



August 30, 2013

Bryn Oakleaf  
 State of Vermont Department of Environmental Conservation  
 Waste Management & Prevention Division  
 1 National Life Dr., Davis 1  
 Montpelier, VT 05620-3704  
[bryn.oakleaf@state.vt.us](mailto:bryn.oakleaf@state.vt.us)

Dear Bryn:

Thank you once again for the opportunity to provide comments on the Draft Report, *Systems Analysis of the Impact of Act 148 on Solid Waste Management in Vermont*, conducted by DSM Environmental Services and under review by the Agency of Natural Resources. The Container Recycling Institute commends ANR for continuing to engage stakeholders in this important process.

We are happy to see that some of our comments on DSM’s prior report were incorporated into this Draft Report, but are disappointed that many others seem to have been disregarded. We feel that there are some critical inaccuracies that remain in the Draft Report that mischaracterize the costs to the waste management and recycling system and which must be corrected in the final version of this report. In addition, some new inaccuracies have been added to the report since the last draft.

**Data on Beer and Wine Sales in Vermont from the Vermont Department of Taxes**

We had previously stated both in person at the March 14 stakeholders meeting, and again in our comment letter dated May 29, that the beer and wine data we used for our analysis are state specific. We have also recently received information on beer and wine taxes collected in 2010 by the Vermont Department of Taxes that support our data.

Beer		Wine	
Tax Dollars	Tax/Gallon	Tax Dollars	Tax/Gallon
\$ 4,360,482.28	\$ 0.265	\$ 1,383,633.60	\$ 0.55

Based on this information, as well as additional information from the Beer Institute and the Wine Institute, we have made the following calculations of the number of units taxed:

	Gallons Taxed (excl draft) <sup>1</sup>	Ounces Taxed	Units Taxed 2010	CRI Estimate Units Sold 2010, submitted to ANR on 4/5/13	DSM Units Sold 2011, provided by Northbridge Environmental
Beer (12 oz container)	14,776,276	1,891,363,328	157,613,611	158,000,000	145,472,000
Wine (28.9 oz container)	2,515,697	322,009,216	11,142,187	11,000,000	9,846,000

<sup>1</sup> Per the Beer institute, draft beer is 10.2% of total beer volume in Vermont

As you can see, the number of containers sold, based on taxes collected, closely matches CRI’s data as presented in our previous comments to the ANR, while DSM’s number, supplied by Northbridge, is 8% lower for beer and 11% lower for wine for 2011. The data provided to DSM by Northbridge has been consistently lower than CRI estimates based on regional data, in reports for Massachusetts, Rhode Island and now Vermont. The beverage distributors are assessed fees based on the amount of sales they report to Northbridge, so reporting lower sales figures would result in paying lower fees. The Northbridge survey of beverage distributors is not a financial audit, as Northbridge indicated that a review of financial statements is not part of the survey.

We maintain that similar discrepancies exist for other beverage types sold in Vermont as well; please see the significant research and data we provided to ANR on March 29, April 5 and May 29. DSM/Northbridge estimates of beverage containers actually sold in Vermont is too low, and should be adjusted upward.

We urge ANR to require DSM to revise beer and wine sales data in the final report to match the figures reported by the Vermont Department of Taxes.

### **Out-of-State Sales**

The Draft Report acknowledges that total beverage sales may be greater than originally reported in the interim report, but attributes 100% of the increase (52,258,000 containers) to out-of-state sales, primarily from New Hampshire, excluding any unredeemed deposit revenue from the cost analysis. This calculation was based on an estimate by the study authors, with no supporting data.

A statistically significant survey of over 500 Vermonters was conducted by the University of Vermont in 2011 on a proposed sugar sweetened beverage tax of one penny per ounce. That study found that “53% of border residents reported already shopping in New Hampshire” (but for grocery store shopping only). “Of the respondents who purchase sugar sweetened beverages at gas or convenience stores and do not regularly shop in New Hampshire, none said they would drive to New Hampshire to avoid a sugar sweetened beverage tax.”

