

Part 3: Provincial Program Summaries

Beverage container recycling programs in Canada are varied. Despite some commonalities, each program is different when it comes to which materials are covered by the regulations, what agents are responsible for managing the program, the collection system used, and the funding model. Programs also differ in the methods used to calculate collection and recycling rates. All of these factors can make it difficult to collect and analyze data and to compare the effectiveness of recycling programs from one province to another.

The following section provides a summary of each provincial program, including: a description of the supporting regulatory framework and which containers are covered; a listing of key performance targets; a description of the entities responsible for managing and operating the program; a description of the program funding model; and a description of the collection methods used and collection rates achieved. Some provinces also include a “What’s New” section to highlight some important updates since the last version of *Who Pays What*™.



British Columbia

POPULATION: 4,582,000
POPULATION DENSITY:
4.8 PERSONS/KM²

Beverage Container Recycling Program

Supporting Regulatory Framework

Adopted in 1970 under the province’s *Litter Act*, British Columbia (B.C.)’s beverage container recycling program is the oldest in North America. In 1997, to address changes in beverage container packaging, the province replaced the outdated *Litter Act* with the *Beverage Container Stewardship Program Regulation*. While the original legislation covered only carbonated soft drinks and beer, this regulation expanded the deposit-refund system to include any ready-to-serve beverage sold in a container that is sealed by its manufacturer (e.g. bottled water, juice, new age drinks, and alcohol), excluding milk and milk substitutes.

This regulation was repealed and replaced in 2004 with the *Recycling Regulation*, which consolidated all B.C. stewardship regulations (including the *Beverage Container Stewardship Program Regulation*) into a single regulation. The *Recycling Regulation* contains key requirements that apply to all producers and stewardship programs with specific product category provisions listed in schedules. With the enactment of this regulation, stewardship agencies were required to submit revised stewardship plans consistent with the regulation by October 2008, which describe the development and operation of the beverage container program, including how the program provides customers with an efficient and convenient system.

Performance Targets

The *Recycling Regulation* establishes a minimum recycling target (collection rate) of 75% and requires that redeemed containers be either refilled or recycled.

Who is Responsible?

The Beverage Container Recovery Program targets brand owners or first importers (stewards) of all non-refillable beverages (excluding milk products) that are sold in the province. There are currently two stewardship agencies in B.C. that carry out deposit-refund obligations on behalf of producers: Encorp Pacific (Canada) and Brewers Distributor Ltd. (BDL).

BDL represents brand owners of domestic coolers, beers, and ciders. Encorp represents brand owners of all other beverage types, including non-alcoholic beverages, wine, spirits, some ciders, coolers, as well as some import beer.

Program Financing

Program funding is the responsibility of the producer. Both Encorp Pacific and BDL pay handling fees to authorized depots and contracted retailers for handling the returned beverage containers and preparing them for shipment.¹³ Financing for the Beverage Container Recovery Program comes from various sources: 1) through revenues generated from unredeemed deposits; 2) through revenues generated from the sale of material; and 3) a container recycling fee (CRF) paid at the point of sale by consumers.

All beverage containers covered by the program carry a deposit based on their type and size. Non-alcohol beverage containers up to and including 1L carry a deposit of 5-cents, while those over 1L have a 20-cents deposit. Alcohol containers up to and including 1L carry a 10-cents deposit, while those over 1L have a 20-cents deposit. Customers can redeem these deposits by returning empty containers to depots. Any unredeemed deposits are kept by Encorp to cover collection and recycling costs; in 2012, there was a total of \$16,021,607 in unredeemed deposits (\$85,181,918 in total deposits - \$69,160,311 refunds issued).

When the revenues from unredeemed deposits and from sales of collected material are depleted, a non-refundable CRF is added to the price of the container to make up for the deficit. Implemented by the beverage industry (excluding the domestic beer industry), CRFs are charged based on the net cost of

collection and recycling specific container types (gross costs minus the unredeemed deposit and any material revenue) and varies depending on the value of the material and the collection rate for a particular container. For example, high collection rates generate less unredeemed deposit revenue and therefore higher CRFs; in contrast, lower collection rates generate greater unredeemed deposit revenue and therefore lower CRFs. These fees are adjusted on an annual basis and are rounded up to the nearest penny. To illustrate, if the net system cost to recover an aluminum can is 0.95-cents, the CRF will be 1-cent per can.

As of 2014, CRFs range from 1-cent for an aluminum can to 30-cents per unit for large glass containers. Some containers (e.g. drink pouches) do not carry a CRF given that their collection rates are so low that the unredeemed deposits are sufficient to cover collection costs.

Since the implementation of the CRF, the beverage industry bears no direct costs for the operation of the Beverage Container Recovery Program. Any funds that remain after all expenses are paid are placed into reserves. A minimum level of reserves must be maintained in order to ensure the long-term financial viability of the system. If these reserves accumulate beyond reasonable levels, Encorp can do one of two things; it can reduce or eliminate CRFs until the reserve is reduced to an appropriate level, or it can reduce the reserve by spending more money on activities designed to increase collection.

On the other hand, individual brewers internalize their stewardship (collection, transporting, refilling, and recycling) costs.

Collection System

Consumers can return empty beverage containers to depots, retail outlets, and Liquor Distribution Branch (LDB) stores. By law, retailers are required to take back what they sell, up to a maximum of 24 containers per person per day.

Encorp return centres include 171 independent depots (one fewer than in 2011) and thousands of retail outlets. BDL provides for retail returns at over 1,250 locations, including 655 private liquor stores, 197 government-run liquor stores, 229 rural agency stores, and 177 independent depots. In addition to the containers themselves, BDL collects secondary packaging (i.e. cartons, caps, and plastic can rings) associated with beer and cider containers at private retail liquor stores and at selected private bottle depots. It is currently in discussions with the LDB to expand the return network for secondary packaging to include government liquor stores as well.¹⁴

Seventy-eight percent of B.C.'s population live within 2km of a BDL return depot. As for those living in smaller communities and rural areas, there is at least one BDL contracted return location within 15km.

Containers containing milk and milk substitutes are collected as part of a voluntary (non-deposit) recovery system financed by the British Columbia Dairy Council (BCDC) and administered through Encorp Pacific under the name Return-It Milk™. At the end of 2012, the number of Encorp depots accepting milk and soy jugs and cartons was 165.¹⁵ Still, most milk jugs continue to be collected through municipal recycling programs.

Thirty-three contracted transport companies collect containers from depots and retailers and take them to about 17 central processing sites across B.C. where they are compacted for shipment. Significant transportation and handling efficiencies have been realized with the testing of compaction machines in some outlets and with the continued roll out of "Big Bags" that hold over 1800 containers each. Because they allow more material to be transported per truck, much less fuel is needed per tonne of material transported.

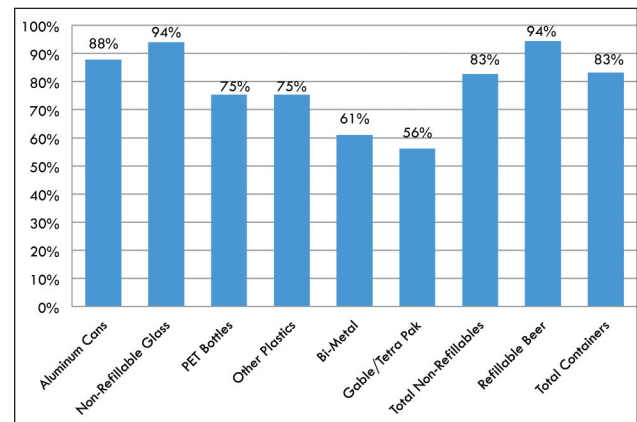
Processors receive bags of mixed containers and prepare them for the appropriate recycling market by sorting, crushing, and baling the glass, aluminum, plastic, and other materials. Baled aluminum cans are shipped to a major re-melt facility where they are turned back into sheet stock for new cans. PET and HDPE plastics are sent to separate facilities to be

cleaned and pelletized for sale into the open market. Glass is either sent to Alberta to be recycled into glass sand for producing fibreglass insulation material or to Seattle, where it is recycled into new glass bottles.¹⁶ In the case of domestic beer containers, refillable bottles are sorted and sent back to the brewers for washing and refill.

Program Performance

In 2012, over 973 million beverage containers were recycled and diverted from B.C. landfills, for an overall non-refillable collection rate of 78.7% (see Figure 3.1). This is a slight decrease from 2011 when the collection rate was 79.8%.

*Figure 3.1
British Columbia Collection Rates by Material*



With respect to program awareness, 85% of consumers surveyed were aware of the nearest Return-It™ Depot location to bring back containers. Ninety-two percent were aware of at least one location.

What's New?

In 2012, Encorp introduced its EXPRESS concept. As of September 2013, EXPRESS was in the final testing phase and was set to launch in September at the Kensington Depot.¹⁷ Encorp's goal in offering consumers the Return-It™ EXPRESS option is to offer a fast "in depot" experience by reducing the amount of time consumers spend at the depot sorting their containers and waiting in line to receive their deposit refunds.¹⁸ Customers create an online account, gather their empties in a standard blue bag, bring them to an EXPRESS depot, confirm their name and the

number of bags on a touch screen, and then drop off their bags at the EXPRESS window, without having to sort them beforehand. The depot then scans the bags and sends them to a Counting Center. Following count verification, the funds are credited to the customer's account. Encorp is currently looking to test EXPRESS in additional depots and marketplaces, and sees it as an important step towards reducing depot costs and increasing the return rate of beverage containers in B.C.

Also in 2012, Encorp launched a new mobile website as part of its public education strategy. It provides customers with easily accessible, online information regarding how and where to reduce, reuse, and recycle various materials, including beverage containers.



Alberta

POPULATION: 4,025,100
POPULATION DENSITY:
5.7 PERSONS/KM²

Beverage Container Recycling Program

Supporting Regulatory Framework

One of the most effective beverage container recycling programs in North America, Alberta's Beverage Container Recycling Program is regulated under the provisions of the *Beverage Container Recycling Regulation* of the *Environmental Protection and Enhancement Act*. Initiated in 1972, it was expanded in 1989 and again in 1997 to cover all beverage containers, including Tetra Pak and gable top containers. A further expansion in 2001 included all domestic beer containers; domestic beer producers were now treated the same as other beverage producers in terms of program compliance, reporting, and handling fees paid to depots.

Further amendments to the regulation came into force in November 2008, increasing deposit levels to 10- and 25-cents. On June 1, 2009, Alberta became the first jurisdiction in North America to accept and charge a deposit on containers for milk and milk products.

