



Bill: HB 1089

Date: March 9, 2022

Position: Support

HB 1089 Environment – Maryland Beverage Container Recycling Refund and Litter Reduction Program

Chair Barve, Vice-Chair Stein and members of the Environment and Transportation Committee:

Potomac Riverkeeper Network is an organization that protects the public's right to clean water in the Potomac watershed through enforcement of federal, state, and local clean water laws. We are testifying on behalf of over 2,000 members in strong support of HB 1089, which establishes a recycling refund program to consumers for beverage containers. The bill would make a huge impact on litter in the Potomac watershed and in the state of Maryland.

Beverage containers are one of the top items we find polluted at our river cleanups. In the past two years in fact, volunteers have pulled nearly 30,000 single-use plastic bottles from the Potomac River. ¹ 100% of those bottles should have been recycled. In states with a deposit-return system for bottles, the recycling stream is cleaner and feedstock from the separated materials can be sold at a premium for that reason. Michigan, which has had a 10 cent deposit on bottles since the 1970s, boasts a 90%+ recycling rate for beverage containers, compared to around 23% in Maryland. We can do better than that, but not without a deposit-return system.

The reality is we are living with more plastic than we ever needed or wanted. Production of plastic has surged from 15 million tons in 1964 to 311 million tons in 2014.² Alarming, more than half of all plastic ever produced have been made just in the last 20 years.³ Plastic does not biodegrade. Sunlight and wave action in water can break plastic products into smaller and smaller pieces, which are referred to as microplastics. Microplastics bioaccumulate in fish tissue and have been shown to impact the health of several species.⁴ Further, certain organic chemicals and pesticides, such as

¹ See attached photo of plastic bottle litter in Prince George's County, MD.

² McKinsey, the Ellen MacArthur Foundation, and the World Economic Forum, *The new plastics economy: Rethinking the future of plastics*, available at: https://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf

³ See: <https://www.theatlantic.com/science/archive/2017/07/plastic-age/533955/>

⁴ Mak, Chu Wa, Kirsten Ching-Fong Yeung, and King Ming Chan. "Acute Toxic Effects of



chlorpyrifos and polyfluoroalkyl substances (PFAS), have a synergistic effect with microplastics and can cause higher toxic effects in organisms in comparison to isolated, individual exposure.⁵

Plastic pollution does not impact people proportionally and is an environmental justice issue. Many low-income people rely on fishing to feed their families, and fishing is an important part of many indigenous cultures. These communities face a higher potential pollution load from eating fish that have ingested microplastics.

Marylanders are increasingly concerned about the human health impacts of microplastics, which have been discovered in human lungs, blood, breastmilk, and placenta. Scientists estimate that the average human ingests a credit card's worth of microplastics each week. These tiny pieces, which shed from all of the plastic products around us into our air and drinking water, degrade the quality of our fisheries, beaches, and local economies that are dependent upon the Chesapeake Bay and Potomac River.⁶ The vast majority of microplastic pollution (upwards of 94%) that makes its way into the rivers of the Chesapeake Bay stays in and along the waters and is not exported out to the ocean.⁷ The Scientific and Technical Advisory Committee (STAC) for the Chesapeake Bay Program (CBP) determined "microplastic pollution in the bay and watershed is an urgent issue that may affect restoration success, warranting immediate action by the CBP partnership." According to the STAC report, "the Chesapeake Bay watershed contains numerous urban and suburban areas that, via storm drains, are sources of plastic waste" to the Potomac River and bay ecosystems.⁸ Many chemicals found in plastics are endocrine disruptors, which can cause an imbalance in hormones, reproductive issues, and even cancer.

It is not just the plastic trash itself that makes its way into our environment that is a problem; the extraction and transport of fossil fuel-derived chemicals used to make plastic is very energy intensive

Polyethylene Microplastic on Adult Zebrafish." *Ecotoxicology and Environmental Safety* 182 (October 30, 2019) available at: <https://doi.org/10.1016/j.ecoenv.2019.109442>. See also Miller, Michaela E., Mark Hamann, and Frederieke J. Kroon.

"Bioaccumulation and

Biomagnification of Microplastics in Marine Organisms: A Review and Meta-Analysis of Current Data." *PLOS ONE* 15, no. 10 (October 16, 2020): available at: <https://doi.org/10.1371/journal.pone.0240792>.

⁵ Campanale, Claudia, Carmine Massarelli, Ilaria Savino, Vito Locaputo, and Vito Felice Uricchio. "A Detailed Review Study on Potential Effects of Microplastics and Additives of Concern on Human Health." *International Journal of Environmental Research and Public Health* 17, no. 4 (February 2020): available at: <https://doi.org/10.3390/ijerph17041212>.

⁶ See "Human Impact" section <https://www.ncei.noaa.gov/news/ncei-releases-groundbreaking-microplastics-database>

⁷ See: <https://chesapeakebaymagazine.com/study-94-of-plastics-stay-in-the-bay/>

⁸ See: https://www.chesapeake.org/stac/wp-content/uploads/2019/10/FINAL_STAC-Report_Microplastics-1.pdf



and results in significant greenhouse gas emissions, contributing to climate change. Plastic production is predicted to release more greenhouse gas emissions than coal production in the United States by 2030.⁹ Any new plastic and petrochemical infrastructure guarantees continued emissions, contributing to climate change globally, as well as adverse health impacts in the communities where they are located, for decades to come. Plastic production was directly connected to the February 2023 ecological disaster in East Palestine, Ohio.¹⁰

The proposed program addresses the growing plastic waste problem with the seriousness it requires and puts the onus on the largest producers to fund the collection of their packaging before it becomes litter in our waterways and microplastics in our bodies. In the long run, this is what we need, and that's obvious to voters. According to a poll by Oceana, 8 in 10 registered voters are in favor of requiring companies to reduce plastic packaging and foodware, increasing the use of reusable packaging and foodware, and holding companies accountable for plastic waste.¹¹ A majority of voters—Democrats and Republicans—support reducing the production and use of single-use plastics by businesses and the government.

Potomac Riverkeeper Network testified in support of Delegate Terrasa's accompanying HB 342, which would establish a post consumer recycled content standard that reaches 50% by 2033 for beverage containers. These two systems would complement each other well and would lead to efficient recycling and less litter. People are increasingly frustrated with the fact that recycling doesn't happen the way they expect it to, and in order to deliver a system that actually works for Maryland residents, we need a statewide deposit-return program.

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⁹ See: <https://www.beyondplastics.org/press-releases/report-plastics-is-the-new-coal>

¹⁰ See: <https://www.bloomberg.com/news/articles/2023-02-14/a-39-trillion-investor-alliance-gives-warning-on-carbon-offsets?leadSource=verify%20wall>

¹¹ See: <https://usa.oceana.org/press-releases/americans-are-sick-of-single-use-plastic-pollution-poll-finds/>

