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Joint Committee on Ending
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THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

Testimony in Support of HB 209; Plastics and Packaging Reduction Act

February 11, 2020 * Environment and Transportation & Economic Matters Committees

What this bill does

The Plastics and Packaging Reduction Act provides us an opportunity to enact legislation that benefits a variety of stakeholders: it meets the needs of businesses of many kinds, provides transparency and options for consumers, lowers costs for local governments, and cleans up our neighborhoods and waterways, including the Bay. This legislation bans stores from distributing carryout plastic bags to customers at the point of sale, and requires stores to charge at least ten cents for paper bags or other non-plastic bags provided at point-of-sale in retail establishments.

The Plastics and Packaging Reduction Act also establishes a Single-Use Products Work Group to recommend comprehensive and holistic policies for the state on reducing single-use products and evaluate the potential economic impact for low-income Marylanders.

Why this bill matters

Single use bags are everywhere: they litter our neighborhoods, streets, communities and waterways. Marylanders generate approximately 11,967,810 tons of solid waste a year, and about 13% comes from plastics, including bags.

Marylanders bear the cost of cleaning up this litter - spending millions in trash remediation and litter pick up. Enacting this ban will make Marylanders spend less on litter clean up and businesses will save the money they spend on plastic bags. Retailers will have the option of lowering prices based on savings in overhead so customers may see a reduction in the prices of products. And if consumers bring reusable bags, they will pay no additional charge, making savings even greater.

In my own district, it is impossible to escape the sight of plastic bags -- whether they are blowing down the street toward the water, stuck in trees, or floating in the Harbor. Plastic bags cannot be recycled by any municipal or county government in Maryland. They do not

biodegrade, and instead break up into microplastics and harm wildlife that accidentally ingest them. (See attached letter from UMCES.)

Other jurisdictions have passed similar laws and have already been seeing less plastic bag use and litter. Many municipalities and counties in Maryland have already taken a stand on the issue, and established their own plastic bag reduction legislation, including Baltimore City, Takoma Park, Westminster, Chestertown, and Howard and Montgomery counties. While this is great progress, it is better for consumers and businesses to have statewide policies on bag usage.

Studies have shown that plastic ban bills do not negatively impact low-income households. In fact, many large retailers such as Aldi and Save a Lot already charge fees for plastic bags and are able to charge less for products. In order to ensure protection of low-income Marylanders' needs, the Single-Use Products Working Group will be tasked with considering the economic impacts of these types of bans and make recommendations to ensure such policies protect the environment while ensuring equity.

Why should you vote for this bill

You should support the Plastics and Packaging Reduction Act because we should not allow something that is used only for a few minutes to pollute our communities, waterways, and threaten wildlife for centuries. The plastic bag production process harms people and the environment by releasing greenhouse gases, and the bags continue to harm our ecosystems, communities, and ourselves. We must take action now to end the scourge of plastic bags and dramatically reduce litter in our neighborhoods and waterways.



The Plastics and Packaging Reduction Act

HB 209 (Lierman); SB 313 (Augustine)

Every day, people across Maryland throw away tons of plastic bags, plastic packaging, and other plastic “stuff.” Plastic bags are virtually un-recyclable and do not biodegrade - they eventually break up into tiny plastic pieces easily ingested by wildlife.

Nothing we use for a few minutes should be allowed to pollute our communities and waterways and threaten wildlife for centuries. That’s why we support legislation to ban plastic bags and incentivize the use of reusable alternatives.

Wildlife at Risk

For a bird or fish or turtle, it’s easy to mistake a plastic bag or piece of plastic for food—especially when there are trillions of pieces of plastic floating in our rivers and ultimately our oceans. Plastic pollution has been found in 100% of sea turtle species.



Toxic Effects of Plastic

Plastics contain toxic chemicals including carcinogens, neurotoxins, and endocrine disruptors.

Toxic chemicals in plastic harm wildlife, and people are exposed to these chemicals through food sources and even the air. It’s estimated that people consume the equivalent of a credit card worth of plastic every week.

The Climate Crisis

99% of plastic is made from fossil fuels. Every stage in the plastic life cycle produces greenhouse gas emissions, from extraction to transport to disposal. And the World Economic Forum predicts plastic production will double in the next 20 years.

All people and wildlife benefit from public policies that limit unnecessary single-use plastics. Recycling alone won’t address the role of plastic production in the climate crisis; instead we have to focus on overall reduction.



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What the Plastics and Packaging Reduction Act does:

- Prohibits stores from distributing plastic bags to customers at the point of sale.
- Requires stores to charge at least 10 cents for paper bags provided to customers.
- Establishes a Single-Use Products Working Group to study and make recommendations regarding single-use plastic products and report its findings to the Governor and the General Assembly.

