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Testimony of Susan Collins, Container Recycling Institute  
in regard to H.175 An Act related to Expanding the Bottle Bill  
Vermont General Assembly  
House Committee on Natural Resources, Fish & Wildlife  
February 24, 2021

by email: Amanda Horrocks, Committee Assistant, [ahorrocks@leg.state.vt.us](mailto:ahorrocks@leg.state.vt.us)

February 25, 2021

Dear Chair Sheldon and Members of the Committee,

The Container Recycling Institute (CRI) is a national nonprofit organization and an authority on the economic and environmental impacts of beverage container recycling. We are writing **in support of H.175**, “An act relating to the beverage container redemption system,” which would update Vermont’s deposit law to include most non-carbonated beverage containers, and would raise the deposit to a dime.

**Updating the deposit law to include non-carbonated beverages (including wine) is an idea whose time has come.**

When Vermont’s bottle bill was enacted in 1972, non-carbonated single-serve beverages did not exist. But times have changed, and *non-fizzy drinks now make up exactly half of the Vermont beverage market.*

CRI has estimated that in 2018, discarded non-carbonated beverage containers (incl. wine) amounted to about 20,000 tons of glass, plastic and aluminum that must be managed via municipally-funded curbside recycling, or trash pickup and landfilling. The latter—landfilling—is much more prevalent. According to our derivations based on national recycling rates and those in the nation’s 10 states with deposit systems, the vast majority of non-carbonated beverage containers sold in Vermont (excluding liquor bottles, which have a \$0.15 deposit) are wasted: not recycled, but rather landfilled or littered. Specifically, we estimate that the national average non-deposit beverage container recycling rates are as low as 11% for glass, 13% for PET plastic, and 41% for aluminum cans. Contrast this to Vermont’s estimated *79% recycling rate for deposit bottles and cans.*<sup>1</sup>

These containers that are proposed to be added to the deposit program include approximately 167 tons of aluminum, nearly 4,600 tons of plastic, and nearly 15,000 tons of glass. The glass tonnage far outweighs the plastic and metal tonnage because wine bottles (not currently containing a deposit) are so heavy. Had those bottles and cans been redeemed and recycled through the deposit system, they would have generated approximately \$2.4 million in scrap revenues. Replacing them with new ones made from virgin materials generated 10,700 tons of greenhouse gas emissions, and other forms of pollution, resource depletion, and ecosystem damage.

Many of these wasted containers are *littered along Vermont roadways, parks, streams, beaches, and other public places*: posing both an aesthetic nuisance and a financial cost to citizens and businesses for cleanup.

For those reasons, CRI supports adding non-carbonated beverage containers to the deposit law.

**Impacts on Retailer and Redemption Centers: A program expansion in Vermont will increase containers redeemed, but the increase will likely phase in gradually over a 2-3 year period.**

Consumers will likely take some time to become accustomed to the changes in the system. When Oregon increased the deposit from a nickel to a dime, the redemption rate rose from 64% in 2016 to 71% in 2017, to

81% in 2018 and 86% in 2019. When Hawaii started its new container deposit program in 2005, redemption rates were modest in the first year, and gradually rose to a peak three years later.

Meanwhile, consumers will receive more money in refunds when they redeem more containers, and studies have shown that these consumers are likely to spend the redemption money in the store where they redeem. Some Oregon retailers have seen this as a benefit, and even encourage this behavior by offering a 20% bonus on top of the redemption value if consumers use the redemption money to shop in that store.

