's Made-in-Ontario Environment Plan has a plastics and litter focus not seen before in the province. In addition, the Blue Box transition process towards full producer responsibility is being framed – in part – as Ontario's way of helping to address both plastics and litter challenges. As noted above, that might form the basis for consideration of some increased level of producer responsibility for littered plastic (and other items) going forward e.g. as part of Blue Box transition discussions and plans.

There are a wide variety of local actions across Canada, including Ontario, to begin to address the issue of growing (and often not recycled in many programs) single-use plastic waste and litter. The most common focus is on plastic bags. Several Ontario municipalities have plastic bag ban motions in place but no bans have regulated thus far. Plastic stir sticks, hot and cold drink cups and other foodware (in both rigid and foamed formats) are also common areas of focus and concern. Some municipalities, in Ontario and elsewhere, are limiting/banning the sale of single-use PET bottles as well through their special events permits and city-managed facilities.

Three considerations are proposed for the City's possible approaches to deal with SUPs:

- Better SUPs management will require a high level of municipal, provincial and federal collaboration. Across the country, all three levels of government, business organizations and citizens groups are engaging with this issue. It is important that the City of Ottawa acknowledge the variety of interests and potential actions in its own local planning and actions, especially where federal and/or provincial action are likely.



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In those cases, the City's actions might be to support and/or lobby for these efforts at the higher levels.

- As discussed in the Technical Memorandum developed as part of Task 4, another growing area of municipal leadership is government procurement programs. For example, the federal government has committed to divert at least 75 percent of plastic waste from federal operations by 2030. Virtually all parties agree that part of the solution to growing waste streams is to increase the demand of post-consumer recycled (PCR) content for a wide range of materials, including PCR plastics. It would be very timely for the City of Ottawa to consider its own "green procurement" options as part of the overall solid waste master plan.
- It might also be timely for the City of Ottawa to develop a SUPs management plan as part of the solid waste master plan, aligning any plan for SUP's with Federal actions, directives and initiatives. Several large Canadian municipalities (e.g. Vancouver, Toronto, Peel Region and Victoria) are already very engaged in a public outreach programs to design and implement SUP diversion, and, in cases elimination, strategies and programs.

6 Conclusions

This is a time of tremendous change and new challenges in solid waste management, diversion and reduction globally, across Canada and especially in Ontario. With the passage of the *WFOA* in 2016 (and through that, the *WDTA* and the *RRCEA*), Ontario has introduced a very different lens for looking at and dealing with waste, that is, the lens of the Circular Economy.

The Circular Economy is a new paradigm that replaces the conventional linear waste management approach: Make - Take – Dispose to a new way of managing waste that involves a circular approach: Make - Take - Return. A Circular Economy emphasizes waste minimization, reuse and recycling to ensure that unwanted materials destined for disposal become feedstock to be recovered for manufacturing and repurposed for reuse, thus reducing the reliance on raw materials. The importance and potential impacts of the circular economy on waste reduction, reuse and recycling innovations and material markets are discussed in more detail in Technical Memorandum #3.

The other "lens" introduced in Ontario (and unique so far in Canada) is the lens of IPR – a different form of EPR. Under an IPR regime, producers are individually responsible and



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accountable for collecting and managing their products and packaging after consumers have finished using them.

Under IPR, producers are required to meet mandatory and enforceable targets for recycling their materials. Producers have the choice in how they meet their obligations. They can collect and recycle products and packaging themselves, or contract with one or more PROs to help them meet their requirements. In Ontario going forward, producers must also register with the RPRA and report on their progress towards their targets.

As noted throughout this Technical Memorandum, these significant changes to Ontario's waste management policies, programs and legislation present both a new set of challenges, but also opportunities, for municipalities like the City of Ottawa. Some of these challenges, especially the transition of many waste management services in the province to IPR, present difficult choices to municipalities who have led this field for several decades. Municipalities, including the City of Ottawa, will be facing some important issues regarding waste management such as:

- Will the City still collect materials in an effort to ensure service levels to residents?
- What happens to waste collection efficiencies and resulting GHG and cost savings with current co-collection scenarios?
- What policies are needed to ensure Blue Box materials are kept out of the garbage?
- What happens to other collection programs (e.g. Yellow Bag, City facilities)?
- How will residents be kept informed of program changes? It is anticipated they will still call the City with issues, even if they are no longer City issues.
- What role will the City have in educating residents on new diversion programs?

