

Committee Secretary  
Environment & Communications Legislation Committee  
Department of the Senate  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600  
AUSTRALIA

**SUBMISSION: Product Stewardship Amendment (Packaging and Plastics) Bill 2019**

Dear Committee Secretary

Thank you for the opportunity to provide a submission to the Product Stewardship Amendment (Packaging and Plastics) Bill 2019. The Surfrider Foundation Australia believes that the health and pollution effects of plastic packaging to be one of the most critical environmental threats facing our own personal health and well-being, our oceans, our lifestyles, and the planet. We therefore strongly encourage government policy to immediately address the numerous hazardous chemicals that are currently allowed in food and beverage packaging and come into contact with food. These chemicals can leach into food and from there into our bodies. Through this Bill we seek regulation of food contact materials for the protection of human health, an assessment of chemicals used in food and beverage packaging, effective enforcement, a clean circular economy based on non-toxic material cycles and most importantly, transparency and participation by all stakeholders<sup>1</sup>.

**Background on Surfrider Foundation Australia**

Surfrider Foundation Australia is a community of everyday people who passionately protect our oceans, waves and beaches through an activist network of over 20 branches around Australia. We are a not-for-profit organisation and part of the global Surfrider Foundation family that has over 250,000 supporters, activists and members worldwide. Since 2007, our Rise Above Plastics campaign has been raising awareness about the impacts of plastic pollution in our marine environment. In 2017, Surfrider Foundation Australia introduced the 'Ocean Friendly'<sup>2</sup> program which encourages food and beverage retailers to refuse single-use convenience items in order to prevent the plastic problem at the source. The program promotes sustainable business practice by eliminating single-use plastic packaging. Communities and businesses are ready to ditch their dependence on plastic packaging and we need strong Governmental leadership to drive this.

**Summary of Submission:**

- Why packaging must be addressed

For decades, plastics and single-use packaging have become a part of modern living and represent alternatives to other materials because of their cost, weight and functionality<sup>3</sup>. In 2017, 350 million tonnes of plastics were produced, which makes it the third most abundant human-made material after steel and concrete<sup>4</sup>. The production of plastic is growing exponentially; the plastic produced in the first ten years of this century surpassed the amount produced in the entire last century. Our society has become reliant on single-use packaging and our convenience is now becoming most inconvenient. The five ocean gyres are estimated to contain 100 million cubic litres of marine litter<sup>5</sup> and an estimated 20

<sup>1</sup> <https://chemtrust.org/wp-content/uploads/KP-sign-on-document-word-sept-19.pdf>

<sup>2</sup> [http://www.surfrider.org.au/ocean\\_friendly](http://www.surfrider.org.au/ocean_friendly)

<sup>3</sup> *Environmental and Health Risks of Microplastic Pollution*, by a Group of Chief Scientific Advisors "SAM report", 6/2019

<sup>4</sup> PlasticsEurope, 2018

<sup>5</sup> US EPA, Marine Debris in the North Pacific : A Summary of Existing Information and Identification of Data Gaps 3, 2011

million tonnes of plastic litter enter the ocean each year<sup>6</sup>. Packaging and plastics are the greatest source of marine pollution, both seen and unseen and this is why we need to take action regarding the threat it represents to both human health and marine life.

The Surfrider Foundation collects rubbish collection data and shares this information with the Australian Marine Debris Initiative. They have carried out a number of studies and samplings over a broad geographical range around Australian coastlines and found concentrations as high as 6000 nurdles per square metre of beach. Such plastic particles are particularly prevalent in urban beach and waterway areas<sup>7</sup>.

- Harm to marine life

Plastic litter is particularly hazardous to the marine environment because plastics are durable, buoyant, waterproof, indigestible and non-biodegradable. Plastics and landfilled packaging can starve, poison and strangle marine life through ingestion and entanglement. Animals at all levels of the food chain consume plastic. More than 90% of all marine birds and fishes have plastic particles in their stomach<sup>8</sup>.

