

Beverage Container Program Review Summary Report

August 2012

Preamble

The Beverage Container Program was implemented on November 1, 2005. In 2011, Environment and Natural Resources (ENR) initiated a comprehensive review of the program. The purpose of the review was to:

- determine if the program is meeting its goals and objectives; and
- explore options to make the program more efficient and effective.

ENR contracted MGM Management in partnership with Northways Consulting and CM Consulting to conduct an independent review of the program. This document provides a summary of the consultant's findings. This summary represents the views, conclusions and recommendations of the consultant, not those of ENR.

There are 18 recommendations made by the consultant. These recommendations are summarized in Table 3 at the end of this document. ENR's comments and/or responses are included in this table along with a timeline for the implementation of each of the recommendations, if appropriate.

The full report is also available on-line at www.icarenwt.ca.

Table of Contents

1.0	Introduction	1
2.0	Background	1
3.0	Approach and Methodology	1
4.0	Depot Collection Network.....	2
4.1	Comparing the BCP to Other Deposit-refund Programs	2
4.2	Collecting Containers through Depots	2
4.3	Depot Handling Fees	2
4.4	Depot Standards.....	3
4.5	Capacity for Depots to Pre-process Containers	3
4.6	Depot Terms, Flow of Payments to Depots, Operating Practices	3
4.7	Audits and Quality Control for Counts	5
4.8	Reported Recovery Rates	5
4.9	Reconciliation Practices – Other Provinces.....	5
5.0	Processing Containers & Salvage Markets	5
5.1	Location and Distribution of Processing Centres.....	5
5.2	Processing Centres – Business Capacity.....	6
5.3	Processing Centre Operations.....	6
5.3.1	Receiving & Counting Containers.....	6
5.3.2	Processing Glass	7
5.3.3	Processing Centre Handling Fees	7
6.0	Recycling and Reuse of Containers.....	8
7.0	Costs and Expenditures.....	8
7.1	Comparison of Program Revenue and Expenses	8
7.2	BCP Costs - Since Inception	9
7.3	Payments to Depots	9
7.4	Payments to Processing Centres	10
7.5	Tendering Policies and Practices	10
7.6	Depot Advance Program	10
7.7	Annual Operator Support Program.....	10
7.8	Depot Development Program	10
7.9	Capital Equipment Subsidies.....	11
8.0	Revenue Streams	11
8.1	Unredeemed Deposit Revenue	11
8.2	Non-Refundable Handling Fee Revenue.....	12
8.2.1	Multiple Variable Container Recycling Fee	12
8.2.2	Single Variable Container Recycling Fee	12
8.2.3	Flat Container Recycling Fee.....	12
8.2.4	Half-Back Deposit-Refund	13
8.2.5	Analysis of Potential Revenue Scenarios	13
8.3	Distributor Payments	14
9.0	Container Categories	14
10.0	Legislative Authority and Operating Policies.....	14
11.0	Transportation	15
12.0	Extended Producer Responsibility.....	15
13.0	Recommendations	15

List of Tables

Table 1: Summary of Deposit-refund Programs in Canada.....	2
Table 2: Managing Unredeemed Container Revenues.....	11
Table 3: Recommendations	16

List of Figures

Figure 1: Operational and Payment Policies.....	4
Figure 2: Revenue Streams Using CRF Models.....	13

List of Abbreviations

BCP	Beverage Container Program
BDL	Brewers Distributing Ltd.
CO ₂ e	Carbon Dioxide Equivalent
CRF	Container Recycling Fee
DHF	Depot Handling Fee
ENR	Environment and Natural Resources
EPR	Extended Producer Responsibility
HDPE	High Density Polyethylene
ISB	Industry Standard Bottles (otherwise known as refillable bottles)
GHG	Greenhouse Gas
MOU	Memorandum of Understanding
NA	Not Applicable
PC	Processing Centre
PCHF	Processing Centre Handling Fee
PET	Polyethylene Terephthalate
PVC	Polyvinyl Chloride
QC	Quality Control
RFP	Request for Proposal
TBD	To Be Determined
WRRA	<i>Waste Reduction and Recovery Act</i>

1.0 INTRODUCTION

The Beverage Container Program (BCP) was the first program to be implemented under the *Waste Reduction and Recovery Act* (WRRA). The goals of the program are to:

- provide all NWT residents the opportunity to recycle beverage containers and to reduce waste, litter and greenhouse gas (GHG) emissions;
- operate a financially self-sustaining program;
- encourage conservation ethic among NWT residents; and
- create socio-economic benefits to communities.

2.0 BACKGROUND

The BCP began operation on November 1, 2005. It was designed as a deposit-refund program for all ready-to-drink beverage containers, including juice, water, soft drink, and alcoholic beverage containers previously recovered through the former program operated by the Northwest Territories (NWT) Liquor Commission.

Depots are paid a Depot Handling Fee for each eligible container accepted. There are 28 operating depots in the NWT and three satellite or temporary depots operated in remote communities. Depots consolidate beverage containers received from consumers in large plastic mega-bags or in cardboard boxes and transport them to one of three processing centres located in Yellowknife, Hay River and Inuvik.

Processing centres (PCs) receive shipments from depots, count containers, break the non-refillable glass containers, trans-ship refillable beer bottles and prepare other recyclables for shipment to markets outside of the NWT.

3.0 APPROACH AND METHODOLOGY

The consultant project team (consultant) compared and evaluated various BCP components to similar deposit-refund programs operating in Canadian provinces, and the Yukon. The consultant also made field visits to eight depots (Yellowknife, Hay River, Inuvik, Behchoko, Fort Smith, Norman Wells, Tulita, and Tuktoyaktuk). These depots handle 86 percent of the total volume of containers recovered in the NWT.

