

TESTIMONY FOR HB0331
The Maryland Bottle Bill

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Position: **FAVOR**

I am writing to strongly support the passage of the The Maryland Bottle Bill, HB0331. My name is Dr. Jeffrey V. Johnson, and I am a Professor Emeritus of Community Health at the University of Maryland Baltimore. Previously I served on the faculty of Public Health at the Johns Hopkins University where I received my PhD in Pubic Health. There are many practical economic and environmental benefits to HB0331. By using a simple refundable 10 cent deposit this bill is likely to dramatically reduce the over 4 billion containers that are being thrown into our environment every year. This mass of plastics not only degrades our environment and our quality of life but it is also adversely impacting the health of fish, animals and even human beings living in Maryland. Plastic bottles introduced into the environment gradually break down into small particles through physical fragmentation and chemical degradation driven by sunlight and friction with other materials in the environment. Plastic particles can then be absorbed by fish and wildlife and eventually human beings as well. These particles have been found in multiple organs and tissues, including the brain, testicles, heart, stomach, lymph nodes and placenta. They are even present in breastmilk, and human semen. Research studies have shown that microplastics make fish and birds more vulnerable to infections. Microplastics have been linked to biological changes including inflammation, impaired immune systems, deteriorated tissues, altered metabolic function, abnormal organ development, and cell damage. Recent research summarized by Standford Medicine News Center (2025) indicates that exposure to microplastics may harm reproductive, circulatory, digestive and respiratory health and may be linked to heart disease as well as colon and lung cancer. The growing evidence that the plastic from discarded bottles and other sources can lead to significantly increased risk to the health of animals and human beings should give us an even more urgent incentive to pass the Maryland Bottle Bill, HB331.