



Maryland Chapter
P.O. Box 278
Riverdale, MD 20738

Committee: Education, Energy, and the Environment
Testimony on: SB 642 – “Maryland Beverage Container Recycling Refund and Litter Reduction Program”
Position: Support
Hearing Date: March 5, 2024

The Maryland Chapter of the Sierra Club strongly supports SB 642. The primary objective of this bill is to reduce beverage container litter and plastic pollution in Maryland. It would create a beverage container deposit program with a 10- or 15-cent refundable deposit on metal, glass, and plastic beverage containers. The deposit would be refunded to the customer when the beverage container is returned for recycling. By attaching value to empty beverage containers, fewer are littered and those that are littered do not remain in the environment. These programs have been shown to be highly effective in the U.S. and around the world for reducing beverage container litter and diverting containers from disposal. They also produce a number of other important benefits, highlighted below.

The problem

Beverage container litter in Maryland has reached crisis levels and is a major source of plastic pollution, posing threats to the environment and human health. About 5.2 billion beverage containers are sold in Maryland every year, but only about a quarter (1.2 billion) are recycled.¹ Four billion containers annually are wasted – left in landfills, on roadsides, in waterways, or incinerated. More than half of these wasted containers are plastic. Beverage containers, most of them plastic, account for half or more of the trash in trash traps on the Anacostia River watershed.²

Maryland’s beverage container litter problem is so severe that the Environmental Protection Agency declared the Anacostia watershed to be impaired with trash in 2010 and made the same determination in 2014 for the watershed surrounding Baltimore Harbor. Our state, home to the largest estuary in the country – the Chesapeake Bay, also has the dubious distinction of having two of the three water bodies in the country that are impaired for trash and regulated by the EPA under the Clean Water Act.

Plastic pollution from beverage containers poses a threat to wildlife and human health. The containers break into ever smaller pieces and are ingested by marine life, injuring and killing fish, seabirds, and marine mammals. Plastic particles have been found in the food we eat, the air we breathe, and in most human organs. Scientists estimate that we are ingesting up to a credit card’s worth of plastic weekly.³ The impact of plastic ingestion on human health is of great concern.

The solution

Beverage container deposit programs are a proven, highly effective policy for recovering used beverage containers and reducing litter. Ten states in the U.S., covering about 90 million people, have

¹ Container Recycling Institute (CRI). “2022 Beverage Market Data Analysis (BMDA)” for Maryland, based on 2019 data.

² Anacostia Watershed Society, Anacostia Riverkeeper.

³ Dahlberg and University of Newcastle, Australia. 2019. *No Plastic in Nature: Assessing Plastic Ingestion from Nature to People*. Commissioned by the World Wildlife Fund.

Founded in 1892, the Sierra Club is America’s oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

longstanding, successful beverage container deposit programs.⁴ Beverage container litter in those states was reduced by 70-84%.⁵ A study of coastal litter in debris surveys in Australian and U.S. states with and without container deposit legislation found that the share of containers in states with container deposit legislation was 40% lower than in states without the laws.⁶ According to a 2011 analysis of the impact of a beverage container deposit system in Maryland, "... there is little evidence that any other program, in and of itself, is nearly as effective as deposit programs at reducing litter rates."⁷

The power of a refundable deposit on consumer behavior not only reduces litter but has an enormous impact on recycling rates for beverage containers covered by these programs. Recycling rates for beverage containers in the ten deposit states in 2019 averaged 75%, ranging from 59% to 91%, compared with an estimated 23% in Maryland, with no deposit (Exhibit 1). Two states – Michigan and Oregon – have achieved recycling rates of 90% with a 10-cent deposit. Deposit beverage containers are 2-3 times more likely to be recycled than are containers not subject to a deposit (Exhibit 2). The ten deposit states represent 27% of the U.S. population but contribute 48% of U.S. beverage container recycling.⁸

The Maryland Bottle Bill (SB 642)

The Maryland Bottle Bill, which would initiate a deposit as of January 1, 2027, has benefitted from lessons learned over the past 50 years for successful beverage container deposit programs.

