



Testimony of Christopher E. Williams, President and CEO
Anacostia Watershed Society
to the
Maryland House of Delegates
Environment and Transportation Committee
on
HB 1089, the Maryland Beverage Container Recycling Refund and Litter Reduction Act
March 9, 2023

Thank you for the opportunity to provide testimony in support of House Bill 1089, the Maryland Beverage Container Recycling Refund and Litter Reduction Act. I am testifying today on behalf of the 10,000 members, supporters and volunteers of the Anacostia Watershed Society in Prince George’s and Montgomery County, Maryland and the District of Columbia. Founded in 1989, AWS is dedicated to the conservation and restoration of the Anacostia watershed for the benefit of all who live there and for future generations.

Of all the threats to river health that plague the Anacostia watershed – sewage overflows, toxic pollutants, urban run-off, sedimentation, wetlands and forest loss – the most starkly visible is trash. Particularly after a heavy rain, thousands of pounds of trash flows from streets, parking lots, and storm drains into streams across the watershed and ultimately into the river’s mainstem. Every visitor to the river has seen the result, every eddy and small inlet cluttered with food wrappers, chip bags, single use plastic cups and lids, straws, and – most ubiquitous of all – plastic beverage bottles. Of all the trash collected by AWS trash traps, which are designed to intercept trash flowing into the river, bottles and cans make up 42 percent, by volume. This trash fouls wildlife habitat, interfering with foraging, feeding, and other behaviors, and is sometimes ingested by wildlife. Moreover, the data suggest that over 70% of the pieces of trash flushed into the river will ultimately sink beneath the surface, raising troubling questions about just how much plastic waste is accumulating on the riverbed and in the water column, and how much that unseen trash is affecting the fish, wildlife and plants of the Anacostia River ecosystem.

As the plastic trash decomposes, microscopic pieces are chipped off. These microplastics persist in the environment for many years, and we are only beginning to learn about their potential negative impacts. For example, a study on the impact of microplastics on fish found damaged

digestive and reproductive systems, and an increased chance of mortality.¹ Mussels, organisms essential to the health of the Anacostia watershed, can also be highly impacted by microplastics. Several studies from other watersheds have found that mussel populations exposed to microplastics suffer from reduced reproductive success, which reduces the resiliency of the population in the face of other challenges of living in an urban river.² In other words, microplastics can have cascading effects for the organisms and populations exposed to them including, potentially, humans.

In addition, plastic bottles and other trash foul natural areas important to people. The 176 square mile Anacostia watershed is entirely urban and suburban, and many of the parks and green spaces in Prince George's and Montgomery County are along streams and creeks in the watershed. These spaces foster social interaction, exercise, play, and provide places to get away from the noise and bustle of the city. There is a growing body of evidence that access to urban green spaces is vitally important for our mental, physical, social and emotional health.³ Specific benefits include a higher reported quality of life, lower stress, better mood, and a reduction in mental distress. However, the benefits of urban green space are diminished if the green space itself is stressful or unpleasant to be in. Visible litter makes the environment less inviting, and reduces these benefits.

AWS believes that HB 1089 will significantly reduce litter and plastic pollution in the Anacostia and in all of Maryland's rivers and streams. Data from other jurisdictions that have implemented such programs are encouraging. In 6 of the 10 states with recycling/refund laws, researchers have examined the impact of the recycling/refund program on litter found on highways. These states— Iowa, Maine, Michigan, Oregon, Vermont, and New York— have seen a 40-80% decrease in container litter, which contributed to a 10-39% reduction in total litter.⁴

Data from river cleanups in Massachusetts, another recycling/refund state, suggest that their program has a substantial impact on the amount of litter in rivers, streams, and wetlands as well. In Massachusetts, only containers holding carbonated drinks (beer, malt, carbonated soft drinks) and mineral water were eligible to be returned. Beverage market share data showed that deposit eligible containers made up 76% of sales, and non-deposit eligible containers were 24% of sales. Yet data collected from river clean-ups revealed that deposit eligible containers made up only 19% of the containers collected and non-deposit containers made up 81%. The evidence strongly suggests that the incentive provided by the recycling/refund program in

¹ Buyun, Md Simul, *Effects of Microplastics on Fish and Human Health*, *Frontiers in Environmental Science*, vol. 10, March 2022

² Scherer, Christian et al, *Interactions of Microplastics with Freshwater Biota*, *The Handbook of Environmental Chemistry* vol. 58

³ Numerous studies support this conclusion. See <https://link.springer.com/article/10.1007/s10708-021-10474-7/tables/2>.

⁴ Schuyler, Qamar et al, *Economic incentives reduce plastic inputs to the ocean*, *Marine Policy*, vol. 96, pp 250-255

Massachusetts routed the bulk of eligible beverage containers to reuse and recycling, while containers with no such incentive littered the riverbanks.⁵

HB 1089 provides a significant financial incentive for individuals to dispose of reusable and recyclable beverage containers responsibly, easing the load of government workers, non-profit organizations and volunteer efforts that presently shoulder the burden for cleaning up trash in our rivers and streams. Since its inception in 1989, AWS volunteers have devoted countless hours to picking up an average of over 45 tons of trash per year, much of which are plastic, glass, and aluminum beverage containers. How much more could we accomplish if that trash went into the recycling system instead of into the streams and wetlands of the Anacostia watershed?

Thank you for the opportunity to provide testimony on this important issue.⁶

⁵ Cohen, Russ, *Worcester Earth Day Cleanup*, April 2003; Cohen, Russ, *Blackstone Valley Riverways Cleanup Day*, October 2007, Massachusetts Riverways Program. See bottlebill.org.

⁶ This testimony was co-authored by Andrew Nord, Policy Intern, Anacostia Watershed Society.