At this time, details about the Blue Box transition are unknown, and it is anticipated that the regulations may not be public until early 2021. It is anticipated that the City, along with other municipalities, will be able to provide input into the development of the regulations through the Municipal Working Group, which may address the issues listed above. The City's new Solid Waste Master Plan will need to include flexibility to address this transition to help guide the City and its citizens through these changing times in waste management across the province.

Appendix 1 – European Union’s Single-Use Plastic (SUP) Directive





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European Union's Single-Use Plastic (SUP) Directive

In March 2019, the European Parliament passed the [Single-Use Plastics Directive](#)³³ for the reduction of certain plastic products in the environment by a 560-35 vote. The Directive is aimed at reducing the impact of single-use plastics (SUP) items on the environment, which represent about half of all marine litter items found on European beaches (by count). The new legislation was published in the EU's Official Journal at the end of the Parliament's legislative session in the Spring of 2019. Member states have two years to transpose the Directive into their own national legislation.

For the purposes of the Directive, the Commission defines 'single-use plastic product' as "a product that is made wholly or partly from plastic and that is not conceived, designed or placed on the market to accomplish, within its life span, multiple trips or rotations by being returned to the producer for refill or re-used for the same purpose for which it was conceived."

Of interest are the following measures in the SUP Directive:

- Article 5 bans SUP items like cotton bud sticks, cutlery (forks, knives, spoons, chopsticks), plates, straws, stirrers, balloon sticks, oxo-degradable plastics and expanded polystyrene (EPS) foods containers and cups on the European Union from 2021.
- Article 6 sets out product design measures for SUP beverage containers to ensure that their caps and lids remain attached (i.e. tethered) to the container during its use stage to improve recyclability and ensure they do not leak into the environment. In addition, there is a 25 percent target for recycled content in PET bottles by 2025 and 30 percent in all plastic bottles by 2030.
- Article 8 requires Member States to require producers to establish EPR schemes by 2021 for SUP products including: food containers; packets and wrappers; beverage containers; cups for beverages; tobacco products with filters; wet wipes; balloons and light-weight plastic carrier bags. Producers will be expected to cover the cost of collecting, transporting and treating these wastes, including the costs of litter cleanup (by 2029) and awareness raising measures.
- Article 9 (Separate Collection Target) stipulates that Member States will be required to collect 90 percent of single-use plastic bottles with caps and lids by 2029, with an interim target of 77 percent by 2025. Deposit return schemes are suggested as a method to achieve this objective.

³³ https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_19_1873



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- Other measures include 'measurable quantitative' reduction in consumption of some single-use items (Article 4) and also labelling requirements (i.e. to inform consumers about appropriate waste disposal operations) and some awareness raising measures (Article 7).

The recent EU bans do NOT include plastic bags, that were already covered by a 2015 Directive that required member states to limit their use e.g. through bag levies/taxes.

Appendix 2 – Ellen MacArthur Foundation; New Plastics Economy Project: A Vision of a Circular Economy for Plastics





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Ellen MacArthur Foundation; [New Plastics Economy](#) Project: *A Vision of a Circular Economy for Plastics (available on the Foundation's website)*

The Ellen MacArthur Foundation is a UK based international environmental research and advocacy organization and the global leader on circular economy thinking and action in general, and circular plastics in particular. Their work is notable – even at the local municipal level - as it sets what they call an international “Vision of a Circular Economy for Plastics”.