As of 1997, regulatory authority for the program is given to the Beverage Container Management Board (BCMB), a not-for-profit association formed by representatives of beverage producers in Alberta, container depots, and the public. Incorporated under the *Societies Act*, the BCMB operates in accordance with the following by-laws set by the Board of Directors: the *Beverage Container Management Board Administrative By-Law*, the *Beverage Container Management Board Fee By-Law*, and the *Beverage Container Management Board Administrative Compliance By-Law*. The BCMB is required to report to and operate within the policy parameters established by the Minister of Alberta Environment and Water.

Performance Targets

While the regulation does not specify any collection targets, the BCMB's 2012-2014 Business Plan includes annual targets for the collection and processing of used beverage containers. Specifically, by 2012, the BCMB aimed to collect and process 84% of all beverage containers sold in the province. This is to increase to 84.5% in 2013 and 85% in 2014.

Who is Responsible?

The province requires beverage producers and brand owners to operate a common collection system to recover containers from the bottle depots and retail locations for beer.

The Beverage Container Management Board (BCMB) administers the *Beverage Container Recycling Regulation*. The BCMB is a not-for-profit association consisting of representatives of Alberta beverage producers, container depots and the public (environmental organizations, municipalities and interested citizens). The BCMB reports directly to Alberta Environment and Minister of Environment, and reports on program performance in its annual report. Alberta Environment is ultimately responsible for monitoring program performance and compliance with the regulation.

As the system regulator, the BCMB is responsible for ensuring the collection and recycling of beverage containers throughout Alberta. The BCMB and its two collection system agents – the Alberta Beverage Container Recycling Corporation (ABCRC) and the Alberta Beer Container Corporation (ABCC) – work in partnership with the Alberta Bottle Depot Association (ABDA).

The ABCC acts as a Collection Service Provider (CSP) for beer manufacturers and is responsible for ensuring that beer containers are collected, transported, processed, and recycled as per the requirements of the regulation. ABCC directly manages the collection of refillable beer containers, and subcontracts the management of non-refillable beer containers to the ABCRC. The ABCRC outsources 100% of its transportation services to facilitate container collection.

A provincial government agency – the Alberta Gaming and Liquor Commission (AGLC) – represents the producers of alcohol. The AGLC uses ABCRC to manage its wine and spirit containers and the ABCC to manage its beer containers.

Program Financing

The Alberta Beverage Container Recycling Program is funded through revenues from three sources: from the sale of collected material; unredeemed deposits, and the Container Recycling Fee (CRF) paid at the point of purchase by consumers. The provincial government does not supply any funding for the operation of the program. All revenues generated go towards the cost of running the program: collection (93.3%), public awareness (3.4%), administration (3.2%), and post-collection activities (reuse, recycling, incineration, disposal to landfill) (0.1%).

The majority of program revenue comes from unredeemed deposits. As of 2012, the deposits are 10-cents for containers 1-litre or less in size and 25-cents for those over 1-litre. Customers receive a refund of their deposit by returning the containers to depots. For each deposit paid out on a container, depots are reimbursed by the beverage container manufacturers. In 2012, Alberta generated \$44 million in unredeemed deposits.

In addition to a fully refundable deposit, there is a non-refundable CRF placed on some of the beverage containers to cover the net costs of recycling that remain after the funds from the unredeemed deposits and from the sale of recyclable materials are depleted.

The CRF is a fee beverage manufacturers are required to pay the ABCRC. More often than not, it is passed down to the consumer; however, the decisions by manufacturers to pass on the CRF to retailers and by retailers to pass it on to consumers are made independently. While the CRF is often shown (visible) on the consumer's receipt so that customers are aware of the direct net costs of recycling each type of container, some retailers may show it separately. For a complete list of refundable deposit and CRF values, see Tables 4.1 and 4.3 in the Financing section of the report.

Administered by the ABCRC, the CRF varies depending on the value of the material and the collection rate for a particular container. Materials with higher collection rates generate less unredeemed deposit revenue and therefore carry a higher CRF. In contrast, materials with lower collection rates generate greater unredeemed deposit revenue and therefore carry a lower CRF.

Aluminum cans do not carry a CRF because high material revenue and unredeemed deposits cover the collection costs. Similarly, gable top cartons, drink boxes, and bag-in-the-box containers over 1-litre do not have a fee because the revenue generated through unredeemed deposits is sufficient to cover the costs of collection.

In 2012, the CRF ranged from 0-cents for aluminum cans to 11-cents for glass containers depending on the size and material used for the container. These fees are adjusted every year, usually on February 1st, to reflect the actual cost of recycling a specific beverage container.¹⁹ In 2012, nearly \$28 million in revenue was generated from CRFs.

Since the implementation of the CRF, the beverage industry bears no direct costs for the operation of the program. These costs have been transferred to the consumer. Individual domestic brewers internalize their stewardship (collection, transportation, refilling, and recycling) costs.

Collection System

Alberta's collection network for beverage container recycling is one of the largest in Canada. As of 2012, there are 212 independently owned "universal" (accepting all beverage containers) depots and 55 Class D depots (accepting beer containers only) across the province at which consumers can return their registered containers for a full refund of the deposit.

The depot operators collect and sort containers at their facilities for the Alberta Beverage Container Recycling Corporation (ABCRC). Wine and spirits containers are sorted by colour; refillables are sorted by material type and manufacturer; and non-refillable

soft drink containers are sorted by material type (aluminum, glass, plastic, composite, etc.) and colour where applicable.

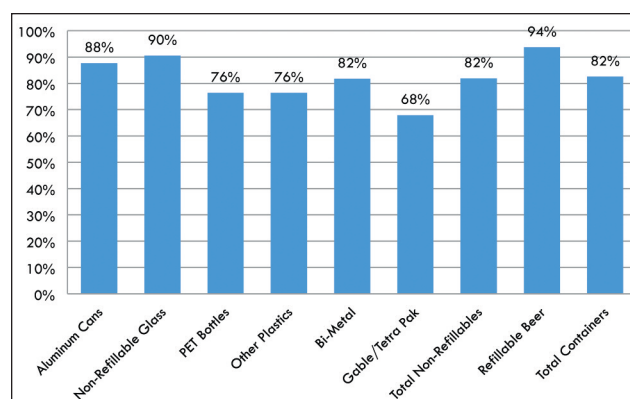
Once sorted, containers are placed in bags for pick-up. As of the end of June 2012, most depots are now using the new and improved "mega bag" shipping containers. These were introduced in the spring to offer more durability, easier handling, and greater capacity than the older bags.

On behalf of beverage manufacturers, the ABCRC (non-refillable containers) and the ABCC (refillable containers) pick up containers from every depot in the province and transport them to processing facilities where the materials are prepared for shipment to end markets, or to brewers (in the case of refillable beer bottles). Two facilities in Red Deer and Lethbridge are responsible for 9.2% of total annual processing capacity. All other processing is completed in ABCRC-operated facilities in Edmonton and Calgary. In 2012, an average of over 11,000 containers were processed per hour in Alberta, the fastest rate achieved in Canada.²⁰

Program Performance

For the calendar year of 2012, Alberta had a non-refillable containers collection rate of 81.7%.²¹ In the same year, Alberta had a refillable containers collection rate of 93.8% (a small dip from the 94.7% return rate in 2011). In total, close to two billion beverage containers were returned to Alberta depots, resulting in an overall 82.4% return rate for the year. This reflects a percentage point decrease since 2011 of just over 1 point (83.5%).

Figure 3.2 Alberta Collection Rates by Material



The collection of dairy containers continues to lag. Nevertheless, significant gains have been made in the last two years with regards to liquid cream containers (up 5 percentage points to 92%) and milk-to-go containers (up 9 percentage points to 78%).²² An IPSOS Reid Survey found that the most common reasons for not recycling or returning milk and cream containers are lack of awareness (22%), inconvenience (18%) and simply forgetting (14%)²³.

With respect to environmental performance, according to their annual report, the ABCRC saved over 689 million kilowatts of energy in 2012 – enough energy to supply 95,457 Alberta households for an entire year– by returning recycled material to markets and avoiding the need for raw materials. In doing this, it also eliminated 195,738 metric tonnes of CO₂ equivalent (MtCO₂e) emissions.

As a result of the program, 128 full-time equivalent jobs were created within the province of Alberta.

In 2012, 97% of Alberta residents were aware that they could return beverage containers for a refund, and there was a 91% participation rate in the program.

What's New?

A new Beverage Container Management Board (BCMB) Advertising Policy came into effect on January 1, 2012 requiring retailers of beverage containers to clearly identify the deposit value of purchased containers, separate from the price of the product. The price and deposit information must be advertised where the container is located for sale at a retail location (i.e. on the shelf) and on all vending machines that dispense beverage containers.

In June 2012, Alberta became the first province in Canada to adopt automated sorting and counting technology. The European manufactured equipment was successfully piloted at two bottle depots – Plus II in Grande Prairie and North Refund Centre in Edmonton – with \$76,000 in funding provided by the BCMB through its Beverage Container Recycling Innovation Fund. The equipment will soon be

installed at depots in St. Albert and Fort McMurray as well. While the technology is still new, the benefits are already clear from those using the system, namely: reduced wait times and more accurate refunds. Depot owners have also seen lower direct labor costs as a result.

As of June 2012, North Refund Center, along with four other bottle depots, is reaping the benefits gained by having compaction machines in their operations. Combined with the introduction of “mega bag” shipping containers, these two changes have saved the industry time, money, and over 135,000 kg of MtCO₂e equivalent emissions throughout 2012.²⁴ Moreover, the volume of containers a depot can return per truckload has doubled, reducing transportation demand by 6,953 km.²⁵

In an effort to reduce waste, streamline the regulatory framework, and shift the costs of waste management from taxpayers to producers, the Alberta government is proposing changes to the province's *Designated Material Recycling and Management Regulation* (Alta. Reg. 93/2004). Over fall 2013, Alberta Environment and Sustainable Resource Development (AESRD) consulted with industry stakeholders regarding its proposal to consolidate all eight of Alberta's existing recycling regulations into one regulation to be called the “Designated Materials Recycling Regulation.” In addition to including drink containers, the new regulation would cover used oil, tires, electronics and paint. It would also introduce extended producer responsibility (EPR) for waste packaging and paper, and household hazardous waste.



