

# Vermont's Bottle Bill

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# Why Now

- Bottle bill expansion considered every year
- Clean water legislation has given expansion consideration a big boost
- Many legislators in favor of an expansion
- Time to consider the impact to CSWD MRF and other pros and cons
- Alternative proposals

# VT Bottle Bill Basics

- Enacted 1972 – litter law
- Includes beer or other malt beverages, mineral waters, mixed wine drinks, soda water, carbonated soft drinks and liquor.
- Deposit – liquor \$0.15; All others \$.05
- Handling fee for redemption centers and retailers \$.04 for brand-sorted containers and \$.035 for commingled brands (approximately 50 redemption centers in VT)
- Escheats (unclaimed deposits) – Vermont distributors & bottlers historically kept. Effective October 1, 2019 will go to State Clean Water Fund.

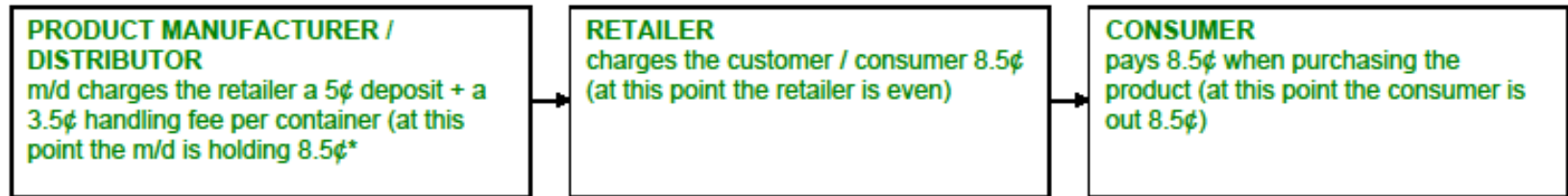
# Escheats Value

- Estimated 300 million bottle bill containers sold in the State
- Estimated 75% redemption rate

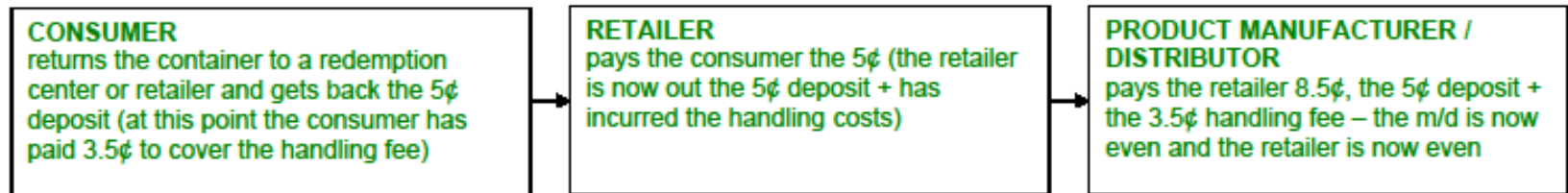
$$300,000,000 \times \$0.05 \times .25 = \$3,750,000$$

# VERMONT'S BOTTLE BILL - HOW THE MONEY FLOWS

## STEP 1: SALE OF PRODUCT



## STEP 2: RETURN OF THE CONTAINER



In summary, costs are passed on all the way through the system so that it is the consumer paying the costs associated with recycling: i.e., the handling fee.

\*Although not required by law, most beverage manufacturers/distributors pass the 3.5 cent handling fee per container onto the retailers and retailers pass it onto the consumers.

# Who Manages the Redeemed Bottle Bill Material

- Beer containers sold in bars – distributors collect at each location
- Redemption center, reverse vending machine and returned to retailer containers – the MAJORITY of the distributors contract with TOMRA who consolidates the aluminum, glass and PET containers and markets the material.
- Redeemed material does not go to our MRF

# Bottle Bill Expansion Proposals

## Beverages not covered under current bottle bill:

- Wine and hard cider
- Water, juice, sports drinks, and other non-carbonated beverages
- Dairy products exempt



# Systems Analysis of the Impact of Act 148 on Solid Waste Management In Vermont

## Final Report

Prepared for:  
Vermont Agency of Natural Resources

October 21, 2013



Prepared by:

**DSM ENVIRONMENTAL SERVICES, INC.**  
Resource Economists  
Environmental Scientists



[Link to Report](#)



