

# Beverage Container Recovery in B.C.

Brand owner responsibility increases recovery rates, reduces taxpayer subsidies

by Clarissa Morawski

Last October, the Province of British Columbia implemented the largest expansion of a deposit-return program for beverage containers in North America. After only eight months, the program has been described as "a very successful operation" by Malcolm Harvey, communications manager of Encorp Pacific Canada, a not-for-profit agency that represents over 180 brand owners of over 6,600 labels of non-alcoholic beverages.

For nearly a decade, B.C. has been a leading proponent of packaging and product stewardship through the implementation of government or industry operated recovery programs for products such as tires, lead acid and ni-cd batteries, used oil, paint, pharmaceuticals, solvents, pesticides and, most recently, a wider assortment of beverage containers.

## The regulation

In late 1997, the B.C. government announced the Beverage Container Stewardship Program Regulation (BCSPR) which expanded the existing deposit-return program to include all beverages, with the exception of milk and milk substitutes. Prior to this regulation, only soft drinks, beer, cider and coolers were on deposit.

The regulation holds brand owners responsible for setting up beverage-container return depots that are convenient for consumers in all areas of the province and to ensure their containers are either refilled or recycled. Beverage retailers are required to accept for return and refund any container type of brands that they sell. In the case of beer, wine and spirits containers, the current return-to-retail system remains in place because of its convenience and high consumer awareness.

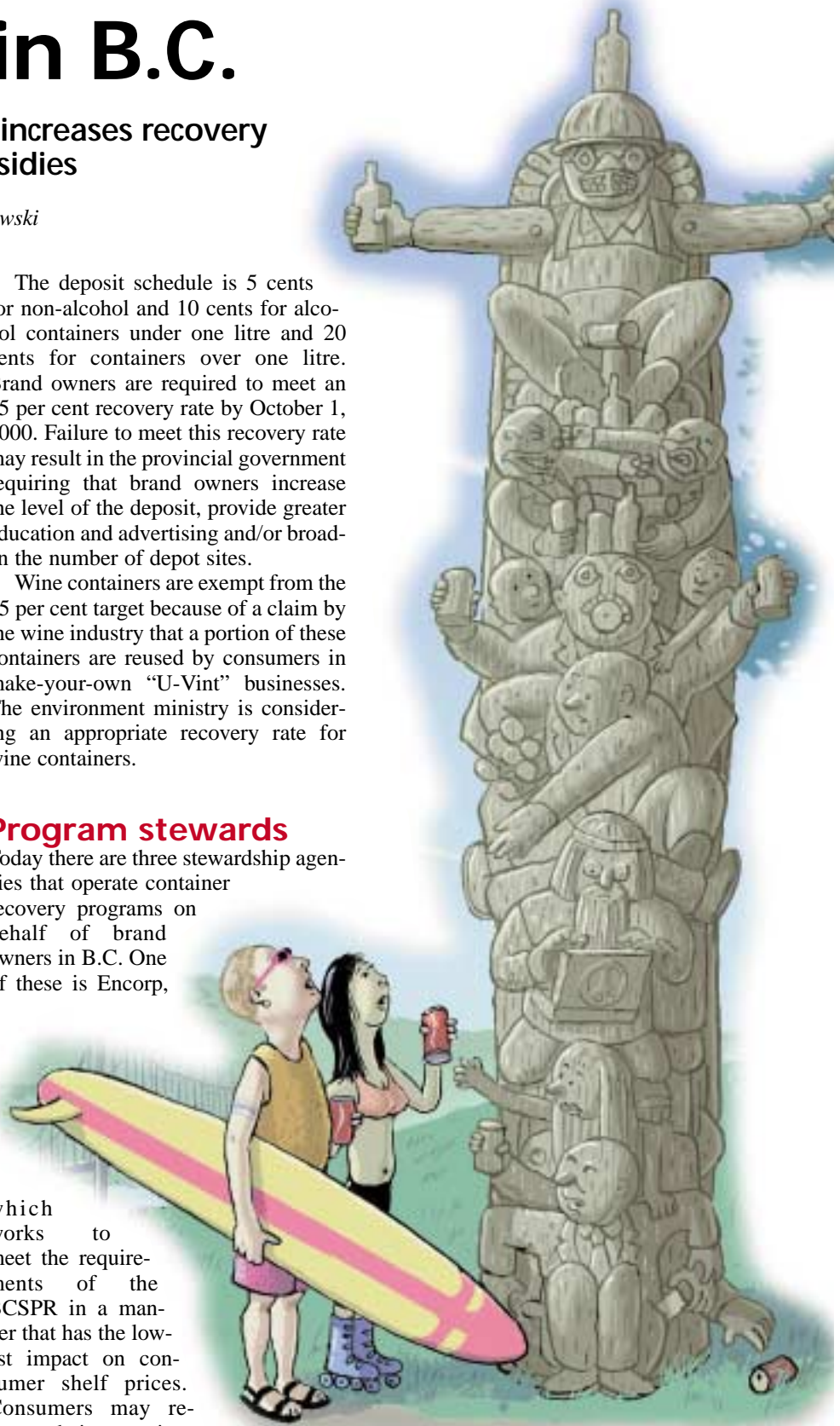
The deposit schedule is 5 cents for non-alcohol and 10 cents for alcohol containers under one litre and 20 cents for containers over one litre. Brand owners are required to meet an 85 per cent recovery rate by October 1, 2000. Failure to meet this recovery rate may result in the provincial government requiring that brand owners increase the level of the deposit, provide greater education and advertising and/or broaden the number of depot sites.

