

Memo



To: Shannon Betts, Halifax Regional Municipality
From: Sarah Devereaux, Project Manager, Partner
Date: February 7, 2024
Subject: Solid Waste Strategy Review: P1-EPR Jurisdictional Review
Our File: 23-6547-1003

1.0

Introduction

Dillon Consulting Limited (Dillon) was retained by Halifax Regional Municipality (HRM) in July 2023 to support a review of HRM's Solid Waste Strategy. One of the key activities was identified as P1. Extended Producer Responsibility (EPR) Jurisdictional Scan which included a jurisdictional review of EPR service delivery models for six jurisdictions (three from Ontario, two from British Columbia (BC) jurisdictions and one European). The review, which is highlighted in this report with results, included a combination of research through desktop study and jurisdictional responses to a questionnaire.

1.1

Purpose

Given the upcoming transition to full EPR for printed paper and packaging (PPP) in Nova Scotia (NS), it is valuable for HRM to understand how EPR for PPP has been implemented in other Canadian provinces. This EPR jurisdictional scan has been completed with the objective to present a review of service delivery models incorporated under EPR frameworks for PPP. The review aimed to provide insight on the municipal role pre- and post-transition to an EPR system, the relationship between the jurisdiction and the Producer Responsible Organizations (PROs), management of existing assets during the transition and program outcomes including the following:

- Failures, successes, and lessons learned;
- Resident satisfaction;
- Recycle capture;
- Impact on diversion rate; and
- Potential service gaps such as multi-residential (multi-residential) properties and Industrial, Commercial and Institutional (ICI) sector access to recycling.

1.2

Methodology

As a first step, Dillon reviewed the EPR regulations for PPP in NS, BC and Ontario. Ontario and BC were chosen since both have 100% or full EPR regulations for PPP and five of the jurisdictions in the scan are from these two provinces. One jurisdiction is a European country, Austria.

A summary of all regulations is provided in **Section 2.0**, as well as **Table 7** comparing the three provincial regulations. This section was completed based on Dillon's experience with EPR projects and a review of the regulations content.

To determine the jurisdictions to be included in this review, Dillon considered those that were a relative size and composition to HRM, had existing relationships with Dillon and those that had a unique perspective on the transition to full EPR due to decisions they took with regards to their role per the new EPR legislative frameworks. Dillon provided HRM with a list of proposed jurisdictions for consideration. The final list of jurisdictions was selected in consultation with HRM. More information on the selection of jurisdictions is provided in **Section 3.1**.

A draft EPR questionnaire was developed for the jurisdictions and provided to HRM for review. Following HRM feedback, the questionnaire template was finalized (see **Appendix A**). The questionnaires were completed by Dillon with as much information that Dillon had available. This included Dillon's project experience with those jurisdictions and additional desktop research. The questionnaires were provided to the jurisdictions for their completion and approval on content.

In identifying the appropriate contact at each jurisdiction, contacts who were known to Dillon or known to have been involved in decision making regarding the jurisdictions participation in the PPP EPR programs were selected. Questionnaires completed by jurisdictions were reviewed by Dillon, with particular attention to any noted potential gaps in service delivery associated with multi-residential and ICI sectors. A summary questionnaire table for each of the six jurisdictions is provided in **Section 3.2**.

The findings related to the multi-residential and ICI potential service gaps are summarized in **Section 5.0**. Based on findings, these two sectors still have large opportunities or gaps in addressing EPR program participation and progress.

In **Section 4.0** several key themes, findings and conclusions from the jurisdictional review are summarized.

2.0 EPR Regulatory Overview- Packaging and Paper Products

This section provides an overview of the PPP regulations in NS, Ontario, BC and Austria. BC was the first province in Canada to undergo a transition to full EPR, where producers are 100% responsible (financially and operationally) for collection and processing of PPP. Ontario is currently undergoing a transition phase, which began in 2021. The transition to 100% EPR started on July 1, 2023, and is scheduled to be completed by January 1, 2026. NS is the latest province to adopt a full EPR regulation, passing its legislation in August 2023. Austria has been included as a European example that has been in place for decades, as well as a system that operates with multiple PROs. A comparison of the three Canadian regulations is provided in **Section 2.5**.

In August 2023, the government of NS announced new EPR programs for batteries, lamps and small household electric appliances, as well as packaging, paper products and other blue bag materials¹. This legislation was passed in line with the *Environmental Goals and Climate Change Reduction Act* which pushed for sustainable prosperity in the province and included a goal to encourage the growth of the circular economy through initiatives such as expanding EPR². All responsibilities under the EPR regulation are on producers; however, in most cases PROs will be meet obligations on their behalf.

The implementation date for the NS PPP Regulation is December 1, 2025, by which date PROs must establish and operate a PPP collection system. Prior to implementation, in October 2024 producers and PROs are expected to submit “Readiness Reports” regarding consultations with municipalities and planning undertaken to ensure the system is ready for implementation in December 2025. Circular Materials, which operates as a PRO in Ontario and New Brunswick, has indicated that they intend to act on behalf of producers as a PRO in the province of NS³.

Many aspects of the new regulation are overseen by an Administrator. In August 2023, the Government of NS appointed Divert NS to this role as the oversight agency for PPP. Divert NS will set the timing and requirements for the registration of various actors in the system, including municipalities, producers, processors, and PROs. Divert NS will also review the “Readiness Reports” to be submitted in 2024, as well as subsequent reports that are required to be submitted by producers and PROs regarding action taken under the regulation. Divert NS may recover its costs from producers and PROs, or any other person it registers or from whom it received reports. It appears there are no administrative penalties for not meeting targets. Under the Environment Act⁴, there are administrative penalties only related to greenhouse gas regulations at this time.

The targets for resource recovery are set in an associated standard, the *Packaging, Paper Products and Packaging Like Products Material Management Standard* (“the Standard”) and are shown in **Table 1**. Material can be considered managed for the purpose of meeting these targets when they have been re-used for their original purpose or function, recycled, composted, recovered for energy or beneficially reused by a producer in accordance with the Standard⁵. The amount of material managed will be divided by the amount of designated materials that the producer supplies into NS to determine if the target has been met. There is no mechanism for penalties if targets are not met.

¹ <https://novascotia.ca/just/regulations/regs/envpppextproducer.htm>

² [Environmental Goals and Climate Change Reduction Act – Bill No.57](#)

³ [Circular Materials – circularmaterials.ca](#)

⁴ [e](#)

⁵ [Packaging, Paper Products and Packaging Like Products Material Management Standard](#)

Table 1: Nova Scotia's PPP Recovery Targets

Material Category	Years 1&2 Calendar Years: 2026 & 2027	Years 3&4 Calendar Years: 2028 & 2029	Years 5 Calendar Year: 2030	Year 10 and Onward Calendar Years: 2035 and Onward
Paper	Best efforts to meet 80% target	80%	90%	95%
Rigid Plastic	Best efforts to meet 60% target	60%	65%	70% plus 5% every 5 years until 85% is achieved
Flexible Plastic	Best efforts to meet 30% target	30%	40%	50% plus 5% every 5 years until 85% is achieved
Glass	Best efforts to meet 75% target	75%	85%	90%
Metal	Best efforts to meet 70% target	70%	80%	85%

Source: [Packaging, Paper Products and Packaging Like Products Material Management Standard](#)

2.2 British Columbia

In 2014, BC was the first Canadian province to launch a 100% EPR system for residential PPP. This obligation comes from the Recycling Regulation⁶ under the *Environmental Management Act* (the “EMA”)⁷ which makes producers responsible for the life-cycle management of their products, including financing the collection and recycling of discarded designated products. The regulation includes all of British Columbia's EPR product categories, which are detailed in the Schedules to the Regulation, or, in some instances, in other documents, such as producer Program Plans⁸.

Under the Regulation, producers are required to submit “EPR Plans”, whether individual or through PROs. The EPR Plans are approved by the Ministry of Environment and Climate Change Strategy (BCMoeCCS) and reviewed every five years. Through membership agreements with a PRO, producers can delegate to these PROs their collection, processing and marketing duties under the Recycling Regulation. The only plan for PPP that has been approved in BC was submitted by Recycle BC (originally called Multi-Materials BC) in 2013.

When the BC system transitioned to EPR, local municipalities were offered the right of first refusal to continue to provide (or oversee) the PPP collection services. Municipalities had three options:

1. Continue to provide services under contract with Recycle BC;
2. Transition operational responsibility to Recycle BC; or

⁶ B.C. Reg. 449/2004.

⁷ S.B.C. 2003, c. 53.

⁸ For instance, the Membership Agreement of the British Columbia Used Oil Management Association (BCUOMA) includes a detailed list of fees and products in Appendix 1 — Environmental Handling Charges (EHC) Applicable Products List and Rates Schedule.

3. Opt to continue providing services as is, without subscribing to the new EPR system.

Many municipalities and Regional Districts opted to contract with Recycle BC and receive the “per household” financial incentive, while continuing to act as the collection service provider (in-house or managed). Over time, some notably Vancouver,⁹ eventually transitioned operational responsibilities to Recycle BC.

Table 2 shows the financial incentives that were offered by Recycle BC as proposed in 2020. Any jurisdictions that do not act as a service provider to Recycle BC would not be eligible for any Resident Education Top-Up, and Recycle BC considers themselves responsible for communicating with residents about the programs in those jurisdictions. In addition to the incentives listed in **Table 2**¹⁰, Recycle BC also pays \$80.00 per tonne of glass collected either through depots or curbside collection programs. Municipalities can also receive a bonus amount depending on the weight of PPP collected per household per year, as shown in **Table 3**¹¹. Depots are compensated based on a financial incentive per tonne collected of different material types (**Table 4**¹²). Sample statements of works for all types of work are available on Recycle BC’s website¹³.

Table 2: Recycle BC Financial Incentives for Municipalities, 2020

Incentive	\$ per Curbside Household per Year
Curbside Collection - Single-stream using automated carts	\$37.40
Curbside Collection - Single-stream using containers other than automated carts	\$38.80
Curbside Collection - Multi-stream	\$42.80
Multi-Residential Collection – Single-stream	\$18.30
Multi-Residential Collection – Multi-stream	\$21.90
Curbside Top Up – Resident Education Top Up	\$0.75
Curbside Top Up - Service Administration Top Up	\$3.50
Multi- Residential Top Up – Resident Education Top Up	\$1.00
Multi- Residential Top Up - Service Administration Top Up - Local Government	\$2.00
Multi- Residential Top Up - Service Administration Top Up - Private	\$2.00

⁹ Continuous Improvement Fund, “Transiting City of Vancouver’s Recycling Program to Recycle BC (January 18, 2017). Retrieved from: <https://thecif.ca/wp-content/uploads/2020/08/Vancouver-PPT-Transitioning-to-Recycle-BC.pdf>.

¹⁰ Recycle BC - Financial Incentive Review Including Cost Study Results (June 2020). Retrieved from: <https://recyclebc.ca/wp-content/uploads/2020/07/Recycle-BC-Financial-Incentive-Review-Including-Cost-Study-Results.pdf>

¹¹ Recycle BC – Statement of Work for Curbside Collection Services Provided by Local Government (July 1, 2022). Retrieved from: <https://recyclebc.ca/wp-content/uploads/2022/03/Recycle-BC-Local-Government-Curbside-SOW-SAMPLE-2022.pdf>.

¹² Recycle BC - Financial Incentive Review Including Cost Study Results (June 2020). Retrieved from: <https://recyclebc.ca/wp-content/uploads/2020/07/Recycle-BC-Financial-Incentive-Review-Including-Cost-Study-Results.pdf>

¹³ Recycle BC – Prospective Collectors. Retrieved from: <https://recyclebc.ca/collectors/prospective-collectors/>

Table 3: Recycle BC's Bonus Amounts, 2022

Average In-Scope PPP collected per Curbside Household Per Year	160 - 179 Kilograms	180 - 199 Kilograms	200 - 219 Kilograms	> 220 Kilograms
Achieved Bonus Amount (\$ per Curbside Household)	\$1.00	\$2.00	\$2.00	\$4.00

Table 4: Recycle BC's Incentives for Depot Collection by Material Category, 2020 (\$/tonne)

Material Category	Incentive with Curbside and Multi-Residential Collection	Incentive without Curbside and Multi-Residential Collection	Baled
Paper and Cardboard	\$88	\$60	\$110
Containers	\$169	\$90	\$110
Plastic Bags & Overwrap + OFPP	\$1,250	\$1,250	\$660
Foam – White & Coloured	\$2,000	\$2,000	\$660
Glass Containers	\$90	\$90	n/a

Recycle BC's contracts with municipalities stipulate that the contamination level, for all forms of collection (curbside, multi-residential or depot), is set at no more than 3% non-PPP. Municipalities who fail to meet this level will first be asked to submit a remediation plan with steps to be taken to reduce contamination. Activities carried out through remediation plans include inspection of recycling set out for collection for contamination and refusal to collect if over a certain threshold, as carried out in Chilliwack¹⁴. In Surrey, they used a combination of a promotion and education campaign, and curbside recycling cart monitoring and enforcement, including introducing fines for repeat offenders¹⁵. If the problem persists and a municipality is acting as a service provider to Recycle BC, they can face penalties under contract if they are unable to reduce the contamination levels¹⁶ and some jurisdictions have already been fined¹⁷.