# Effectiveness of the Bottle Bill

## Bottle Bill

- 75% redemption rate
- Additional unknown quantity captured in recycling system

## CSWD Mandatory Recycling

- 80% recovery rate (includes 2% from redeemed bottle bill containers)



# What is Currently Disposed? Bottle Bill and Proposed Expanded Bottle Bill Materials

## 2018 State of Vermont Waste Characterization Study

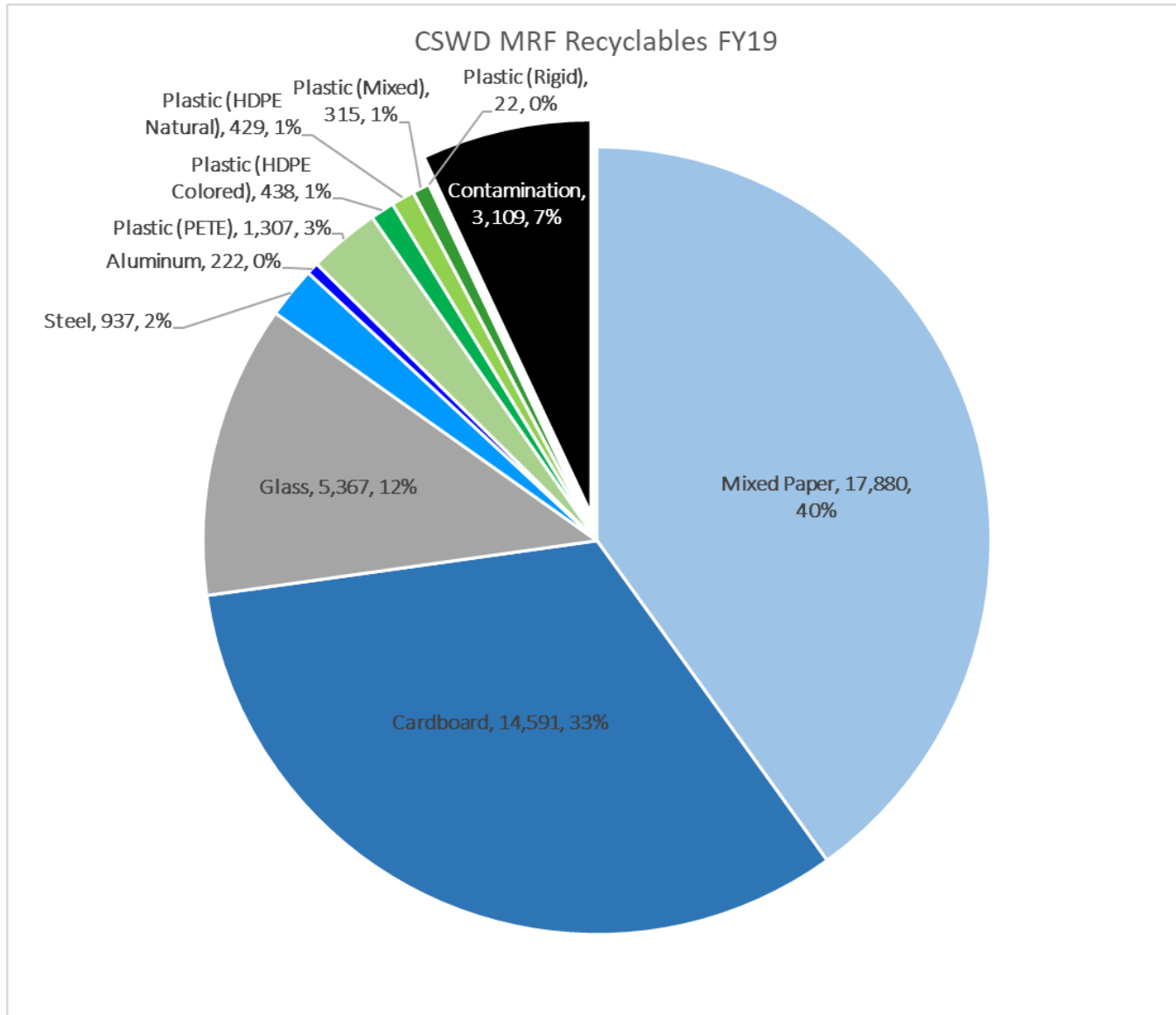
- 0.7% (3,069 tons) of landfilled material is composed of current BB material; 0.3% is aluminum and PET and 0.4% is glass
- 1.1% (5,489 tons) of landfilled material is composed of material that has been considered for a bottle bill expansion; 0.5% is aluminum and PET and 0.6% is glass

