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**Testimony of MJ Gray, Policy Fellow,
DC Appleseed Center for Law and Justice**

Committee on Business and Economic Development:
Recycling Refund and Litter Reduction Amendment Act of 2025
October 1, 2025

Chairman McDuffie, thank you for the opportunity to testify today regarding the proposed Recycling Refund and Litter Reduction Amendment Act of 2025, or the “Bottle Bill.” My name is MJ Gray, and I hold a degree in environmental policy from Syracuse University. Currently, I am a Policy Fellow at the DC Appleseed Center for Law and Justice (“DC Appleseed”). DC Appleseed is a non-profit, nonpartisan organization that aims to make the District a better place to live and work. I work with DC Appleseed’s environmental and health equity teams on policy solutions that promote environmental sustainability and better health outcomes for District residents.

DC Appleseed has championed the restoration of the Anacostia River for over 20 years, and we urge this committee to report favorably on this bill that will continue the work of cleaning up the District’s waters. You heard earlier today from DC Appleseed’s Executive Director about how this bill minimizes negative impacts on the local business community. Now, I will address how this bill, which aims to keep bottles and cans out of our rivers, will protect the health of District residents and our local ecosystems.

I want to focus on two consequences of beverage containers littering the District’s waterways: microplastics that break off from plastic bottles and toxic chemicals leached from aluminum and plastic beverage container materials.

When plastic bottles wash into rivers, they break into infinitely smaller pieces of microplastic (MP) that do not decompose and are

nearly impossible to remove.¹ Exposure to water or heat accelerates this breakdown, meaning that a plastic bottle floating in a river and baking in the sun is a perfect recipe for microplastic production.² Researchers at Columbia University found that the water in one liter plastic bottles contained an average of 240,000 MP particles, a number that grows as the bottle soaks and continues to leach MPs.³ Last year, the Anacostia Riverkeeper pulled 31,100 plastic bottles from the Anacostia,⁴ bottles that could have released upwards of 3.89 billion MP particles. In 2023, the Anacostia Riverkeeper removed 95,000 plastic bottles out of the river, which potentially released nearly 12 billion MPs.⁵ These particles do not deteriorate and are not being cleaned up; instead, they spread to other waterways and into our bodies.

Birds, fish, and other organisms ingest MPs, which can be lethal to the organism as the MPs enter their bloodstream.⁶ The MPs then pass into the food chain where they bioaccumulate, ultimately impacting apex predators, like humans. Scientists increasingly detect the presence of microplastics in humans, from our hearts, lungs, and brains to even breast milk that passes the plastics onto our children.⁷ MPs themselves cause health issues, but they are especially dangerous because they absorb and carry other dangerous chemicals.⁸ MPs readily bind to toxins like pesticides, dyes, and flame retardants – chemical additives that can cause major cell stress and DNA damage in the body.⁹ One key pollutant to note is polychlorinated biphenyls (PCBs). MPs inhibit PCB biodegradation due to their easy adsorption, allowing PCBs to persist and move long distances through waterways and food chains.¹⁰ As the District government allocates millions of dollars to the Anacostia River Sediment Project which will clean up legacy PCBs, enacting the

¹ “A Guide to Plastic in the Ocean.” National Oceanic and Atmospheric Administration (20 Sept. 2018) online at oceanservice.noaa.gov/hazards/marinedebris/plastics-in-the-ocean.html

² “Study Finds Hundreds of Thousands of Plastic Particles in Bottled Water.” Plastic Pollution Coalition (4 Mar. 2024) online at www.plasticpollutioncoalition.org/blog/2024/1/10/study-finds-hundreds-of-thousands-of-plastic-particles-in-bottled-water

³ Seth Borenstein, “Scientists Find about a Quarter Million Invisible Microplastic Particles in a Liter of Bottled Water,” PBS News (8 Jan. 2024) online at www.pbs.org/newshour/science/scientists-find-about-a-quarter-million-invisible-microplastic-particles-in-a-liter-of-bottled-water

⁴ “Word on the Water 2024.” Anacostia Riverkeeper (2024) online at www.anacostiariverkeeper.org/wp-content/uploads/2024/12/2024-Year-End-Report_FINAL_reduced.pdf

⁵ “Anacostia River Trash Mitigation Report 2023.” Anacostia Riverkeeper (2023) online at www.anacostiariverkeeper.org/wp-content/uploads/2024/04/Trash-Report-2023_FINAL.pdf

⁶ Plastic Pollution Coalition, “Study finds hundreds of thousands of plastic particles in Bottled Water.”