BCMoECCS has oversight of the EPR program and enforces the Recycling Regulation mainly through administrative penalties of either \$10,000 or \$40,000, depending on the contravention, under the Administrative Penalties Regulation¹⁸ also under the Environmental Management Act. A contravention of the Recycling Regulation is also an offence and may result in a fine not exceeding \$200,000. The current EPR regime in BC does impose penalties on producers' failure to meet recycling rate targets.

¹⁴ City of Chilliwack, "Education Program Underway to Reduce Contamination in Chilliwack Curbside Recycling" (Oct 13, 2021). Retrieved from <https://www.chilliwack.com/main/page.cfm?id=37&prshow=details&prID=487>

¹⁵ City of Surrey Corporate Report (April 8, 2023). Retrieved from: https://www.surrey.ca/sites/default/files/corporate-reports/CR_2021-R071.pdf

¹⁶ Continuous Improvement Fund, "Part I. Learnings from British Columbia: Advice for transition" (July 24, 2020). Retrieved from: <https://thecif.ca/learnings-from-british-columbia-advice-for-transition/>.

¹⁷ Recycling contamination = financial penalties – Regional District of Center Okanagan (Feb 24, 2023). Retrieved from: <https://www.rdco.com/en/news/recycling-contamination-financial-penalties.aspx>

¹⁸ B.C. Reg. 133/2014.

With respect to targets, Recycle BC has agreed to recovery targets for PPP, where materials are considered “recovered” when it is collected. In this first five years of the program (2014-2018), the recovery rate ranged from 75%-80.1%.¹⁹ Recycle BC was able to meet these goals without servicing all single-family, multi-residential and public spaces in BC²⁰. In their 2019 Program Plan, Recycle BC set targets for each material category, as shown in **Table 5**. The recovery rate is the amount of product collected divided by the amount of product produced into the BC market.

Table 5: Recycle BC's PPP Recovery Targets

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

Source: [Recycle BC's Packaging and Paper Product Extended Producer Responsibility Plan, June 2019](#)

The PPP program in BC has not experienced the setbacks faced by other provincial waste management systems resulting from the global decline in recycling markets for plastics as most (99%) plastic materials are recycled in BC due to Recycle BC investments in recycling infrastructure.²¹

The EPR program in BC is undergoing changes. The BCMoECC has announced plans to include PPP from the ICI sector, which is currently unregulated, as obligated materials at some point in the future. It has also increased deposit refunds for beverage containers to ten cents across the board for all sizes, added milk and milk substitute beverages to deposit programs, and added single-use and packaging-like products to BC's PPP EPR system²². It is also considering EPR for mattresses, moderately hazardous products, expanding the list of designated electronic and electrical equipment products (EEE) and batteries, packaging and paper products beyond residential sources and lost fishing and aquaculture gear²³.

¹⁹Recycle B.C., “Annual Reports” (2014 and 2017). Received from: <http://www.multimaterialbc.ca/annual-report/>.

²⁰ Recycle B.C., “Annual Reports” (June 2019). Received from: <http://www.multimaterialbc.ca/annual-report/>.

²¹ [Northeast Recycling Council, “Building a strong recycling industry and contributing to the circular economy – The Case of EPR in Quebec” \(October 24, 2019\). Retrieved from: https://nerc.org/documents/Webinars/Canadian%20Packaging%20EPR/Canadian%20Packaging%20EPR%20Webinar.mp4.](#)

²² Resource Recycling: British Columbia expands EPR and bottle deposit systems” (July 21, 2020). Retrieved from: <https://resource-recycling.com/recycling/2020/07/21/british-columbia-expands-epr-and-bottle-deposit-systems/>.

²³ RCA Webinar, “Advancing a Circular Economy - Policy Changes Across Canada”.

Following BC, Ontario also considered a full EPR model for PPP. It already had a full EPR model for other materials (Electronics and Electrical Equipment (EEE), Municipal Hazardous and Special Waste (MHSW) and tires). Between 2019 and 2021, EPR programs for tires, batteries, EEE and MHSW have all undergone transitions to full individual producer responsibility (IPR) under new legislation. IPR is a type of EPR that obligates *individual* producers to meet requirements with respect to the collection and recycling of materials, rather than obligating all producers collectively as a wider group. This gives producers more independence with respect to how they meet their requirements, but also means that they can be held individually responsible if requirements are not met.

Ontario operated under a shared responsibility EPR model for PPP since 2002 under the Waste Diversion Act, 2002.²⁴ Under this act, one PRO (Stewardship Ontario) was designated in the Regulation and submitted industry stewardship plans on behalf of producers for approval by Waste Diversion Ontario (WDO), a non-government corporation with a mandate to develop, implement and operate waste diversion programs in Ontario. WDO submitted its business plan each year for approval by the Ontario Ministry of Environment, Conservation and Parks (MECP).

Municipalities maintained flexibility in designing PPP programs and were responsible for the operation of collection and management systems for PPP in their jurisdictions. Through Stewardship Ontario, producers were required to fund 50% of the PPP program costs of municipalities. Stewardship Ontario charged and collected fees from Ontario producers to pay their share of program costs, based on tonnes of PPP they put onto the Ontario market. The regime did not set performance targets for materials and there were no consequences nor penalties for non-performance against targets.

The shared model for PPP increased transparency of municipal costs due to the annual municipal “Datacall” online reporting platform to provide cost and tonnage information required to determine the stewards’ fee obligations to the PPP program. Disputes between municipalities and producers on producers’ funding obligations also led to two arbitrations; the first in 2014 and the second in 2018²⁵.

Municipalities cited rising costs of Blue Box programs. Increasing costs were attributed to the shifting mix of materials ending up in Ontario’s Blue Boxes given producers’ design choices of packaging. The producers/stewards claimed inefficiencies in municipal recycling systems. The effective closure of end markets for recyclables in China also had a significant impact on costs by lowering material revenues.

In 2016, Ontario replaced the Waste Diversion Act, 2002, with the Waste Free Ontario Act, 2016,²⁶ which enacted the Resource Recovery and Circular Economy Act, 2016²⁷ (the “RRCEA”) and the Waste Diversion Transition Act, 2016²⁸. The RRCEA seeks to implement an IPR policy in Ontario, i.e., EPR that

²⁴ S.O. 2002, c. 6.

²⁵ Recycling Today, “Commentary: The pitfalls of shared responsibility” (July 13, 2020). Retrieved from: <https://www.recyclingtoday.com/article/ontario-blue-box-program-funding-arbitration-lessons/>.

²⁶ S.O. 2016, c. 12.

²⁷ S.O. 2016, c. 12, Sched. 1.

²⁸ S.O. 2016, c. 12, Sched. 2.

tracks end-of-life performance of products to individual producers. Its goals are to reduce free-ridership (companies not paying their fair share) and incentivize improvements in the end-of-life performance of products.

The new regime also created the Resource Productivity and Recovery Authority (RPPRA), a non-governmental oversight, compliance, and enforcement organization to oversee the EPR programs in Ontario established under the *RRCEA*. The RPPRA operates a registry to monitor producer performance against targets, collects fees to cover its administrative costs and oversees the compliance and enforcement of producers' responsibilities. The RPPRA has various enforcement powers including compliance orders or administrative penalties and it may also resort to prosecutions in court. The province has also announced that it intends to implement an administrative monetary penalties regulation under the *RRCEA* to provide an additional compliance tool for the RPPRA²⁹. One of benefits of enforcing the EPR system through an organization such as the RPPRA, rather than a Ministry, is that the costs of oversight and enforcement are paid by the producers.

In Ontario there are multiple PROs operating, and producers are given a choice of which PRO to work with to meet their individual obligations under the Regulation. In January 2023, the PROs (Circular Materials Ontario, Ryse and H2 Compliance) finalized a System Access Agreement which set out how PROs would share the common collection system in the province, including associated promotion and education. The System Access Agreement also established Circular Materials (the dominant PRO) as the Administrator of the common collection system.

In Ontario, there is a three-year staged transition to 100% EPR for PPP, with municipalities transitioning to 100% EPR on individual assigned dates between July 1, 2023, and January 1, 2026. Unlike BC, Ontario municipalities are not guaranteed a future role in curbside recycling with the move to 100% producer funding; however, Circular Materials Ontario has allowed municipalities to "opt-in" to continue to provide services in their communities during the transition period from 2023 to 2025. During this transition period, PROs are expected to maintain the existing level of service that was being offered in the community prior to the municipality's transition date, i.e., no changes.

Beginning in January 2026, the common collection system is expected to change, with all Ontario residents being able to place the same PPP materials in their Blue Boxes. Beyond that, the operation of the common collection system and a municipality's role in it remain undetermined at this time.

Targets for resource recovery are set in the Blue Box Regulation, as shown in **Table 6**. Materials can be considered managed when marketed (sold) for re-use for their original purpose or function or marketed for use in new products or packaging. When producers report their Ontario supply data each year, a management target is set for the following year by multiplying the weight of material supplied in a category, by the recovery percentage. During the transition years, 2023 to 2025 producers must make

²⁹ Environmental Registry of Ontario, "A proposed regulation, and proposed regulatory amendments, to make producers responsible for operating Blue Box programs" (October 19, 2020). Retrieved from: <https://ero.ontario.ca/notice/019-2579>.

best efforts to meet the 2026 to 2029 targets; however, in 2023 producer's management requirements are reduced by two thirds, and in 2024 are reduced by one third.

Table 6: Ontario's PPP Recovery Targets

Material Category	2026 to 2029	2030 Onwards
Paper	80%	85%
Rigid Plastic	50%	60%
Flexible Plastic	25%	40%
Glass	75%	85%
Metal	67%	75%
Beverage Containers	75%	80%

Source: [Blue Box Regulation](#)

2.4

Austria

Austria introduced EPR for packaging in 1993, based on a single producer owned and managed PRO, Altstoff Recycling Austria AG (ARA). ARA was responsible for designing, financing, implementing, and managing a nation-wide separate collection of household packaging (residential) and also for ICI packaging. Collection categories are as follows:

- Paper (including paper packaging);
- Glass (separated into clear, brown and green); and
- Lightweight packaging (plastics, metals, composites, cartons, textiles, wood).

In 2014, under pressure from the competition authority and key stakeholders, the compliance market for household packaging was opened to competition in organizing collection and recycling of packaging waste, effectively creating a multi-PRO approach. The new regulation included rules for the management of a common collection system for PPP materials.

Under this new approach, the Federal Ministry of Environment has many responsibilities, including setting minimum requirements for PROs and authorizing PROs, managing a registry of obligated producers and the quantities and types of packaging that they supply into the market, and determining the market shares of the PROs and allocating responsibility for servicing all eligible sources among the PROs. Market share is determined based on the weight of materials supplied to market by producers that have a contract with each PRO. To facilitate the multi-PRO approach, an independent Clearing House (called the Packaging Coordination Office) was created under the supervision of the Ministry to coordinate activities of common interest to all PROs.

Although there are multiple PROs operating in Austria, all materials are collected through a common collection system. Each of the 99 political districts of Austria are assigned to a PRO by the Ministry by way of a lottery, which matches each PRO's market share to the size of each district. The PRO then leads

a tendering process to select a collection contractor for that district that must meet the following requirements:

- It must reject all offers of those collectors who are directly or indirectly owned by the PRO itself to prohibit market distortions by vertically integrated PRO;
- It must be carried out every five years’;
- One collector must service all municipalities in each specific district;
- It must contract with private collectors or municipalities to provide a specified collection volume for each material category per year as determined by its density (in kilograms per cubic metre), the total quantity of each material category supplied, and the agreed frequency of collection; and
- There must be flexibility to incorporate new eligible sources.