- It would maximize the impact on reducing beverage container litter and waste by including all beverages in metal, plastic, and glass containers⁹ and setting a deposit level that will motivate the public to change behavior: 10 cents for containers 24 fluid ounces or less and 15 cents for larger containers, up to 3 liters.
- It would require beverage producers to take responsibility for financing and implementing the program, with significant oversight from the Maryland Department of the Environment (MDE). The program would be implemented by a non-profit Beverage Container Stewardship Organization of all beverage producers selling or distributing redeemable beverage containers in the State. MDE's responsibilities include: appointing the Stewardship Organization; approving a Stewardship Plan and annual reports; and setting convenience standards and handling fees, among others. An Advisory Council of stakeholders would advise MDE on approval of the Stewardship Organization, its stewardship plan, annual reports, and program implementation and performance.
- It would create the conditions for future development and adoption of reusable/refillable beverage container systems. Ten percent of unclaimed deposits would fund a Recycling Refund Grant program, to increase the reuse and recycling of beverage containers.
- The program would pay for itself, including MDE oversight. It would be funded from registration and Stewardship Organization fees paid by beverage producers, the revenue from sale of raw materials, unclaimed deposits, and penalties paid by producers. Registration fees paid by beverage producers are set to completely cover the costs of MDE oversight and are kept in a special account in the State Recycling Trust Fund that can only be used for specific program purposes and will not revert to the General Fund.

⁴California, Connecticut, Hawaii, Iowa, Maine, Massachusetts, Michigan, New York, Oregon, Vermont.

⁵Reloop and CRI. 2021. *Fact Sheet: Deposit Return Systems Reduce Litter.* <https://www.reloopplatform.org/wp-content/uploads/2021/06/DRS-Litter-Fact-Sheet-Summary-14June2021.pdf>

⁶Schuyler, Qamar, *et al.* 2018. "Economic incentives reduce plastic inputs to the ocean," *Marine Policy* 96: 250-255. October.

⁷University of Maryland, Environmental Finance Center (EFC). 2011. "2011 Impact Analysis of a Beverage Container Deposit Program in Maryland." December 15, p. 4.

⁸CRI. "2022 Beverage Market Data Analysis (BMDA)" for Maryland, based on 2019 data. *Op.Cit.*

⁹Medical beverages and infant formula are the only excluded beverages.

A similar bill was introduced in the House in the 2023 General Assembly (HB 1089), and several features have been updated in response to feedback from stakeholders, including:

- Implementation by a single Beverage Container Stewardship Organization, rather than the potential for multiple organizations, to facilitate MDE oversight
- Extension of the preparation time for program launch by one year (from 18 to 30 months)
- Ensuring that MDE's expenditures leading up to the launch are fully covered, via reimbursements of any General Fund expenses. The program is completely self-financing.
- Clarifying the expectations for retailers and hospitality establishments (sellers of beverages consumed on premises, such as restaurants, hotels, bars, sports venues)
- Exempting small retailers with less than 3,000 square feet of sales area from having to accept most containers for redemption and refund.
- Adding a per container materials handling fee for hospitality establishments for collecting and pre-sorting empty redeemed containers to be picked up by the program for recycling.

The program's benefits

Reduction in beverage container litter and plastic pollution: The program would capture more than 3 billion additional beverage containers annually for recycling, including 2 billion plastic bottles, diverting at least 200,000 tons of plastic, aluminum, and glass containers from litter, landfills, and incinerators.

Quadrupling of Maryland's beverage container recycling rate: With a 10-cent deposit, the recycling rate for beverage containers, currently estimated at only about 23% of containers sold in the state, would nearly quadruple to more than 90%.

Increase in high quality, food-grade recycled content for new food and beverage containers: When the targets are achieved, the program would generate an additional 11,305 tons of aluminum, 44,066 tons of PET plastic, 3,207 tons of HDPE plastic, and 140,923 tons of glass to be recycled into new containers. The program would contribute to creating a circular, bottle-to-bottle economy that maximizes the reduction in waste.

Reduction in greenhouse gas emissions: By reducing the production of new cans and bottles from virgin materials, the additional recycling from the Maryland Bottle Bill would eliminate 195,000 metric tons of CO₂ equivalent, annually, the equivalent of removing the emissions of 42,000 cars from the road.

Savings for taxpayers and local governments: Beverage producers (not taxpayers) would finance the costs of collection and processing of the three-quarters of beverage containers currently being disposed or littered, as well as the collection and processing of some containers currently recycled. The program will divert materials from costly landfills and incinerators. These disposal costs are currently borne by taxpayers and local governments.¹⁰

Investments in refillable and reusable beverage container systems: Deposits are critical for development of refillable and reusable containers. The program will launch that transition, with a target of 10% of beverage containers sold in Maryland to be reusable and refillable by 2034.

¹⁰ A review of more than 30 studies of the impact of beverage container deposit programs on costs to local governments worldwide found that in the context of the overall waste management system, local governments saved costs from adoption of the deposit program. ReLoop. 2021. *Fact Sheet: Deposit Return Systems Generate Cost Savings for Municipalities*. <https://www.reloopplatform.org/wp-content/uploads/2021/05/Fact-Sheet-Economic-Savings-for-Munis-8FEB2021.pdf>

Job creation: Increased recycling generated by a deposit program would create five times as many jobs in collection, sorting, and transporting as created by garbage collection, hauling, landfilling, or incineration. The maintenance of reverse vending machines and investments in the reuse/refill systems will also create new opportunities.