FAQs:

- **Why do we need a price floor on paper and reusable alternatives?**
 - Combining a ban on plastic bags with a price floor on paper and reusable alternatives has been proven effective as the best way to shift consumer behavior towards using reusable bags or no bags at all. Vermont, New York and California have all passed similar statewide bans. These types of bans have been effective and reduced overall use of single-use bags.
- **But, I don't want to pay for paper bags.**
 - Right now, all customers subsidize free disposable bags when they shop, regardless of if they bring their own. By requiring the fee on alternatives to plastic bags we encourage people to bring reusable bags and ensure that only those customers who use single-use bags pay for them.
- **Can't plastic bags be recycled?**
 - Plastic bags are not accepted in curbside recycling because they jam machinery and can cause costly damage. While some stores allow you to bring your plastic bags for recycling, Waste Management, Inc reports that only about 1% of bags are actually returned to stores nationally.
- **Are plastic bag bans effective?**
 - Yes. Data shows that bag bans with the fee on paper and reusable alternatives are effective in changing consumer behavior and reducing plastic bag use.
- **How will the fee affect low-income residents?**
 - For the plastic ban to achieve its goal - a reduction in plastic pollution - we need everyone to participate. Further, areas of concentrated poverty are the most impacted by pollution. Therefore, low-income residents will not be exempt from this law. However, residents can avoid any additional spending by bringing a reusable bag while shopping.
 - The Single-Use Products Working Group will be tasked with considering the economic impacts to low-income Marylanders of these types of bans and make recommendations to ensure such policies protect the environment while ensuring equity.



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Delegate Brooke Lierman
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Dear Delegate Lierman,

We are both scientists from the University of Maryland Center for Environmental Science studying plastic pollution. We would like to inform you of the current state of research regarding plastic degradation in the environment and effects of microplastics to provide background for HB209/SB313, the Plastics and Packaging Reduction Act.

Plastics and polystyrene foam represent 90% of marine debris, with single-use food and beverage containers being one of the most common items. Murphy et al. [1] report that plastic bags were the most common type of litter in the Anacostia River tributaries. Plastic bags were introduced in the 1970's and today about 500 billion plastic bags are used worldwide every day; in the USA, the consumption is about 90 billion plastic bags annually [2]. Thus, the importance of plastic bags as a major contributor to marine debris is clear. Plastic bags typically are made from one of three basic types: high-density polyethylene, low-density polyethylene, or linear low-density polyethylene, and are often single-use items with lifespans that are very short (20 minutes to one hour; [3]). After being discarded, they may gradually release toxic material and pollute surrounding environments [3].

Plastic litter items remain in the environment [4], either as whole items or as fragments. Furthermore, plastic bags have been identified as the most harmful litter items to marine biota [5] and during the degradation process, they may contaminate water bodies, soil, and plants in surrounding areas by spreading toxic metals and chemicals [3]. Plastic does not directly degrade into simple compounds; over time it is broken down mechanically and photochemically, fragmenting into smaller microscopic plastic pieces (microplastics) [6]. Microplastics are problematic because they impact wildlife in many ways and pollute drinking waters and other human consumables [7,8]. Effects on wildlife include ingestion [9], transportation of microorganisms leading to invasive species [10], disruptions in food chains, and contamination of commercial fish and shellfish [11]. There are also possible human health risks because of exposure to contaminated food and water [12]. The ingestion of microplastics can cause physical impacts but also toxic effects from chemicals added during polymer manufacturing (e.g. polybrominated diphenyl ethers (PBDEs), bisphenol A (BPA)) and from the release of persistent organic pollutants (POPs) or metals adsorbed from the environment [13-16].

Thank you for your time.

Sincerely,

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1. Murphy et al., 2019, STAC Publication Number 19-006, Edgewater, MD. 51 pp.
2. Clapp et al., 2009, *Environmental Politics*, 18:3, 315-332.
3. Alam et al., 2018, *Resources, Conservation & Recycling* 132, 121–129.
4. Thompson et al., 2005, *Science* 310, 1117.
5. Hardesty et al., 2015, *Ocean and Coastal Management*, 115, 4-9.
6. Andrady, 2011, *Marine Pollution Bulletin*, 62, 1596-1605.
7. Kosuth et al., 2018, *PLoS ONE* 13(4): e0194970.
8. Mason et al., 2018, *Frontiers in Chemistry*, 6, 407.
9. Cole et al., 2013, *Environmental Science and Technology*, 47, 6646–6655.
10. NOAA, 2017, *Report on Marine Debris as a Potential Pathway for Invasive Species*. Silver Spring, MD.
11. Rochman et al., 2015, *Nature.*, 5(14340).
12. Smith et al., 2018, *Current Environmental Health Reports*, 5, 375–386.
13. Browne et al., 2007, *Integrated Environmental Assessment and Management*, 3, 559–561.
14. Hermabessiere et al., 2017, *Chemosphere*, 182, 781-793.
15. Hartmann et al., 2017, *Integrated Environmental Assessment and Management*, 13, 488-493.
16. Barboza et al. 2018, *Marine Pollution Bulletin*, 133, 336-348.