On March 13 2019, the Foundation published (in collaboration with UN Environment) a 200+ page report called the “[New Plastics Economy Global Commitment Report](#)”.³⁴ The report presents a compelling vision for “circular plastics” and some notable short-term results that include:

- Major companies like Carrefour, Colgate Palmolive, MARS, Nestle, SC Johnson, Coca-Cola and Unilever are publicly disclosing their annual packaging volumes (for the first time ever) making an important step towards greater transparency in today's plastics system.
- Consumer goods companies and retailers commit to increase recycled content in their packaging to an average of 25 percent by 2025 compared to the current global average of just 2 percent.
- Leading businesses and governments will end the use of problematic and unnecessary plastic, including PVC and single-use plastic straws and carrier bags, many of them by the end of 2019.
- 40 brands and retailers are piloting or expanding reuse and refill schemes,

Over 350 organizations have endorsed one common vision of a circular economy for plastics, where plastics never become waste. They recognize this vision offers a root cause solution to plastic pollution with profound economic, environmental, and societal benefits. For plastic packaging, specifically, this vision for a circular economy is defined by six characteristics (Plastics Economy Global Commitment Spring 2019 Report, p. 5):

1. Elimination of problematic or unnecessary plastic packaging through redesign, innovation, and new delivery models is a priority
 - a. Plastics bring many benefits. At the same time, there are some problematic items on the market that need to be eliminated to achieve a circular economy, and, sometimes, plastic packaging can be avoided altogether while maintaining utility.
2. Reuse models are applied where relevant, reducing the need for single-use packaging

³⁴ <https://www.newplasticseconomy.org/about/publications/global-commitment-spring-report>



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- a. While improving recycling is crucial, we cannot recycle our way out of the plastics issues we currently face.
 - b. Wherever relevant, reuse business models should be explored as a preferred 'inner loop', reducing the need for single-use plastic packaging.
3. All plastic packaging is 100 percent reusable, recyclable, or compostable
 - a. This requires a combination of redesign and innovation in business models, materials, packaging design, and reprocessing technologies.
 - b. Compostable plastic packaging is not a blanket solution, but rather one for specific, targeted applications.
4. All plastic packaging is reused, recycled, or composted in practice
 - a. No plastics should end up in the environment. Landfill, incineration, and waste-to-energy are not part of the circular economy target state.
 - b. Businesses producing and/or selling packaging have a responsibility beyond the design and use of their packaging, which includes contributing towards it being collected and reused, recycled, or composted in practice.
 - c. Governments are essential in setting up effective collection infrastructure, facilitating the establishment of related self-sustaining funding mechanisms, and providing an enabling regulatory and policy landscape.
5. The use of plastics is fully decoupled from the consumption of finite resources
 - a. This decoupling should happen first and foremost through reducing the use of virgin plastics (by way of dematerialisation, reuse, and recycling).
 - b. Using recycled content is essential (where legally and technically possible) both to decouple from finite feedstocks and to stimulate demand for collection and recycling.
 - c. Over time, remaining virgin inputs (if any) should switch to renewable feedstocks where proven to be environmentally beneficial and to come from responsibly managed sources.
 - d. Over time, the production and recycling of plastics should be powered entirely by renewable energy.
6. All plastic packaging is free of hazardous chemicals, and the health, safety, and rights of all people involved are respected
 - a. The use of hazardous chemicals in packaging and its manufacturing and recycling processes should be eliminated (if not done yet).
 - b. It is essential to respect the health, safety, and rights of all people involved in all parts of the plastics system, and particularly to improve worker conditions in informal (waste picker) sectors.

Appendix 3 – Single-Use Plastic Bans and the Lawsuits that Threaten Them

September 13, 2019 article by Denisa Mertiri



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[Single-Use Plastic Bans and the Lawsuits that Threaten Them](#) – Article³⁵ published on September 13, 2019 by Denisa Mertiri, Legal Consultant with Green Earth Strategy

Growing media attention has been placed on the potential impacts facing the marine environment and human health due to the rapidly growing use of single-use products and packaging. Since China's [ban on the importing](#) of most materials headed to its recycling processors in 2018 through its “National Sword” policy, local, regional, and national governments worldwide have turned their mind to enacting laws that reduce the consumption of single-use plastic, instead of focusing solely on improving the recycling or littering of these items.