# Estimated Materials Recovery with Expanded Bottle Bill

- Estimated materials recovery with universal single stream and no bottle bill expansion = 121,800 tons
- Estimated materials recovery with universal single stream and expanded bottle bill = 124,280 tons

Increase in material recovery with expanded bottle bill = 2,480 tons

# MRF Composition



# CSWD MRF and Bottle Bill Data

	FY17-FY19 Average	FY17-FY19 Average	Bottle Bill CY 2011*
Material	CSWD MRF Tons	Revenue	Tons
Aluminum	173	\$ 224,013	2,206
PET	1,168	\$ 333,348	1,300
Glass	6,132	\$ (31,312)	14,285

\* Systems Analysis of the Impact of Act 148 on Solid Waste Management in Vermont – October 2013

# CSWD Estimated Commodity Revenue Loss from Bottle Bill

	1/2 Bottle Bill	Projected CSWD MRF Revenue
Material	returned CY 2011	Without Bottle Bill
Aluminum	1,100.0	\$ 1,424,360
PET	650.0	\$ 185,510
Glass	7,142.5	\$ (36,472)
Total		\$ 1,573,399

Projected revenue based on average value of specific commodities at CSWD MRF FY17-FY19

# CSWD Projected Revenue loss with Bottle Bill Expansion

	FY17-FY19 Average	Projected CSWD	Projected CSWD
Material	CSWD MRF Tons	Tons Lost	Revenue Loss/Savings
Aluminum*	173	26	\$ (33,602)
PET*	1,168	467	\$ (133,339)
Glass**	6,132	3,100	\$ 15,829.62
<b>Total ***</b>		<b>\$ 3,593</b>	<b>\$ (151,112)</b>

\* Projected tons lost calculated using CSWD MRF sort data 2013 & 2018

\*\* Projected tons lost calculated using Systems Analysis of the Impact of Act 148 on Solid Waste Management in Vermont October, 2013 Table 38

\*\*\* Calculated using CSWD MRF average revenue per ton FY17, FY18 and FY19

\$151,112 = approximately 6% of MRF total commodity revenue

# Bottle Bill Expansion

## Estimated Financial impact on MRF using FY19 Commodity Revenue Data

- MRF average commodity revenue (ACR) using today's market average would decrease by approximately \$5.20/ton or 11%.
- Tip fee would increase by approximately the same amount that the ACR decreases.



# Cost of the Bottle Bill System

## Systems Analysis Report Table 38 and Table 46

Table 38: Estimated tons recovered in bottle bill system = 17,800 tons

Table 46: Cost of the current bottle bill system = \$8,164,287

Cost per ton = \$459/ton

# Cost of Recycling

## Industrial/Commercial/Institutional (ICI)

TABLE 50. ESTIMATED TONS BY COLLECTION METHOD AND COST PER TON TO COLLECT ICI REFUSE AND RECYCLING BEGINNING IN 2015

TYPE OF COLLECTION	UNIVERSAL SS		SS / BB		SS / EBB		COST PER TON (1)	
	Refuse (tons)	Recycling (tons)	Refuse (tons)	Recycling (tons)	Refuse (tons)	Recycling (tons)	Refuse (\$/ton)	Recycling (tons)
Drop-off	6,200	2,000	6,200	2,000	6,200	2,000	\$93	\$110
Curbside	12,500	21,000	12,500	20,000	12,500	19,000	\$300	\$171
Containerized	104,070	35,730	107,900	32,300	106,960	29,600	\$118	\$84
Roll-offs	24,000	1,000	24,000	1,000	24,000	1,000	\$50	\$20
<b>Total:</b>	<b>146,770</b>	<b>59,730</b>	<b>150,600</b>	<b>55,300</b>	<b>149,660</b>	<b>51,600</b>		

# Pros and Cons of Expanded Bottle Bill

## Pros

- Decrease in glass managed at MRF
- Small increase in diversion

## Cons

- Increase in cost of recycling system
- Duplication of systems/ inefficiencies
- Less convenient
- More expensive

# Alternative Proposals

- Glass only bottle bill
- Extended producer responsibility (EPR) for all packaging
- Recycling fee on glass containers
- Environmental fee on all beverage containers to support clean water and glass recycling
- Other?

**Thank You!**