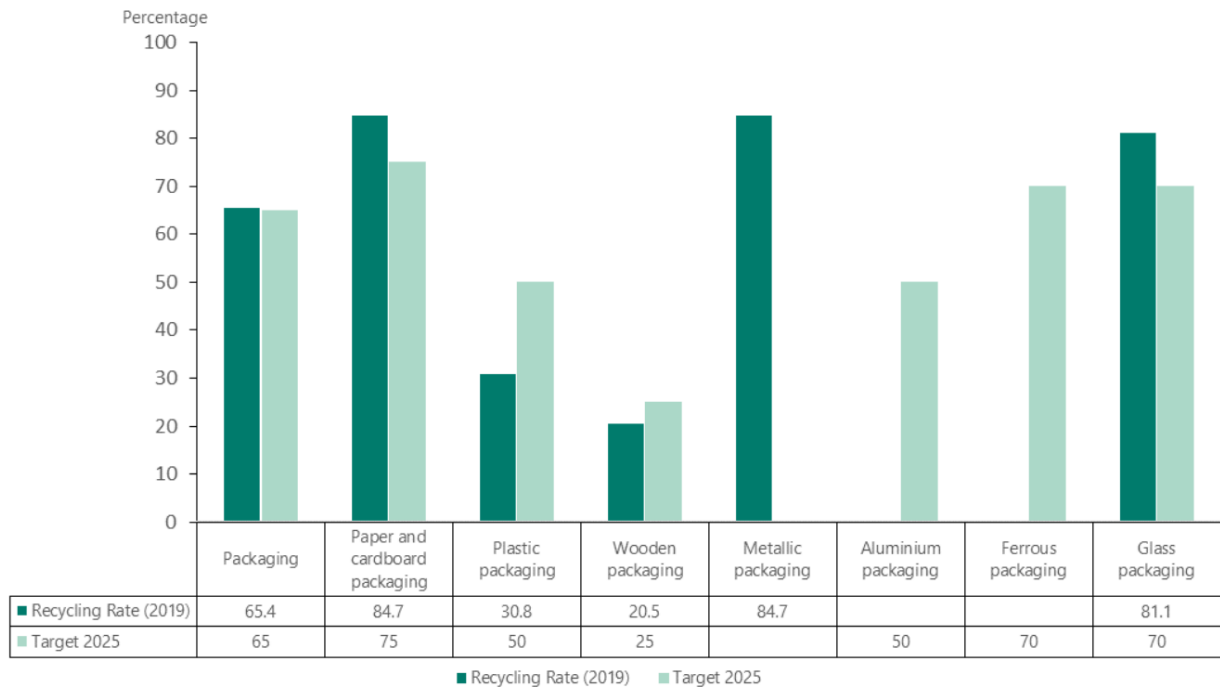
All materials collected through the common collection system are brought to a transfer station (accumulation point) per collection category. There is one transfer station per collection category for each of the 99 districts in Austria. Materials are temporarily stored at these transfer stations until a logistically reasonable amount is achieved. At that point PROs come and pick-up the amount equal to their market share. This guarantees comparable costs and quality of collected material over all districts.

The designated collector in a district invoices all PROs, according to their market share. All materials set out must be collected and the contracted collector must be paid for collection, sorting, recycling, or recovery of all materials collected, even if it exceeds the minimum management targets.

As of 2021 there was strong competition with six PROs operating; however, ARA was still the dominant market player. Of the total market share for each material type, ARA captured 53% for paper, 85% for metal and 67% for lightweight packaging. A PRO dedicated to glass, Austria Glas Recycling, captured 83% of the market share for glass. Note that these are market share percentages and do not reflect the diversion rate for these material types.

In 2019, five years after the transition to the multi-PRO management approach, Austria achieved the recycling rates as shown in **Figure 1**. Recycling rates are calculated as the share of recycled packaging waste in all generated packaging waste. Packaging waste includes waste material that was used for the containment, protection, handling, delivery, and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer, excluding production residues. The recycling rate of plastic packaging waste counts exclusively, material that is recycled back into plastic (material recycling / generation). There is no data available for ferrous metals and aluminum, only for total metallic packaging.

Figure 1: Packaging Recycling Rates for Austria in 2019 (Percentage)



Source: Early warning assessment related to the 2025 targets for municipal waste and packaging waste, Country Profile: Austria. (June 2022).

2.5 Comparisons

Table 7 compares key components of the PPP EPR regulations in NS, BC and Ontario. Links to the regulations are provided from the dates in the “Date Passed” first row. This comparison does not cover all aspects of the regulations but is meant to provide an overview of information relevant to HRM and for understanding the information provided by the jurisdictions reviewed. While Austria’s program was summarized above and the country is included in the jurisdiction review, it will not be compared with the Canadian provincial regulations.

Table 7: A Comparison of the PPP Regulations in NS, BC, and Ontario

Topic	Nova Scotia	British Colombia	Ontario
Date Passed <i>(Click on date for link to Regulation)</i>	August 2023	2011, amended in June 2020 to include more single-use items and packaging products	June 2021, amended in April 2022 and June 2023
Implementation Date	By December 1, 2025	2014	July 2023 – Dec 2025
Municipal Role Prior to Regulation	Municipalities 100% responsible for PPP collection and management	Municipalities 100% responsible for PPP collection and management	Municipalities 100% responsible for PPP collection and management, programs 50% funded by producers through Stewardship Ontario
Producer Definition	Follows a hierarchy through who supplies materials into the province, first a brand holder resident in Canada, then an importer resident in NS, then a retailer. Clarifies if a business is a franchise, the franchisor is obligated.	Follows a hierarchy of who supplies materials into the province, first a manufacturer who supplies products under their brand, then a person who is the owner or licensee of a trademark under which a product is supplied, then a person who imports and supplies a product. Clarifies if a business is a franchise, the franchisor is obligated.	Follows a hierarchy through who supplies materials into the province, first a brand holder resident in Canada, then an importer resident in Ontario, then a retailer. Clarifies that if a retailer supplies materials through a marketplace facilitator, the marketplace facilitator is obligated, and if a business is a franchise, the franchisor is obligated.
Materials Included	Packaging (including primary, convenience and transport packaging and ancillary products), paper products (including paper used for printing, copying, writing or any other general use), packaging-like products (for example: wrapping paper, beverage cups, envelopes and metal trays)	Packaging, packaging-like products (including food containers, foils and wraps, bags, boxes), paper (including flyers, brochures, paper used for copying, writing or any other general use), and single-use products (including straws, stir sticks, utensils, and plates)	Product packaging (including primary, transportation, convenience packaging and service accessories and ancillary elements), paper products (including printed and unprinted paper), packaging-like products (for example: wrapping paper, beverage cups, envelopes and metal trays)

Topic	Nova Scotia	British Colombia	Ontario
Targets Set in the Regulation	Set in an associated material management standard, see Table 1 .	Regulation requires that the plan can achieve a 75% recovery rate, or another recovery rate established by the director. Specific targets for each material category are set through the program plan, see Table 5 .	Recovery percentages are set in the Regulation, see Table 6 .
Eligible Sources for Collection	Residential premises (including townhomes, single-family dwellings, seasonal dwellings and campgrounds) and facilities (including multi-residential and public and private schools)	Residential premises (including single-family dwellings, and multi-residential dwellings (apartments, condominiums, senior residences and town homes)), and from municipal property that is not ICI property (including sidewalks, plazas or town squares and parks).	Residences, facilities (including multi-residential buildings; long-term care homes; retirement homes; public and private schools) and public spaces (including an outdoor area in a park, playground or sidewalk; a public transit station or stop under municipal or provincial jurisdiction, including a track-level stop, to which the public is normally provided access).
Multi-residential Buildings	Included in the regulation; must be serviced by the producers.	As of 2018, 439,000 multi-residential households were receiving collection under the program. Producers are incentivized to provide services to multi-residential properties to meet their targets.	Included in the regulation, must be serviced by the producers if they have existing collection from their community or register to participate in the program.
ICI	Not included in the regulation.	Currently consulting inclusion of ICI PPP under the EPR regime.	Not included in the regulation.

Topic	Nova Scotia	British Colombia	Ontario
Producers' Collection Requirements	Must provide curbside collection to residential premises that receive curbside garbage collection; all other residences must receive depot collection. Must collect from facilities. Must provide receptacles for storage to facilities. Must make offers for collection services to First Nations.	Specifics not set in the regulation, determined through the Program Plan. Regulation requires the producer to collect and pay the costs for collecting and managing products and to provide reasonable and free consumer access to collection services and facilities.	Must provide curbside collection to residences that receive curbside garbage collection; all other residences must receive depot collection. Must collect from all facilities that received service under previous programs or register or collection services. Must provide receptacles to residences and facilities. Must make offers for collection services to registered First Nations.

3.0 Jurisdictional Scan

To complete the jurisdictional scan, Dillon prepared a table of questions, grouped as topics, for the six jurisdictions. The entries were pre-populated by the Dillon team based on a combination of the following resources:

- Publicly available information;
- Desktop research;
- Knowledge based on Dillon's previous work with participating jurisdictions; and
- Direct responses received from the jurisdictions.

Five of the six jurisdictions were contacted for direct participation. Austria's information was populated from publicly researched information. One of the five contacted municipalities (London) was not able to populate the questionnaire due to current capacity constraints. They provided additional sources of information and reports for Dillon to use as resources to complete the questionnaire on their behalf. Where Dillon had confidential (not public) knowledge based on Dillon's previous work with the participating jurisdictions, jurisdictions approved Dillon's use of the information for this report.

3.1 Jurisdiction Selection and Rationale

A long list of potential jurisdictions was provided to HRM for feedback during selection process. The final six jurisdictions scanned as a part of this review and the rationale behind their selection are presented in **Table 8**. One jurisdiction requested to remain anonymous, and the name and province are not included

in this report (province is either Ontario or BC). Once their information becomes public, the jurisdiction can be identified to HRM.

Table 8: Jurisdiction Selection Rationale

Region	Jurisdiction	Pop. ¹	Rational for Selection/Relevance
BC	City of Vancouver	662, 248	• Suggested by HRM as comparable city • City collects from single-family • Contractor collects from multi-residential • Three material streams (containers, paper, glass) • Deposit system for beverage containers
BC	City of Chilliwack	101,700	• Acting as collection service provider to the PRO (Opted in to do own collection and receive financial incentive from the PRO) • Processing and marketing done by PRO
Ontario	City of Hamilton	569,353	• Municipality owns MRF; repurposed asset. • Recycling collection contracted • Some ICI collection provided • To transition April 1, 2025 • Dillon assisted with a Transition Plan and options for the MRF
Ontario	City of London	422,324	• The City owns their MRF, has contracted to a service provider to the PROs • Potential stranded assets • Suggested by HRM
Province	Anon.	Anon.	• Municipality owns MRF; stranded asset • Collection done by municipality • Own fleet of vehicles • To transition early 2025 • Dillon assisted with a Transition Plan
Europe	Austria	8.9 Million (Country)	• Has EPR regulation for packaging • Multiple PROs system, PROs are not-for profit (unlike Germany) • Well established framework and system in place • International perspective

Notes:

1 – Populations are from Statistics Canada’s 2021 census unless otherwise noted.

Anon. = anonymous

See **Appendix A** for the set of questions presented to jurisdictions.

Jurisdictional Scan Findings

In **Table 9** a summary of information for each jurisdiction reviewed with respect to the following topics is provided:

1. Description of the jurisdiction;
2. Transition state;
3. Service delivery post-transition;
4. Program performance post-transition;
5. Lessons learned; and
6. Resident satisfaction/experience.

The completed questionnaire from each jurisdiction is included in **Appendix A**.

Table 9: Summary of Jurisdiction Scan Findings

City of Vancouver	
Description of the Jurisdiction	The City of Vancouver (Vancouver) is 1 of 22 municipalities in the Metro Vancouver Regional District. According to the 2021 census, the population of Vancouver is 662,248
Transition Stage	Along with other jurisdictions in BC, Vancouver transitioned to full EPR in 2014.
Service Delivery Post-Transition	Vancouver initially chose to provide collection services to the PRO, however, two years later Vancouver chose to discontinue providing those services. This decision was made based on the following factors: • Multi-residential collection contract being up for renewal. • City's fleet of recycling trucks being at end of life. • Funding from the PRO not covering the actual operating costs. • Increased demand for street cleaning services to which City staff could be transitioned to, maintaining employment. Prior to transition the City services some multi-residential building through a contract with a private hauler. After Recycle BC assumed responsibility for collection services, multi-residential collection is provided through private haulers, either through the Recycle BC program or not. No ICI collection was provided before or after transition.
Program Performance Post-Transition	Vancouver has no knowledge of any changes.
Lessons Learned	• Contractors had to get used to driving the residential routes/lanes, there was a learning curve. • Was challenging to determine what was in out of scope for multi-residential. Needed lots of field checks. • Collection in laneways was also a challenges as are there are no addresses visible on the backs of homes.

