

Testimony Regarding the Bottle Bill and Act 148

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My name is David Ellenbogen, I reside in Calais, VT, and serve as Vice Chair of the Vermont Sierra Club. I am here representing our Executive Committee and approximately 3000 Sierra Club members in Vermont. My background also includes 30 years as professor of mathematics, 25 years as an author of math textbooks, and a recently completed certificate of graduate study in Ecological Economics from UVM's Gund Institute.

We in the Vermont Sierra Club take the Bottle Bill very seriously. It works, and has worked since its inception. When we learned of efforts to modify the bill, we took an immediate interest. Here is a summary of our beliefs:

Regarding contraction or elimination of the bottle bill:

For at least two years we have watched industry attempt to weaken or abolish the Bottle Bill in an effort to minimize their costs and maximize their profits. It is with this in mind that we eagerly anticipated the state-sponsored DSM report. We are sad to report that this report has serious flaws. We submitted written comments to the VT Agency of Natural Resources when comments were being submitted on the draft version of the report. Sadly, only a few of those comments were taken into consideration in the final report.

Among the flaws in the DSM report is the methodology used to calculate the cost to Vermont for the current law. The estimated \$3.4 million attributed in the DSM report to consumer travel is incorrect when one considers the methodology employed to arrive at this figure. Having taught college statistics, I can assure you that selecting three non-random dates (all near Thanksgiving and Christmas) at eight non-randomly selected redemption centers, skews any results that are generated. Furthermore, when one examines the data within the study, one sees that many people prefer to make frequent trips of a short distance to redeem relatively small numbers of bottles. This is a choice, not a requirement, and it is not surprising that these people were more likely to land in the study than Vermonters who make only occasional trips.

Proper methodology would have used a randomly selected group of Vermonters and asked them by phone or in writing about their trips to the redemption centers. The many Vermonters who stockpile large amounts of returnables and make only occasional stops at redemption centers, or Vermonters who toss returnables into

their recycle bins (or trash), or who donate them to a local bottle drive, had a zero chance of being included in DSM's study. For all of the Vermonters in these groups, the cost per container is zero, since they willingly choose to forego the deposit. Those zeros would lower the average trip length significantly. Furthermore, for those who donate their deposits, a gift has been made and in economic circles gifts of this nature are considered a benefit, not a cost to the system.

Proper methodology, again, would make it equally likely for any one redemption center to end up in the sample. Yet DSM chose only redemption centers in five towns. Were they randomly selected from all redemption centers in the state? Did they include any corner variety stores that redeem bottles and cans? Or were only large redemption centers chosen and from certain geographical regions of the state? Might there be more foot traffic when returnables are brought to the corner store? Were all regions of the state fairly represented? Do the citizens in all regions display the same habits regarding redemption? DSM apparently assumes they do, but this assumption is not stated nor is it necessarily valid.

Proper methodology would also use dates that are randomly selected throughout the year. I believe that in the draft report DSM explains that the three dates chosen were not randomly selected. Did it not occur to the researchers that using three dates between December 3 and January 18 undermines the validity of their results (even if the above concerns had been properly addressed)? Might Vermonters be more prone to empty their homes of returnables after Thanksgiving and as the December holidays approach and leave? Again, there is no indication from DSM that these dates were randomly selected. Statistically, it is highly unlikely that three randomly selected dates would all fall within seven weeks of each other.

Furthermore, DSM states that when they asked survey participants "If you weren't returning containers today, would you have taken this trip?" a negative response was interpreted as a special trip to the redemption center. Yet, if a redemption center is next door to a supermarket (as it is in Montpelier), a tiny trip from the supermarket to the redemption center could easily induce a participant to say "no", since the person would not have otherwise entered the redemption center. This 'trip chaining', as transportation researchers call it, is viewed by many citizens as a series of special trips. Thus, it is hard to believe that the question's wording did not induce a number of invalid 'no' responses

DSM itself acknowledges the shortcomings in its own work when they write (italics added)

"We will use the survey results to annualize the survey participants' behavior and assume that the behavior of the survey participants is representative of consumers redeeming beverage containers in Vermont. It should be noted here that we have budgeted for one complete week of surveying, including travel time. As such *we are not representing that the data are statistically significant*. However, we have been conducting these types of surveys for the past ten years and are comfortable that the results will be a reasonably accurate portrayal ... "

We find it hard to believe that no cost has been attached to the increased litter that would result from the abolishment of the bottle bill. Not only will roadside litter increase, as people more cavalierly dispose of empty bottles and cans, but the incentive for the poorest Vermonters to collect this litter will vanish. Further, there will be increased need and cost for roadside collection if tourism -- the biggest economic driver in Vermont -- is not to suffer. Michigan, the state with the highest return rate, has the biggest (10 cent) deposit. Is there any doubt that the lowest return or recycling rate (and likely the highest litter rate) belongs to a state with no bottle bill at all? The fact that DSM chooses to assume that litter rates will remain the same under all three scenarios calls into question the objectivity with which they entered into their analysis.