⁷ Plastic Pollution Coalition, “Study finds hundreds of thousands of plastic particles in Bottled Water.”

⁸ National Oceanic and Atmospheric Administration, “A Guide to Plastic in the Ocean.”

⁹ Borenstein, “Scientists Find about a Quarter Million Invisible Microplastic Particles.”

¹⁰ Guangxue Xie et al., “Co-exposure of Microplastics and Polychlorinated Biphenyls Strongly Influenced the Cycling Processes of Typical Biogenic Elements in Anoxic Soil,” *Journal of Hazardous Materials*, vol. 465 (5 Mar. 2024) p. 133277, <https://doi.org/10.1016/j.jhazmat.2023.133277>

Bottle Bill can reduce the introduction of new MPs that preserve and spread the contaminants being targeted.

When bottles float in the rivers, they are not only releasing microplastics but also leaching chemicals from the container's composition. Most single use water bottles are made from polyethylene terephthalate (PET) which is known to leach at least 150 chemicals. These chemicals include heavy metals like antimony and lead, and hormone-disruptors like bisphenol A (BPA).¹¹ PET plastic leaches even higher amounts of toxic chemicals when exposed to sunlight and heat, conditions that are common in rivers. Endocrine-disrupting chemicals like BPA interfere with the body's natural hormones and have been linked to developmental, reproductive, neurological, cardiovascular, immune, and metabolic diseases.¹² Compounding the problem, microplastic further stimulate the release of endocrine disruptors once inside the human body.¹³

Aluminum cans also impact our environment and human health. BPA and PFAS chemicals are commonly used in the coatings of aluminum cans. One recent study identified 63 different endocrine-disrupting chemicals – including PFAS, parabens, and BPAs – inside beverage containers, particularly epoxy-lined aluminum and tin cans.¹⁴ If these cans end up in DC rivers, they likely will add to the chemical load already contaminating the water. Water testing has already revealed that PFAS levels in the Anacostia are up to 2,000 times higher than advisory limits,¹⁵ underscoring the urgent need for stronger regulation to prevent additional contamination. While federal agencies pull back regulations against chemicals like PFAS, it is urgent that the District government take a leadership role in ensuring the safety and quality of our waterways.

Thank you for the opportunity to provide testimony today. We all want a clean, safe, and prosperous DC, and this bill provides an opportunity to not only clean our streets, but to target the invisible pollution building up in our waters. For the health of our rivers and our people, DC Appleseed respectfully urges you to report favorably on B26-58.

¹¹ Plastic Pollution Coalition, "Study finds hundreds of thousands of plastic particles in Bottled Water."

¹² Jaye Marchiandi et al., "Exposure to Endocrine Disrupting Chemicals from Beverage Packaging Materials and Risk Assessment for Consumers," *Journal of Hazardous Materials*, vol. 465 (5 Mar. 2024) p. 133314, <https://doi.org/10.1016/j.jhazmat.2023.133314>

¹³ Sana Ullah et al., "A Review of the Endocrine Disrupting Effects of Micro and Nano Plastic and Their Associated Chemicals in Mammals," *Frontiers in Endocrinology*, vol. 13 (16 Jan. 2023) <https://doi.org/10.3389/fendo.2022.1084236>

¹⁴ Marchiandi et al., "Exposure to Endocrine Disrupting Chemicals."

¹⁵ "PFAS: "Forever Chemicals" and the Anacostia Watershed." Anacostia Riverkeeper (18 Dec. 2023) online at www.anacostiariverkeeper.org/pfas-2023/