Using data from the 2010 U.S. Census, 26.4% of the population of Vermont lives in the 5 counties bordering New Hampshire (though some of these residents live more than an hour’s drive away from the border). Multiplying 53% (residents shopping in NH), by 26.4% (residents in NH border counties), by 70% (upper estimate of percent of beverages purchased in grocery stores) equals a high-end estimate of 9.8% of beverages purchased in New Hampshire. This is approximately half the percentage estimated by DSM.

In addition, if cross border sales are an issue with respect to New Hampshire, then the same rationale should also apply to the Vermont/New York border for bottled water. An estimated 330,000 people live in New York counties bordering Vermont. Since bottled water is currently subject to deposit in New York, but not Vermont, there may be instances of New York residents purchasing bottled water in Vermont. However, the study authors did not include any estimate for this in their analysis. Nor did they consider redemption of Vermont water bottles in New York.

We reiterate that the sales estimates for beverages purchased in Vermont are too low. Beer and wine sales can be quickly corrected by using the data from the Vermont Department of Taxes, which is, of course, Vermont-specific data. We request that the Agency review the detailed research and data we provided in earlier comments and increase the sales data for non-carbonated beverages sold in Vermont accordingly.

### **The Impact of Beverage Container Deposit Laws on Litter**

DSM’s report maintains that there is no conclusive data which show that deposit legislation has or does not have a significant impact on roadside litter. DSM’s report also made a misleading side-by-side comparison of two litter studies where one study counted litter by item count, and the other used weight-based numbers. In an “item count” study, a cigarette butt and a glass bottle would each be counted as one item. In a “weight-based” study, it would take perhaps 100 cigarette butts to equal the weight of one glass bottle, so these two methods should not be compared side by side.

Contrary to DSM’s claim that there is no evidence of the success of container deposits in reducing beverage container litter, the evidence is overwhelming in numerous states that container deposit laws have a dramatic impact on reducing beverage container litter. DSM’s draft report in March acknowledged this and attempted to make some calculations about how many containers were picked up in Vermont as a result of the deposit law. It is worth noting here that DSM’s emphasis on roadsides may be misplaced, as litter occurs also on streetscapes, parks, streams, and other public places. Additional examples illustrate the benefits of container deposit laws on reducing beverage container litter.

In Hawaii, a new deposit return program was introduced in 2005. Hawaii's data from the International Coastal Cleanup program provides data both before and after implementation of the deposit law there. From 2004 to 2008, the number of metal cans, plastic bottles, and glass bottles in the litter stream was reduced by 65% (on a unit-count basis); the share of beverage container litter as a percent of all marine litter (by count) declined from 14.5% to 5.7% during the same time period.<sup>1</sup>

DSM's Draft Report has provided dramatically different statistics on Hawaii's program, and we assume they included many more categories of materials that aren't beverage containers to reach such high percentages. DSM also criticized the Hawaii data for having different numbers of volunteers each year, but this is of course, irrelevant, because it is the **percentages** of containers in the litter stream that are being compared. Furthermore, the Ocean Conservancy data have produced remarkably consistent data over a 25-year period.

Litter audits conducted by the Great Lakes Alliance from 2002-2013 found that the proportion of cans and bottles in Michigan's beach litter was half of those in the surrounding non-deposit states.<sup>2</sup> Michigan's results would have been even more impressive had its 10 cent deposit applied to water and other non-carbonated beverages.

A 2009 Streetscapes Litter Audit in San Francisco reported that beverage container litter comprised 3.9% of all litter counted during the audit. Audits conducted by the same consultant, using the same methodology, from 30 studies in various jurisdictions from 2002–2009 found the average share of beverage container litter to be 6.3%. They explained the lower percentage of beverage containers in San Francisco thus: "This may partially be explained by the California Redemption Value, placed upon containers in California which provides an incentive for many of these containers to be salvaged for refunds."<sup>3</sup> The report goes on to note that "in San Francisco, non California Redemption Value containers were the products observed most often, such as milk, juice and drink pouch containers." The non-deposit containers made up approximately 56% of beverage items littered, which is stunning when you realize that non-deposit containers only comprise 14% of beverages sold.<sup>4</sup> The deposit bearing containers, which are 86% of beverages sold, made up less than 2% of litter found in the audits.