Sections 3.0 to 12.0 summarize the findings of the comparison and evaluation. Table 3 on the last page of this document summarizes the consultant's recommendations, ENR's comments and/or response to them, and a timeline for the implementation of each of the recommendations, if appropriate.

4.0 DEPOT COLLECTION NETWORK

4.1 Comparing the BCP to Other Deposit-refund Programs

NWT containers are taken to one of 28 licensed depots for redemption. Table 1 provides a summary of deposit-refund programs in Canada.

Table 1: Summary of Deposit-refund Programs in Canada

PROVINCE	POPULATION (Statistics Canada Estimate for 2010)	AREA IN KM ²	POULATION DENSITY (PER km ²)	COLLECTION SYSTEM			# of RETURN LOCATIONS	POPULATION PER RETURN LOCATION	CONTAINERS PROCESSED (2008-2009)	CONTAINERS PER LOCATION (MILLIONS OF UNITS)	RETURN LOCATIONS : POPULATION (PER 1000 PEOPLE)
				Retail	Depot	Curbside					
BC	4,510,900	944,735	4.8				23,000	196	1,577,595,973	0.1	5.10
AB	3,724,800	661,848	5.6				216	17,244	1,611,804,957	7.5	0.06
SK	1,041,700	651,036	1.6				71	14,672	410,115,849	5.8	0.07
ON	13,167,900	1,076,395	12.2				775	16,991	2,125,000,000	2.7	0.06
QC	7,886,100	1,542,056	5.1				40,000	197	1,023,600,000	0.0	5.07
NS	940,500	55,284	17.0				83	11,331	388,657,306	4.7	0.09
NB	751,300	72,908	10.3				78	9,632	305,412,057	3.9	0.10
NF	510,900	405,212	1.3				76	6,722	255,170,421	3.4	0.15
PEI	141,600	5,660	25.0				10	14,160	54,915,472	5.5	0.07
YK	34,426	482,443	0.1				19	1,812	17,426,893	0.9	0.55
NWT	43,700	1,346,106	0.032				27	1,619	26,339,706	1.0	0.62

Note: Precise number of collectors in BC and QC are unavailable due to the fact that grocery and convenience stores may act as return locations.

4.2 Collecting Containers through Depots

The NWT BCP offers more depots per capita than other deposit-refund programs in Canada, at 0.62 depots per 1,000 persons. The average depot density in programs across Canada is about 1.0 depot per 10,000 people. In the NWT, six depots (Yellowknife, Inuvik, Hay River, Behchoko, Fort Smith and Fort Simpson) account for 90 percent of the container returns. Depots in 10 communities provided greater than 95 percent of the returned containers during the same period.

4.3 Depot Handling Fees

Depots are paid a Depot Handling Fee (DHF) by the BCP. This fee is paid on each container received from the public. The DHF varies by container size and material. The 2010-2011 weighted average handling fee paid in NWT was 2.5 cents per container returned. This is significantly lower than fees paid in other Canadian deposit-refund programs.

Raising the depot handling fee to the national average of 3.5 cents per container would increase BCP costs by \$251,492 (based upon 2010/2011 returns of 25,149,183 containers).

4.4 Depot Standards

Visits to eight BCP depots by the consultant revealed a range of operating practices among BCP depots. Larger volume depot operations (Yellowknife, Hay River, Inuvik and Behchoko) have adequate operating practices. Some deficiencies were noted in the small to medium-sized depots visited.

Field visits to smaller communities indicated a community champion is required to make the program work. Fort McPherson and Fort Smith depot operators are examples of this.

Depot standards vary from province to province but most Canadian deposit-refund programs have similar operating standards.

Implementing operating standards may improve consumer experience in returning containers and lead to increased recycling of beverage containers. ENR staff visits to depots occur on an as-needed basis. The consultant notes that when regular visits occur in other provinces, it encourages the development of standards.