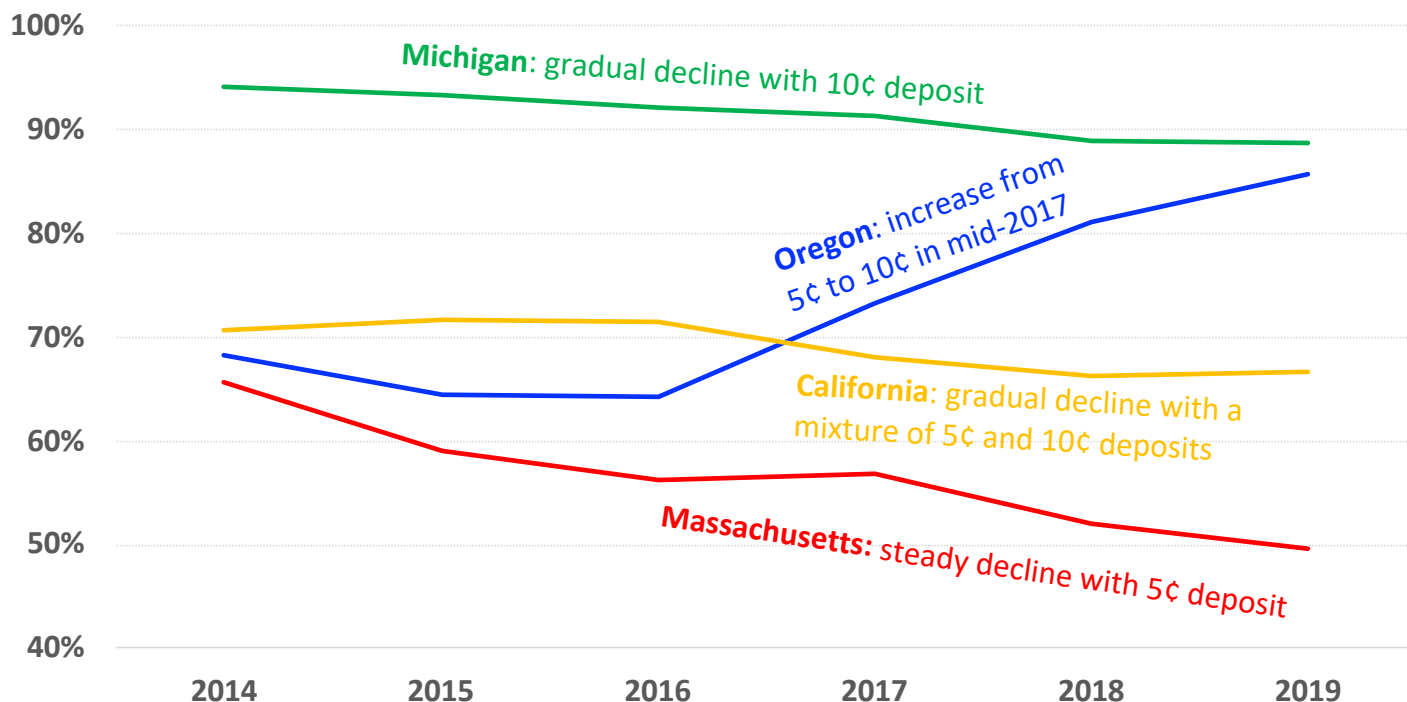
**Raising the deposit to a dime is long overdue because inflation has eroded the value of a nickel.**

When Oregon passed the country's first bottle bill in 1971, it created a 5¢ deposit system. Vermont replicated this initiative the following year. Fifty years later, this 5¢ standard is still popular in many states with deposit laws, despite the fact that *the nickel is worth less than one-sixth of what it was in 1971*. This decline in value creates an increasingly weak incentive for consumers to return recyclable containers and undermines deposit programs across the country.

As Figure 1 shows, the effect of the weak nickel is illustrated by Massachusetts' falling redemption rate, while **higher deposit values yield higher overall redemption rates**:

- Michigan's 10¢ deposit has produced the highest redemption rates in the United States: 89% in 2019, and averaging more than 95% over the last 45 years.
- Oregon's redemption rate rose from 64% in 2016—the last year with a 5¢ deposit, to 86% in 2019.

**Figure 1. Redemption rate changes in selected deposit states, 2014-2019**



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Vermont recently began tracking sales and returns for beer, soft drinks, and mineral water, and has reported an average redemption rate of 77% for the four quarters ending on 9/30/20. Redemption of liquor is even higher: 83% for FY2020, due to the 15-cent deposit on liquor bottles. These combine to produce an overall redemption rate of 77% (because liquor bottles are only 2% of deposit sales). Clearly, higher deposit values lead to higher redemption rates.

## Environmental benefits of an expanded deposit law and a 10¢ deposit

CRI estimates that adding the full complement of non-carbonated beverage to Vermont’s deposit law, and upping the deposit to a dime, would lead to recycling **an additional 270 million bottles and cans per year**: over and above what is being recycled today. The environmental benefits of doing so include avoiding the emissions of about 8,000 tons of greenhouse gases: an amount equivalent to taking more than 1,700 cars off the road for a year. More than a quarter of these gains would be realized **just by adding wine bottles** to the deposit law. Modernizing the deposit law will also reduce litter along Vermont’s streets and roadways; parks, trails, and fields; lakeshores and streams; and other public places.

## Successful modernization in North America: more beverages, higher deposit values

Vermont’s neighbors and states with similar demographics have made one or both moves with success, as Table 1 shows.

Location	Carbonated	Non-carbonated	Wine	Spirits (Liquor)	10¢ deposit adoption
California	5¢ for containers < 24 oz. 10¢ for containers ≥ 24 oz.		X	X	2007
Oregon	10¢	10¢	under discussion (b)		2017
Michigan	10¢	X	X	X	1978
Maine	5¢	5¢	15¢	15¢	X
Hawaii	5¢	5¢	X	X	X
Iowa	5¢	X	5¢	5¢	X
Vermont	5¢	X	X	15¢	X
British Columbia	10¢	10¢	10¢	10¢	2020
Alberta	10¢ for containers ≤ 1 liter • 25¢ for containers ≥ 1 liter				2008
Quebec	10¢	10¢	25¢	25¢	2022
Saskatchewan	10¢ - 40¢ based on size & container type				1992
Yukon Territories	10¢ - 35¢ based on container size & type			10¢	1992
<b>Notes:</b>					
California, Michigan, Hawaii: wine and spirits are not on deposit, but mixed wine and mixed spirits drinks (coolers) are.					
Oregon: wine and spirits are not on deposit, but hard seltzer, non-alcoholic wine, and cocktail mixers are.					
Vermont: wine is not on deposit, but mixed wine drinks are.					
Yukon Territories: 5¢ and 25¢ are returned to the consumer as a refund, respectively.					
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**New York** successfully added water bottles to their deposit system in 2009. Their redemption rate with the current nickel deposit is 64%; they, too, would benefit from a dime deposit.