Saskatchewan

POPULATION: 1,108,300
POPULATION DENSITY:
1.8 PERSONS/KM²

Beverage Container Recycling Program

Supporting Regulatory Framework

Established in 1988, Saskatchewan's beverage container recycling program was initially regulated under the *Litter Control Act* (1978) and the *Designated Container Regulations* (1990). The *Environmental Management and Protection Act* of 2010 repeals and regulates matters formerly covered by the *Litter Control Act* and the *Environmental Management and Protection Act* of 2002, whose "Litter Control" section (amended in 2009) was also relevant to the collection of beverage containers. Refillable beer bottles are governed by the *Litter Control Act* and the *Alcohol and Gaming Regulation Act*.

Due to a 1999 amendment to the *Litter Control Act* that added Tetra Pak and gable top containers to the program, all beverage containers – except those for milk, milk substitutes, flavored milk, infant formulas, meal replacements or dietary supplements – are now included under the regulation.

Beverage containers of dairy products are collected separately under the Unified Dairy Recycling System (UDRS). The UDRS is a program whereby the Saskatchewan dairy industry contracts with SARCAN Recycling to provide a collection and recycling option for non-deposit plastic milk jugs and paper milk cartons in beverage container depots. The province-wide program was launched in 1999 and was upgraded to the current program in February 2001 after a formal agreement was signed between the dairy industry and government.

With the approval of the *Household Packaging and Paper Stewardship Program Regulations* in February 2013, a province-wide multi-material recycling program is set to commence by early 2014. These

new regulations require brand owners and first importers of packaging and printed paper (PPP) to develop a product management program, or join a stewardship agency to submit one on their behalf. These regulations do not include containers that are regulated under the *Litter Control Act* and that are under deposit.

Performance Targets

The provincial targets for dairy containers under the UDRS are 75%. There are no specific targets set out in legislation for the beverage container program or for the anticipated Multi-Material Recycling Program.

Who is Responsible?

The beverage container recycling program is administered by SARCAN Recycling, a division of the Saskatchewan Association of Rehabilitation Centres (SARC). SARCAN operates under contract to the Saskatchewan Ministry of Environment. This ministry designates containers that can be collected for recycling and establishes the value of the deposit and the environmental handling charge (EHC) that consumers pay when purchasing a beverage.

Multi-Material Stewardship Western Inc. (MMSW) is the organization formed to design and operate the Multi-Material Recycling Program (MMRP), which provides Saskatchewan residents with increased access to beverage container recycling on a province-wide basis. MMSW is a not-for-profit agency similar to those developed for packaging in other jurisdictions, like Stewardship Ontario and Éco-Entreprises Québec.

Program Financing

In Saskatchewan, financial responsibility for the program is borne by the consumer through environmental handling charges (EHCs) and unredeemed deposits. As of 2013, the EHC ranges from 3-cents to 7-cents per unit sold. Unlike the deposit, it is not refunded to the consumer but is used by the provincial government to offset SARCAN's contract cost and to contribute to general revenues. In 2012-2013, SARCAN's recycling contract for beverage containers was worth \$21.8 million. Excess funds generated by the provincial government are put into general revenues.

Additional funding comes from the revenue generated from material sales (\$6,333,072 in fiscal 2012-2013) and from a provincial grant awarded to SARCAN (\$2,265,834 in fiscal 2012-2013). SARCAN is also paid a handling fee for all milk containers collected through its depots or through municipalities on a per tonne basis. Currently, the fee for gable top containers is \$150 per tonne. The fee paid for HDPE milk jugs is 80% of the market value of the material; the fee as of January 2014 was \$400 per tonne. The dairy industry funds these costs plus management and advertising through a levy on milk containers. Specifically, 1- and 2-litre containers are subject to a 1-cent fee while 4-litre containers have a 2-cent fee.

The new MMRP that is set to commence in 2014 is modeled after the industry-funding programs currently operating in Ontario and Québec. In Saskatchewan, stewards (brand owners or first importers) of packaging, including all beverage-related consumer packaging, must finance 75% of the cost associated with the residential recycling program.

Collection System

Consumers can return their containers to any one of 71 SARCAN depots located in 63 communities. After sorting, the depots flatten the containers using Multi-Material Flatteners (MMFs), a technology pioneered by SARCAN employees. The baled containers are then picked up by SARCAN trucks, transported to SARCAN processing facilities, and sent to recycling end-markets. Though they are not legislated and therefore not subject to deposits, SARCAN depots will also voluntarily accept rinsed milk containers.

Refillable beer containers can be returned to Saskatchewan Liquor and Gaming Commission (SLGC) stores, hotels, and four depots. (All SARCAN depots and SLGC stores retain a 5-cent portion of the 10-cent refund as a handling fee). From there, they are sorted and sent back to Brewers Distributor Ltd. (BDL) for the full refund and for washing and refill.

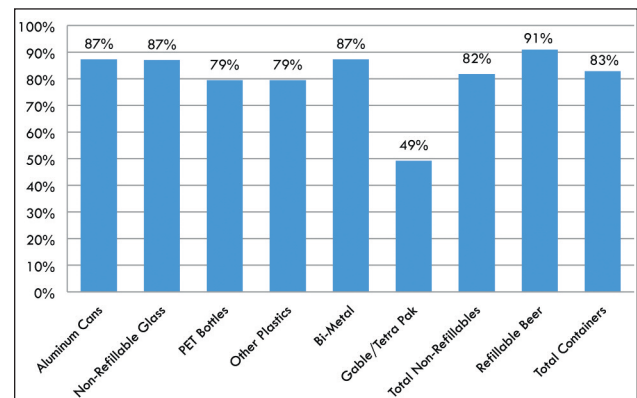
Municipalities that choose to participate in the MMRP will have the choice of what type of collection system their community will use – curbside pickup or

a central depot – depending on the size of their community and the associated costs. If customers choose to put their beverage containers in their curbside bins, the containers will still come to SARCAN, although the customer will not receive a refund of their deposit in these cases.

Program Performance

In fiscal 2012-2013, Saskatchewan had a non-refillable container collection rate of 81.75% (a drop of nearly 6-percentage points from the previous year). The highest return rates for single-use containers were achieved for bi-metal and aluminum, both of which had rates of 87.26% (down from 93.05% in 2011-2012). Gable top/tetra pak containers had the lowest collection rate at 49.22%.

*Figure 3.3
Saskatchewan Collection Rates by Material*



What's New?

On February 4, 2013, the Royal Canadian Mint stopped producing and distributing pennies to financial institutions, marking an official end to the era of the 1-cent coin. As a result, SARCAN Recycling was forced to restructure its deposit-return system to eliminate penny pricing. Prior to the penny withdrawal, SARCAN had offered a 1-cent refund for cans purchased outside of Saskatchewan. Other out-of-province containers like those made of glass or plastic, never received any type of refund. This is now the case for all out-of-province containers, including aluminum cans. With the discontinuation of the penny, SARCAN was also unable to provide a 4-cent refund on beer bottles. Therefore, as of February 2013, SARCAN offers a 5-cent refund on refillable beer bottles.

On February 6, 2013, the Saskatchewan government approved the *Household Packaging and Paper Stewardship Program Regulations*, which require industry to finance up to 75% of the cost of municipal recycling programs for residential waste packaging and paper in Saskatchewan. (Currently, municipalities are covering 100% of the cost). The new regulations require brand owners and first importers of Packaging and Printed Paper (PPP) to develop a product management program for printed paper, newspaper, cardboard, plastic, metal and glass packaging. Stewards may develop their own individual product management program, or may join a stewardship agency, such as Multi-Material Stewardship Western Inc. (MMSW), to develop, submit, and implement a program on their behalf.

MMSW submitted its stewardship program plan to the Ministry of Environment for approval in August 2013. Implementation of the approved Multi-Material Recycling Program (MMRP) is set to commence by the early part of 2014. The beverage container collection program operated under SARCAN is not being replaced by the MMRP since containers that are regulated under the *Litter Control Act* and that are under deposit are not included. However, if customers choose to recycle designated beverage containers through MMRP by placing containers in their curbside bins, they will lose their refund.



Manitoba

POPULATION: 1,265,000
POPULATION DENSITY:
2.2 PERSONS/KM²

Beverage Container Recycling Program

Supporting Regulatory Framework

Under the *Packaging and Printed Paper Stewardship Regulation of the Waste Reduction and Prevention (WRAP) Act*, a province-wide program run by the Manitoba Product Stewardship Corporation (MPSC) was established in 1995 to maximize the amount of material collected and recycled within the province.

A new *Packaging and Paper Stewardship Regulation* under the WRAP Act was registered in 2008. In 2009, Manitoba's Minister for Conservation approved a program plan for packaging and printed paper (PPP) collection in the province. This initiative began on April 1, 2010, and is run by Multi-Material Stewardship Manitoba (MMSM).

At the same time, the beverage industry created the Canadian Beverage Container Recycling Association (CBCRA), which takes responsibility for the recovery of all beverage containers consumed both at home and away-from-home (AfH). The AfH program targets municipalities and businesses that generate beverage containers. These could include libraries, community centres, golf courses, arenas, events venues, and other establishments.

All used, sealed ready-to-serve beverage containers are included under the program; this includes aluminum, PET, HDPE, aseptic packages, and gable-top containers. The CBCRA has agreed that containers containing dairy products will be phased in at a later date.

Performance Targets

The Government of Manitoba has established a 75% recovery target as part of the Guideline accompanying the *Packaging and Printed Paper Stewardship Regulation*. The target requires obligated

beverage producers to achieve a 75% recovery (collection) rate for all used beverage containers supplied into Manitoba by 2016.

Who is Responsible?

MMSM is responsible for designing and operating the enhanced residential recycling program, on behalf of obligated companies. To do this, it receives funding from the CBCRA.

The CBCRA, which is comprised of beverage producers and distributors (excluding beer), is tasked with enhancing both at home and away-from-home (AfH) collection to meet the overall 75% recovery target for beverage containers. It does this by establishing partnerships with each generator. CBCRA buys the bins, provides technical support and best practices information, and finances the province-wide promotion and educational campaign called "Recycle Everywhere." Participating generators get new recycling bins and free educational materials from Recycle Everywhere to support their recycling programs. In return, they must pay for their recycling program and use a registered program processor for this service. These generators or their processors receive all the revenue from the PET and aluminum collected.

Program Financing

Under the new regulation, all stewards of packaging and printed paper (PPP) in Manitoba are responsible for financing 80% of the total net cost of municipal recycling programs across the province. The CBCRA has responsibility for all beverage container collection and funds the residential collection through MMSM. The CBCRA reports to MMSM all its members' packaging (i.e. tonnes of aluminum cans; PET bottles; glass; Tetra Pak, etc.) sold into the province and pays the total fees for that year. Steward fees are set by MMSM and are based on a number of factors including program costs, collection rates, and a penalization factor for materials with poor collection rates. The CBCRA also operates an AfH program, which they manage themselves.