4.5 Capacity for Depots to Pre-process Containers

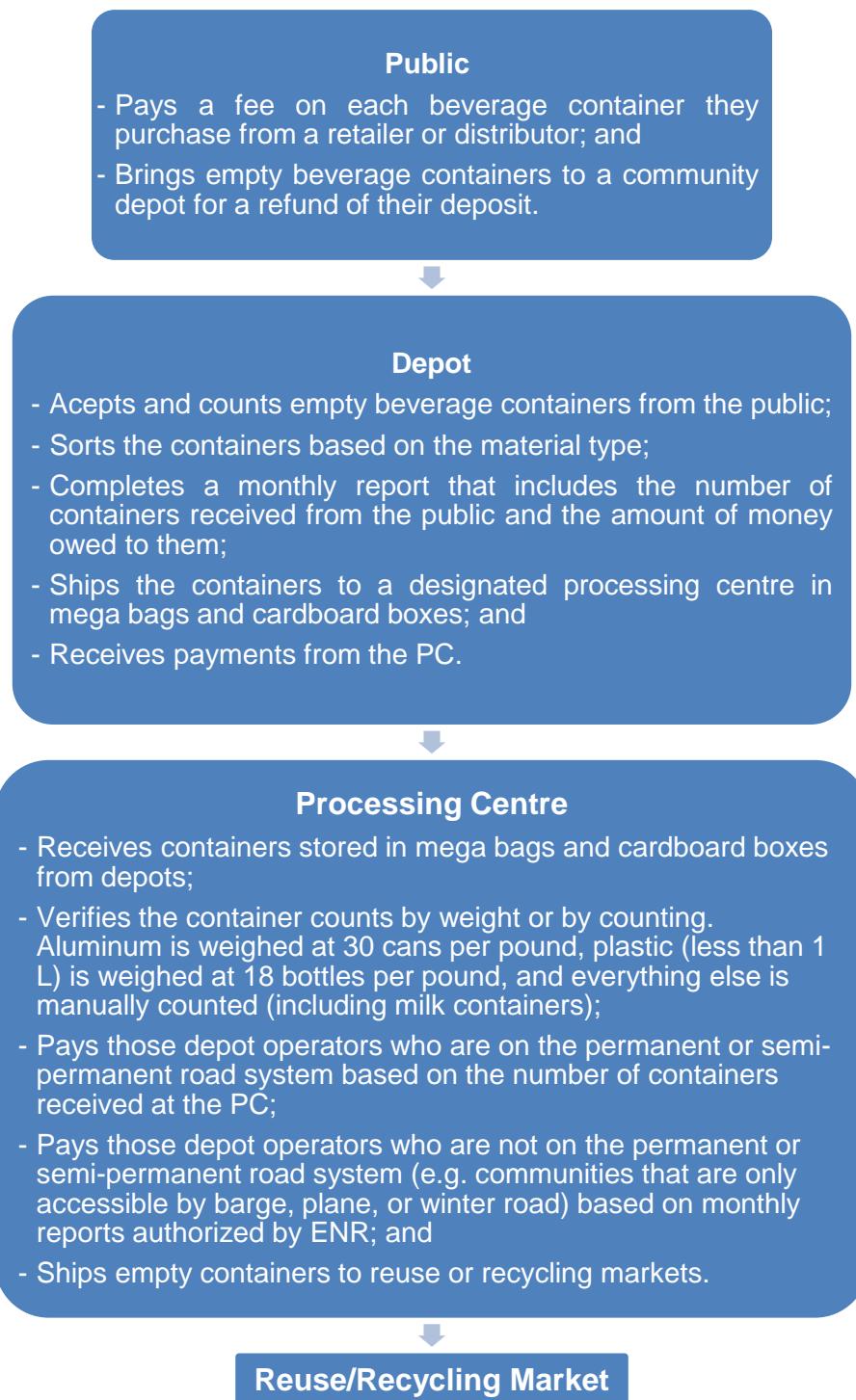
The consultant examined whether or not depots have the capacity to do some pre-processing prior to shipping to processing centres. Due to limited staffing, limited community infrastructure and available human resources pre-processing of containers is not considered beneficial.

4.6 Depot Terms, Flow of Payments to Depots, Operating Practices

Various operating and payment policies were examined. These are summarized in the following flow chart (Figure 1). In general, the consultant noted the following:

- Some depots accept customer declarations on occasion without verifying. Some concern was expressed if this practice is widespread.
- There were inconsistencies in packing and labeling of boxed glass and pallets. Poorly packed pallets create more work for processing centres in verifying counts often require re-palletizing prior to shipment to Brewers Distributor Ltd. (BDL) in Edmonton.
- Depot operators are generally satisfied with the financial administration and payment terms in place.

Figure 1: Operational and Payment Policies



4.7 Audits and Quality Control for Counts

The procedures used within the BCP to check counts of containers declared by depots were examined and weaknesses were found. The consultant believes a Quality Control (QC) program should be part of all beverage container deposit-refund programs. There is no on-going QC audit program within the current NWT Beverage Container Program. These activities could be financed from the program should policy changes regarding use of a container recycling fee (CRF) and BCP ownership of scrap revenues be implemented.

4.8 Reported Recovery Rates

In response to a 93% recovery rate reported in 2009-10, ENR staff initiated an immediate investigation. After several glass audits, the 2010-2011 redemption figures and recovery rates have returned to expected levels (low 80's). The consultant noted that it is difficult to determine if the recovery rates are credible without distributor audit procedures and an independent QC audit program.

4.9 Reconciliation Practices – Other Provinces

Most provinces have various levels of container reporting reconciliation and verification measures. Standard procedures may include requirements for depots to place a specified number of like containers in mega-bags for transport to PCs. These bags are labeled by the depots and a manifest or movement document is created by an independent hauling company to be verified against the depot declaration.

Upon arrival at the PC, a percentage of bags are diverted through the QC facility for detailed mechanical and electronic counting. Manual counts are not used as they are viewed as unreliable. In the case of incorrect counts within a certain variance, a depot may be notified and payments to it are reduced. More willful or apparent misrepresentations may result in suspension or cancelation of an operating contract. At the PC, bags are scanned as they are emptied into a baler or glass crusher and a final scan may be done as material exits the baler or glass crusher.

5.0 PROCESSING CONTAINERS & SALVAGE MARKETS

5.1 Location and Distribution of Processing Centres

BCP PCs are located in Yellowknife, Hay River and Inuvik. These are logical and appropriate locations as they meet regional needs, serve the largest population areas and optimize transportation services. Container returns to the depots in these three communities account for 78 percent of recovered containers.

5.2 Processing Centres – Business Capacity

Processing centres are privately-owned businesses that were awarded five-year contracts following a successful response to ENR's Request for Proposals (RFP) for processing services. Contracts are currently being renewed for one-year periods pending the review of the program.

ENR purchased the capital equipment used by PCs. PC operators are paid on a per container basis, based on the PC handling fee schedule established by the Beverage Container Regulations (Regulations). PC inspections conducted by the consultant revealed equipment is of good quality; building locations are well situated and suitable for container processing; PC operators exhibit strong business skills; and, no serious concerns or complaints were voiced about the BCP by PCs.