**Maine** has a deposit law that covers all beverages except for milk and dairy alternatives, and has an estimated redemption rate of 84%.<sup>2</sup>

**Oregon** While Oregon's deposit law is the nation's oldest, it too suffered from the declining value of a nickel. As redemption rates began to fall in the mid-2000s, the state passed a law requiring the deposit to go to a dime if a recycling rate of 80% could not be sustained for two consecutive years. These conditions were met, so the 10¢ deposit was introduced in late 2017. 2018 also saw the expansion of the bottle bill to all non-alcoholic non-carbonated beverages. The success of these two changes is unmistakable: the overall redemption rate has risen from **64%** in 2016 to **86%** in 2019.

*"The Bottle Bill isn't just Maine's biggest recycling success story—it's a part of our culture. Many of our municipalities rely on the bottle redemption program to help them manage their municipal solid waste, and hundreds of Mainers have built their lives and businesses around the existing bottle redemption law."*

**- Natural Resources Council of Maine**

**Quebec** has had a deposit system on carbonated beverages in place since 1984, and currently enjoys a 74% return rate with mixed deposit values: most containers have a deposit value of 5¢, while it is 10¢ for refillable beer bottles, and 20¢ for larger containers (>450 ml). In late 2022, the system will be expanded to include sparkling water, juice, wine and spirits, and other non-carbonated beverages. At the same time, the deposit value will increase to 25¢ for wine and spirits bottles, and 10¢ for all other beverage containers.<sup>3</sup>

**British Columbia:** In BC's deposit program, all ready-to-serve beverages—including milk and dairy alternatives—are covered by deposits. Most containers had a 5¢ deposit until October 2020; now all beverages are subject to a 10¢ deposit. The 2018 overall redemption rates were 89% for beer and hard cider, and 81% for everything else.<sup>4</sup>

**Alberta** has one of the most modernized deposit systems in North America. Like British Columbia, it includes all sealed ready-to-serve beverages, including milk and dairy alternatives. It has a two-tier deposit value of 10¢ and 25¢ based on container size, and had an **85%** redemption rate in 2019.<sup>5</sup>

**The high quality container materials** recovered in these deposit states and provinces have strong economic markets. Because they do not pass through a MRF combined with other many other materials collected through single-stream recycling programs, they are not contaminated; they can be made into new aluminum cans, new glass bottles and fiberglass, and new plastic bottles and fiber products. They fetch a higher market price, and are not downcycled into road base, aggregate, or daily landfill cover.

We note that glass from the Northeast Kingdom Waste Management District is kept source separated, and is shipped to Quebec for use in fiberglass manufacturing.<sup>6</sup>

In fact, the Chittenden Solid Waste District's own outreach and communications director, Michele Morris, appears to be in favor of expanding the Vermont deposit law to cover wine and other containers. "[The bottle bill is] a better stream for glass. Let's get it where it has the best likelihood of having its value retained and being made back into new glass."<sup>7</sup>

**In conclusion**, the bottle bill is Vermont's most successful recycling program, and its estimated 77% redemption rate for deposit containers is among the highest in the United States. Updating Vermont's deposit law to include non-carbonated beverages, and to have a 10¢ deposit, would help secure Vermont's position as a recycling leader.

Please let me know if you have any questions about CRI's support of H.175.

Sincerely,



Susan Collins  
President, Container Recycling Institute

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<sup>1</sup> 75% recycling rate estimated for 2013-2018, derived from data provided by the Vermont Department of Liquor & Lottery, and the Vermont Department of Environmental Conservation. CRI estimates that an additional 4% of deposit beverages sold are recycled through curbside and drop-off programs.

<sup>2</sup> Letter from Newell Augur, Maine Beverage Association, to Maine State Sen. Tom Saviello and State Rep. Ralph Tucker, Jan. 18, 2018.

<sup>3</sup> "Who Pays What: an Analysis of Beverage Container Collection and Costs in Canada." CM Consulting, Nov. 2020.

<sup>4</sup> "Encorp Pacific 2018 Annual Report." Encorp Pacific, 2018; "BRCCC's 2019 Annual Report to the Ministry (covers 2018 calendar year)." BC Brewers' Recycled Container Collection Council (BRCCC), 2018.

<sup>5</sup> "Global Deposit Book 2020: An Overview of Deposit Systems for One-Way Beverage Containers." Reloop Inc. Dec. 15, 2020.

<sup>6</sup> Gokee, Amanda. "Those recycled bottles? Odds are, they will have no second act." VTdigger.org, Dec. 13, 2020.

<sup>7</sup> Gribkoff, Elizabeth. "Glass dumping violation points to poor glass recycling market." VTdigger.org, May 29, 2019.