The CBCRA program has been and continues to be financed almost entirely through a 2-cent container recycling fee (CRF) charged on every non-alcoholic

beverage sold. These fees are voluntarily paid by beverage stewards (excluding those for domestic beer) to the CBCRA and are used to cover the costs of recycling beverage containers collected via curbside and AfH. In most cases, beverage companies charge the fee to the retailer who then passes it on directly to consumers (this fee is visible on most store receipts and is consistent across the province). Alcohol distributors pay MMSM directly for their Blue Box obligation.

In 2012, the CRF raised approximately \$7.7 million, \$1.4 million of which was used to pay MMSM for residential collection. The CBCRA uses the remaining money to buy recycling bins (which it provides to municipalities and the IC&I sector), provide technical support, and finance its province-wide promotion and educational campaign called "Recycle Everywhere".

Collection System

Beverage containers from the residential sector are collected via curbside recycling or depot drop-off centres. PET, glass, aluminum, and steel containers are collected in most programs, whereas aseptic, gable top, HDPE, and other less common containers are collected in approximately 90% of the programs. Municipalities either perform the collections themselves or contract these services out to private companies. Generally, containers are collected, transported to material recovery facilities, sorted, baled, and shipped to their respective end-markets for recycling. With the exception of glass, all used beverage containers are sent out-of-province for final processing.

The CBCRA's program, which includes the away-from-home (AfH) collection of containers, focuses its collection efforts on public spaces (e.g. parks and streets), IC&I locations (e.g. gas bars, restaurants, convenience stores, shopping malls), government buildings, educational institutions, and special events. As of March 2014, over 20,000 Recycle Everywhere bins have been placed in the province.

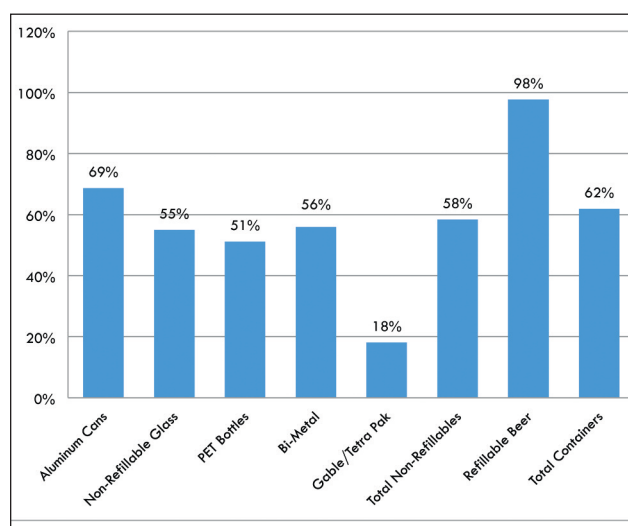
Refillable and non-refillable beer cans are collected via beer vendors, the Manitoba Liquor Commission, and rural agency stores. Brewers Distributor Limited

(BDL) collects empty domestic beer containers and back-hauls them to various distribution centres where recyclables are baled and shipped to market. Refillable bottles are sorted and sent back to the brewers for washing and refill.

Program Performance

In 2012, the CBCRA collected 53% (by weight) of all beverage containers (excluding beer cans) sold in Manitoba. The collection rate for refillable beer bottles was 98%, while for beer cans it was 79%.

Figure 3.4 Manitoba Collection Rates by Material



Ontario

POPULATION: 13,538,000
POPULATION DENSITY:
14.1 PERSONS/KM²

Blue Box Program and the Ontario Deposit Return Program

Supporting Regulatory Framework

Established in 1994, Ontario's Blue Box Program is one of the oldest and most comprehensive curbside recycling systems in North America. The program covers most food and beverage containers, such as those made from glass, PET, aluminum, and steel. Other containers, such as Tetra Pak, gable top cartons, and HDPE bottles, may be added to the program voluntarily. Refillable and non-refillable beer containers are collected through a separate program administered and operated by Brewers Retail Inc. (The Beer Store).

In 2002, the *Waste Diversion Act* was passed, obligating companies that introduce packaging and printed paper (PPP), managed through the municipal waste system, to contribute 50% of the share of the net cost of operating municipal curbside recycling programs. The Act also established Waste Diversion Ontario (WDO) as a non-crown corporation to develop, implement, and operate waste diversion programs for a range of materials, including designated Blue Box wastes (see O. Reg 273/02).

Ontario's Blue Box Program was developed in response to the Ontario Minister of the Environment's request for a Blue Box program in 2003. Designated waste materials and the designated Industry Funding Organization (IFO) are identified in the *Blue Box Waste Regulation* under the *Waste Diversion Act*. The *Blue Box Program Plan* (2003), developed by Stewardship Ontario (SO), is not a regulation but is a minister-approved program plan under the *Waste Diversion Act*.

In addition to the *Waste Diversion Act*, municipal recycling programs are also legislated under the

Environmental Protection Act (1990). Specific regulations of relevance include the *3Rs Regulations*, namely *Regulation 101/94 (Recycling and Composting of Municipal Waste)*. *Regulation 101/94*, in place since 1994, requires every municipality with a population of at least 5,000 to operate a Blue Box program that collects at least five mandatory materials (newspapers, polyethylene terephthalate (PET) bottles, aluminum and steel cans, glass containers, as well as a minimum of two other materials made from metal, plastic, or glass.) These supplementary materials are selected by the municipality. *Regulation 103/94 (Industrial, Commercial and Institutional Source Separation Programs)* is also relevant as it mandates IC&I recycling for most commercial sectors and for some basic recyclables (excluding multi-laminate containers).

The *Environmental Protection Act* also includes beverage-specific regulations such as the following: *Refillable Containers for Carbonated Soft Drink Containers* (O. Reg 357), *Disposable Paper Containers for Milk* (O. Reg 345), and *Disposable Containers for Milk* (O. Reg 344). All of these regulations have been consolidated into the *Revised Regulations of Ontario* (1990) (R.R.O. 1990).

Unlike the Blue Box Program, the Ontario Deposit Return Program (ODRP), which came into force in February 2007, is a voluntary program implemented by the provincial government. As such, there is no law mandating that wine and spirits sold under the Liquor Control Board of Ontario (LCBO) be placed on deposit. Also, although wine and spirit containers are on deposit, they may be added to municipal blue box programs voluntarily.

Performance Targets

In 2004, the province announced a five-year combined diversion target of 60% for Blue Box waste, which was reached ahead of schedule. No targets have been set for waste diversion from the IC&I sector.

Regulations also call for 40% of soft drinks to be sold in refillable containers, dropping to 30% if a 60% collection rate for non-refillable bottles is achieved.

While soft drinks companies are still legally required to meet this quota, in reality, the refillable market share is less than 2% because the requirements are not enforced. The ministry is looking at several alternatives to the 30% refillable quota, and is considering repealing it altogether.

Who is Responsible?

As of February 2003, Ontario stewards (brand owners and first importers) of Blue Box materials are responsible for financing 50% of the net costs of operating municipal recycling programs.

Stewardship Ontario, as the Not-for-profit Industry Funding Organization (IFO) set up by Waste Diversion Ontario (WDO) to represent industry stewards, is responsible for identifying and collecting fees from individual industry stewards and for transferring funds to municipalities. They are also responsible for reporting activities to the WDO.

Established in 2002 to “develop, implement, and operate waste diversion programs” for a wide range of materials, the WDO is responsible for monitoring the performance of municipal Blue Box programs, overseeing SO’s operations, and reporting to the Ontario Ministry of the Environment. It also has the responsibility to collect annual cost and collection data from municipalities.

Municipalities with a population of 5,000 or more are responsible for operating multi-material curbside recycling programs for beverage containers and other packaging and printed paper (PPP) materials. They may operate these programs themselves, or decide to contract it out to a private company.

With regards to the ODRP for wine, spirits, and imported beer containers, the LCBO is the responsible entity. Unlike the LCBO, when the provincial government decided to establish the deposit-return system, The Beer Store (TBS) already had a successful deposit-return infrastructure in place for beer. Therefore, rather than establishing its own system, the LCBO has contracted collection (including return-to-retail collection for licensees), processing, and marketing responsibilities to TBS.

Program Financing

The costs of the Blue Box Program are currently shared 50/50 between municipalities and industry stewards (Stewardship Ontario (SO) receives no funding from government or taxpayers). The share of financial responsibility borne by industry could increase to 100% in 2014 if the proposed *Waste Reduction Act* is adopted.

Each year, the WDO conducts a tonnage and financial data call, asking municipalities to determine the total net costs of operating their recycling programs. This can include the costs to collect, transport, process, and recycle Blue Box materials, as well as to conduct research and to carry out public education initiatives. Along with material generation estimates, SO uses this data to determine “fair” fees to charge stewards based on the type of material they sold into the Ontario marketplace. Each designated Blue Box material is associated with a fee rate, which is set annually. Stewards pay these fees in quarterly installments.

For the calendar year 2012, over 1,500 stewards reported into the Blue Box Program and paid a total of \$104.6 million to SO. Of this, \$85.4 million was transferred to municipalities. This amount includes program delivery, administration, and Harmonized Sales Tax (HST). Some of the funds were also used to support continuous improvement and research into best practices; specifically, \$4.45 million went towards the Continuous Improvement Fund and \$905,000 went towards research and development.

The ODRP is financed through unredeemed deposits and government revenue. Deposits range from 10-cents to 20-cents, depending on container type and size. When eligible containers are returned to TBS for a refund, the LCBO pays the amount of the deposit to TBS, in addition to a per unit service fee. The service fee – 80% of which is collected for handling large glass bottles – has decreased since the beginning of the program. The fee for 2012 is set at 10.15-cents per container.

Collection System

Ontario has a hybrid collection system in which beverage containers are recovered via two streams. All containers for alcoholic beverages are returned for deposit refund via The Beer Store (TBS)’s Packaging Recovery Program and the Ontario Deposit Return Program (ODRP), while all other beverage containers are collected via the provincial Blue Box Program.

Beer containers, as well as any associated packaging, can be returned to 448 beer store locations, 52 breweries, 141 retail partner stores, 75 LCBO northern agency stores, 4 additional LCBO stores, and 115 empty bottle dealers (small independent depots contracted in more remote locations where beer retailers are not available). This adds up to a total of 835 beer container redemption points. ODRP containers can only be returned to 783 of these locations, due to the fact that the breweries do not take back wine and spirit containers. TBS trucks collect these empty containers and back-haul them to various distribution centres where recyclables are sent to a processing facility for sorting, baling, and shipping to market. Refillable bottles are sent back to the brewers for washing and refill.