Many of these initiatives have, however, encountered their fair share of legal challenges. These challenges provide cautionary tales as well as blueprints for success when implementing reduction policies. This article highlights trends in the lawsuits brought against local governments seeking to enact rules to stem the growing tide of plastic waste in the U.S. and Canada.

THE UNITED STATES**Your Ordinance Violates a Pre-emption Clause in a State Statute**

Just six days after the Board of County Commissioners of Alachua County, Florida [voted to ban](#) expanded polystyrene (EPS) containers and single-use plastic bags, the Federal Retail Federation and Florida Restaurant and Lodging Association sent the Board a letter threatening a lawsuit.

The letter asserted that the ordinance violated a Florida Statute that prohibited local government, local government agencies, or state government agencies from enacting laws regarding the use, disposition, sale, prohibition, restriction, or tax of containers, wrapping or disposable plastic bags. Such state preemption laws are [common in the U.S.](#) and have threatened similar local measures in other states. In this case, the threat of a lawsuit on the basis of the preemption law was sufficient to cause Alachua County to repeal the ban.

You Should Have Conducted an Environmental Impact Report

In the third iteration of what was referred to as the “plastic bag wars”, the Save the Plastic Bag Coalition [sued San Francisco](#) after it mandated a 10-cent fee on checkout bags in

³⁵ <https://www.linkedin.com/pulse/single-use-plastic-bans-lawsuits-threaten-them-denisa-mertiri/>

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2012. The Coalition contended a failure to comply with the *California Environmental Quality Act*.

The Coalition argued that San Francisco was under an obligation to prepare an Environmental Impact Report to determine whether the increased use of paper or compostable bags would create other environmental problems. It had unsuccessfully made this claim against Manhattan Beach and Marin County over their plastic bag ban ordinances. The Coalition even relied on the decision rendered against it in the Manhattan Beach case to state that, while the cumulative impacts of paper or compostable bags use might be negligible in a city as small as Manhattan Beach, they would be significant in San Francisco given the large presence of tourists and commuters who are unlikely to use reusables.

In December 2013, the [First District Court of Appeal](#) rejected the Coalition's arguments and sided with San Francisco in upholding its fee on checkout bags.

You Misrepresented Information on Recyclability

Shortly after its first EPS ban took effect in July 2015, New York City's Department of Sanitation (DSNY) was sued by restaurants and plastics manufacturers who claimed that the Sanitation Commissioner had misrepresented information that [EPS foam could not be recycled](#) in order to support their ban. And, in September 2015, a judge ruled in the industry's favour on the basis that the Commissioner had not clearly stated the basis of her conclusions. This led New York City to stop enforcing the ban.

As a result of the lawsuit, DSNY conducted a more thorough study that assessed whether EPS foam was recyclable. The study concluded that it was not, and the DSNY announced that it would go forward with the EPS ban on January 1, 2019. The study allowed DSNY to prevail in a second lawsuit by the same restaurant alliance and businesses. This time, the [court ruled in favour of](#) DSNY, finding that the Commissioner's study presented sufficient evidence justifying her conclusion that EPS foam could not be recycled in an "environmentally effective and economically feasible" manner.

Your Paper Bag Fee is Actually an Unconstitutional Tax

The City of Aspen, Colorado, was met with a lawsuit when it decided to implement a plastic bag ban and a \$0.20 fee on paper bags at local grocery stores in 2012. The Colorado Union of Taxpayers Foundation argued that Aspen's fee on paper bags was unconstitutional as it constituted a tax that required a vote by residents under the Colorado Taxpayer's Bill of Rights.

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Six years following the implementation of the ban, Aspen obtained a 4-3 ruling in its favour from the Colorado Supreme Court upholding the fee on paper bags. The [Court found](#) that the fee was not a tax because it was used to offset the costs of a municipal waste-reduction program, not to raise revenue for the general expense of government. There was also a reasonable relationship between the fee imposed and Aspen's costs of permitting the use of paper bags.