Wine containers are exempt from the 85 per cent target because of a claim by the wine industry that a portion of these containers are reused by consumers in make-your-own "U-Vint" businesses. The environment ministry is considering an appropriate recovery rate for wine containers.

## Program stewards

Today there are three stewardship agencies that operate container recovery programs on behalf of brand owners in B.C. One of these is Encorp,

which works to meet the requirements of the BCSPR in a manner that has the lowest impact on consumer shelf prices. Consumers may redeem their containers



at over 160 depots and return centres as well as thousands of retail outlets throughout the province. Encorp now handles an additional 37 per cent of the container stream since the expansion (about 185-million additional containers). In the first eight months of the expanded program, Encorp's aggregate recovery rate was 77 per cent. (The recovery rate for soft drinks prior to the expansion was 80 per cent.) It's expected that with greater awareness of the program the recovery rate will soon reach 80 per cent.

In Encorp's recovery system, each container type used by brand owners is charged the full cost of handling that packaging, with no cross-subsidization. Each year Encorp determines the net cost of managing each container type and charges back these costs as "service fees" to the brand owner. The net cost to the brand owner represents the total cost of handling their containers minus unredeemed deposits and revenues from their containers.

For example, brand-owners selling two-litre PET bottles incur a net cost of 4 cents per unit, whereas brand owners selling aluminum cans incur no net cost (because of aluminum's high value). Brand owners can choose to recoup their net costs through a separate point-of-purchase charge, a price increase, or they can cover the costs themselves. Encorp reports that most brand owners have chosen to absorb these costs. In fiscal year 1998, the average net cost per container recovered was less than half a cent per container (0.49 cents/unit). (See chart.)

A second stewardship agency is the B.C. government-owned Liquor Distribution Branch (LDB). The LDB acts as a brand owner on behalf of over 220 companies that sell wine and spirits as well as a few companies that sell coolers, cider and beer.

The Brewers Distributors Limited (BDL) is the province's third stewardship agency. It acts on behalf of 15 brand owners of coolers, cider and beer. BDL has operated an effective return-to-retail recovery service for the past 37 years and continues to achieve a recovery rate above 92 per cent for cans and 96 per cent for bottles (for a combined audited rate of 93 per cent). In addition to recovering containers returned by consumers at 223 government liquor stores, BDL recovers containers from 143 rural agency stores and 286 cold beer and wine stores and licensed establishments. There are also 28 "authorized brewers depots" where there are



Features of the Changes Recycling Centres in Vancouver, B.C.

**Top:** Main sorting area.

**Left:** The air transfer tube. Note the blue bag being transferred.

## Times, They are a Changin' B.C.'s Changes Recycling Centres

*"A new era in recycling has arrived in British Columbia — an era that promises to bring some exciting new changes."*

This was the opening line of an Earth Day press release from the Overwaitea Food Group, which operates Save-on-Foods (one of the larger grocery chains in B.C.) to launch its new "Changes Recycling Centres." Currently, four centres operate in the Greater Vancouver Regional District (GVRD) and more are planned to open before the year's end.

The fully automated centres are activated when customers return their empty beverage containers, milk jugs and other recyclables. Like something out of Star Trek, recyclables are sucked through an elaborate maze of large glass tubes to compactors at the back of the store. The material is then sent to a recovery facility where it's separated, baled and shipped to market.

Partners in the initiative include Dairyworld Foods and Lever Ponds, which both contribute service fees toward the program. The centres accept 95 per cent of Lever Ponds packaging and Dairyworld's plastic milk jugs.

"These brand owners take full life-cycle responsibility for the products they sell," says Eldon Brown, manager of operations for the Changes Recycling Centres.

While some critics say that Dairyworld's involvement is just a ploy to avoid deposits, others trust that if this voluntary initiative does not achieve high recovery rates, deposits on milk containers in B.C. will be imminent.