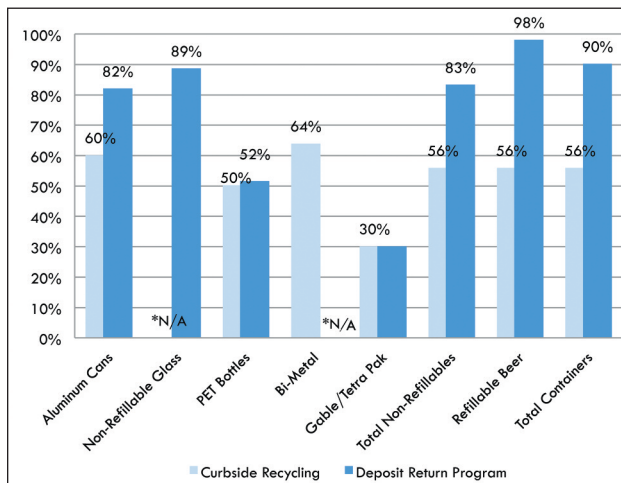
Beverage containers from the residential sector are collected via curbside recycling or depot drop-off centres. Municipalities are required by law to collect PET, glass, aluminum, and steel containers, whereas the collection of Tetra Pak, gable top, HDPE and other less common containers is voluntary. Municipalities may perform collection themselves or may contract it out to private companies. Generally, after collection, containers are transported to material recovery facilities where they are sorted, baled, and shipped to their respective end markets for recycling.

Even though 2-litre plastic milk jugs are subject to a deposit and are redeemable by consumers, few retailers (other than Becker’s and Mac’s) maintain a deposit-return program for these containers, as most milk in Ontario is sold in plastic film bags and gable top cartons.

Program Performance

Containers returned through the deposit-return programs show a total collection rate of 90% for 2012-2013. This rate is higher than that in other deposit programs in Canada because of a combination of the high collection rate for the refillable beer bottle (98%) and a high market share for that bottle in the province (56% of all beer containers sold). The collection rate for non-refillable alcoholic beverage and beer containers is also high at 96%. The lowest collection rate achieved for alcoholic beverage containers is for metal cans at 82%.

Figure 3.5 Ontario Collection Rates for Deposit Program (alcohol) and Curbside Program (non-alcohol) by Material



Non-alcoholic beverage containers collected via the Blue Box Program show an overall collection rate of approximately 56%.

What's New?

In June 2013, the Ontario government released a Waste Reduction Strategy (WRS) and introduced Bill 91, the Waste Reduction Act (WRA), 2013 for first reading. Among the proposed changes under the WRS and WRA is an increase in waste diversion efforts aimed at the industrial, commercial, and institutional (IC&I) sectors. While IC&I waste accounts for nearly 60% of the waste generated in Ontario, only 13% of it is being recycled under the current regulatory framework, making the IC&I sector the largest single unaddressed recycling opportunity in the province.

At present, a soft drink producer is responsible for paying 50% of the cost to recycle a soft drink can through the Blue Box Program, but does not have to pay anything to recycle a soft drink can disposed in an office building, shopping mall, restaurant, hotel, school, hospital, and factory. If the WRA is passed and the IC&I sector is targeted for new recycling obligations for paper and packaging, many businesses will have no choice but to implement more robust recycling practices. The proposed Act would also transform Waste Diversion Ontario (WDO) into the Waste Reduction Authority (WRA), with robust oversight and enforcement powers. The WRA would have the power to carry out inspections, issue compliance orders, and impose administrative penalties against producers and intermediaries who do not comply with the regulations.

In September 2013, the Canadian Beverage Container Recycling Association (CBCRA) submitted an Industry Stewardship Plan (ISP) to WDO to operate an approved recycling program in Ontario for used non-alcoholic, non-dairy beverage containers (beverage containers are currently collected under the residential Blue Box Program). Upon approval of this plan, the CBCRA expects to expand on the existing Blue Box Program to increase the collection and recycling rates for used beverage containers from households and benchmark and increase the collection and recycling of beverage containers consumed away-from-home. One way the CBCRA plans to achieve this is by supplying recycling bins free-of-charge to municipalities, government buildings, businesses and private sector service providers across Ontario. In the plan, funding is to come from CBCRA participants, who are charged a container recycling fee (CRF) of 1-cent per container. By year three of the program the fee is to be adjusted to "reflect the costs incurred to manage each specific packaging type."



Québec

POPULATION: 8,155,300
POPULATION DENSITY:
5.8 PERSONS/KM²

Collecte sélective Québec and programme de consignation

Supporting Regulatory Framework

Introduced in 1984, Québec's deposit-return program is regulated under the *Environment Quality Act*. All non-refillable soft drink and beer containers are covered under the deposit-return program. In 2012, the Minister of Environment announced it would examine the feasibility of expanding the deposit program to other containers, such as water, sports drinks, and juice cans and bottles. These containers are currently managed through municipal curbside recycling systems.

The program details for soft-drink containers are set out in the *Agreement Relating to the Consignment, Recovery, and Recycling of Non-Refillable Soft Drink Containers*. This agreement was first reached on December 1, 1999 between the Ministère du Développement Durable, de l'Environnement et des Parcs (Minister of Sustainable Development, Environment and Parks), the Société Québécoise de récupération et de recyclage (Recyc-Québec), and the Association des Embouteilleurs de Boissons Gazeuses du Québec Inc., Boissons Gazeuses Environnement (BGE), and its registrants. A similar but separate agreement was reached with the beer industry called the *Agreement Relating to the Consignment, Recovery, and Recycling of Non-Refillable Beer Containers*. New agreements are currently being negotiated for both industries (separately).

In addition to the above agreements, the beer and soft drink industries are governed under the *Beer and Soft Drinks Distributors' Permits Regulation* under *An Act Respecting the Sale and Distribution of Beer and Soft Drinks in Non-Returnable Containers*. This Act requires that anyone selling or distributing beer in Québec in non-refillable containers must obtain a

permit to do so from the Minister of Environment. To receive a permit, the applicant must do one of two things: enter into an agreement with the Société Québécoise de Récupération et de Recyclage and the Minister of the Environment, or comply with beverage container regulations set out in Section 70 of the *Environment Quality Act*.

Performance Targets

The 2011-2015 Action Plan associated with the Québec Residual Materials Management Policy sets a target to recycle 70% of paper, cardboard, plastic, glass, and metal waste by 2015.

The *Agreement Relating to the Consignment, Recovery, and Recycling of Non-Refillable Soft Drink Containers* includes a 75% collection target for soft drinks containers for the twelve-month period ending December 31, 2013. The same 75% collection target is set for beer containers under the *Agreement Relating to the Consignment, Recovery, and Recycling of Non-Refillable Beer Containers*.

Who is Responsible?

In 1990, the Québec government established the Société Québécoise de récupération et de recyclage, giving the Société, regulatory authority for the program. Recyc-Québec is a crown agency responsible for the promotion and development of reduction, reuse, recovery, and recycling of containers and packaging in Québec. Its main responsibility is program oversight. The Minister responsible for executing the incorporating Act (*An Act respecting the Société Québécoise de récupération et de recyclage*) – which specifies the mission and mandates of Recyc-Québec – is the Ministère du Développement Durable, de l'Environnement, et des Parcs.

In 1999, BGE – a non-profit organization established by the Québec soft drink industry – took over Recyc-Québec's responsibility for collecting non-refillable soft drink containers. Brewers are responsible for running the system for beer bottles and cans.

Financial responsibility for the collection of all beverage containers belongs to Éco-Entreprises

Québec (ÉEQ), a private, non-profit organization created by companies that put packaging and printed paper (PPP) on Québec's market. Akin to Stewardship Ontario in Ontario, ÉEQ is certified by the Government of Québec to develop a fee structure and collect contributions from companies in order to finance municipal curbside recycling in Québec. As of 2013, ÉEQ represents over 3,000 industry stewards selling paper and food and consumer packaging.

Program Financing

The two programs in Québec are funded via different streams.

The deposit-return program for beer and soft drinks containers is almost entirely funded by the wasting consumer through unredeemed deposits. In 2012, only 66.5% of deposits were redeemed by consumers.²⁶

Because the cost data are proprietary, the actual share of costs is unavailable. Depending on the various program expenses and material revenues, the percentage of the cost borne by the beverage industry versus the consumer can change, but, in general, the wasting consumer bears the lion's share.

Industry contributes a much larger share to the municipal curbside program. In November 2004, through an amendment to the *Environment Quality Act*, Québec adopted the *Regulation Respecting Compensation for Municipal Services Provided to Recover and Reclaim Residual Materials*. This regulation obligates all beverage producers (except those for non-refillable soft drinks and beer which are on deposit) to finance Collect Sélective Québec, the municipal curbside recycling program. (Note: While soft drinks and beer containers themselves are not subject to the regulation, any associated packaging is (e.g. boxboard cases, film plastic).

In 2005, stewards of PPP became legally obligated to fund municipalities up to 50% of the net program costs. Since then, the proportion covered by industry has increased yearly. Set at 70% in 2010, industry's share of net costs increased to 80% in 2011, 90% in 2012, and to 100% in 2013.

The total compensation due to municipalities (557 municipal bodies) for 2012 was \$114.9 million.

Collection System

Similar to Ontario, Québec has a hybrid collection system in which beverage containers are recovered via two streams.

Containers of carbonated beverages (including beer, soft drinks, and carbonated energy drinks) are collected via the deposit-return program, which is based on a return-to-retail (R2R) collection system. Under this program, consumers can return their empty containers for a refund of their deposit to any of over 40,000 licensed grocers, service stations, pharmacies, and other retail outlets located throughout Québec. By law, anyone that sells these containers must take them back.

Approximately 70% of containers collected via the deposit-return program are managed through reverse vending machines (RVMs) using dedicated transport by distributors and bottlers. A significant portion of the remaining 30% is collected using the same side-load trucks that deliver full goods (reverse logistics). These containers are sent to a processing centre where they are sorted and prepared for shipment to end-markets. Refillable beer bottles are sent back to the brewers for washing and refill.

All other beverage containers, including those used for wine, spirits, water, non-carbonated flavoured drinks, juices, and milk are collected via municipal curbside recycling programs, available throughout most of Québec.