5.3 Processing Centre Operations

5.3.1 Receiving & Counting Containers

Counting containers is done slightly differently at the three PCs. The QC and reconciliation procedures of the BCP do not meet deposit-refund best practices when compared to similar programs in Canada. The consultant made the following observations about current BCP reconciliation methods:

- BCP reconciliation methods could be improved if ENR standardized practices for all PCs through policy.
- Reconciliation is not independent. PCs have a vested interest in processing as many containers as possible to optimize revenue, although no evidence of inflated counts was seen.
- Weight conversions and hand counting are unreliable and inaccurate.
- There is no set number of containers that must be placed in each shipping bag.
- Incorrect undercounts short pay depots/PCs, while high counts pay for nonexistent containers where no distributor revenues were received.

Most Canadian deposit-refund programs operate QC programs as an on-going day-to-day method of checking declarations of containers from depots against what is actually received at processing centres.

5.3.2 Processing Glass

Non-refillable glass containers are received at PCs, reconciled for counts by hand counting and then crushed. In Hay River, broken glass is used as land reclamation fill. In Inuvik and Yellowknife, crushed glass is disposed of at the municipal landfill for a fee.¹ Refillable glass (Industry Standard Bottles (ISBs)) are palletized and shipped to BDL.

Including non-refillable glass containers in the deposit-refund program and not recycling the glass appears counterproductive to the environmental objectives of the program. If non-refillable glass were removed from the program, it would remove less than 10 percent of the total containers collected through the program. The consultant does not believe a significant shift to more glass packaging would occur if this material type were removed from the program. Removing glass would also remove revenues with wine and spirits unredeemed deposits.

The consultant estimated the GHG emissions associated with shipping non-refillable glass to southern recycling markets compared with GHG offsets associated with using recycled glass cullet to make fibreglass insulation or new glass containers. A net offset of 19 tonnes of CO₂e would be generated by shipping non-refillable glass to Airdrie, Alberta to make fibreglass insulation. The consultant recommended ENR find the most economically efficient method of transportation and include a glass surcharge equivalent to meet the costs of recycling these containers.

ENR may wish to review the current agreement with BDL to determine if the cost of freight of ISBs can be transferred from ENR to the brewers. These charges are paid by BDL in most other Canadian jurisdictions. For the 77 tonnes of CO₂e emitted in shipping refillable glass bottles south for refilling, about 475 tonnes of CO₂e are offset, resulting in a net benefit of 398 tonnes of GHGs avoided by reusing glass containers.

5.3.3 Processing Centre Handling Fees

Processing centres are paid on a per container basis. Processing Centre Handling Fees (PCHF) vary by container type with the average PCHF paid of 2.181 cent per container. This is significantly higher than fees paid in similar Canadian programs but similar to Yukon (YT) rates. NWT and YT are the only deposit-refund programs in Canada where the program administrators do not own scrap revenue.

When scrap revenue values are included in addition to the PCHF, NWT PCs receive between 3.0 – 4.0 cents per container. The PCs also operate the three largest depots in the Territory and receive a combined annual \$500,000 in depot

¹ See Table 3: Recommendations for updated information regarding the processing of non-refillable glass containers.

handling fees as well as the PCHF and scrap revenues. This is a high price for the services provided, particularly when PCs have relatively low overhead costs compared to other PCs, which own the processing equipment. The consultant is not aware of any large depots in Canada that are allowed to reconcile their own container counts because they also act as the receiving processor. This practice can lead to problems for the program.

Using data from the Hay River and Yellowknife Processing Centres only (Inuvik data was lost in a 2010 fire), the consultant estimates the value of the scrap revenue to total \$639,277 for the period from 2008/09 to March 2011.

6.0 RECYCLING AND REUSE OF CONTAINERS

A lot of energy is required to make primary materials used in the production of aluminum, glass and polyethylene terephthalate (PET) beverage containers. Using recycled aluminum to make new cans saves 95 percent of the energy required to make cans from raw materials. It also avoids bauxite and coal mining; alumina refining; aluminum smelting; and, eliminates need for caustic soda, chlorine, crude oil, petroleum coke and carbon anode. The BCP avoids 2,895 tonnes of CO₂e per year by reusing glass bottles and recycling aluminum and PET containers. This is equivalent to removing 568 vehicles from the road every year.

Aluminum is the most valuable scrap material from the BCP, followed by plastics (PET and High Density Polyethylene (HDPE)). Recycling glass provides no revenue; however, it offers the environmental benefit of GHG savings.

Other materials, such as polyvinyl chloride (PVC), polypropylene and polycarbonate bottles, are generally considered contaminants, and have few viable markets. Drink boxes (aseptic containers) have relatively few markets. However, in March 2011, the Canadian Carton Association announced its goal of working on the development of markets for recycled cartons.

7.0 COSTS AND EXPENDITURES

7.1 Comparison of Program Revenue and Expenses

The Environment Fund handles all revenue received from regulated distributors and pays all expenses connected with the BCP. Any surplus revenues may be used to fund new waste reduction and recovery programs and initiatives.

There are differences to consider when comparing the costs of the BCP with other deposit-refund programs in Canada. Program variables include performance levels, depot density, level of customer convenience provided, economies of scale and population density.

The NWT's program is more expensive due to economies of scale. These include: high levels of depot service in most communities; low population density; high PC costs; lack of scrap revenue; and, restrictive transportation options. The average cost to recycle a container during the past five years in the NWT is 8.4 cents per container. In BC, it costs 6.4 cents per container; however BC's program handles 1.5 billion containers a year. If depot handling fees increased to match the rest of the country, it would impact expenses.