Asked why the Overwaitea Food Group has decided to get into the recycling business, Brown replies, "Because of deposit legislation we have been in the recycling business for 25 years. Consumers prefer to return products to where they've been purchased. What we have done at Changes Recycling Centres recognizes this fact and at the same time addresses concerns that retailers have about using their storage space as bottle depots."

## Non-Alcohol Beverage Container Recovery in British Columbia

(January 1-December 31, 1998)

Revenues	Encorp Pacific Canada	Brand Owners	Notes
Gross revenues from deposits		\$42,343,166	Branch owners collect full deposits from retailers for beverages sold.
Revenues from industry service fees	\$44,541,550		Service fees include refunds (\$33,403,875) plus the net cost of managing empty containers after material revenues have been deducted. (\$11,137,675).
Revenues from the sale of recyclable materials	\$9,322,848		
<b>TOTAL</b>	<b>\$53,864,398</b>	<b>\$42,343,166</b>	
Expenses			
Service fees		\$44,541,550	Service fees are paid to Encorp Pacific Canada.
Handling fees for deposit-bearing containers	\$13,874,177		The handling fee is about 2.6 cents per container based on a weighted-average. (2.5 cents for cans and plastic containers < 1 litre and 3 cents containers other containers)
Deposits returned to consumers	\$33,403,875		Consumers returning containers receive their full deposit back.
Transportation	\$2,356,567		
Processing	\$1,772,769		
Administration	\$2,457,010		
<b>TOTAL</b>	<b>\$53,864,398</b>	<b>\$44,541,550</b>	
Net system cost	\$ —	\$2,198,384	Net system cost is calculated by subtracting industry revenues from industry expenses. (\$44,541,550 — \$42,343,166 = \$2,198,384)
Net system cost per container recovered	0.49 cents		Net system cost per container recovered is calculated by dividing the total containers recovered by the net system cost: \$2,198,384 / 448,649,799 = \$0.0049 or 0.49 cents

*Note: All cost and revenue figures are net of GST*

The LDB was unable to provide a cost breakdown of the program; a financial analysis will be undertaken after the program has been in place for one year. Through system changes and inclusion of new containers, after a full year of operation the LDB is expected to accrue \$7.1-million in new revenues to manage about 8 to 10 per cent more containers — for a gross revenue of 13.5 cents for every new container handled. (See chart.) It will be interesting to see if the gross system costs will exceed the revenues once the financial analysis is finalized in September.

Only days before it announced the new regulation, the government agreed to give aseptic, paper-based polycoat gable-tops and flexible plastic pouch containers a one-year extension. The companies that produce these containers convinced the government they needed more time to develop markets for their recycled material. Since the exemption was granted, they've actively sourced recycling markets and expect to enter the program on October 1, 1999.

## Effect on municipalities

Prior to the expansion of the beverage container program, a number of studies by the province and local municipalities analyzed the effects such a program might have on recovery rates, public acceptance and municipal costs. The Greater Vancouver Regional District (GVRD) commissioned one study in 1991 on general waste management and, in 1995, another on attitudes and perceptions (which questioned the expansion of the deposit-return program). The studies placed public acceptance at 87 per cent and 86 per cent respectively. This reinforced the position of the Union of Municipalities of B.C., which has supported an expanded deposit-return system for more than a decade.

In 1995, the provincial government commissioned a study to determine the cost of a curbside-recycling program for all beverage containers (including soft drinks and beer) versus an expanded deposit-return program. The findings favored the expanded deposit-return program, showing a savings of \$7-million from reduced collection and litter control. Actual cost savings to municipalities have yet to be calculated, but the GVRD reports a decrease of about 25 per cent by weight in the containers collected through the curbside recycling program. Most of this avoid-

no retail outlets and/or high volumes are returned from bars and restaurants.

The LDB has successfully operated the in-store portion of the deposit-return system for the BDL for over twenty years. It decided to integrate wine and spirit containers (which represents 8 per cent of sales of the alcohol container stream) into its existing return-to-retail recovery program, rather than participate in the existing depot system. Alcohol containers can be returned to the same locations as beer, cider and coolers. In addition to these retail locations, 42 large-volume redemption centres are used as depots for licensees and as consolidation points for material. LDB management of these depots, material processing and marketing is contracted out to Wastetech Holdings Ltd., a private company.

## New glass program

Before the program expansion, LDB collected unbroken beer, cider and cooler bottles that were then picked up by the BDL and sorted offsite into three categories: refillable bottles, clear and colored glass. Color-separated cullet was recycled into new containers. Today, government liquor stores crush all the glass onsite (except for the beer industry standard and other refillable bottles) and

the resulting mixed-color cullet is sold to the fiberglass industry for significantly less revenue than before.