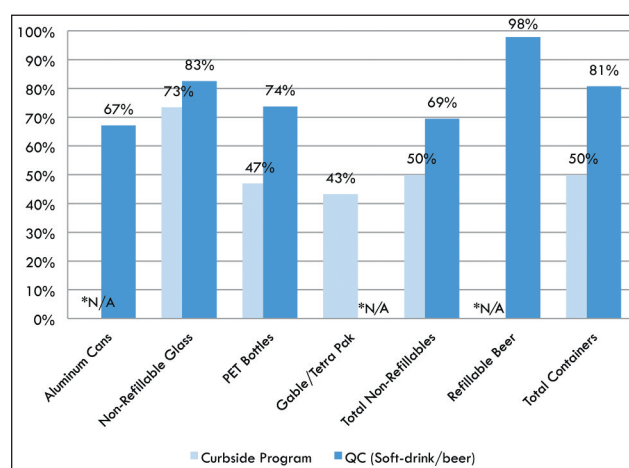
In addition to the above, other AfH recycling initiatives are pursued by those outside of government or the beverage industry, including *La Table pour la récupération hors foyer* (Issue table for out-of-home recycling). Formed in 2007 by stakeholders in the public, private, and voluntary sectors, the non-for-profit organization's mission is to initiate, develop, and implement large-scale programs to increase AfH recycling. To date, the organization has distributed \$3.3 million to municipalities for the installation of 7000 multi-material recycling bins, and

\$1.2 million to over 3000 restaurants, bars and hotels that now recover all their recyclable materials.

Program Performance

In 2012, the collection rate for containers recovered via the R2R program was 81% (this rate includes data for refillable bottles). During the same period, the collection rate for containers collected through the municipal curbside recycling program was approximately 50%.

Figure 3.6 Québec Collection Rates for Deposit Program (soft drink and beer) and Curbside Program (all non-carbonated beverages) by Material



What's New?

In July 2012, Québec's Environment Minister released a five-year strategic plan for Recyc-Québec. Part of this plan was to increase the value of the deposit on all deposit-bearing cans, PET and glass containers for beer, soft drinks, and some energy drinks from 5-cents to 10-cents by the end of 2012. This plan was shelved when the new government came into power. As it currently stands, the Québec government is considering expanding the deposit system to include other beverage containers, such as wine and spirits bottles, or abolishing it altogether. The Minister's decision will depend on which program is found to be more effective at achieving high recovery rates – curbside recycling or deposit-return. A decision is expected in the near future.

On April 19, 2013, Québec's Minister of Sustainable Development, Environment and Parks and the non-profit group Éco-Entreprises Québec (ÉEQ) announced an \$8 million grant to fund the collection of recyclable materials in municipal public spaces, including parks, bus shelters, arenas, and downtown streets. This investment in the away-from-home (AfH) program (created six years ago) is part of the Government's 2011-2015 Action Plan (Action 31) in Québec's Residual Materials Management Policy. Action 31 directly concerns government funding of programs designed to improve recovery of recyclable residual materials generated AfH. Thanks to such investments, Québec residents now have access to about 8,000 recovery bins to recycle their beverage containers when they are away from home.

On March 28, 2014, BGE officially announced the cancellation of CONSIGNaction – a program launched in 2008 aimed at increasing the collection of deposit containers consumed AfH. The program, which targeted small-, medium-, and large-sized businesses (and others in the IC&I sector that generate large amounts of empty containers from on-site beverage consumption), collected 1.2 billion cans and plastic bottles in 2013 alone. Under this program, convenience stores, restaurants, schools, golf courses, offices, events, and other venues were offered a free pick-up service.



New Brunswick

POPULATION: 756,100
POPULATION DENSITY:
10.5 PERSONS/KM²

Beverage Container Recovery Program

Supporting Regulatory Framework

Established in 1992 under the *Beverage Containers Act (1991)* and the *General Regulation – Beverage Containers Act (1992)*, this province-wide program covers all ready-to-drink, non-refillable beverage containers up to a size of 5-litres. These include beverages such as soft drinks, beer, wine and spirits, water, fruit juices and vegetable juices. The regulation also covers refillable beer bottles. Containers for milk, milk products, and unpasteurized cider are exempt from the program.

Performance Targets

Neither the Act nor regulation specifies any collection target. However, the Department of Environment has established an unofficial target collection rate of 80%.

Who is Responsible?

Encorp Atlantic Inc. – a stewardship agency originally created by the soft drinks industry—is responsible for managing the collection of non-alcoholic beverage containers on behalf of obligated brand owners. It collects containers from depots, sends materials for processing, and markets these materials. In addition, Encorp collects all deposits from the distributors, reimburses the redemption centres for the refunds paid out, remits to the province a fee for the Environmental Trust Fund, and pays a handling fee to the redemption centres.

New Brunswick Liquor (NB Liquor) is responsible for the collection of alcoholic beverage containers (wine, beer, spirits, and coolers), and contracts the transportation and processing of these containers to Neighborhood Recycling (Rayan Investments Ltd.). NB Liquor collects the deposits and remits the provincial share of the environmental fee directly to the Environmental Trust Fund.

Program oversight is the responsibility of the Department of Environment. Distributors of containers sold in the province must register with the Department and submit a plan describing how the container will be managed after the beverage has been consumed.

Program Financing

New Brunswick's deposit-return system is based on a "half-back" model. Under this half-back system, consumers receive a full refund of their deposit when they return refillable containers, but receive only half (50%) of their deposit back when they return non-refillable containers. To illustrate, a consumer who paid a 10-cent deposit on a non-alcoholic (ready-to-drink) beverage, of any size, would only receive a 5-cent refund upon redemption of this container. Likewise, a consumer who paid a 10-cent or 20-cent deposit (depending on size) on an alcoholic beverage container would only receive half that amount when redeeming the container. The exception is for refillable beer bottles, where consumers receive the 10-cent deposit back.

Fifty-percent of this "half-back" revenue (2.5- or 5-cents depending on container size), plus the revenue generated from unredeemed deposits and from the sale of material, is used to pay for the cost of the program. These costs include sorting, transporting, and processing the containers. They also include a handling fee per unit to redemption centres.

As of January 2014, the handling fee for empty beverage containers (except for refillable beer containers) is \$0.0406 per container. Handling fees are paid to redemption centres as compensation for receiving, paying out refunds for, sorting, and storing returned beverage containers. These fees are paid directly to the redemption centres without government involvement.

The other 50% of the "half-back" revenue goes into the province's Environmental Trust Fund where it is used for environmental conservation, education, protection, and other provincial environmental initiatives aimed at reducing waste. This fund is managed by the Department of Environment.

For containers that are returned, beverage distributors reimburse the redemption centres for the

refund paid to consumers. If a container is not returned to a redemption centre, Encorp retains the unredeemed deposit and is not required to pay the handling fee.

Collection System

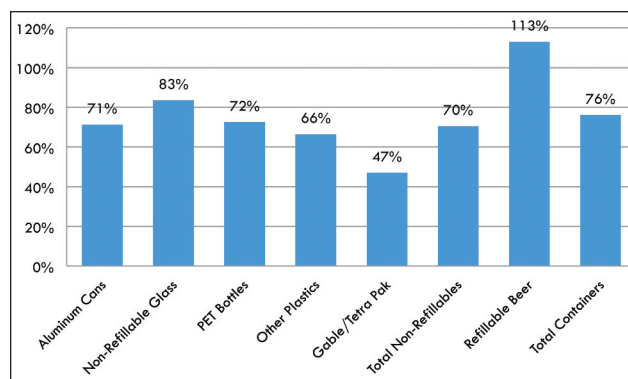
As of October 2013, consumers can return their empty beverage containers to any of 79 individually owned and operated depots through the province. All depots must be licensed with the New Brunswick Department of Environment.

At the depot/redemption centre, the containers are further sorted, bagged, and then loaded onto a truck for shipment to one of two processing facilities: Neighborhood Recycling or Encorp Atlantic. The former processes all alcoholic beverage containers, while the latter processes all non-alcoholic containers. Refillable beer bottles are returned directly to the breweries where they are sterilized and refilled.

Program Performance

In 2012, New Brunswick's collection rate for non-refillable containers was 70%. This rate represents a three-percentage point decrease from 73% in 2010. The primary reason for this decline is the drop in collection rates for aluminum cans (down to 71%) and PET bottles (down to 72%).

Figure 3.7 New Brunswick Collection Rates by Material



Nova Scotia

POPULATION: 940,800
POPULATION DENSITY:
17.4 PERSONS/KM²

Nova Scotia Deposit Return Program

Supporting Regulatory Framework

Launched on April 1, 1996, Nova Scotia's deposit-return program is regulated under the *Solid Waste-Resource Management Regulations* made under Section 102 of the *Environment Act* (1994-1995).

In addition to banning certain beverage containers from disposal in provincial landfills, these regulations require beverage distributors or retailers to charge consumers a deposit on all regulated beverage containers sold in Nova Scotia. The regulations apply to all ready-to-drink beverage containers, excluding milk, milk products, soya milk, and rice beverages. Also excluded from the program are certain meal replacements, formulated liquid diets, foods for low energy diets, thickened juices, baby formulas, concentrates, and non-alcoholic beverages in containers of 5-litres or more.

The *Solid Waste-Resource Management Regulations* also established the Resource Recovery Fund Board Inc. (RRFB) as the independent agency responsible for managing the province's deposit-return program, including the operation of a collection network for the recycling of regulated containers.

The collection of milk containers is carried out under a voluntary agreement between Nova Scotia Environment, the Nova Scotia Solid Waste Management Regions (there are 7), and the Atlantic Dairy Council (ADC). Signed in February 2000, the *Nova Scotia Milk Packaging Stewardship Agreement* transfers the costs of recycling milk packaging from taxpayers to producers.

Performance Targets

There are no official targets for containers recovered under either program. As of 2006, however, through an amendment to the *Environment Act*, the province has set a disposal target of 300 kilograms per person per year by 2015.

Who is Responsible?

The Resource Recovery Fund Board Inc. (RRFB), a not-for-profit organization operating at “arms length” from government, administers Nova Scotia’s deposit-refund program. RRFB also administers the province’s tire and paint recycling programs.

Distributors of designated beverage containers must register with RRFB in order to sell or distribute these products legally within the province. They must also report sales data and remit applicable deposits directly to RRFB on a monthly basis.

Retailers are required by law to display the deposit amount on the sales receipt and to display a notice identifying the location of the nearest depot where beverage containers can be returned for a refund.

Depot owners and operators must sign a standard form agreement with RRFB in order to become an Enviro-Depot™.