	The relationships at the executive and operations management levels during the transition were healthy, no major challenges.
Resident Satisfaction/ Experience	Resident confusion around the transition was focused on the perception was that the city "contracted out", the perception that the residents still pay for recycling in their taxes, and residents wanting to call the City no matter what. These queries are still ongoing.
City of Chilliwack	
Description of Jurisdiction	According to the 2021 census, the City of Chilliwack (Chilliwack) has a population of 101,700. In 2021 their curbside collection program serviced 39,500 households (80% urban suburban and 20% agricultural/rural).
Transition Stage	Chilliwack transitioned to full-EPR in 2017.
Service Delivery	Chilliwack became a service provider for collection of PPP. Processing of collected materials is managed by the PRO. No multi-residential collection was provided by the municipality before or after transition. No ICI collection was provided before or after transition.
Performance	Chilliwack is unsure how performance changed after the transition due to changes in the materials that were accepted for collection, and changes in what was accepted curbside vs. only at depot. They did not have an overall drop in recyclables collected at the curb but noted that this might be accounted for by books and glass no longer being accepted curbside. They also noted that when they reintroduced curbside collection for glass two year after transition that the gap was closed.
Lessons Learned	- Addressing contamination requires ongoing effort. - They had significant concerns in 2020 when Recycle BC considered changing their receiving site to one that was further away without a change in compensation; however, due to lack of capacity at the other site, this change did not occur. - Door hangers and social media seemed to be most effective for communicating with residents.
Resident Satisfaction/ Experience	Resident complaints focused on certain materials that were no longer accepted for collection at the curb (mostly about plastic bags and glass). Similarly, they received complaints when they phased out the use of blue bags for recycling collection. Residents provided positive feedback about the curbside collection app, which included a waste wizard sorting tool. Recycle BC has been able to recycle most materials collected in North America which was helpful for communicating with residents who expressed doubt about whether the recyclables are actually recycled vs landfilled or mishandled overseas.

City of Hamilton

Description of Jurisdiction	According to the 2021 census, the City of Hamilton (Hamilton) has a population of 569,353.
Transition Stage	Hamilton will transition to full-EPR for PPP on April 1, 2025.
Service Delivery	Hamilton will not be a service provider for the collection or processing of PPP. Hamilton is still deciding what to do with it's MRF, but did not consider leasing it to the PROs or to GFL, or acting as a service provider to the PROs. Multi-residential properties collection will be provided by PROs post transition. Some ICI collection is currently provided by the City. City is still in the process of determining whether to service those ICI properties post transition. Some ICI will be collected by the PROs (schools, long-term care homes, retirements homes).
Performance	Staff is anticipating that Hamilton's diversion rate will decrease due to a smaller percentage of the material generated having a City diversion program established for it. While the recyclable materials may be captured through the PROs collection system, without data related to diversion of recyclables the diversion KPI that the City uses to assess its performance will not be useable; therefore, a new KPI will need to be developed.
Lessons Learned	Not having better records of the non-eligible properties that the City provides service to, most notably businesses that receive Blue Box collection.
Resident Satisfaction/ Experience	Residents remain largely unaware of the upcoming transition, but they plan to communicate it in the 2024/2025 waste calendars and expect to receive inquiries at that time.

City of London

Description of Jurisdiction	According to the 2021 census, the City of London (London) has a population of 422,324.
Transition Stage	London transitioned to full-EPR for PPP in July 2023.
Service Delivery	London decided to become a service provider to the PROs for collection during the transition years (2023-2025) and is contracting with a service provider (Miller Waste) to carry out that collection. London is calling this role a service administrator. London has leased their MRF to a service provider (Miller Waste), and the MRF will be used by the PROs under the full-EPR program. Multi-residential properties collection will be provided by PROs post transition. Some ICI collection was provided by the City prior to transition, whether or not the City would be continuing that service after transition was not clear from the information provided. Some ICI will be collected by the PROs (schools, long-term care homes, retirements homes).
Performance	<i>No information provided.</i>

Lessons Learned	At 47 days post-transition, when information was provided for this study, everything was running smooth and seamless.
Resident Satisfaction/ Experience	<i>No information provided.</i>

Anonymous Municipality

Description of Jurisdiction	This jurisdiction services approximately 49,000 customers which are 61% single-family, 1% multi-residential, and 38% ICI.
Transition Stage	This jurisdiction is planning for transition.
Service Delivery	The municipality is not contracting to PRO for collection or processing. The municipality is still determining what to do with it's existing MRF, and options included converting it to a Mixed Waste Processing facility, leasing out MRF to a service provider, or converting the MRF to a transfer station. The current plan is to use it for interim storage, washing and maintenance facility for the collection fleet and carts. Multi-residential properties collection will be provided by PROs post transition. Some ICI collection was provided by the City prior to transition, and the jurisdiction has already discontinued that service in anticipation of transitioning. Some ICI will be collected by the PROs (schools, long-term care homes, retirements homes).
Performance	Capture rate risks declining in 2026 if Blue Box acceptable materials list expands without sufficient promotion and education. Diversion is expected to be maintained and then improve in 2026. Also, addition of more multi-residential properties in 2026 will help diversion.
Lessons Learned	• There were challenges getting transition details from the PRO and therefore needed to rely on their good relationship with their service provider. • Having a transition plan in place allowed the jurisdiction to effectively plan and anticipate changes required before, during and after transition. • Success will be the expansion of the list of materials accepted in the recycling program. • Main success is the budget savings.
Resident Satisfaction/ Experience	Changes to the collection services for ICI sector were implemented in 2023 and were unpopular and drew media and customer criticism. They also required extensive staff time (two workers for four months) to communicate the changes. Communication about residential program changes will launch in 2024. The jurisdiction sees the decline of customer service as a risk.

Austria

Description of Jurisdiction	This review was completed for the country of Austria.
Transition Stage	Program started in 1994 and transitioned to a multi-PRO system in 2014.

Service Delivery	Municipalities can act as service providers for collection to the PROs. Multi-residential collection is provided by the PROs. Eligible sources for collection include some ICI locations (schools, hospitals, retirement homes, office buildings, small sized enterprises) as they seek to capture household and household-like packaging.
Performance	In 2019, approximately 85% of paper and cardboard packaging was diverted. The 2025 target is 75%. Approximately 31% of plastic packaging was diverted. The 2025 target is 50%.
Lessons Learned	• There are 99 districts in Austria. The whole country has one common collection system, i.e., everyone has the same PPP collection program. Promoting public awareness of one common system is anticipated to be more efficient than multiple different systems. • One common collection system for the entire Country is more effective, efficient and more practical to communicate to the public.
Resident Satisfaction/ Experience	<i>No information available.</i>

4.0 Key Themes and Findings

4.1 Role of the Municipality as a Service Provider

Three of the five municipal jurisdictions (Anonymous, Vancouver and Hamilton) do not operate, or do not plan to operate as a PPP service provider to the PROs for either collection or processing. London and Chilliwack have chosen to provide service for collection of PPP but not processing.

The key reason cited as being insufficient financial incentives to cover the actual costs of the program. The City of Hamilton indicated that only 80% of actual costs would be covered by the PRO if the City chose to be a service provider. Other factors included risk such as high contamination, not having proper infrastructure to scale up to a higher service offering required, and a desire to pivot to other waste service areas to apply and/or shift municipal resources. Reasons noted as motivators to provide services to the PRO included maintaining current service levels to their residents and maintain quality control of the service, as well as direct communication with service calls and or complaints from residents.

Experience shows that even where jurisdictions have decided not to be a service provider to the PROs they have still carried out promotion and education with respect to the EPR program for PPP. Municipalities are not responsible for promotion and education of the PPP program after transition to the PRO; however, some still chose to do so. This suggests that there is a need for more effective promotion and education than is required by the PRO per regulations, or that the regulation does not specify how much is to be provided; therefore, municipalities also do their own promotion and education as well.

Municipal Facility Considerations

London, Hamilton and Anonymous owned MRFs prior to their transition. London sold their MRF equipment and leased the MRF to their contracted service provider. The service provider was designated the receiving facility for up to 15 years for the catchment area surrounding and including London and is expected to continue using the MRF leased from London.

Hamilton and Anonymous do not have a finalized future plan for the MRF to date. One will use the MRF for interim storage, washing and maintenance of their in-house garbage collection fleet and carts. Future repurposing considerations include turning the MRF into a transfer station or a storage facility/warehouse shared with other City departments. The MRF may also be a transfer station for Blue Box materials collected by the City from non-eligible source sources of ICI and Business Improvement Areas.

Hamilton currently provides some ICI services (including City owned properties) but are assessing whether that service will be reduced after transition. This is in part related to determining where the ICI Blue Box materials will be managed, since they would not be obligated to be managed by the PRO under the Regulation. That said, none of the other scanned jurisdictions highlighted any changes regarding continued access to recycling processing services, suggesting HRM may not encounter this issue.

Trends Around Outcomes

Challenges and Successes

Notable challenges experienced by the jurisdictions included delays in receiving transition details from governing entities during planning, new collection contractors adjusting to routes (especially in areas where single-family and multi-residential properties are on the same routes collected by different entities), and for jurisdictions operating as collection service providers, addressing contamination. The allowable amounts of contamination are set out in contracts between municipalities and PROs and exceeding them can lead to financial penalties. Data was also mentioned as a gap of information needed to make decisions and for transitioning info to the PRO. Jurisdictions mentioned data related to the location of multi-residential and ICI properties being difficult to separate for single-family properties, leading to challenges in handing over responsibility to the PROs and understanding their own obligations post transition.

Municipalities also identified successes with the transitions. Most felt that the transition was smooth, without major issues and with respect to managing recyclables, outperformed other programs. Vancouver and Chilliwack spoke positively of the working relationship with PROs noting that there was close cooperation, that collaboration and communication was professional and timely, that PROs had a good understanding of the issues and differences of opinion were managed. It was noted that the focus was on a seamless transition for the public.

In BC, it was also noted that the PRO performed well when working through the market challenges related to managing recyclable materials and was able to recycle most materials within North America. Financial/budget savings and the expansion of materials collected were also noted as successes.

4.3.2 Resident Satisfaction

Public feedback included complaints regarding material and waste receptacles no longer accepted in the curbside collection programs post transition and residents perceiving the transition as the City contracting services out. Vancouver noted that there was some confusion around the City's role under full EPR, especially with respect to responding to resident complaints. This led to residents continuing to contact the City about issues when they should be contacting the PRO's service provider. Despite these complaints, Vancouver still noted that the transition was smooth and there were very few escalated calls from residents.

In Chilliwack, concerns focused on removal of glass from the curbside collection program, which led to it being added back to the curbside program rather than being accepted at the depot only.

Strategies that were found to assist the transition to the EPR framework included development of a detailed transition plan well in advance of the transition date and close cooperation and communication with the PRO. Positive outcomes of the transition to the EPR framework for jurisdictions noted include the potential for expansion of accepted materials in the program and the ability to redirect municipal resources to other municipal programs, e.g., other diversion programs. This applies to municipalities that gained resources (staff time, equipment, space, budget) by not providing services on behalf of the PRO.

Whether acting as a service provider or not, all jurisdictions noted providing extensive P&E efforts or plans, often in coordination with the PROs, which include various forms of communications. Effective tools for public communication included door hangers, social media and waste calendars. Jurisdictions also recommended keeping communication clear and simple and starting communication early with respect to any program changes.

4.3.3 Impact to Diversion and Capture Rate

Jurisdictions that have transitioned to 100% EPR for PPP (Vancouver, Chilliwack and London) reported that the effect of capture rates were uncertain, or did not change, and the effects on diversion rates were unknown or a decrease was reported. Both BC and Ontario have matured PPP programs. Based on HRM's PPP program maturity, one would anticipate a similar impact for HRM.

The anonymous jurisdiction anticipates a decline in capture rate if sufficient P&E is not provided during transition amidst increases in acceptable materials to maintain their current high diversion performance. Hamilton anticipates that recovery of materials (e.g., cardboard) could increase from the non-eligible sources, should Hamilton decide to continue providing services for them. They anticipate their overall diversion rate will decrease as the Blue Box captured tonnes will now go to the PRO and

they will not have the required data to determine the amount that recyclables contribute to their overall diversion.

