

## TESTIMONY IN SUPPORT OF HB 209

### Plastics and Packaging Reduction Act

ENT & ECM Committees

February 11, 2020

Chairmen Barve & Davis & Members of the Committees:

**As a student of University of Maryland School of Social Work, I strongly support HB 209 as a necessary step in addressing the negative impacts of plastic pollution in the State of Maryland and our broader global community.**

**Plastic bag bans coupled with an imposed minimum sales floor on reusable bags legislation have proven effective in changing behavior of consumers across the nation and have saved municipalities money.** The City of San Jose's bag ban and 10-cent charge for paper bags resulted in an increase in the percentage of customers bringing their own reusable bags from 4% to 62%. They also saw a reduction in plastic bag pollution in storm drains by 89%, as well a reduction in downtime in municipal solid waste operations related to disruptions, clogs, or snares from plastic bags by up to 50% within a year of implementation.<sup>1</sup>

**Plastics feed climate change. Plastics contribute to greenhouse gas emissions from cradle to grave.** Climate change has detrimental impacts to the well-being of our most vulnerable populations, leaving them in increased disparate situations following the occurrence of natural disasters and needing increasing amounts of resources and services. Greenhouse gases are released during the production of plastics, including mining, transportation, refining and manufacturing. In 2014, 72 plastic manufacturing facilities in the United States emitted about 17 million tons of CO<sub>2</sub>e during plastic manufacturing, which is equivalent to the emissions of 16 coal fired power plants for one year.<sup>2</sup> In following the impacts of plastics through disposal, they then continue to contribute to greenhouse gas emissions as they enter a flawed highly-inefficient stream of recycling, harmful trash incineration and/or fill up landfills. Evidence has shown that the net emissions from plastic packing waste incineration alone were estimated to be 16 million tons in 2015.<sup>3</sup> Plastic bags are often improperly disposed of and make their way into our natural environment and waterways which has its own critical effects on the carbon sequestration of our oceans.

**We have plastics in our bodies.** Plastics are not biodegradable, nor are bioplastics. Plastics instead break up into small particles that enter our drinking water sources or our food chain

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<sup>1</sup> Memorandum from Kerrie Romanow to the Transportation and Environment Committee, City of San Jose, California, Bring Your Own Bag Ordinance Implementation Results and Actions to Reduce EPS Foam Food Ware (November 21, 2012), [http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121203/TE20121203\\_d5.pdf](http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121203/TE20121203_d5.pdf)

<sup>2</sup> Geyer, R., Jambeck, J.R., Law, K.L., 2017. Production, use, and fate of all plastics ever made. *Sci. Adv.* 3 e1700782. <https://advances.sciencemag.org/content/3/7/e1700782>.

<sup>3</sup> Royer, S.J., Ferron, S., Wilson, S.T., Karl, D.M., 2018. Production of methane and 12 M. Shen et al. / *Journal of Cleaner Production* 254 (2020) 120138 ethylene from plastic in the environment. *PLoS One* 13. <https://doi.org/10.1371/journal.pone.0200574>.

**Joanna Merry**  
*MSW Candidate*  
*University of Maryland School of Social Work*  
*SWCOS Neighborhood Fellow*

through fish, seabirds and other marine life.<sup>4</sup> In 2015, researchers at UC Davis found plastic and fibrous debris in 25% of individual fish and in 67% of all species of the fish sold in California markets.<sup>5</sup> Researchers who analyzed sea salt sold in China found between 550 and 681 microplastic particles per kilogram of sea salt pulled from various brands on supermarket shelves.<sup>6</sup> Studies completed on the impacts of micro-plastics and nano-plastics concluded that adverse effects of plastics in our bodies range from leaching of chemicals and additives into our systems, to impacts on our ability to absorb nutrients properly, to the ability that they have to be a vector for pathogens.<sup>7</sup>

**Our youth have spoken as they are rising across the globe to stand for their future.** As we operated off of calculations and warnings from climate scientists, we acted as though making hard shifts to contributing factors to climate change was a future oriented approach. Over the past several years, the impending threat of inaction against climate change has become very real, visible, and tangible in its effects. In 2019, millions of youth across the globe participated in strikes from school, calling on their legislators to act on our shared global crisis. Youth are accepting the challenge of rethinking the convenience culture that has carried us into bill hearing process today. Youth are letting it be known that they are not disposable.

For these reasons, I strongly urge the Committee to vote in favor of HB 209.  
Thank you for your time, your service, and your consideration.

Sincerely,

**Joanna Merry**

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<sup>4</sup> Miriam Gordon, Eliminating Land-Based Discharges of Marine Debris in California: A Plan of Action from the Plastic Debris Project, Cal. Coastal Com., 2006, at p.3, available at [https://www.coastal.ca.gov/publiced/coordinators/Plastic\\_Debris\\_Action\\_Plan.pdf](https://www.coastal.ca.gov/publiced/coordinators/Plastic_Debris_Action_Plan.pdf) 41

<sup>5</sup> Chelsea M. Rochman, Anthropogenic debris in seafood: Plastic debris and fibers from textiles in fish and bivalves sold for human consumption, *Nature* (Sept. 24, 2015), available at <https://www.nature.com/articles/srep14340>

<sup>6</sup> Dongqi Yang, et al., Microplastic Pollution in Table Salts from China, *Env. Sci. & Tech.* 2015, available at <https://pubs.acs.org/doi/10.1021/acs.est.5b03163>

<sup>7</sup> *Environ. Sci. Technol.* 2015, 49, 15, 8932-8947 Publication Date: July 1, 2015 <https://doi.org/10.1021/acs.est.5b01090>