7.2 BCP Costs - Since Inception

The average administration costs of Canadian deposit refund programs (2009 data) were 0.482 cents per container. The three-year average BCP administrative costs were 0.746 cents per container; however unlike other provinces/territories, ENR's costs include program development, implementation, and evaluation. Normally these costs are not considered administrative costs in other Canadian programs.

7.3 Payments to Depots

The Beverage Container Regulations outlines the payment procedure for depots and PCs. Depots pay consumers the refundable deposit for each container returned. Depots then collect, sort, store and ship the beverage containers to one of three regional processing centres. The PC weighs or counts the containers and reconciles the numbers on the Depot Monthly Reporting forms. PCs compare the reconciled count, based on hand counts or weight conversions, to depot declarations and amounts are adjusted if necessary. ENR authorizes PCs to hold back payments for low counts or to pay a depot more if counts are high.

When cash register Z2 slip values differ from container quantity and refund paid, the quantity is derived from the refund paid, rather than a reconciled count of containers at a PC. The consultant believes this could be a problem because the payment for declared refunds may not have been fully reconciled or received at PCs. PCs are not required to complete reconciliation reports for the satellite depots they operate.

The BCP recognizes that PCs "could" financially benefit from higher container counts. Acknowledging this possibility, whether it occurs through error or intentionally, without an independent audit procedure is not consistent with best practices for financial control of deposit-refund programs in Canada.

In deposit-refund programs in southern Canada, system administrators pay the depots directly and cross reference depot declarations to processor container count declarations, which are checked using QC methods.

7.4 Payments to Processing Centres

Processing centres submit reports to ENR at least twice a month, and once a month as depots. PC reports include all depot reports and cash register Z2 slips for their region. The Processing Centre Monthly Reporting Form includes the number and type of containers processed. PCs are paid handling fees based on this data. The PCs also own the scrap revenue.

7.5 Tendering Policies and Practices

When the BCP was created, ENR issued requests for proposals to run depots and PCs. The BCP has since solicited individuals, organizations and companies to take on beverage container recycling in their communities when a need is identified. Depot and processing centre licenses are issued for five years².

Some smaller communities find it hard to operate regular container recovery programs. Three PCs are owned by private NWT companies. Once the BCP review is completed, it is likely PC services will be obtained through a public procurement process again.

7.6 Depot Advance Program

The Depot Advance Program is an interest-free advance offered to help new depot operators with start-up funding to pay deposits on returned containers. These funds are a loan and are repaid over an agreed period of time.

7.7 Annual Operator Support Program

This support program was developed to provide funding to off-set costs directly associated with operating and maintaining licensed beverage container depots and processing centres. To be eligible for grants, depots or depot/PCs must be operating according to the terms and conditions of their license. The calculation of grants is based on four factors: NWT Food Price Index; population served; school or non-profit organization; and milk container subsidy. Payments are made monthly upon receipt of depot monthly operating reports. Since 2010-11, payments are only made for months when a depot operates and submits reports. In 2010-11, only 57 percent of available funds were paid to depots.

7.8 Depot Development Program

The Depot Development Program supports depot capital projects. Fifty thousand dollars per year is available for the program. It can be used to pay up to 50 percent of eligible costs, or 75 percent of costs when the depot is run by a non-profit organization or a school. The consultant noted all grants should be audited by ENR on a routine basis to assure recipients have met the rules of the grant agreement.

² Note: licenses are currently being renewed for one year terms pending the review of the BCP.

7.9 Capital Equipment Subsidies

The BCP purchased and owns the capital equipment used by the processing centres and depots. The assets are about \$888,000. This arrangement is unusual compared to other Canadian programs. At program start-up, it was deemed by ENR to be too expensive for potential PC operators to provide a building and equipment with only estimated program revenues. This arrangement also provided ENR with flexibility if a PC operator failed to provide the required service.

8.0 REVENUE STREAMS

There are two sources of funding to offset the costs of the program: unredeemed deposits (deposits on containers not returned by consumers to depots) and non-refundable handling fees. The five-year summary of BCP cash flow shows annual net revenue ranged from \$1.95 million to \$2.49 million. Non-refundable handling fees account for the largest portion of revenues or about 77-90 percent of total revenue.

8.1 Unredeemed Deposit Revenue

Managing unredeemed container revenue is always a challenge for programs. This revenue stream is inversely proportional to the success of the program. Unredeemed container revenue can grow by increasing the monetary value of the refund. Higher monetary values of refunds have been proven to drive more recovery in other deposit-refund programs. The financial relief provided by such a policy change would sustain the BCP only until recovery rates increase, requiring subsequent policy change. Table 2 shows unredeemed scenarios and identifies which scenarios are more likely, given reasonable deposit level changes. The BCP could benefit from having policies and procedures to manage its unredeemed revenues in a proactive manner.

Table 2: Managing Unredeemed Container Revenues

IMPACT ON UNREDEEMED REVENUE	Recovery Rate			
	80%	85%	90%	95%
SENARIO 1- 15-cent refund on ALL	\$903,328	\$677,496	\$451,664	\$225,832
SENARIO 2 - 20-cent refund on ALL	\$1,204,437	\$903,328	\$602,219	\$301,109
SENARIO 3 - 25-cent refund on ALL	\$1,505,547	\$1,129,160	\$752,773	\$376,387
SENARIO 4 - 10 & 25-cent refund as per Alberta	\$674,485	\$505,864	\$337,242	\$168,621

Note: Cells shaded in grey represent scenarios which are more likely to occur given the deposit level.