According to the Keep South Australia Beautiful (KESAB) Litter Index, at just 1.9%, South Australia now has the lowest percentage of 'container deposit items' in the Australian litter stream, compared to 5% in Queensland, 6.9% in Victoria and New South Wales and 11% in Western Australia (all non-deposit states).<sup>5</sup>

The Northern Territory of Australia's Container Deposit Scheme, which was enacted in January 2012, has already shown impressive reduction in beverage container litter across a variety of sites and materials. Beverage container litter was recorded by KAB in two surveys before and one after NT CDS implementation. In May 2012 there was a 39% reduction in beverage container litter from November 2011, and a 47% reduction from May 2011.<sup>6</sup>

Furthermore, two reports authored by DSM estimated substantial savings in litter collection costs attributed to bottle bills.

---

<sup>1</sup> Department of Health *Report on the Activities of the Deposit Beverage Container Program, 2010, State of Hawaii, December 2009.*

<sup>2</sup> Great Lakes Alliance, Adopt-a-beach program, historical data.

<sup>3</sup> San Francisco Environment Department, *The City of San Francisco, Streets Litter Re-Audit 2009*, September 2009

<sup>4</sup> CRI, *2010 Beverage Market Data Analysis*, 2013

<sup>5</sup> KESAB Environmental Solutions, *Inquiry into Container Deposit Schemes*, submission to Senate Standing Committee Parliament of Australia, October 2012

<sup>6</sup> Northern Territory Container Deposit Scheme – COAG Decision Regulation Impact Statement – Standing Committee on Environment and Water, August 26, 2013

In a report titled “Analysis of Beverage Container Redemption System Options to Increase Municipal Recycling in Rhode Island,” prepared for the Rhode Island Resource Recovery Association, DSM calculated an estimated savings of \$265,500 annually in litter collection costs to the state from a container deposit law.

In DSM’s “Analysis of the Impact of an Expanded Bottle Bill on Municipal Refuse and Recycling Costs and Revenues – Final Letter Report” to MassDEP on July 21, 2009, DSM estimated annual savings to Massachusetts municipalities related to litter collection as a result of an expanded bottle bill of \$536,772.

We recommend that the Draft Report be corrected to include the savings in litter collection and abatement to the state of Vermont due to the bottle bill in the cost analysis, including adjusting older litter collection costs per ton to reflect 2013 costs, using CPI to adjust to present dollars.

In conclusion, getting these cost estimates right is critical as Vermont and the municipalities grapple with how to move forward with the new solid waste system. Inaccurate cost estimates have dramatic impacts on what states have been able to achieve in practice. For example, a report by DSM in Rhode Island estimated the MRF upgrades there at \$10 million and included recovery rates similar to those they predict for Vermont. Rhode Island has now invested over \$17 million for their MRF upgrade – a 70% increase over the estimate – and the dramatic increase in recycling has yet to materialize. In fact, the latest news from Rhode Island’s recycling sector focused on how 100% of the glass from that MRF was going straight to the landfill.

Overall, we continue to be concerned that the Draft Report disregarded important data provided by numerous industry experts on a range of issues, including contamination levels, recovery rates, the actual costs and actual recovery rates for single stream recycling, recycled material commodity values, and “special trips” costs. The beverage container deposit program is Vermont’s oldest Extended Producer Responsibility program. It is not funded by taxpayers and ratepayers, but rather by producers and consumers of packaged beverages. I urge you to ensure the Final Report incorporates the valuable and reliable data provided by a diverse range of experts.

Thank you again for the opportunity to provide our comments. Please feel free to contact me with any questions.

Sincerely,

Susan V. Collins  
President

Cc: David Mears  
Alyssa Schuren  
George Desch  
Cathy Jamieson  
Matt Chapman