4.3.4 Integration of Collection Services

Integration of solid waste services was not reported to be impacted by any of the jurisdictions. Three jurisdictions (Vancouver, Chilliwack and London) reported no changes, with one (Chilliwack) noting the same contractors were still providing services for all three streams. Another (Hamilton) noted they did not anticipate any impact despite contract amendments. The anonymous municipality noted that they had a transition strategy to manage change impacts and that the capacity gained by the removal of recycling services allowed them to focus on growing their program for leaf and yard waste.

4.4 ICI Collection

Collection from ICI properties is not provided for under the regulations for PPP in NS (with the exception of public and private schools, and campgrounds). In BC, the only ICI locations captured are senior residences. In Ontario, ICI locations that require service under the regulation are long-term care homes, retirement homes, public and private schools.

While not currently included in the PPP regulations, BC is consulting on a potential EPR program for the ICI sector³⁰. Some form of requirements for the ICI sector are also being considered in Ontario, as discussed in the original proposal for the current regulation³¹. It is anticipated that the MECP will produce an ICI regulation in the future. The Association of Municipalities of Ontario (AMO) has echoed the need for new policies to drive ICI waste diversion, noting that 60 to 70% of all waste in Ontario is generated from ICI sources.³² There is no timeline for when collection from ICI locations would be required under regulation in either province.

In BC, both Vancouver and Chilliwack noted that pre and post transition, collection services for ICI locations are provided by private haulers and are the responsibility of each ICI property.

In Ontario, the anonymous jurisdiction has been providing collection to ICI locations. Earlier this year, they halted collection to any ICI businesses outside of their downtown area. They note that this caused negative feedback from stakeholders and media coverage and required considerable staff time to communicate the change and address issues. The final decision regarding how ICI locations in the downtown area will be serviced in the future is still under consideration and review with a decision expected sometime in 2024.

London noted that they provide collection service from approximately 600 to 700 non-eligible sources; non-eligible meaning sources that are not eligible for PPP services under the IPR regulation. However, the final decision regarding what services will be after transition, was not defined in the current public

³⁰ [Extended Producer Responsibility 5-Year Action Plan 2021 to 2026 – gov.bc.ca](https://gov.bc.ca/extended-producer-responsibility-5-year-action-plan-2021-to-2026)

³¹ [A proposed regulation, and proposed regulatory amendments, to make producers responsible for operating Blue Box programs – ero.ontario.ca](https://ero.ontario.ca/a-proposed-regulation-and-proposed-regulatory-amendments-to-make-producers-responsible-for-operating-blue-box-programs)

³² [Ontario Baseline Waste & Recycling Report – amo.on.ca](https://amo.on.ca/ontario-baseline-waste-recycling-report)

documents they provided. It was noted that they intended to discuss economies-of-scale in their discussions with the PRO.

In Austria, eligible sources for collection include some ICI locations, as the intention is to capture household and household-like packaging. This enables citizens to sort and recycle the same household and household-like packaging, at home and at work or away from home.

In Ontario, municipal organizations such as the AMO and the Continuous Improvement Fund (CIF) developed resources and working groups to support all the municipalities and First Nations with assistance in decision making and planning in addressing non-eligible sources. One noted challenge was mixed-use properties. A mixed-use property is one which has residential units/apartments above commercial properties on the lower levels or ground floor. Another noted challenge is to address municipal areas, such as Business Improvement Areas, where there are commercial properties along residential routes³³. Many municipalities provide service to the smaller ICI properties since they are already along a collection route and the service provider already stops curbside to collect the residential waste streams. For municipalities that do not provide the services, they may identify residential vs ICI containers by type, tags or colours on that shared route. One jurisdiction (London) indicated that they were going to discuss PRO servicing of some ICI locations during negotiations; however, the outcomes of that approach are unknown.

In addition to determining what, if any, service to provide to ICI properties going forward, Ontario jurisdictions also noted challenges in identifying ICI stops currently being serviced. Particularly where ICI stops were serviced along residential routes, and for certain types of ICI locations such as places of worship, municipalities do not always have clear data with respect to how many ICI stops are currently being serviced and the location of those stops.

4.5 ICI Processing

Hamilton noted that they are assessing service levels for collection from the ICI sector, including City owned facilities and buildings, in part based on determining where materials will be managed. Hamilton also stated that these properties have access to private recycling services and facilities. Other Ontario communities did not provide comment on ICI access to recycling processing services post transition.

In BC, as with collection services, pre and post transition, the ICI sector typically accesses private processing service, and Vancouver confirmed that is the case in their jurisdiction. Chilliwack does not own an MRF.

5.0 Potential Gaps in Service Delivery

The following sub-sections summarize potential service delivery gaps that may arise in HRM, with examples of how these gaps could be mitigated.

³³ [Ontario's Experience: Transitioning to Full Producer Responsibility](#)

5.1

Rural ICI Sector Collection

The small rural based ICI properties serviced by the HRM municipal curbside collection program are **not** eligible to be serviced as a source in the new EPR PPP program, as stipulated in the NS Regulation. The PRO is not required to provide services to the ICI sector. There will be a need for the municipality to understand whom they service currently.

Options to continue the delivery of this service will have to be explored and may include negotiating a per unit rate with the PRO to continue delivering collection, establishing a parallel curbside collection program (i.e., tag program as in Ontario) or requiring ineligible properties to retain private collection services.

As part of transition planning, municipalities can also expect data requests from the PRO on mixed used properties they serve, i.e., commercial business on ground level but residential units in upper levels. PROs will be responsible for residential service but not ICI. It is recommended that municipalities start to update this data early in planning and develop the communication to stakeholders that will be impacted through the process.

5.2

ICI Sector Processing

Except for Hamilton, none of the jurisdictions scanned identified any changes regarding continued access to recycling processing services. This may be in part due to the availability of private sector recycling processing in those areas, or that other municipalities typically do not service the ICI sector.

While private sector processing services exist in HRM for fiber (i.e., paper and cardboard), private sector facilities accepting container recyclables are more limited. Should HRM cease to operate a MRF, potential gaps may occur with respect to access for container recycling processing for the ICI sector. It should be noted that much of the containers received are from multi-residential buildings, which would be covered by the EPR program, limiting the impact of this gap.

During the transition planning process, consideration should be given to the impacts of ceasing to operate a MRF and no longer offering processing services to the IC&I sector. As discussed, if services are not offered by HRM there is potential for increased costs for accessing recycling services for the ICI sector.

HRM should be prepared to discuss the need for transfer facilities or local processing options with the private sector and PRO to ensure access remains. HRM could also consider operating a transfer station for ICI recyclables, however given the low volume of material, this may be a cost prohibitive option.

5.3

Multi-Residential Sector

In NS, under the new EPR regulation, all multi-residential buildings are eligible sources, as they fall under the “facilities” definition. Therefore, all multi-residential buildings should receive PPP service from the

PRO, and there should be no service gap for HRM to address. Unlike in Ontario, there is no requirement in NS that they be receiving service under an existing program to be eligible.

With Divert NS acting as the EPR provincial authority and PROs such as Circular Materials, there will need to be a registry of multi-residential properties where service will be the responsibility of the PRO. The service can be delivered by the private sector, on behalf of the PRO. The PRO and private service providers would enter service contracts for delivery of that service to the multi-residential sector.

While HRM is not responsible for delivery of collection services at multi-residential buildings, there will continue to be a need for delivery of educational support related to waste management (i.e., organics and reduction). Additionally, where source-separation containers are required to be maintained under HRM By-Law S-600, continued efforts to inspect for compliance should be expected.

Appendix A

Jurisdictional Scan

Jurisdictional Scan Template Issued

Halifax Regional Municipality in Nova Scotia has retained Dillon Consulting Limited to conduct a jurisdictional scan on EPR transition trends in British Columbia and Ontario.

The purpose of this request is to gather an understanding from other municipalities on their experience in transitioning to EPR programs for their Blue Box/Bag/Cart type programs, as well as those about to transition (Ontario).

The following questions are pertaining to the transition of municipal services to 100% EPR by an approved Producer Responsibility Organization (PRO) for Printed Paper and Packaging (PPP) only.

Table 10: Jurisdictional Scan Questionnaire Template

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
Municipal Role	Pre-Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?		
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?		
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?		
Waste Assets	MRF	4	Did/does your municipality own a Material Recovery Facility (MRF) prior to transition? What was the MRF used for after transition? Why was this decision made?		
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?		
Outcomes	Metrics- Capture %	6	How is/was your municipality's PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.		
	Metrics- Diversion %	7	How is/was your municipality's diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/ (total generated tonnes all streams). Generated = disposed + recycled. All streams are: garbage, bulk waste, all recyclables, organics and yard waste.		
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?		
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?		
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?		
		11	What was the most effective communication tool you used to advise the public on the changes in relation to the new PPP system under the EPR framework?		
		12	What may/did you hear from residents as feedback about the transition of services? Were they satisfied with the new services? Any challenges/issues?		
		13	What did you hear about from elected officials about the EPR transition?		
	Lessons Learned (-)	14	What, if any, were/will be your municipality's challenges and or unexpected issues related to the transition?		

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
	Lessons Learned (+)	15	What, if any, were/may be your municipality's successes related to the transition?		
Potential Service Gaps	Multi-residential	16	How were/will multi-residential (multi-family) properties, which are not serviced by your municipality's curbside collection program, be addressed by the new EPR program for PPP?		
	ICI Sector	17	If applicable, how are/may municipal services provided to the ICI sector customers affected by the transition? What types of ICI customers do you service?		
		18	If any municipal recycling services/facilities that provide services to the ICI sector were/will be discontinued or closed, how did/will the ICI sector customers that were/will be impacted access recycling services? Did/do they have access to private recycling services and facilities?		
Follow Up	Contact	19	Can we contact you to follow up on any clarifications? If so, please provide contact's email address and/or phone number.		

Jurisdictional Scan Results

In the summary tables that follow for each jurisdiction, the “Background Information” column was completed by Dillon based on publicly available information and knowledge based on Dillon’s previous work with participating jurisdictions. The jurisdiction’s response is provided in the “Jurisdiction Response” column. Minor edits to the responses received by the jurisdictions have been made for clarity, however, in most cases the responses to the questionnaire are as provided by the respondents.

5.3.1 City of Vancouver

Table 11 includes the completed questionnaire for the City of Vancouver.

Table 11: Completed Questionnaire for the City of Vancouver

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
Municipal Role	Pre-Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?	City crews were responsible for the curbside collection for 110,000 single-family households. Contracted entities were responsible for the collection of 167,000 multi-residential households, processing and material sales.	Correct.
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?	The city became a collection contractor to the PRO (Recycle BC) and divested after two years. The city council priorities were to maintain the service levels for single and multi-residential homes and to avoid job loss. Drivers to divest included the following: - Renewal of multi-residential contract; - Fleet replacement: \$12M; - Funding shortfall: cost \$4M more than received; and - Investment opportunities: Public Realm Cleanliness.	Elaborating on the points: - The City used its own staff/vehicles to collect recyclables from single-family homes (Blue Box, yellow/blue bags), but contracted with private haulers for the collection of recyclables from multi-residential households (wheeled blue bins). The 4 year contract was coming up for renewal, so this factored into the decision; - The City's fleet of recycling trucks was at end of life with a cost of 12M to replace. That added cost factored into the decision; - The funding provided by the PRO was insufficient to cover the actual operating costs (\$4M difference), which contributed to the decision to divest (turn over collection to the PRO); and - The City provides street cleaning services which were under resourced based on the increasing demand from the public. Divesting was an opportunity to shift some City recycling staff over to City street cleaning to support an immediate increase in service levels. Residents didn't feel a financial impact (via property taxes), which is typically what would happen with a street cleaning service increase. Instead, the recycling fees being paid by City recycling customers were converted to a street cleaning fee. So, service increased at no additional cost to residents.
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?		The City operated as a service provider for two years. The funding provided by the PRO was insufficient to cover the actual operating costs which contributed to the decision to divest (turn over collection to the PRO). Negotiations (discussions) related to increasing funding occurred, but there was no movement on that from the PRO.
Waste Assets	MRF	4	Did/does your municipality own a Material Recovery Facility (MRF) prior to transition? What was the MRF used for after transition? Why was this decision made?		No, the City does not own a MRF.