Indeed, DSM states in their final report that "While deposits likely had some impact on litter when deposit legislation was first passed in most states some 30 years ago, the Project Team has found no data sets to support this conclusion today. As a result, no additional cost has been carried for additional litter collection under System 2 because it is not clear that the BB or EBB does, or will impact litter deposition in Vermont."

Interestingly, in their draft report, issued in Spring 2013, DSM reports (p.36) that

"roughly 680 tons of additional litter would need to be collected from roadsides without the existing bottle bill" and "roughly [an additional] 950 tons would be removed by an expanded bottle bill".

Using DSM's own math, the difference between an expanded bottle bill and single stream recycling without a bottle bill is about 1,630 tons of roadside litter per year. How can they claim now that the difference is zero and that the cost to the state would also be zero?

And what of the impact of increased roadside litter on tourism? Is that also zero? If nothing else, the bottle bill helps promote the notion, held by many out-of-state tourists, that Vermont is a 'green' state. Is our reputation as a 'green' state worth nothing? How would headlines read outside of Vermont if the Bottle Bill were to be weakened or abolished? Might bicycle tours steer clear of roads with more broken glass? Might our beaches near ponds and lakes see an increase in overflowing trash baskets? Wouldn't we rather see some of those plastic bottles end up in a redemption center rather than in our waters?

Finally, what of the impact on farmers? One aluminum can littered on the side of a farmer's field, accidentally shredded and baled, can kill a cow once ingested.

Vermont's dairy farmers had a hand in pushing for the original bottle bill and would benefit from an expansion that includes more containers.

There are several reasons to expand the bottle bill to include noncarbonated beverages. First, and perhaps foremost, is the need for producer responsibility in packaging. As the percentage of beverages consumed away from home continues to climb toward 50%, it is time for the producers of these beverages to take responsibility for keeping their containers out of landfills and off of our roadsides. When Vermonters consume a bottled drink away from home, there is a far greater chance that they will bring that bottle home or to a redemption center if there is a deposit attached. When a deposit does not exist, the empty container is far more likely to end up as litter or in a trashcan.

Second, the purity of the material coming out of our redemption centers allows an endless recycling loop to form. Because of contamination, single stream recycling of materials like glass and plastic result in lower grade, single use, items like landfill cover, road beds or construction material.

Third, the energy saved by recycling redeemable bottles is far greater than the energy saved by recycling bottles through single stream recycling. As mentioned above, the fact that new bottles can be made out of old bottles that have been redeemed, but not out of old bottles that went into single stream recycling, results in less virgin material being used for new bottles – a tremendous energy savings. As Vermont pushes for more renewable energy, everyone agrees that the first step to take is energy conservation. This sounds good and many view it as simply shutting off unused lights or lower one's thermostat. But energy conservation also results from reusing material, and the Bottle Bill enables us to do just that. Conserving energy also reduces greenhouse gases.

Fourth, Vermonters want an expanded Bottle Bill and will embrace it. It is not just that redeeming bottles gives Vermonters something to do – it is that redeeming bottles allows Vermonters to participate in completing the recycling loop, and that provides intellectual and emotional connection to their state and local environment. Vermonters do not 'enjoy' tossing their empty ice tea bottles in the trash when they are on the road, and an expanded bottle bill will give these Vermonters the slight push necessary to get those bottles redeemed and thus recycled. It is fairly well known that the recycling rate for redeemable bottles in Vermont and other states far outpaces the recycling rate for non-redeemable bottles.

Finally, an expanded Bottle Bill is cost effective. When cradle-to-grave costs of twin stream recycling programs are compared with those of single stream, the edge goes to twin stream – largely because citizens buy into it and do some of the work. Jobs are created, our MRF's and landfills avoid getting overloaded, our roadsides stay cleaner, and homeowners pay less for disposing of their trash and single-stream recyclables. We are approaching a day when all households pay a per pound fee for getting rid of their trash and recyclables, so putting more returnables aside not only

improves our environment, but saves us money.

In addition to expanding the Bottle Bill to include noncarbonated beverages, we encourage the state to take other action. In particular, we would like to see unclaimed deposits go toward environmental work focused on increasing recycling. There is no reason why deposits coming from the citizens of Vermont shouldn't remain in Vermont and be put to work for all citizens. We also encourage the state to include wine bottles as part of an expanded Bottle Bill. There is no reason why these bottles should be excluded from recycling. It is also worth noting that Michigan, the state with the highest return rate on redeemable bottles, uses a ten cent deposit. Vermont's five-cent deposit, from the 1970's would be equivalent to at least a 20-cent deposit today. Thus, we suggest that consideration be given to raising the deposit to a dime. And finally, we suggest that Vermont consider extending product responsibility to other items, such as tires. Instead of paying a \$3/tire disposal fee to get rid of an old tire (which encourages litterbugs to dispose of tires irresponsibly, if not illegally), a \$3 disposal fee can be built into the purchase price of tires and old tires can then be returned to any tire dealer free of charge.