8.2 Non-Refundable Handling Fee Revenue

Non-refundable handling fee revenue consists of the fees remitted by distributors, recouped from retailers, then from consumers. The 5 cents and 10 cents per unit fees generate an average of \$1.86 million of net revenue per year after refunds are paid to consumers (average of 6.2 cents per container). This revenue is proportional to sales.

This revenue has not followed a consistent pattern over the past five years. To offer additional funding solutions to the BCP, the consultant calculated funding options modeled on existing regimes used in other deposit-refund programs. Further analysis is needed before any of these options can be implemented.

8.2.1 Multiple Variable Container Recycling Fee

Consumers view the Container Recycling Fees (CRFs) as a fair user-pay mechanism. The CRFs vary by container type depending on the following factors: scrap value of the material; actual operating costs by container category; and the value of unredeemed deposits. Materials with high scrap value pay a small CRF, while materials with low value or revenue pay a high CRF. Higher recovery rates generate less unredeemed deposit revenue and attract a higher CRF, while lower recovery rates attract a lower CRF.

The use of a CRF is a flexible financing mechanism that allows administrators to make adjustments to keep the program solvent. A variable CRF ensures a program cannot lose money and limits cross-subsidization of containers. The downside is that it requires notification to distributors and the public as CRFs are amended. It also requires frequent recalculation of CRFs. Both Alberta and BC have changed their CRFs more than once per year.

8.2.2 Single Variable Container Recycling Fee

A single variable CRF is a single fee placed on all container types and sizes. It can be set as needed and adjusted according to program needs. This type of CRF reflects the cost for all containers as one group. It treats high performance containers, such as aluminum cans, unfairly because they carry the same CRF as high cost containers like glass. A single variable CRF does not encourage the use of more economical containers.

8.2.3 Flat Container Recycling Fee

A flat CRF is a single fee placed on all containers that does not change. It is easy to administer, implement and understand. It is a flat rate and may not generate enough money unless the rate is placed at a high enough level, which may treat some containers unfairly.

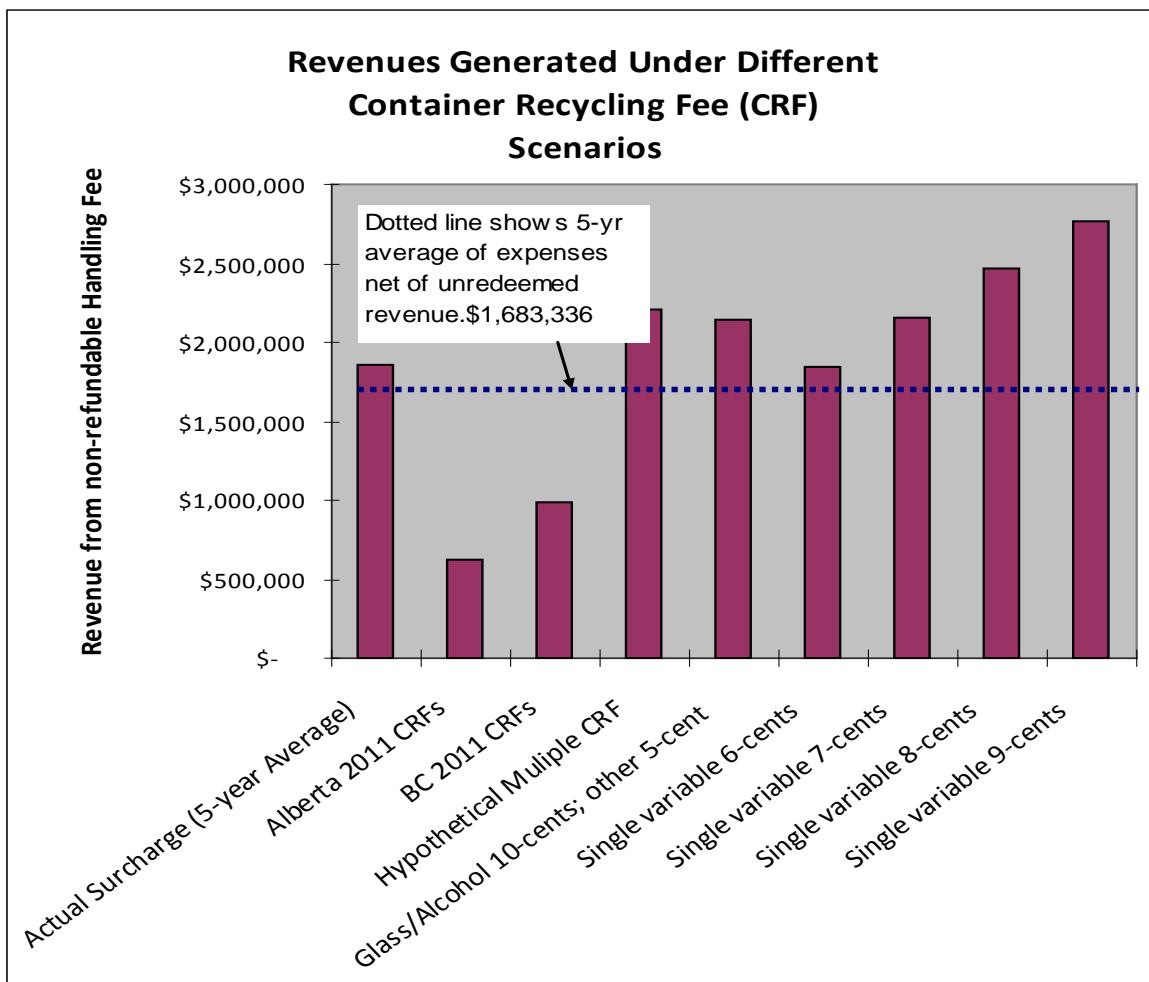
8.2.4 Half-Back Deposit-Refund

A half-back deposit-refund program means consumers pay the full deposit and are refunded a portion, usually half. Distributors oppose this form of revenue because they view it as an unfair tax.