CANADA**You Did Not Seek Approval for Your Ban**

Progressive efforts appeared undone in Victoria, British Columbia, when the province's highest court sided with the Canadian Plastic Bag Association (CPBA) [in quashing the City's bag ban by-law](#) in July of this year. Victoria had passed the by-law by characterizing it as being related to business.

The B.C. Court of Appeal disagreed with this characterization and concluded that the by-law was in substance a law intended to protect the environment. The Court observed, among other things, that the initiative for the by-law had come from the Vancouver Island chapter of the Surfrider Foundation, an environmental non-profit organization. As environmental law, the by-law required the approval of British Columbia's Minister of Environment under section 9 of the *Community Charter*, Victoria's governing statute.

You Acted in Bad Faith

In 2012, the City of Toronto also faced a lawsuit from the Canadian Plastic Bag Association (the party who successfully challenged the Victoria bag ban) over adopting a plastic bag ban that was projected to come into force in January 2013.

The [CPBA asserted that](#) the ban was unlawful and passed in "bad faith" because Toronto City Council had not received any advice, evidence or opinion that the ban would "further the economic, social and/or environmental well-being of the city or would protect the health, safety and well-being of any person." The main thrust of the lawsuit rested upon the ban not being subjected to public consultation at the committee stage.

The Ontario Convenience Store Association and the Toronto Taxpayers Coalition also joined the CPBA to challenge the proposed ban. As a result of this pressure, City Council voted to repeal its June 2012 decision to impose a ban in November 2012.



Implications

In drawing its conclusions in the Victoria bag ban case, the B.C. Court of Appeal [nonetheless remarked](#) that, “the law in question has an objective that most reasonable people would endorse.” There is no question that local, regional, or national bodies will increasingly look to implement a variety of mechanisms to reduce single-use plastic waste within their territories, particularly in light of growing international restrictions on the importing of waste from developed countries. In fact, the Government of Canada recently announced plans to implement measures to reduce plastic waste, while the [B.C.](#) and [Ontario governments](#) are consulting the public on this issue.

For many governments taking the initiative to ban plastics, the question of a legal challenge is not a matter of if, but of when and how. This article highlights some of the challenges governments can expect in order to inoculate their laws from such challenges or to better resist them during litigation.

Appendix 4 – Overview of B.C.'s EPR Program for PPP



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1. Collection services – in which municipalities can continue to play a role (the preferred approach by Recycle BC).
2. Post-collection services – which has been fully taken over by Recycle BC who manage processing under contract and keep material revenues. B.C. municipalities have NO role in material processing or marketing.

On the collection side of the B.C. program, municipalities were given first right of refusal for collection service, with three options:

- **Contracted collector** – municipalities can “opt in” to the Recycle BC program, accept the master services agreement with Recycle BC to either provide collection services directly with their own crews or contract collection out and oversee the contract on Recycle BC’s behalf and receive per household incentive payments. Two-thirds of the province, by population, is currently under this arrangement.
- **Transfer service** – municipalities could transfer collection of recyclables to Recycle BC. Thirteen communities handed over curbside and multi-family collection (including the City of Vancouver); three new municipalities transferred last year, so about 1/3 of the province have made this choice so far.
- **Opt out** – some municipalities opted out of the Recycle BC program in the beginning because they weren’t sure the system would work. Once they saw the program was functioning and neighboring municipalities were getting paid, most decided to join. A few remote outliers, representing a very small number of residents, remain outside the system.

Almost 48,000 new curbside households, 4,400 multi-family units and 13 new drop-off depots were added to the B.C. system in 2018. The program now serves 1.85 million households with 98.5 % of households served by curbside and drop-off depots (that also collect film, glass and foam polystyrene in most curbside areas). In order to get funding from Recycle BC, depots are to be staffed; most also collect other diverted material streams, such as beverage containers on deposit, obligated e-waste, paints, etc.