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?		The City operated a recycling receiving yard at a City-Owned Property (1198 East Kent Avenue South). After the transition, we used the site for various temporary storage needs and have since turned it into a Zero Waste Demonstration Site. ³⁴
Outcomes	Metrics- Capture %	6	How is/was your municipality's PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.		No change to our knowledge.
	Metrics- Diversion %	7	How is/was your municipality's diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/(total generated tonnes all streams). Generated = disposed + recycled. All streams are garbage, bulk waste, all recyclables, organics and yard waste.		No change to our knowledge.
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?		Not applicable.
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?		No change.
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?		We work with Recycle BC to help amplify their messaging, including putting all their information on our website, calendar, apps, and social media where necessary (i.e., if there's a significant change). We have a waste outreach team that's well equipped to answer questions from the public on issues related to Recycle BC's program or EPR in general.
		11	What was the most effective communication tool you used to advise the public on the changes in relation to the new PPP system under the EPR framework?		Our 311 call service team is typically the first line for public calls or info requests. They are equipped with all the information needed to respond to callers. The information is typically what is on our website.
		12	What may/did you hear from residents as feedback about the transition of services? Were they satisfied with the new services? Any challenges/issues?	Resident confusion around the transition was focused on the perception was that the city "contracted out", the perception that the residents still pay for recycling in their taxes, and residents wanting to call the City no matter what.	It's been several years since transition, and we still get the same comments from residents as described here.

³⁴ The City of Vancouver provided the following link for additional detail: <https://vancouver.ca/green-vancouver/zero-waste-demonstration-hub.aspx>

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
		13	What did you hear about from elected officials about the EPR transition?		Some elected officials are still confused about the City's role, particularly because they hear directly from residents who aren't happy with the recycling service and also don't fully understand (as noted above). We continue to answer questions and provide clarification on the City's role, which is very limited if anything at all. We aren't responsible for the service so there's not much we can do to address operational issues (missed collections, delays, etc.).
	Lessons Learned (-)	14	What, if any, were/will be your municipality's challenges and or unexpected issues related to the transition?	It was noted that there were some challenges as new contractors got used to the programs. Multi-residential sector was more complicated than the single-family sector and address and household verification took more time than expected.	Nothing unusual really, contractors had to get used to driving the residential routes/lanes, so just a learning curve. We've always had an issue with determining what's in and out of scope for multi-residential customers and our database and billing system is/was outdated. A lot of field checks and verifications were needed to correct the data (cart counts onsite vs database). Also, since most collections are in laneways it's always challenging to reconcile data, because there's no addresses visible on the back of homes. Nothing overly unexpected. The relationships at the executive and operations management levels during the transition were healthy, no major challenges.
	Lessons Learned (+)	15	What, if any, were/may be your municipality's successes related to the transition?	The transition was generally smooth with relatively low call volume and very few escalated calls. There was close cooperation with Recycle BC including an executive level steering committee that had monthly meetings and a staff level working group that had biweekly meetings. There were shared guiding principals including the following: • Seamless service change for the public; • Seamless customer service between City and Recycle BC systems; • Coordinated communications and messaging activities; • Open and timely information sharing (maps, address data, contacts); and • Keeping each other informed and giving opportunity for feedback - "No surprises".	
Potential Service Gaps	Multi-residential	16	How were/will multi-residential properties, which are not serviced by your municipality's curbside collection program, be addressed by the new EPR program for PPP?	It was noted that multi-residential was more complicated than single-family.	As above, what buildings should be considered multi-residential is what makes it more complicated than single-family. It's not uncommon to have neighbouring and similar sized buildings on different collection systems (one serviced by City (or Recycle BC post transition) and the other serviced by private hauler). Why or how that happened is not always clear, but it can lead to confusion for everyone (service provider and customer).
	ICI Sector	17	If applicable, how are/may municipal services provided to the ICI sector customers affected by the transition? What types of ICI customers do you service?	N/A	N/A

City of Chilliwack

Table 12 includes the completed questionnaire for City of Chilliwack.

Table 12: Completed Questionnaire for the City of Chilliwack

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
Municipal Role	Pre Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?	Contracted service for collection, processing, and marketing. Collection was from single-family homes and duplexes. PPP was collected commingled in a single-stream recycling program.	The financial incentives do not cover the actual cost of collection so there is an inequity between communities that opt to retain control over collection and those who transfer collection to Recycle BC. Prior to joining the EPR program, the City attempted to negotiate changes to the standard agreement to address this and several other concerns, but Recycle BC would not agree to the requested changes.
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?	The city opted to retain control over collection and receive financial incentives. Processing and marketing were taken over by PRO (Recycle BC).	
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?		
Waste Assets	MRF	4	Did/does your municipality own a MRF prior to transition? What was the MRF used for after transition? Why was this decision made?	No, the city does not own a MRF. Emterra’s local facility is the designated receiving facility for curbside recyclables under the Recycle BC agreement.	There was no change in container ownership. As part of the agreement with Recycle BC, the City had to purchase and distribute recycling containers to residents on the program and phase out the use of bluebags.
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?		

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
Outcomes	Metrics- Capture %	6	How is/was your municipality's PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.		Uncertain. Although Recycle BC accepts some new materials (some at curbside and some depot only), our previous curbside program accepted a wider variety of recyclable items at the curb, and it was easier for residents to understand (e.g., we accepted all plastics 1-7 where the new rules around plastics are more confusing for residents). Some items were not included in the EPR program (e.g., books) and other items switched to depot only (plastic bags). Due to changes in the materials accepted and the combination of curbside and depot recycling, it is difficult to compare before and after. See additional comments below.
	Metrics- Diversion %	7	How is/was your municipality's diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/(total generated tonnes all streams). Generated = disposed + recycled. All streams are: garbage, bulk waste, all recyclables, organics and yard waste.		The amount of recyclables collected at the curb decreased by 5% when we joined the EPR program due to the change in materials collected and switch to depot recycling for some items. There was a switch from a single stream program to a multi-stream program. Our previous curbside program included items such as books and glass that were no longer permitted in the single stream curbside program. When we added separate glass collection two years after starting the EPR program, it helped close the gap. We calculate our diversion rate based on the curbside collection portion of recyclables since it's uncertain how much of the depot materials originate from the households participating in the curbside program.
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?		Recycle BC contract only allows for 3% contamination. Municipalities who are unable to meet the auditing of Recycle BC thresholds may be fined and/or need to show remediation efforts are in place. In 2021, Chilliwack was required to prepare and carry out a Contamination Remediation Plan. The measures implemented reduced contamination sufficiently to avoid financial penalties.
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?		Contracted hauler is still responsible for all 3 streams. The City opted in for the financial incentive per household. Recycle BC did not take over the recycling collection for the City. When we issued the RFP for the 2017-2024 curbside collection program, we anticipated we may be joining the EPR program, so we included provisions for this change in the RFP and contract.
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?		The City developed extensive promotion and education materials in coordination with Recycle BC. We receive a promotion and education top up as part of the financial incentives from Recycle BC. We provide promotion and education through our curbside phone line, website, curbside app, social media, radio and newspaper ads, door hangers and handouts. Recycle BC also performs separate promotion and education.
		11	What was the most effective communication tool you used to advise the public on the changes in relation to the new PPP system under the EPR framework?	The City gave a recommendation to keep things very clear and simple and use a variety of communication tools as well as to contract a service to assist with inquiries during a large program change. This indicates possible challenges with public inquiries and/or compliance.	We tried to keep the messaging very clear and simple and used a variety of communication tools as well as contracting a service to assist with inquiries during the large program change. The door hangers seemed to get residents' attention, as well as social media, and also set up information booths at venues, including a home and garden show. We received the most positive feedback from residents about the curbside collection app, which included a waste wizard sorting tool.
		12	What may/did you hear from residents as feedback about the transition of services? Were they satisfied with the new services? Any challenges/issues?		When we started the new program, we received the most complaints about the materials no longer accepted at the curb (mostly about glass and plastic bags). Residents weren't happy about some materials switching to depot only. We ended up adding separate glass collection to address the concerns from residents. We also received complaints when we had to phase out the use of blue bags. This concern still comes up when severe weather interrupts curbside collection and residents have extra materials to put out the following week.

Topic	Sub-topic	No.	Question	Background Information	Jurisdiction Response
		13	What did you hear about from elected officials about the EPR transition?		The main concern was complaints received from residents about glass, which led to it being added back to the curbside program instead of depot only.
	Lessons Learned (-)	14	What, if any, were/will be your municipality's challenges and or unexpected issues related to the transition?	Recommendation for contingency planning indicating some unexpected challenges.	Addressing contamination requires ongoing efforts. The other significant concern that arose was in 2020 when Recycle BC changed to a different organization for processing and tried to change our receiving site for curbside materials from the location in Chilliwack to a site in Abbotsford. If this had gone through it would have significantly increased our curbside contract costs with no associated increase in compensation from Recycle BC. The designated depot in Abbotsford did not have capacity to handle our material, so the change didn't occur.
	Lessons Learned (+)	15	What, if any, were/may be your municipality's successes related to the transition?	New materials were added to the recycling streams: Aerosol cans, cardboard and metal bound containers, Dairy cartons, frozen dessert containers Styrofoam accepted at depot.	Recycle BC has expanded the flexible plastics accepted at depots for recycling. We were happy when they found a solution for recycling the other flexible plastic packaging (OFPP) instead of using it as an engineered fuel. They have also included some new curbside recyclables (e.g., straws, utensils, paper party decorations). Correct, we did not accept Styrofoam at all prior to joining the EPR program. Recycle BC has performed very well through the market challenges and has been able to recycle most of the materials in North America. This has helped when we get residents expressing doubt about whether the recyclables are actually recycled vs landfilled or mishandled overseas.
Potential Service Gaps	Multi-residential	16	How were/will multi-residential properties, which are not serviced by your municipality's curbside collection program, be addressed by the new EPR program for PPP?	They can use the depots to drop off materials collected by Recycle BC.	The City believes multi-residential properties are also able to join Recycle BC's curbside collection program through their private haulers.
	ICI Sector	17	If applicable, how are/may municipal services provided to the ICI sector customers affected by the transition? What types of ICI customers do you service?	ICI not serviced by the City. Recycle BC does not currently include service to ICI sector.	
		18	If any municipal recycling services/facilities that provide services to the ICI sector were/will be discontinued or closed, how did/will the ICI sector customers that were/will be impacted access recycling services? Did/do they have access to private recycling services and facilities?	N/A	

Table 13 includes the completed questionnaire for the City of Hamilton.

Table 13: Completed Questionnaire for the City of Hamilton

Topic	Sub-topic	No.	Question	Background Information	Municipal Response
Municipal Role	Pre Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?	Recycling is collected in a dual-stream system weekly: Blue Boxes and carts may be used for containers (e.g., bottles, jugs, tubs, cartons, etc.) and fibers (e.g., paper, newspaper, etc.) depending on the location. Front-end collection services are provided and serviced for multi-residential buildings and some commercial properties. The City provides services to multiple customer types. The list below describes the types of customers and, where possible, provides the approximate number of each type of customer, based on the City’s 2021 Datacall submission: • 183,095 curbside residential; • 52,808 multi-residential dwellings (defined as buildings with six or more units); • 5,255 ICI customers; • 13 Business Improvement Areas (BIAs); • 1,525 households that live above commercial properties; • 19 retirement and 16 long-term care homes including 2 City owned/ operated long term care homes; • 1 City-owned daycare; • 89 schools; • Residential and ICI customers who access services at Transfer Stations, Community Recycling Centres (CRCs), and the Material Recovery Facility (MRF); • Staff and users of City facilities including corporate facilities (e.g., office buildings) and recreation facilities (e.g., pools and community centres); • People using public spaces at roadsides, transit stops, parks; and • Special events coordinators and attendees. Curbside Collection Contract The City has a seven-year contract with GFL for the provision of various waste collection services that began on March 29, 2021. The contract includes city-wide Blue Box collection from single-family, multi-residential and roadside public space containers. The contract included provisions for early termination of Blue Box services in anticipation of the Blue Box Regulation.	See Background Information