For the milk program, municipalities are required to submit volumes of milk packaging collected, processed and recycled annually to Nova Scotia Environment.

Program Financing

The two programs in Nova Scotia receive funding from different streams.

The deposit-return program is based on a “half-back” model. Under this system, deposits are paid on all containers (10-cents for non-alcoholic containers <5-litres; 10-cents for alcoholic containers 500ml or less; and 20-cents for alcoholic containers 500ml or bigger). While consumers receive a full refund of their deposit when they return refillable containers (i.e. refillable beer bottles), only half (50%) is refunded for non-refillable containers.

The remaining half of the deposit (5-cents or 10-cents, depending on container type and size), plus revenues generated from the sale of the material, is used to pay for program costs. Among other things, these costs include the handling fees paid per container to Enviro-Depot™ operators as compensation for receiving, paying out refunds for, sorting, and storing returned beverage containers. As of January 2014, the handling fee for empty beverage containers (except for empty refillable beer containers) was \$0.0403-cents per container. A portion of the unredeemed deposits is also distributed to municipalities to help offset the cost of their waste diversion initiatives.

Unlike the deposit-return program, which is funded mostly by consumers, the voluntary milk container recycling program is financed entirely by industry. The Atlantic Dairy Council (ADC) provides funding to Nova Scotia’s Solid Waste Management Regions, based on the number of milk containers collected for recycling through municipal recycling programs. Municipalities receive compensation based on the average cost to recycle and quantities collected. In 2012, the ADC contributed \$434 per tonne to municipalities for a total of \$681,289. This amount equates to an industry cost of around 1-cent per milk container sold in Nova Scotia.

Collection System

Consumers may return their empty beverage containers for a refund to any one of 83 privately owned and operated Enviro-Depot™ locations throughout the province.

The depot sorts containers by type and colour, storing them in bulk bags or bins. These bags and bins are collected and trucked to the nearest of three Regional Processing Centres located in the province. At the processing facility, aluminum and plastic beverage containers are separated and then compressed in a baler into large cubes. Once baled the RRFB markets and sells these materials on the commodity market. Glass is sent directly from the processing centre to a glass processor where it is converted into cullet and sold as a commodity.

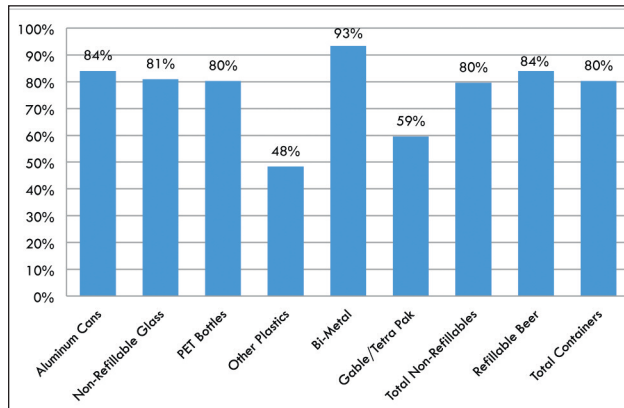
Enviro-Depot™ operators have a separate arrangement with the breweries to accept refillable domestic beer containers from consumers. These containers are sorted and sent back to the brewers for washing and refill.

Milk packaging is collected separately via municipal curbside recycling programs.

Program Performance

In fiscal 2012, Nova Scotia had an overall container collection rate of 80%. As for non-refillables, Nova Scotia matched P.E.I.'s collection rate of 80%, the highest rate reached in the Atlantic Provinces.

Figure 3.8 Nova Scotia Collection Rates by Material



In 2012, the milk container recycling program achieved a total collection rate of 70%.

What's New?

In July 2012, RRFB Nova Scotia introduced a new compaction trailer for beverage containers and began a two-year pilot project at 18 high-volume Enviro-Depots in Halifax Regional Municipality. Combining a compaction auger on a 53-foot tractor-trailer, the trailer allows Depots to compact recyclable beverage containers and then ship them directly to the end market processor.

Loading bags at a rate of approximately four bags per minute, the compaction trailer transports more than five times as many beverage containers in one load than was previously possible. As of November 25, 2013, the trailer had transported 101 loads direct to market, which would have equaled 602 loads under the previous system. Unlike the existing local cartage system, in which a regular trailer fits approximately 78 bags of containers, the compaction trailer can fit about 500. In addition to saving time and reducing greenhouse gases, the trailer has already reduced costs by over \$120,000 annually. Once the pilot phase is complete, RRFB will consider expanding the program into the rest of the province.



Prince Edward Island

POPULATION: 145,200
POPULATION DENSITY:
24.7 PERSONS/KM²

Beverage Container Management System

Supporting Regulatory Framework

In 1973, the provincial government banned the sale of beer in non-refillable containers. This was followed by a ban on the sale of all non-refillable soft drink containers in 1977. Both these bans were authorized under the *Environmental Protection Act* (1988) and the *Litter Control Regulations* (1992), and effectively required that all carbonated beer and soft drinks were to be packed in refillable containers. Not long after, deposits were placed on refillable beer and extended to soft drink containers in 1984. In 1992, the program expanded to include half-back deposits on all non-refillable wine, spirit, and cooler containers.

In late 2007, the government repealed the law prohibiting the sale of non-refillable carbonated beverage containers. In its place, the Department of Environment, Energy and Forestry implemented a deposit-return program. Launched on May 3, 2008, this expanded program covers all ready-to-drink beverage containers up to 5-litres, except those used for dairy products, milk substitutes, or nutritional supplements. It is regulated under the *Beverage Containers Act* (2008).

Performance Targets

There are no official targets specified for these materials.

Who is Responsible?

The deposit-return program is overseen and administered by the Department of Environment, Energy, and Forestry.

Program Financing

P.E.I.'s deposit-return program is based on a "half-back" model, similar to those in other Atlantic provinces. Under this system, deposits are paid on all beverage containers (10-cents for non-alcoholic containers 5-litres or less; 10-cents for alcoholic containers 500ml or less; and 20-cents for alcoholic containers 500ml or bigger). While deposits on refillable containers are completely refundable, those on non-refillable containers are only "half" refundable. To illustrate, a customer returning a non-refillable container on which a 10-cent deposit was paid will only receive a 5-cent refund.

Fifty-percent of the "half-back" revenue (2.5- or 5-cents from each container, depending on container size), plus unredeemed deposits, is used to fund beneficial environmental projects carried out by the provincial government, like watershed protection and pollution prevention. The other half is used to pay for the costs of running the program. In addition to things like system administration, these costs include the handling fee paid per container to depot operators as compensation for receiving, paying out refunds for, sorting, and storing returned beverage containers. As of February 2014, the handling fee for empty beverage containers (except for empty refillable beer containers) was \$0.0398 per container. In fiscal year 2012-2013, depot operators received a total of \$1.7 million in handling fees.

The milk container recycling program is financed by the provincial government.

Collection System

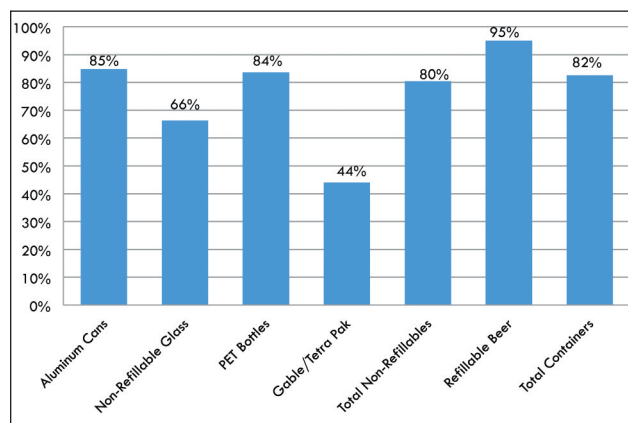
Consumers can return designated non-refillable beverage containers to any one of 10 privately run depots throughout the province. (Retail stores, including liquor stores, stopped accepting returned beverage containers and paying refunds as of May 3, 2008). Collection, sorting, transport and processing of containers is contracted out to a Charlottetown based firm. A computerized inventory control system is used to track containers from the point of consumer refund, through processing, and material sales.

Containers used for milk and other exempted containers (i.e. food containers) are collected separately through the Island Waste Management Corporation (IWMC)'s Waste Watch program, a mandatory curbside recycling program available to all island residents. The Waste Watch program requires residents, visitors, and businesses to separate the waste they produce into 3 streams: recyclables, compost, and waste.

Program Performance

In fiscal 2012-2013, P.E.I. had a non-refillable container collection rate of 80% and a total container collection rate of 82%. This rate matches that of Nova Scotia, and is the highest collection rate reached in the Atlantic Provinces.

Figure 3.9 Prince Edward Island Collection Rates by Material



Newfoundland & Labrador

POPULATION: 526,700
POPULATION DENSITY:
1.4 PERSONS/KM²

Used Beverage Container Recycling Program

Supporting Regulatory Framework

In place since 1997, Newfoundland and Labrador's Used Beverage Container Recycling Program is regulated under the *Environmental Protection Act* (2002) and accompanying *Waste Management Regulations* (2003). The regulations apply to all ready-to-drink beverage containers, excluding milk and milk substitutes (soy milk, rice milk, and almond milk), infant formula, refillable bottles (including domestic beer bottles), concentrated liquids (including syrup and frozen juice), medicinal/nutritional supplements, and containers greater than 5-litres. Only milk products and milk substitutes with the word "beverage" on the label are covered under the program.

Performance Targets

There are no official collection targets for beverage containers specified in the Act or regulations.

Who is Responsible?

The program is managed by the Multi-Materials Stewardship Board (MMSB). Established in 1996, the MMSB is a Crown agency of the Government of Newfoundland and Labrador and reports to the Minister of Environment and Conservation. MMSB is mandated to support and promote modern waste management practices in the province with a specific focus on waste reduction and recycling. The mandate of the MMSB is derived from the *Environmental Protection Act* and pursuant *Waste Management Regulations*.

The MMSB has contracted with Newfoundland Beverage Recovery Inc. (NewBRI) to run the day-to-day operations of the program. NewBRI is a non-profit organization made up of representatives from the beverage industry.

Program Financing

Like many other programs, Newfoundland's beverage container recycling system is financed from revenues generated from the sale of empty beverage containers and by unredeemed deposits. The MMSB does not receive any direct funding from the provincial government.