The collection incentives paid to municipalities vary from \$33.40 to \$42.80 per single family household per year (called a “market clearing price”) depending on whether the material is collected in single stream, dual stream, or multiple stream containers. Incentives also vary based on housing density, with the largest per household incentives paid to areas with low population and housing density. Multi-family incentives range from \$18.30 for single stream collectors to \$21.90 for multi-stream. An additional \$1.75/curbside household administration fee is paid, as well as per-household amounts to

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cover promotion and education (\$0.75 per household for curbside and depot; and \$1.00 per multi-family unit).

Recycle BC uses one master services agreement for all contracts (collection, post-collection, other services). Under the master services agreement, there are separate statements of work for curbside and multi-family collection, depots and post-collection services. For collection, Recycle BC posted the template service agreements online, consulted, finalized language with municipalities; and all municipalities signed the same contract. It was very important to B.C. municipalities that everyone was getting the “same deal”. Three areas in service agreements that can be customized to suit specific circumstances are: contract length; insurance requirements and service disruption notifications.

Recycle BC has conducted regular cost studies (completed in 2012, 2014, 2017, and planned for 2020) to set /adjust per household incentive payments for collection and offers a standard “market clearing price” to all contracted collectors. Contracts expire every 5 years, so municipalities are to provide a year’s notice if they want to transfer service directly to Recycle BC (and then the transfer includes an 18-month transition period).

Recycle BC uses service level failure credits with municipalities found to be delivering loads with higher-than-acceptable contamination. Collectors first get a warning. Then, if they don’t reduce contamination, they receive a credit charge - i.e. a reduction to incentive payment. This mechanism is used to encourage efforts to reduce contamination; as long as the collectors are demonstrating progress, they receive full payment.

Collector and processor qualification standards, including reporting protocols, are the minimum operating standards that service providers are required meet on a continuous basis in order to be eligible to provide collection, depot operation and/or processing services under contract with Recycle BC.

Processing of recyclables was moved out of municipal control and fully under the control of Recycle BC, so municipalities no longer have a role in processing or marketing recyclables. For post-collection (i.e. PPP consolidation, transfer and transport, processing and delivery to end markets), Recycle BC procured a post-collection system through a competitive bid process, resulting in a province-wide, PPP transfer and sorting system designed to maximize the value and re-use of the recyclables and minimize redundancy.



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The province was divided into 10 zones for the purpose of post-collection service bids. Companies could bid on one or any number of zones, including bidding on providing processing and marketing services for all 10 zones in the province.

The post-collection system was awarded to a newly formed consortium – Green by Nature (GBN), which is primarily three firms (Emterra, Cascades and Merlin Plastics). More than two dozen subcontracted operators were also involved at the inception of the program. Recycle BC is in the midst (November 2019) of re-tendering a new post-collection contract.

The current post-collection infrastructure is comprised of 32 receiving, consolidation, and transfer facilities. The goal at these facilities is to do the minimum to get materials to the 11 pre-conditioning facilities, where material is handled and sorted to bale and ship fiber. Some PCFs also sort containers and direct market metals but all plastics are sent to a single Container Recycling Facility - a new, \$20+ million facility opened in 2014 and operated by Merlin Plastics.

When identifying end markets, Recycle BC prioritizes those located in Organization of Economic Cooperation and Development³⁷ (OECD) countries. It allows marketing of PPP to non-OECD countries only if those markets meet or exceed the environment, health and safety standards equivalent to OECD standards.

Despite tightening world commodity markets (i.e. as a result of China National Sword severe import restrictions), Recycle BC has been successful in ensuring that over 87% of residential material collected (plastic packaging, paper products, glass and metal containers) are recycled. About 6,000 tonnes are managed by recovery as an engineered fuel. Less than one percent of residential plastics recycled last year in B.C. was sent overseas (foam polystyrene that is densified in B.C. is sent to Malaysia for recycling into picture frames made in China).

Paper is sold to companies in B.C. and the U.S. as well as overseas. B.C. previously sent most of its paper to China but that essentially stopped on January 1, 2018 with the imposition of the China Sword. Although the change has made it difficult to sell recyclable material overseas, Recycle BC reports that the province has one of lowest contamination rates in North America and has been able to find markets in India, Indonesia, South Korea and Taiwan.