Conclusion

We need to act now to pass the Maryland Bottle Bill. Maryland is facing a plastic pollution crisis that is impacting our health and the environment. Beverage container deposit programs are spreading worldwide, fueled by public concern about plastic pollution (Exhibit 3). Based on decades of experience from bottle bills in the U.S. and abroad, the SB 642 will substantially reduce beverage container litter and plastic pollution. It will also increase the quality of recycled material for closed loop recycling and provide for a transition from single-use to reusable/refillable containers. These are the unique impacts of deposit programs. In states with beverage container deposit programs, deposits coexist with curbside collection to maximize recycling by capturing containers for beverages consumed at and away from home.

The Sierra Club also supports legislation to reduce packaging, redesign hard-to-recycle packaging for recyclability, increase recycling of packaging, and make producers responsible for those outcomes. Beverage container deposit programs and producer responsibility for packaging programs complement each other. Both need to be passed. A Recycling Needs Assessment is being launched to inform future legislation on Extended Producer Responsibility for Packaging, but that study is not charged with reviewing policies to reduce beverage container litter and plastic pollution. There's no need to wait to pass the Maryland Bottle Bill, because the elements for success are already well established. Every year we wait, another 4 billion containers are left in the environment. We respectfully request a favorable report on SB 642.

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Attachments:

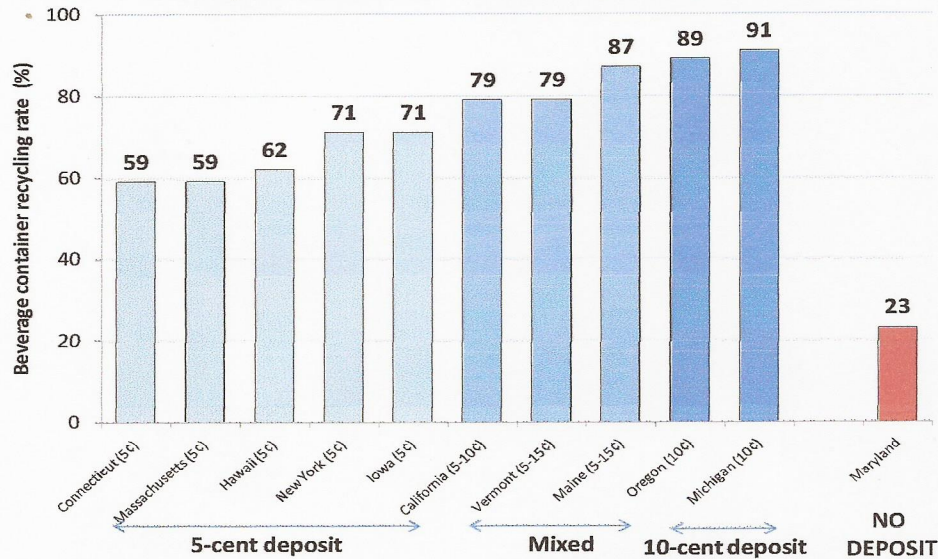
Exhibit 1 - Recycling rates in deposit states are several times higher than in Maryland and highest in states with at least a 10-cent deposit

Exhibit 2 - Recycling rates by material type in deposit and non-deposit states, 2019

Exhibit 3 - Global Growth in Container Deposit Laws, 2017-2027

Exhibit 1. Recycling rates in deposit states are several times higher than in Maryland and highest in states with at least a 10-cent deposit

Recycling rates (%) for covered beverage containers in deposit states vs. Maryland, 2019



Source: Container Recycling Institute, 2022 Beverage Market Data Analysis

Note: The statistic for Maryland is the estimated recycling rate for all beverage cans and bottles sold in the state in 2019.

Exhibit 2:

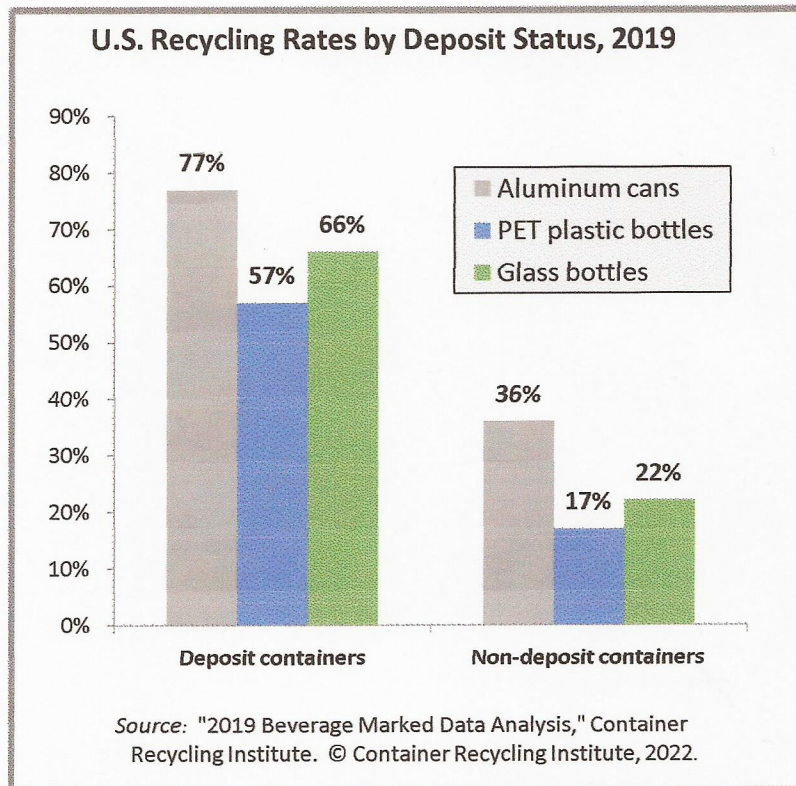
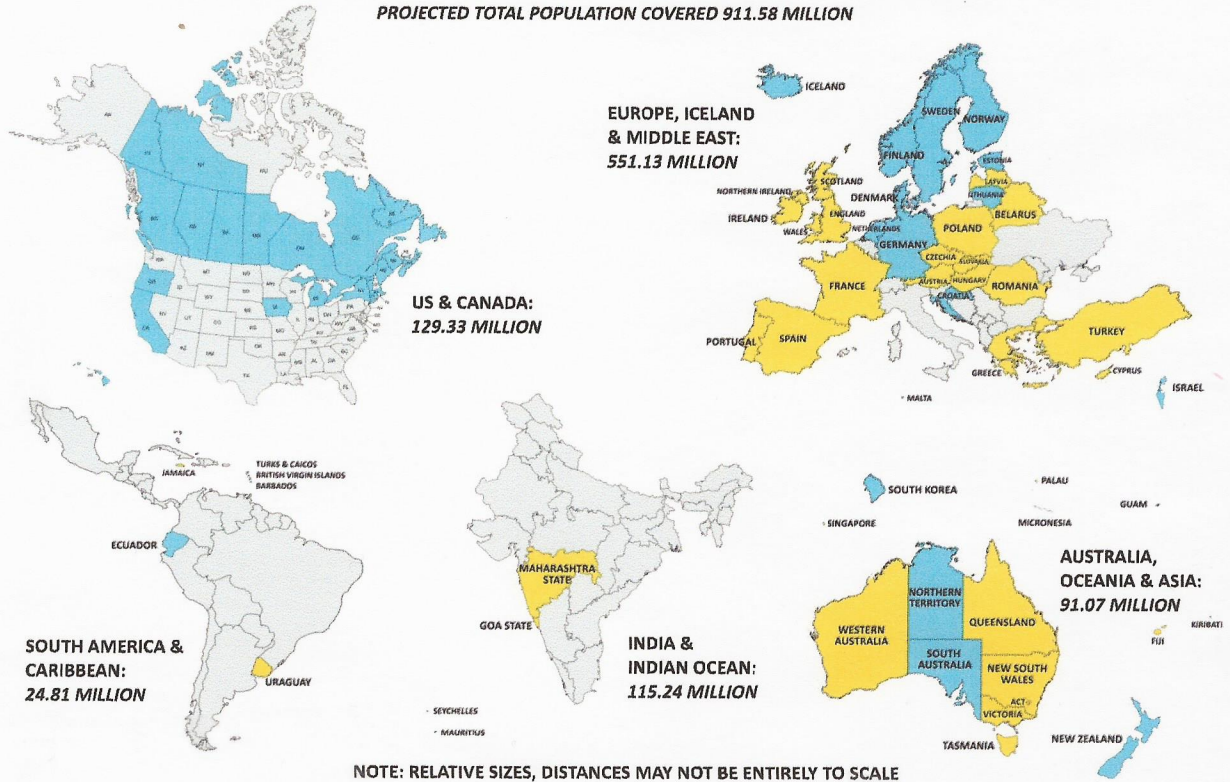


Exhibit 3:

GLOBAL GROWTH IN CONTAINER DEPOSIT LAWS 2017-2027

■ IMPLEMENTED BEFORE 2017:
 357.08 MILLION PEOPLE COVERED
 ■ IMPLEMENTED OR PENDING 2017-2027:
 554.5 MILLION PEOPLE COVERED

PROJECTED TOTAL POPULATION COVERED 911.58 MILLION



Source: Container Recycling Institute, 2024.