Newfoundland's program is based on the "half-back" model common to Atlantic Provinces. On the purchase of a non-alcoholic beverage, consumers pay an 8-cent deposit and receive a 5-cent refund when they return the container to a Green Depot. For alcoholic beverage containers, consumers pay a 20-cent deposit and get a 10-cent refund.

Part of the revenue generated from the non-refunded portion of the deposit (3-cents for non-alcoholic containers and 10-cents for alcoholic containers) is used to pay for the cost of the recycling program, including administration, handling, transportation, and processing costs. Unredeemed deposits are used to supplement the cost of running the program. After costs are paid, any excess revenue generated by MMSB is placed in the province's Waste Management Trust Fund to support the implementation of the Provincial Solid Waste Management Strategy.

Collection System

Beverage containers are collected through the Green Depot network. Green Depots are privately owned and operated businesses that are licensed by the MMSB to help carry out the beverage container recycling program. Green Depots receive a handling fee for receiving and sorting the used beverage containers.

Currently, there are 39 main depots, 17 sub depots, and 15 mobile collection services located throughout the province at which consumers can return their empty containers to receive a refund. After the containers are sorted, they are transported to one of the four regional processing centres where they are prepared for shipment to markets in Canada and the United States.

Because local brewers operate their own deposit-return system, domestic beer bottles (like Labatt and

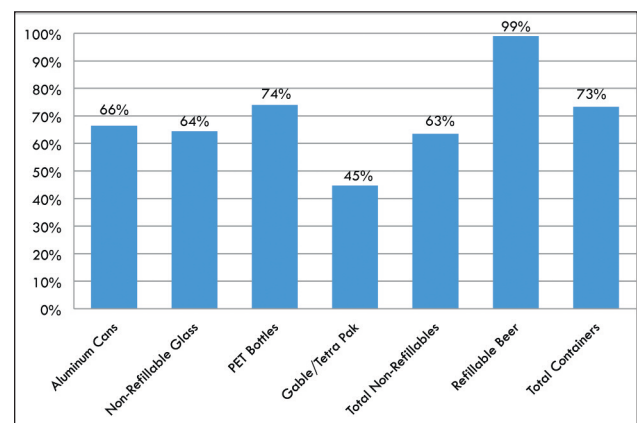
Molson) must be returned to a beer retailer or brewers bottle depot. (Containers are fully refunded at these locations). Still, some Green Depots, as a service to their customers, will accept domestic beer bottles (possibly at a reduced refund to cover their cost of handling the material).

Refillable beer bottles are sold through corner stores and two Brewers Retail Inc. (BRI) stores in St. John's. Beer is sent to 27 wholesalers who then deliver to the corner stores and the BRI outlets. The wholesalers are paid a handling fee for the empties, which are picked up at the retailer.

Program Performance

Currently, 88% of the province's population has access to a recycling depot within 20 kilometres of their home.²⁷ In fiscal year 2012, Newfoundland collected and recycled more than 167 million used beverage containers for an overall non-refillable collection rate of 63%. This is a small decrease from the 2010 figure of 65%.

Figure 3.10 Newfoundland and Labrador Collection Rates by Material



What's New?

In July 2012, the Multi-Materials Stewardship Board (MMSB) launched a province-wide marketing campaign called "Recycle on the Run" aimed at increasing the recycling of beverage containers consumed away-from-home (AfH).



Northwest Territories

POPULATION: 43,500
POPULATION DENSITY:
0.0 PERSONS/KM²

Beverage Container Program

Supporting Regulatory Framework

The program, which was established on November 1, 2005, is regulated under the *Beverage Container Regulations* of the *Waste Reduction and Recovery Act* (2003). These regulations cover all ready-to-serve beverage containers made of glass, plastics, aluminum, bi-metal, and mixed materials. This includes juice, pop, water, beer, wine, liquor and other alcoholic beverages. Since 2010, the program has accepted containers for milk and liquid milk products – excluding those with infant formula or milk products in containers smaller than 30 ml.

Performance Targets

No formal targets have been set for this program.

Who is Responsible?

The Department of Environment and Natural Resources (ENR) is responsible for program administration. It enforces the Act and the accompanying regulations, coordinates and supports local depots and regional processing centres, coordinates public information, helps ensure continuous improvement of the program, and undertakes audits of distributors, importers, stores, depots, and processing centres.

Program Financing

The recycling program is financed through a surcharge applied to each beverage container sold in the Northwest Territories (NT). The surcharge consists of both a refundable deposit and a non-refundable

handling fee, both of which vary according to beverage container size and material type.

The fees are based on the estimated costs to collect, process, and transport beverage containers and to administer the program. While deposits are returned to consumers when they return the container to a depot, non-refundable handling fees – along with all unredeemed deposits – go into the NT's Environment Fund to pay for program expenses and improvements to the program. The Environment Fund is a special fund set up under the *Waste Reduction and Recovery Act* and, as such, is separate from the general government account. All income is received and all program expenses are paid out of this fund. These expenses include: refundable deposit payments, handling fees of the processing centres and depots, transportation and storage costs, minor equipment purchases, and other administration costs.

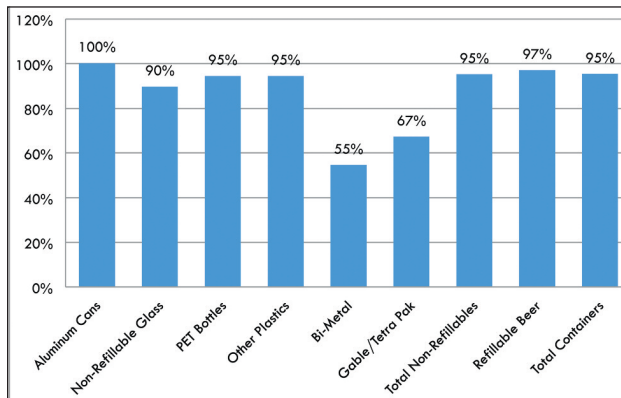
Collection System

Consumers return empty beverage containers to licensed depots to receive a refund of their deposit. As of March 2012, there were 24 locally operated beverage container depots and 4 temporary satellite depots in NT. The depots collect, sort, and bag or box the redeemed containers, then ship them to one of three regional processing centres in Inuvik, Yellowknife, and Hay River. From there, the beverage containers are processed and shipped to southern markets for reuse or recycling. The processing centre pays each depot a handling fee to cover operating costs and money to cover the refunds provided. Processing centres also receive a handling fee from the Environment Fund to cover their operating costs.

Program Performance

In 2012-2013, NT had a non-refillable and overall container collection rate of 95%.

Figure 3.11
Northwest Territories Collection Rates by Material



Yukon

POPULATION: 36,700
POPULATION DENSITY:
0.1 PERSONS/KM²

Beverage Container Recycling Program

Supporting Regulatory Framework

Introduced in 1992, Yukon's deposit-return program is regulated under the *Environment Act* and the pursuant *Beverage Container Regulation* (1992) and the *Recycling Fund Regulation*.

Initially, the regulations covered only aluminum cans and refillable beer bottles. After amendments to the regulations in 1996 and 1998, the program was expanded to cover all ready-to-drink beverage containers (glass, plastic, steel, aluminum, and Tetra Pak), except for milk and milk substitutes such as soy and rice milk.

Performance Targets

There are no official targets for this program.

Who is Responsible?

Contrary to most programs, Yukon's beverage container recycling program is government-run and administered. Previously the responsibility of Environment Yukon, operation of the program has been transferred to the Department of Community Services. (Environment Yukon is still in charge of making any regulatory amendments).

Program Financing

When purchasing beverages, the consumer pays a surcharge, which includes a refundable deposit and a non-refundable recycling fund fee (RFF). Upon return of the empty containers, consumers receive the refundable portion of the surcharge back. The non-refundable RFF is collected by the retailer and goes into the Recycling Fund, a revolving fund that is administered by the government but kept separate from general government revenue. Unredeemed deposits also go into this fund.

The Recycling Fund is used to support related recycling activities, such as collection, processing, and shipping costs. Recycling depots receive handling fees per container and also receive a monthly operating allowance. Processing fees and handling fees are also paid to registered processors for each container received. The fund is also used to promote container returns (e.g. Environment Yukon developed a program called the Recycling Club aimed at encouraging recycling habits in Yukon children), improve recycling facilities and community depots, and pay part-time wages for depot staff.

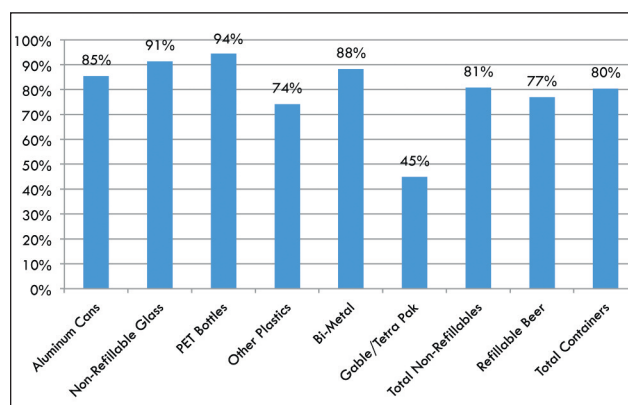
Collection System

Consumers return empty beverage containers to one of 17 depots to receive a partial refund of the initial deposit. Depots are run by individuals, private businesses, or non-profit organizations. The depots sort and bag/box the containers then send them to one of two processing facilities in the capital city of Whitehorse: Raven Recycling and P&M Recycling. From there, containers are processed and shipped south to various dealers and markets for recycling.

Program Performance

In 2012-2013, Yukon had a non-refillable collection rate of 81% and an overall container collection rate of 80%.

Figure 3.12 Yukon Collection Rates by Material



Nunavut

POPULATION: 35,600
POPULATION DENSITY:
0.0 PERSONS/KM²

In 2007, Nunavut's Department of Environment established three pilot recycling projects in the communities of Iqaluit, Kugluktuk, and Rankin Inlet.²⁸ The purpose of these projects was to examine the feasibility of implementing a beverage container recycling program across the territory.

During the pilot program, residents in these communities could drop off their beverage containers at depots that would sort and prepare the recyclables for shipment to processing facilities in southern Canada. The three-year pilot ended in December 2010 after an independent evaluation found that the costs of operating the programs were very high, while the amount of waste they diverted was minimal (2-3%).²⁹

The major challenges in Nunavut include infrastructure, transportation, depot management and operations, and the development of recycling legislation. While there is no formal territory-wide recycling program, the Department of Environment and the Department of Community and Government Services (CGS) are working together to evaluate the territory's solid waste management practices as a whole. CGS is also working on establishing a Nunavut-wide solid waste management strategy.