8.2.5 Analysis of Potential Revenue Scenarios

The consultant modelled various scenarios against a five-year average of sales. Figure 2 shows the level of revenue that would be raised using different variable CRFs.

Figure 2: Revenue Streams Using CRF Models



Given the fluctuations of expenses and unredeemed revenue, it is recommended that the BCP adopt a CRF model. The consultant recommends ENR consider annual or bi-annual single-variable CRFs. A multivariable CRF could be onerous to implement.

8.3 Distributor Payments

Distributors must report NWT sales to the BCP every month. The program has several challenges obtaining timely reports. Late payment and reports offences now carry a \$500 penalty ticketable offence. However, regular distributor audits are not conducted to determine if all required remittances have been submitted. It is difficult to calculate accurate recovery rates without a system to check if remittances reflect true numbers of containers.

9.0 CONTAINER CATEGORIES

Comparing container sorts between provincial deposit-refund programs is difficult because each program handles containers in different ways. The BCP's container "categories" are based on refund categories paid to consumers and container "sorts" are based on material types. The BCP currently has 14 potential container sorts and 20 refund categories. This is comparable to other deposit-refund programs. Once sorts and refund categories are examined further, the number of categories may also be reviewed and reduced.

10.0 LEGISLATIVE AUTHORITY AND OPERATING POLICIES

According to the Regulations, beverage containers are bottles, cans, plastic jugs and other containers made from any materials that hold ready-to-serve drinks. Infant formula containers, milk and liquid milk product containers less 30 millilitres (ml), containers sold empty and containers filled when a beverage is sold are not captured in the program.

The Regulations also include the requirement for annual audited financial statements of the Environment Fund. The Environment Fund receives all BCP income and pays all BCP expenses. The fund is administered according to the *Financial Administration Act* and the Financial Administration Manual.

Total surcharges payable (refundable deposit, depot handling fee, PC handling fee and the administrative fee) is set in the Beverage Container Regulations. Any changes to these fees require an amendment to the Regulations.

The regulatory framework limits flexibility; major financial administrative changes can only be made by amending the Regulations. This process does not occur frequently.

In other Canadian jurisdictions, setting of fee rates is done through regulatory amendments or is delegated to another party, such as a delegated administrative organization or producer responsibility organization.

11.0 TRANSPORTATION

Transportation costs in the NWT at 13 percent of total operating costs are comparable with the average transportation costs of other jurisdictions, which is 12 percent).

The BCP pays to transport ISBs from NWT PCs to BDL in Edmonton. The BCP may be able to avoid this cost if a new agreement can be negotiated with BDL.

The Hay River PC services 19-20 percent of the NWT population with 30 percent of container volume but is responsible for 48 percent of total transportation costs. The BCP may want to review the effectiveness of spending almost half its transportation budget on 30 percent of recovered containers. Overall, the consultant found the freight costs for the BCP to be reasonable.

12.0 EXTENDED PRODUCER RESPONSIBILITY

Extended producer responsibility (EPR) is an environmental policy approach where producers take responsibility, both financially and administratively, for end-of-life management of their products and packaging. EPR shifts the financial responsibility from taxpayers to producers and consumers. The BCP is not a full EPR program but it could be transitioned to one. The pros and cons of such a change must be weighed before a decision to do this is made.

13.0 RECOMMENDATIONS

The consultant provided 18 recommendations based on the review of the program. Some recommendations have already been implemented. Others will require the amendments to the Beverage Container Regulations and possibly the *Waste Reduction and Recovery Act*. The 18 recommendations are summarized in Table 3, which also includes ENR's response to the recommendation and a timeline for the implementation, if required.

Table 3: Recommendations

	Recommendations	ENR Response/Comment	Status	Estimated Completion
1	The BCP should rationalize its delivery of the program recognizing that 10 depots account for 95% of container returns. The BCP should consider setting performance criteria for levels of delivery, in the remaining 18 depot communities, namely: a) Redemption volumes > X containers per year, allows a depot license b) Between return volumes < X >Y; satellite program only c) Less than a given redemption level (<Y); no BCP services	Agreed. ENR is looking into a combination of different collection models to provide services to NWT residents. The current depot collection network works well but in certain small and remote communities, there are problems finding and retaining a long-term depot.	ENR will work with distributors, retailers, depot operators, and municipalities to find ways to offer more services in those communities where it is difficult to find and retain depot operators.	April 2013
2	Review depot handling fees, consider amending existing handling fees.	Agreed. Depot handling fees (DHF) have not changed since the program began in November 2005. The NWT's average DHF is approximately 30% lower than the Canadian average. Change in DHF will require amendments to the Beverage Container Regulations (Regulations).	ENR is currently looking at program cost for each container category.	Cost analysis (September 2012) Draft proposed amendments to Regulations (April 2013) ³
3	Payments to depots originate from the BCP administrators and not from PCs.	Neither agree nor disagree. For efficiency, processing centres issue payments to depots upon ENR's authorization. If significant changes to program administration arise through the review process, this may change.	Will be reviewed as part of the overall administration of the program.	April 2013
4	No change to depots pre-processing is recommended.	Agreed. It is not feasible at this time to pre-process containers given the capacity of smaller depots and infrastructure requirements.	NA	NA
5	Initiate the design and implementation of a Quality Control program, to reconcile and check counts from depots. This should be done with either ENR resources or the QC function contracted out to independent contractors. PCs that own large depots should not reconcile their own counts prior to processing. As part of this recommendation BCP staff should investigate QC programs in BC, AB, NS, and NB as examples of existing QC methodologies to assist in a workable and cost effective QC program in the NWT.	Agreed. ENR recognizes a QC program needs to be designed and implemented to ensure accountability and transparency. QC equipment may be purchased if needed and cost effective given the volume of the containers dealt with in the NWT.	A QC program is currently being developed.	Program design (October 2012) Implementation (January 2013)
6	Separate the roles of processing centres, depots, and transporters within the program to avoid actual or perceived conflict of interest.	Agreed. ENR will assess the feasibility of separating these roles.	ENR will review processing centre financial audits to determine if it is viable to separate PCs and depots.	January 2013
7	PCs which own large depots should not reconcile their own counts. An independent Quality Control procedure should address PC/depot reconciliation.	Agreed. See Recommendation 5.	See Recommendation 5.	Program design (October 2012) Implementation (January 2013)
8	Review the cost of processing containers in the NWT. These costs should be brought in line with those costs experienced in the rest of Canada.	Agreed. ENR recognizes PCHF and the overall fee structure needs to be reviewed. Changes in PCHF will require amendments to the Regulations.	ENR is currently reviewing program cost for each container category. Financial audits of PC will also be conducted.	Cost analysis (September 2012) Financial audit (January 2013) Draft proposed amendments to Regulations (April 2013)