³⁷ <https://www.oecd.org/about/>

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The vast majority of plastics (containers, bags and overwrap) are processed at the Merlin Plastics facility in Metro Vancouver and turned into pellets and flakes that are sold mainly to local plastics industry end markets. Glass from B.C. households is shipped to Abbotsford B.C. to be processed into new bottles and to Quesnel, B.C. where it is made into sandblast material. Metal containers are sold to markets in B.C., Ontario and the U.S. where they are made into new packaging or sheet metal.

The B.C. program represented the first time in North America that producers took on the commodity price risks for material marketing. Recycle BC pays a set price per tonne for processing and then developed a commodity revenue rebate calculation included in its RFP: tonnage x commodity value based on regular inbound audits for material-specific tonnages and price indices for commodities. Consequently, when the processor is good at marketing, they keep the additional commodity value (i.e. the difference between the calculated value based on index prices and the actual revenues realized). Just as importantly, producers bear the risk and cost when markets are soft.

Recycle BC's revised five-year Packaging and Paper Product Plan³⁸ was approved by the B.C. Ministry of the Environment and Climate Change Strategy (MOECCS) on June 28, 2019. It remains the sole PRO for the full range of residential PPP in the province. B.C. municipalities and many small and medium sized businesses are actively encouraging MOECCS to expand the program to include recyclable IC&I materials. Starting in 2020, Recycle BC will begin reporting on GHG emissions associated with collecting and processing PPP. As noted in the body of this Technical Memorandum, Recycle BC is also engaged in pilot programs to address: PPP in streetscapes, suitable organic material and "Other Flexible Plastic Packaging" (one of the fastest growing packaging types on the market).

³⁸ http://recyclebc.ca/wp-content/uploads/2019/07/RecycleBCStewardshipPlan_16July2019.pdf

Appendix 5 – Proposed B.C. Packaging and Paper Product and European Packaging Targets





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Proposed B.C. Packaging and Paper Product and European Packaging Targets

The proposed recovery targets in the latest Recycle BC Packaging and Paper Product Extended Producer Responsibility Plan are set out below.

British Columbia Proposed Recovery Target

| Material Category | 2017 Recovery Rate (%) | Target Recovery Rate (%) | Year to Achieve Target |
|-------------------|------------------------|--------------------------|------------------------|
| Paper | 87 | 90 | 2020 |
| Plastic | 41 | 50 | 2025 |
| Rigid Plastic | 50 | 55 | 2022 |
| | | 60 | 2025 |
| Flexible Plastic | 20 | 22 | 2022 |
| | | 25 | 2025 |
| Metal | 66 | 67 | 2020 |
| Glass | 72 | 75 | 2020 |

Source: Packaging and Paper Product Extended Producer Responsibility Plan revised July 2018

The Table below summarizes the current packaging mandatory recycling targets as set out in the European Union's Packaging and Packaging Waste Directive.

Packaging Targets in Europe

| Material Category | Mandatory Recycling Rate (%) | Year to Achieve Target |
|---------------------|------------------------------|------------------------|
| All Packaging | 65 | 2025 |
| | 70 | 2030 |
| Paper and Cardboard | 75 | 2025 |
| | 85 | 2030 |
| Plastic | 50 | 2025 |



| Material Category | Mandatory Recycling Rate (%) | Year to Achieve Target |
|-------------------|------------------------------|------------------------|
| | 55 | 2030 |
| Ferrous Metals | 70 | 2025 |
| | 80 | 2030 |
| Aluminum | 50 | 2025 |
| | 60 | 2030 |
| Glass | 70 | 2025 |
| | 75 | 2030 |
| Wood | 25 | 2025 |
| | 30 | 2030 |

Source: Packaging and Packaging Waste Directive (94/62/EC), Article 6³⁹

³⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1567873308871&uri=CELEX:01994L0062-20180704>