The Brewers estimate that, historically, about \$750,000 in revenue was generated each year from the sale of cullet and other material. Greg D'Avignon, executive director of the Western Brewers Association, says that the Brewers' offer to expand their sorting and handling operation for wine and spirit containers was given little consideration. "This occurred despite the fact that this is potentially an economically and environmentally preferable handling system," D'Avignon says.

The LDB charges brand owners service fees which, it claims, partially recover the costs associated with taking back containers. LDB collects these fees for every beverage alcohol container sold in the province, though it only handles about 46 per cent of the containers. Rural agency stores and cold beer and wine stores do not charge any service fees to brand owners.

The service fees range from one cent for a PET container under one litre to 4 cents for a glass bottle greater than one litre. Gordon Hall, manager of corporate policy and research for the LDB, says that to date brand owners have chosen to absorb these fees rather than increase the product price accordingly.

## Alcohol Beverage Container Recovery in British Columbia

(Estimates of NEW revenue for a full year of operation)

Container type	Level of deposit	*Total units sold	Recovery rates (based on 1998-99)	Units recovered	Container service & handling fees	LDB revenues from service & handling fees	LDB revenues from unredeemed deposits	LDB total NEW revenue
Non-refillable glass (beer/cider, 1 litre and below)	\$0.10	26,766,936	96%	25,696,259	\$0.02	\$535,339	LDB&BDL***	\$535,339
Non-refillable glass (beer/cider, above 1 litre)	\$0.20	826,441	96%	793,383	\$0.04	\$33,058	\$6,612	\$39,669
Non-refillable glass (wine/spirits, 1 litre and below)	\$0.10	39,975,133	55%	21,986,323	\$0.02	\$799,503	\$1,798,881	\$ 2,598,384
Non-refillable glass (wine/spirits, above 1 litre)	\$0.20	10,019,061	64%	6,412,199	\$0.04	\$400,762	\$721,372	\$1,122,135
Standard refillable glass (1 litre and below)	\$0.10	194,355,115	96%	186,580,910	\$0.0037	\$719,114	**BDL	\$719,114
Standard refillable glass (above 1 litre)	\$0.20	84,813	96%	81,420	\$0.0037	\$314	**BDL	\$314
Cans (1 litre and below)	\$0.10	381,016,506	92%	350,535,186	\$0.0039	\$1,485,964	**BDL	\$1,485,964
Cans (above 1 litre)	\$0.20	283	92%	260	\$0.0039	\$1	**BDL	\$1
PET (wine/spirits, 1 litre and below)	\$0.10	4,196,816	43%	1,804,631	\$0.01	\$41,968	\$239,219	\$281,187
PET (wine/spirits, above a litre)	\$0.20	1,069,522	78%	834,227	\$0.03	\$32,086	\$47,059	\$79,145
PET (beer/cider, 1 litre and below)	\$0.10	1,430,043	43%	614,918	\$0.01	\$14,300	\$81,512	\$95,813
PET (beer/cider, above a litre)	\$0.20	137,797	78%	107,482	\$0.03	\$4,134	\$6,063	\$10,197
Other — (wine/spirits, 1 litre and below)	\$0.10	269,782	n/a	n/a	n/a	n/a	n/a	n/a
Other — (wine/spirits, above 1 litre)	\$0.20	1,326,722	27%	358,215	n/a	n/a	\$193,701	\$193,701
<b>TOTAL</b>		<b>661,474,970</b>		<b>595,805,414</b>		<b>\$4,066,543</b>	<b>\$3,094,419</b>	<b>\$7,160,962</b>

### NOTES

Number of "NEW" containers in the system	52,917,998	Based on an LDB estimate that wine and spirits containers make up 8 per cent of liquor containers sold in B.C.
Gross revenue per "NEW" container	13.5 cents/unit	Calculated by dividing the additional or "NEW" system revenues by the "NEW" containers in the system (\$7,160,962/52,917,998 = \$0.135 or 13.5 cents)

\* "Units sold" data was provided to all suppliers of alcohol by the LDB in July, 1998; \*\* LDB does not receive unredeemed deposits for Brewers Distributors Ltd. containers; \*\*\* Both the LDB and DBL represent different brand owners of non-refillable beer/cider containers. The amount represented for each agency is unavailable for this analysis.

ed material is comprised of low-value container glass that is generally costly to recycle.

This year the expanded deposit-return program is expected to recover more than one billion containers for refill and recycling. B.C.'s coordinated effort by both government and industry serves as a useful model for encourag-

ing brand owner responsibility that efficiently increases recovery rates while reducing taxpayer subsidies. ♻️

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