



**Committee: Environment and Transportation Committee**  
**Testimony on: HB0331 Maryland Beverage Container Recycling Refund and Litter Reduction Program**  
**Position: Support**  
**Hearing Date: 2/11 at 1pm**

Dear Del. Marc Korman (Chair) and Del. Michele Guyton (Vice-Chair):

Healthy Climate Maryland (HCM) is a state-wide coalition of dedicated public health and medical professionals that seeks to address climate change and environmental challenges by focusing on their impacts on public health.

Maryland Public Health Association (MdPHA) is Maryland's leading professional organization for those working in the field of public health. It is dedicated to increasing health equity for Marylanders through advocacy and community collaborations

HCM and MdPHA strongly support [HB0331](#), a bill establishing a beverage container deposit program in the State of Maryland at no added cost to the State (and with savings to waste management costs for local municipalities). Every year, over 5.5 billion beverage containers are sold in Maryland, and only 25% are recycled. As structured, the proposed program will increase the recycling rates to over 90%.

**Because most of these beverage containers are made from plastic, this bill would recapture over 2 billion plastic bottles annually that would otherwise be trashed or littered, conferring public health benefits in three ways:**

(1) By providing high-quality food-grade plastics for recycling, this bill will reduce greenhouse gas emissions and alleviate the burden of climate change-related illness.

Plastic bottles are made from fossil fuels. Due to exponential growth of plastics production, much of it in single-use plastics like beverage containers, the plastics industry accounts for a rising share of global carbon emissions (from 3.7% in 2015 to 5.3% in 2019).<sup>1-3</sup> If the plastic industry were a country, it would be the fifth most polluting country in the world. Most of the carbon emissions result from producing the building blocks needed for new ("virgin") plastics.<sup>2</sup> Increasing recycling rates of plastics can offset virgin plastic production and is therefore an important strategy for mitigating plastics-related climate impacts.<sup>3</sup> Indeed, this program would eliminate 231,707 metric tons of CO<sub>2</sub> equivalent annually, the equivalent of removing 50,371 cars from the road. Climate change-induced extreme weather events negatively impact human health. Heat waves increase the rates of heart attacks, strokes, preterm births, suicidal behavior, and interpersonal violence.<sup>4</sup> Flood kill people during the event, and survivors experience adverse

effects, including infections, respiratory problems, stillbirths, as well as anxiety, depression, and PTSD.<sup>5</sup> Additional climate change-related health concerns include the spread of mosquito- or tick-borne disease.<sup>6</sup> For example, Maryland has seen an increase in Lyme disease cases.

2) By recapturing littered and landfilled plastics, this bill will reduce environmental microplastic contamination and alleviate the burden from toxic exposures.

Littered or landfilled plastic bottles do not biodegrade. Instead, they break up into tiny fragments, called microplastics and nanoplastics (MNPs), which readily disperse in our air, water, and land and cause widespread environmental pollution.<sup>7</sup> For example, oysters harvested from the Bay contain detectable amounts of microplastics.<sup>8</sup> People then ingest or inhale MNPs through the air we breathe, the food we eat, and the water we drink.<sup>7</sup> Studies have detected MNPs in most human organs tested, including the brain, heart, lungs, intestines, testicles, and placenta.<sup>7,9-10</sup> Recent animal studies show that microplastic polymers cause inflammation in every tissue they end up in, disrupt the microbiome in the gut, and cause abnormal protein folding in the brain consistent with dementia.<sup>7,11-13</sup> This research is still being developed. However, MNPs also contain plastics-related chemicals, many of which are endocrine disruptors. Decades of animal and human studies have implicated endocrine-disrupting chemicals in obesity, type 2 diabetes, preterm birth, decreased sperm count, early puberty in females, and neurodevelopmental conditions like ADHD, autism, and IQ loss.<sup>7,11,14-16</sup> Health economists estimate the economic burden of these health issues to be substantial, costing the United States \$920.6 billion dollars in healthcare costs, disability, and premature death from just three plastics-related chemicals.<sup>7</sup> Additionally, leading cancer researchers named microplastics and related chemicals as drivers of rising cancer rates in young adults.<sup>17</sup>

3) By keeping plastic bottles out of incinerators, this bill will reduce the burden of air pollution.

Bottles that are trashed can end up incinerated. Unfortunately, when plastic bottles are burned, they release harmful air pollutants that worsen heart disease, asthma, and COPD; they also increase the risk of learning and behavioral problems in children as well as dementia in adults.<sup>18</sup> By keeping plastic bottles out of trash incinerators in Baltimore City and Montgomery County, the Bottle Bill will help improve those communities' health.

**We therefore urge you to vote in favor of the Bottle Bill because it is a net win for the health of Marylanders.**

Sincerely,

Healthy Climate Maryland  
Maryland Public Health Association

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