Topic	Sub-topic	No.	Question	Background Information	Municipal Response
				Processing Contract (MRF) The City owns its MRF and contracts out the operations to process Blue Box materials to GFL (seven-year contract for the provision of recycling processing services that began on March 30, 2020). The contract includes provisions for early termination of Blue Box services in anticipation of the Blue Box Regulation. The MRF is located at the Resource Recovery Center (RRC), which also includes the Central Composting Facility (CCF) and City Collections Yard. Due to the anticipated regulatory changes, the 2020 Solid Waste Management Master Plan (SWMMP) did not contemplate any investment in the facility infrastructure. The City plans to use the MRF as a City warehouse facility and is currently considering an option to use a portion of the MRF as a transfer station if recycling collection services continue to be provided to non-eligible customers. Scalehouse Operations The City has weigh scales at each transfer station (three), CRC (three), RRC (serves both the MRF and CCF) and landfill. A software system is in place to manage information from scale operations including vehicle tare weights, tonnage tracking and tipping fees. A contract is in place for scalehouse operations. The software will require updating to remove Blue Box codes (or modifying if providing service to non-eligible customers) and associated business processes will need to be updated to reflect changes, including staff training. Drop off Depots or Community Recycling Centres Waste Connections of Canada Inc. (Waste Connections) operates the depot collection system at the City’s three Transfer Stations and CRCs. The service began on March 1, 2020, and continues for 10 years. Provisions were made for the addition or removal of materials during the contract. If materials are removed, the Contractor will not be eligible to receive payment as none of the quantities or materials are guaranteed. Blue Box recycling is also accepted at CRCs, including cardboard, steel cans, aluminum cans, PET, HDPE, mixed plastics (3 to 7, but not black plastic), Tetra Pac and gable-top cartons and polystyrene (Styrofoam). At CRCs, residents can drop off leaf and yard waste, wood, electronics, metal, appliances, bulky rigid plastic (e.g., laundry baskets, play structures), tires and roofing materials (e.g., shingles), as well as household hazardous waste and items for reuse. Residents who have placed a service request are able to pick up green bins and Blue Boxes at the CRCs. A contract is also in place with Creative Outdoor Advertising (COA) for collection of garbage and recyclable materials from public space recycling receptacles at transit stops. The City will need to review the terms of this contract to determine what provisions may need to change once the future state has been determined.	
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?	On August 10, 2022, the Public Works Committee considered Report PW22064 “Blue Box Transition Update and Servicing” and approved the staff recommendation to advise Circular Materials Ontario that the City will not provide Blue Box collection on behalf of Circular Materials Ontario during the transition from April 1, 2025, to December 31, 2025. The recommendation was approved by Council on August 12, 2022. The draft Master Service Agreement with Circular Materials Ontario for Blue Box Services offered to cover only 80% of collection costs and did not cover any transportation costs to a processing facility. As a result, staff made the recommendation in Public Works Committee Report PW22054 not to provide service to eligible sources after its April 1, 2025, transition date.	

Topic	Sub-topic	No.	Question	Background Information	Municipal Response
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?	N/A	
Waste Assets	MRF	4	Did/does your municipality own a MRF prior to transition? What was the MRF used for after transition? Why was this decision made?	The City owns their own MRF and at this time no Council decision has been made regarding what the MRF will be used for after transition. The City is not considering leasing the MRF to PRO's, or permitting GFL to continue to operate the facility as a MRF. However, the City is currently in the process of examining the feasibility of converting the City's MRF into a recyclables material transfer station (TS) to explore ways of efficiently consolidating and transferring recyclables from sources that would potentially continue to be managed by the City following the transition of its residential Blue Box program. The quantity of recycling collected from curbside ineligible sources is estimated to be approximately 975 tonnes per year based on the four-year average of data provided by the City. An additional 870 tonnes of fibre are estimated to be collected annually through Front End Loader (FEL) bin service. Combined, this quantity represents approximately 6% of the City's current materials processed at the MRF. The City is considering six potential scenarios which included a combination of the following: • Inbound from Curbside Collection: Single Stream or Dual Stream; • Inbound from Curbside Collection: Bagged or Loose; • Outbound to Licensed Processor: Single Stream or Dual Stream; and • Outbound to Licensed Processor: Loose, Compacted or baled. Inbound refers to how materials would be received at the MRF, and outbound refers to how materials would be prepared and shipped from the MRF after sorting. For each scenario capital costs, construction timeline, staffing levels, estimated annual transportation, operating and capital costs and conceptual designs are being developed. Also, a transition plan to support converting the MRF to a TS is also being developed.	See Background Information
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?	• Curbside containers (i.e., the residential recycling boxes for containers and fibres that have been distributed to residents and any remaining inventory); • multi-residential containers (i.e., 360 litre recycling carts in use by multi-residential customers and any remaining inventory); • Carts, boxes and bins used for recycling at City facilities; • Public space receptacles including barrels used in parks, roadside and at transit shelters; • Special event containers (excluding barrels, roll-off containers provided by contractors); • Fleet used to pick up waste in parks; • Education room display information related to recycling; and • CRC bins, bays and signage currently used for Blue Box material.	

Topic	Sub-topic	No.	Question	Background Information	Municipal Response
Outcomes	Metrics- Capture %	6	How is/was your municipality's PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.		As the City has opted out of being a service provided post-transition, all residential Blue Box material will no longer be handled by the City. However, it is likely that the City will continue collecting recyclables from some non-eligible sources such as businesses and City buildings. If this service is provided, it is anticipated that capture rates from these sources will increase, and contamination rates will decrease. Rationale for this is the expected high amounts of cardboard to be in this stream.
	Metrics- Diversion %	7	How is/was your municipality's diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/(total generated tonnes all streams). Generated = disposed + recycled. All streams are: garbage, bulk waste, all recyclables, organics and yard waste.		Staff is anticipating that Hamilton's diversion rate will decrease due to a smaller percentage of the material generated having a diversion program established for it. Early estimates are, if the City stops collecting all Blue Box material that the diversion rate would be approximately 31%. This would obviously increase if the City decides to collect some recyclables from non-eligible sources. For comparison, as per the RPRA Datacall, in 2021 Hamilton's residential waste diversion rate was 42.6%
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?	N/A	
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?	Garbage/organics collection should not directly be affected as collected separately from Blue Box Materials; however, there are some anticipated risks: Potential increase in garbage due to rejected Blue Box Material at the curb and potential increase in green bin material that is not acceptable at the compost facility due to producers creating more compostable packaging. Business processes for collection services will be changing as a result of contract amendments and/or additional clauses.	See Background Information
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?		Program promotion and education is supposed to be the responsibility of PROs / producers through the Regulation; however, Hamilton is taking on a role of educating the public about transition, including informing residents of the transition in things like our waste calendar and notifying apartment building owners / operators of who to contact to receive recycling collection.
		11	What was the most effective communication tool you used to advise the public on the changes in relation to the new PPP system under the EPR framework?		The waste calendar, as this is seen by the most people, and we've been able to communicate this change in a couple of calendars due to our later transition date.

Topic	Sub-topic	No.	Question	Background Information	Municipal Response
		12	What may/did you hear from residents as feedback about the transition of services? Were they satisfied with the new services? Any challenges/issues?		So far, feedback / inquiries on the transition have been minimal, although this may be because we do not transition until April 1, 2025. We anticipate as this date gets closer, we'll hear more from residents. Especially because the 2024 / 2025 waste calendar will have some focused messaging on this transition date.
		13	What did you hear about from elected officials about the EPR transition?		The only thing we've heard so far is that some councillors have said we should be completely out of the business and not act as service providers for producers. This was approved in a report to Council in the summer of 2022.
	Lessons Learned (-)	14	What, if any, were/will be your municipality's challenges and or unexpected issues related to the transition?		The biggest lesson learned was probably not having better records of the non-eligible properties that we provide service to, most notably businesses through Hamilton that receive Blue Box collection.
	Lessons Learned (+)	15	What, if any, were/may be your municipality's successes related to the transition?		Determining what our post-transition diversion rate will be and determining new targets based on that.
Potential Service Gaps	Multi-residential	16	How were/will multi-residential properties, that are not serviced by your municipality's curbside collection program, be addressed by the new EPR program for PPP?		These are to be serviced by producers moving forward and will not be the City's responsibility.
	ICI Sector	17	If applicable, how are/may municipal services provided to the ICI sector customers affected by the transition? What types of ICI customers do you service?	See above - 1 & 4	
		18	If any municipal recycling services/facilities that provide services to the ICI sector were/will be discontinued or closed, how did/will the ICI sector customers that were/will be impacted access recycling services? Did/do they have access to private recycling services and facilities?	See above - 4. City currently determining if will continue to service the ICI properties that are currently receiving Blue Box services. These properties do have access to private recycling services and facilities by contracting directly with a local collector.	

5.3.4

City of London

Table 14 includes the completed questionnaire for the City of London. London was unable to provide a response to the questionnaire at this time, and therefore the “Jurisdiction Response” column has been removed from this table. London did provide Dillon with several background documents which were used to complete the information presented in the “Background Information” column in the table.

Table 14: Completed questionnaire for the City of London.

Topic	Sub-topic	No.	Question	Background Information
Municipal Role	Pre Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?	Collection provided through contractor Miller Waste, owned MRF and equipment, provided promotion and education, have depots.
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?	Yes, continuing to be the service administrator during the transition years (2023-2025). London is the contractor to the PRO but has a sub-contractor Miller Waste for collection services. The City is also the service provider for Enviro Depots and promotion and promotion and education services.
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?	Working with producers was: Positive, very professional, timely responses, good exchange and understanding of issues, differences of opinion exist – but managed.
Waste Assets	MRF	4	Did/does your municipality own a MRF prior to transition? What was the MRF used for after transition? Why was this decision made?	Miller Waste was awarded the contract to be the receiving facility for the catchment including London. Sold MRF equipment to Miller Waste Systems, leased MRF to Miller Waste (10 years with 2 5-year options). Equipment included: • Conveyor belts, platforms, and related equipment and structures in the tipping floor areas, pre-sort room, container and paper sorting rooms and final materials preparation areas; • Container processing equipment – magnet, glass breaker, optical sorter, eddy current separator; • Fibre processing equipment – corrugated cardboard triple deck sorter and newspaper and boxboard screen; and • 2 weigh scales and 3 balers. Historic cost of equipment was \$9.3 million; mostly acquired in 2011.
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?	<i>No information available.</i>
Outcomes	Metrics- Capture %	6	How is/was your municipality’s PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.	<i>No information available.</i>
	Metrics- Diversion %	7	How is/was your municipality’s diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/(total generated tonnes all streams). Generated = disposed + recycled. All streams are: garbage, bulk waste, all recyclables, organics and yard waste.	<i>No information available.</i>
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?	<i>No information available.</i>
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?	<i>No information available.</i>
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?	London is continuing to provide promotion and education. July to Dec. 2024 Focus: Sort it Right – Containers Jan. to June 2025 Focus: Sort it Right – Paper Fibres July to Dec. 2025 Focus: More Blue Box Materials – Getting Londoners ready for the new materials Post 2026 transition will focus on other material streams.

Topic	Sub-topic	No.	Question	Background Information
		11	What was the most effective communication tool you used to advise the public on the changes in relation to the new PPP system under the EPR framework?	<i>No information available.</i>
		12	What may/did you hear from residents as feedback about the transition of services? Were they satisfied with the new services? Any challenges/issues?	47 days in, everything was smooth and “seamless”
		13	What did you hear about from elected officials about the EPR transition?	<i>No information available.</i>
	Lessons Learned (-)	14	What, if any, were/will be your municipality’s challenges and or unexpected issues related to the transition?	Collection had shifted from 42 pick-ups per year, to 50 pick-ups. Given requirements in the regulation, this could be seen as a service change (increase in service) that the producers were not required to fund. (Information taken from January 2023 report).
	Lessons Learned (+)	15	What, if any, were/may be your municipality's successes related to the transition?	<i>No information available.</i>
Potential Service Gaps	Multi-residential	16	How were/will multi-residential properties, which are not serviced by your municipality's curbside collection program, be addressed by the new EPR program for PPP?	About 875 multi-residential buildings received collection under existing program and new program.
	ICI Sector	17	If applicable, how are/may municipal services provided to the ICI sector customers affected by the transition? What types of ICI customers do you service?	City had approximately 600 to 700 non-eligible customers, including municipal facilities such as community centres, libraries, arenas, and civic centres, non-residential locations such as shelters and places of worship, and industrial, commercial and institutional establishments. Was going to look for economies of scale in contract negotiation with Circular Materials Ontario (Information taken from Jan 2023 report , unclear final outcome).
		18	If any municipal recycling services/facilities that provide services to the ICI sector were/will be discontinued or closed, how did/will the ICI sector customers that were/will be impacted access recycling services? Did/do they have access to private recycling services and facilities?	<i>No information available.</i>
Sources				1. Updates: Blue Box Transition – April 24, 2023 - https://pub-london.escibemeetings.com/filestream.ashx?DocumentId=98869 2. Updates: Blue Box Transition and Next Steps – January 10, 2023 - https://pub-london.escibemeetings.com/filestream.ashx?DocumentId=96426 3. Updates: Blue Box Transition and Next Steps – June 21, 2022 - https://pub-london.escibemeetings.com/filestream.ashx?DocumentId=93280 Additional information was taken from presentation slides presented by London staff at the Association of Municipalities of Ontario conference in August 2023.