³ By April 2013, ENR aims to have decided how the Beverage Container Regulations should be amended to address the concerns and issues identified. This will include a plan required to amend the Regulations. Actual amendments to the Regulations will not occur until after April 2013, and will proceed according to the plan.

	Recommendations	ENR Response/Comment	Status	Estimated Completion
9	The BCP should divest itself from owning processing equipment. In future RFP/tenders respondents should be required to bid on the depreciated value of BCP equipment assets, and build those costs into their fee-for-service bid.	Agreed. ENR has discussed the possibility of divesting ownership of processing equipment during a January 2012 meeting with the current processing centres.	ENR will work with our Finance and Administration Division to determine a fair market value for the processing equipment.	Determine methodology for assessing fair market value (July 2012) Divest (to coincide with release of PC RFP)
10	The BCP should own the container scrap, and use the revenues from their sale to partially off-set operating costs.	Agreed. Money earned from sale of scrap currently remains with processing centres. ENR will need to evaluate the net revenue to the program if it takes over the ownership of the scrap and determine its use in offsetting other program costs. This is being included in the evaluation of overall program revenue and expenses. As a member of the Recycling Affiliates (RA) Network (see Recommendation 13), ENR would benefit from greater scrap revenues than processing centres are currently able to access. This would mean more revenue to offset program costs.	In progress.	April 2013
11	The BCP should renegotiate its memorandum of understanding (MOU) with brewers, to shift the transportation costs of shipping ISBs to Brewers Distributing Ltd. (BDL) in Edmonton to brewers.	Agreed. ENR has calculated the costs for ISBs (refillable beer containers) and is negotiating with BDL.	Negotiations with BDL on a new MOU began in January 2012. In progress.	August 2012
12	Renegotiate a more appropriate refillable beer bottle depot handling fee, which is now 18 ¢ per dozen to bring the NWT rates in line with fees paid across Canada.	Agreed. ENR has calculated transportation costs for refillable beer containers and is negotiating with BDL.	Negotiations with BDL on a new MOU began in January 2012. In progress.	August 2012
13	Investigate whether there are opportunities to sell NWT aluminum can bales as part of a national co-operative marketing program.	Agreed. The BCP has joined the RA Network. RA Network members include beverage container program administrators from across Canada. As a member of this a co-operative marketing program, ENR is able to negotiate better market prices for scrap aluminum than independent businesses resulting in greater revenues for the BCP.	Completed but RA Network negotiated revenues will only be accessible when ENR takes ownership of the scrap.	Completed.
14	The grants and loans programs should remain in place.	Agreed. Loans agreements will stay in place but the grant program may be re-evaluated depending on depot handling fees changes.	NA	NA
15	Fully evaluate the possible benefits of using a Container Recycling Fee (CRF) setting approach.	Agree. Changes to fees will require amendments to the Regulations.	ENR is reviewing historical costs for each container category to establish CRFs.	Calculate CRFs (September 2012) Draft proposed amendments to Regulations (April 2013)
16	Examine restructuring its fee setting procedures. This review should include legislative considerations to be more flexible in setting fees.	Agreed. ENR is investigating regulatory requirements for flexible CRFs. This may involve changes to the <i>Waste Reduction and Recovery Act</i> .	In progress.	Draft proposed amendments to Regulations (April 2013) Possible changes to Act (TBD)
17	A distributor remittance audit program should be designed and implemented.	Agreed. ENR recognizes a distributor audit program needs to be designed and implemented for accountability and transparency.	In progress. ENR currently performs audits of distributors as needed. A formal audit program is being developed.	December 2012
18	Glass should be recycled rather than broken and disposed of. The environmental benefits of recycling glass should be considered, and the costs evaluated to determine if recycling this material meets BCP goals. If a CRF funding approach is adopted, costs could accrue to distributors.	Agreed. A pilot project is underway to recycle non-refillable glass. If it proves to be viable, it will become permanent. Costs associated with recycling non-refillable glass are being assessed and being considered in the overall program expense and CRF setting of these containers.	In progress. The BCP will absorb the additional transportation costs of recycling non-refillable glass until ENR can establish CRFs.	Assess pilot project viability (September 2012) Draft proposed amendments to Regulations (April 2013)