5.3.5

Anonymous Municipality

This jurisdiction asked to remain anonymous in public reporting and therefore identifying information will not be provided. Table 15 includes the completed questionnaire for this jurisdiction.

Table 15: Completed Questionnaire for the Anonymous Municipality

Topic	Sub-topic	No.	Question	Background Information	Anonymous Response
Municipal Role	Pre Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?	The current recycling program is a single-stream recycling program. (printed paper, packaging, beverage containers) The municipality provides BB collection and processing in house: • Provision of blue carts and front end bins; • Integrated collection including curbside, multi-residential and public spaces (downtown) i.e., split trucks; • Public Drop-Off Depot • Materials Recycling Facility; and • Customer service, program development, promotion and education and by-law enforcement. Facilities and equipment are owned by the municipality and operated by its staff.	Confirmed.
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?	An IPR transition strategy was developed as part of the waste management plan to guide decision making as information on transition details became available from the PRO. Staff received direction from Council in September 2022 to opt out of providing Blue Box collection after its transition date.	The municipality is not contracting to PRO for collection or processing. The main reasons are excessive risk, insufficient compensation, and MRF being too small and outdated to adapt to be a regionalized, higher-performance recycling system.
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?	The municipality is still considering whether to provide depot service. The depot is located at an integrated waste management site and includes, the MRF, organic waste processing facility, transfer station, public drop off and HHW depot. The site and facilities are owned and operated by the municipality.	Confirmed.
Waste Assets	MRF	4	Did/does your municipality own a MRF prior to transition? What was the MRF used for after transition? Why was this decision made?	Yes, the municipality owns and operates a MRF pre-transition. Fifteen options were considered for the MRF post transition. The three shortlisted options that had been considered were as follows: 1. Convert MRF to Mixed Waste Processing facility; 2. City to Lease out MRF; and 3. City to convert MRF to Transfer Station. Options continued to be assessed based on market interest. If the municipality decides to go with the “collection and transfer” option, the MRF can be repurposed for other waste management services. Or the MRF can be decommissioned and repurposed for other municipal services.	New MRF plans are for interim storage, washing and maintenance facility for the collection fleet and carts. Will not use for mixed waste, lease, or transfer station.

Topic	Sub-topic	No.	Question	Background Information	Anonymous Response
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?	Collection Fleet: During consideration of being a service provider to the PRO, municipal staff started diversifying its collection fleet with both single stream and split body trucks to position itself with the ability to either continue collecting Blue Box materials or opting out and only collecting Garbage and Organics. Due to the age of the current fleet, the replacement schedule could also be optimized to decommission vehicles at the end of their life while also deferring the purchase of vehicles to accommodate municipal growth. Carts: The blue carts that residents use to set out recycling at the curb for collection are municipal owned assets. The majority of the carts were deployed in 2012, 2013 and 2014 and have been fully depreciated upon 7 years of use. Under the Blue Box Regulation, the PROs will determine the rules for collection including what type of containers (i.e., bags, Blue Boxes or carts) will be used post transition. Staff are exploring best use for these assets which may include the sale of the carts to the producers or a third party for an alternate use, repurposing the carts for yard waste collection or allowing residents to keep them for their own needs or return them to the municipality for recycling.	Confirmed.
Outcomes	Metrics- Capture %	6	How is/was your municipality's PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.	Assumed that the capture rate will continue post transition. A monitoring and evaluation plan is being developed to have pre and post transition metrics.	Capture rate risks declining in 2026 if Blue Box acceptable materials list expands without sufficient promotion and education.
	Metrics- Diversion %	7	How is/was your municipality's diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/(total generated tonnes all streams). Generated = disposed + recycled. All streams are garbage, bulk waste, all recyclables, organics and yard waste.	A monitoring and evaluation plan is being developed as part of a transition plan.	Diversion is expected to be maintained and then improve in 2026. Also, addition of more multi-residential properties in 2026 will help diversion.
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?	N/A	Confirmed.
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?	A transition strategy and tool identified the system components that would be affected and looked at change impacts on people (customers, staff), business processes and facilities/equipment.	The removal of the Blue Box Program as a municipal provided service freed up capacity to be devoted to yard waste and growth.
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?	The municipality is developing a communication plan as part the transition planning process. Customer specific communications are being developed. Promotion and education information continues to be provided as part of ongoing promotion and education efforts. BB Changes in 2025 are outlined on the municipality's website.	City to focus 2026 promotion and education on getting new recyclables out of the garbage stream.

[illegible]

Topic	Sub-topic	No.	Question	Background Information	Anonymous Response
		18	If any municipal recycling services/facilities that provide services to the ICI sector were/will be discontinued or closed, how did/will the ICI sector customers that were/will be impacted access recycling services? Did/do they have access to private recycling services and facilities?	How has the transition gone so far with the early 2023 changes?	Early 2023 changes to ICI customers were unpopular. They drew negative media attention and criticism by a handful of customers. The change required extensive staff time (two workers for four months) to communicate the changes. We do not have data on how their diversion rates may have been affected, but it is likely they decreased.

5.3.6 Country of Austria, European Union

Information about Austria’s EPR program from PPP as it relates to the questionnaire is included in Table 16. All information was resourced from desktop research.

Table 16: Completed Questionnaire for Austria

Topic	Sub-topic	No.	Question	Background Information
Municipal Role	Pre Transition to EPR	1	What was/is your municipality’s role as a service provider related to collection and processing of recyclables (PPP only) before transition to 100% EPR by a PRO?	<i>No information identified.</i>
	After Transition	2	Did/will your municipality choose to operate as a service provider to a PRO for PPP after the EPR transition? Why or why not?	Although there are multiple PROs operating, all materials are collected through a common collection system. Materials are commonly collected in three streams (though some districts do collect metal separately): • Paper (including paper packaging); • Glass (separated into clear, brown and green); and • Lightweight packaging (plastics, metals, composites, cartons, textiles, wood). Printed papers are not obligated under EPR legislation in Austria and are managed by municipalities. Waste sorting protocols are used to determine the quantities of paper packaging collected and these costs are charged to the designated PRO. The common collection system relies primarily on dense networks of recycling collection containers located close to household and ICI generators. PROs are responsible for: • Organizing collection and recycling or recovery on behalf of producers; • Full financial responsibility for collection, recycling, and promotion and education; • Establishing a reporting system of the amounts of obligated material put on the market, in total and per obligated producer; • Implementation of an effective control program to ensure that obligated producers are reporting the correct amount of each packaging material category; and • Documenting and reporting on the quantities and types of packaging waste collected; and recycled or recovered. Municipalities are responsible for: • Providing public spaces for public collection points for used packaging and cleaning of these places and then charging the relevant costs of providing these services to all PROs according to their market shares; • May offer to provide collection services based on private contracts with PROs. The tendering process must be carried out every five years; and • May hire waste advisors to undertake defined promotion and education activities in their communities and charge the cost of providing these services to the designated PRO. There are 99 districts in Austria.
	PRO Relationship	3	If you choose/chose to operate as a service provider to a PPP PRO, what were any challenges that arose in negotiating with the PRO(s)?	In Austria, all PROs must agree to a standard contract with all municipalities, to be authorised by the Ministry. Local variations to the contract are agreed in appendices (i.e., container type, collection frequency, etc.). The contract terms for infrastructure services, regional promotion and education and packaging managed as municipal solid waste are for an indefinite time and can be terminated by either party at the earliest after three years, with six months notice. The contract for collection services is set for a three year period and ends automatically if another collector wins the new collection tender in that district.

Topic	Sub-topic	No.	Question	Background Information
				Other elements of the contract include: • Detailed description of packaging collection categories including a definition of contamination and the maximum accepted percentage; • List of types of bins, containers and distributed bags provided; • The volume of packaging to be collected in liters/capita per year; • Frequency of emptying bins or pick up bags; • Details of the analysis of waste streams; • Provision of public places for collection containers to be located at reasonable distances for consumers. Density is set on earlier studies of the willingness of people to go to the containers for each different material; • The maintenance and cleaning requirements for these sites including snow clearance in certain areas; and • Requirements for municipalities to retain waste advisors and to provide regional information about separate collection.
Waste Assets	MRF	4	Did/does your municipality own a MRF prior to transition? What was the MRF used for after transition? Why was this decision made?	<i>No information identified.</i>
	Other Assets	5	What other municipal owned waste management related assets did/do you have? If any were impacted by transition, what was done with those assets after the transition?	With respect to any required bins, containers and distributed bags, if any of these are provided by the municipality, the contract sets out the fees for this infrastructure.
Outcomes	Metrics- Capture %	6	How is/was your municipality's PPP recyclable capture rate percentage anticipated to be affected by the transition? Capture rate % = (recyclables diverted)/ (recyclables generated). Generated = disposed + recycled.	In 2019, approximately 85% of paper and cardboard packaging was diverted. The 2025 target is 75%. Approximately 31% of plastic packaging was diverted. The 2025 target is 50%.

Topic	Sub-topic	No.	Question	Background Information
	Metrics- Diversion %	7	How is/was your municipality's diversion rate anticipated to be affected by the transition? Diversion Rate % = (total recycled tonnes all streams)/(total generated tonnes all streams). Generated = disposed + recycled. All streams are garbage, bulk waste, all recyclables, organics and yard waste.	<i>No information identified on overall Austrian municipal diversion rates.</i>
	Contamination	8	If you operate as a service provider to a PPP PRO, how is the issue of contamination in the PPP collected addressed? Is this strictly enforced by the PRO?	The allowable amount of contamination is set out in contracts between municipalities and PROs. The allowable contamination is only defined for lightweight packaging and metal packaging. The maximum percentage by weight is 20% for lightweight packaging and metal packaging and 15% if only plastic bottles are collected. Municipalities may be required to pay for the amount exceeding these percentages if contamination continues over a longer period and all other measures taken do not work.
	Integration of Services	9	If any, how is/was the integration of other solid waste services by the municipality (e.g., garbage and organics collection) affected?	Integrated waste management systems for municipalities would be uniquely impacted on a case-by-case scenario, depending on whether or not the municipality wins a tender contract with a PRO.
	Public Feedback	10	What was/is your experience with public promotion and education under the EPR framework? What was/is your role, if any, in public promotion and education under the EPR framework for the PPP PRO?	There are 99 districts in Austria. The whole country has one common collection system, i.e., everyone has the same PPP collection program. Promoting public awareness of one common system is anticipated to be more efficient than multiple different systems.

Topic	Sub-topic	No.	Question	Background Information
		11	What was the most effective communication tool you used to advise the public on the changes in relation to the new PPP system under the EPR framework?	<i>No information available.</i>
		12	What may/did you hear from residents as feedback about the transition of services? Were they satisfied with the new services? Any challenges/issues?	<i>No information available.</i>
		13	What did you hear about from elected officials about the EPR transition?	<i>No information available.</i>
	Lessons Learned (-)	14	What, if any, were/will be your municipality's challenges and or unexpected issues related to the transition?	<i>No information available.</i>
	Lessons Learned (+)	15	What, if any, were/may be your municipality's successes related to the transition?	Anticipate that one common collection system for the entire Country is more effective, efficient and more practical to communicate to the public.
Potential Service Gaps	Multi-residential	16	How were/will multi-residential properties, which are not serviced by your municipality's curbside collection program, be addressed by the new EPR program for PPP?	Multi-residential homes are captured under the EPR program.
	ICI Sector	17	If applicable, how are/may municipal services provided to the ICI sector customers affected	In Austria, eligible sources for collection include some ICI locations as they seek to capture household and household-like packaging. This enables citizens to sort and recycle the same household and household-like packaging, at home and at work or away from home. Eligible sources include: • All single-family homes and multi-residential homes; • Schools, hospitals, retirement homes; • Office buildings, small sized enterprises; and

Topic	Sub-topic	No.	Question	Background Information
			by the transition? What types of ICI customers do you service?	All newly established sources must also be included.
		18	If any municipal recycling services/facilities that provide services to the ICI sector were discontinued or closed, how did the ICI sector customers that were impacted access recycling services? Did they have access to private recycling services and facilities?	<i>No information identified.</i>