This pollution does not only harm marine ecosystems: plastic packaging is primarily landfilled, recycled or incinerated – each of which produces greenhouse gas emissions<sup>9</sup>. When plastics are incinerated they release dioxins that are of concern<sup>10</sup>. Plastics break up, they do not break down and there is considerable production of greenhouse gases through the photodegradation of plastics<sup>11</sup>. In the end, the environmental cost of single-use plastic and packaging is even greater than what is immediately evident. The plastic then becomes brittle and breaks into smaller pieces. This process can take longer on the seafloor because of the lack of sunlight and oxygen, and cooler temperatures. When the plastic fragments over time, microplastics result. Microplastics make up as much as 85% of plastic pollution found on shorelines around the world.

- Toxicity

The American Academy of Pediatrics released a statement in July 2018 warning against the effects of exposure to toxic chemicals via food for children's health<sup>12</sup>. Some plastics are toxic because they are made up of hazardous substances like the prominent endocrine disrupting chemicals (EDC), Bisphenol A (BPA, CAS 80-05-7) and plastic particles in the ocean absorb persistent organic pollutants (POPs). More alarmingly, there is the connection between endocrine disrupting chemicals (EDCs) and the impacts on organisms such as infertility, obesity, and hormone-related cancers. The World Health Organisation (WHO) EDC report of 2012 found that "ED is a global public health threat". Microplastics in the ocean are ingested by marine organisms such as daphnia (small planktonic crustaceans 0.2–5 millimetres in length), fish, and seabirds. Toxic chemicals such as Polychlorinated Biphenyls (PCBs) are attracted to, and accumulate on marine plastic and microplastic particles. Concentrations of the pesticide DDT, polycyclic aromatic hydrocarbons (PAHs) and other persistent organic pollutants and pesticides have been found on samples of plastic litter<sup>13</sup>. It is reasonable to assume that these toxic chemicals have found their way to the coastline of Australia.

Plastics and microplastics cause long term pollution. Once an animal dies, its body will decompose and release the plastic again to harm and kill other animals. Pollutants added to some plastics at the time of manufacturing, including Bisphenol A (BPA) and phthalates are capable of being transferred to wildlife through ingestion. Their chemical additives and the toxins that accumulate on them may impact the entire food chain through animal ingestion of micro plastics<sup>14</sup>. The result is the growing presence in the human body of toxic chemicals<sup>15</sup>.

<sup>6</sup> Raveender Vannela, *Are We 'Digging Our Own Grave' Under the Oceans ? Biosphere Level Effects and Global Policy, Challenge from Plastic(s) in Oceans*, *Envntl Sci and Tech* 7932, 2012

<sup>7</sup> Australian Marine Debris Initiative, *Tangaroa Blue* (website), 2019

<sup>8</sup> Product Stewardship Amendment (Packaging and Plastics) Bill 2019

<sup>9</sup> *Plastic and health – The hidden cost of a plastic planet* report, Center for International Environmental Law (CIEL), 2019

<sup>10</sup> <https://www.aappublications.org/content/142/2/e20181408>

<sup>11</sup> Sarah-Jeanne Royer et al., *Production of Methane and Ethylene from Plastic in the Environment*, 13(8) *Plos one*, 2018

<sup>12</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6069052/>

<sup>13</sup> <https://www.foodpackagingforum.org/news/chemicals-leach-from-microplastics-into-fish>

<sup>14</sup> <https://ntn.org.au/wp-content/uploads/2016/05/NTN-Contaminants-in-Marine-Plastics-Report-April-2016-1-1.pdf>

<sup>15</sup> CommonSeas, *We eat and breath plastic. How does it affect our health ?*, John Vidal and Jo Royle, from the Plastic Health Coalition, 2019

Our government cannot remain ignorant to the obvious toxicity of plastic packaging once it enters the waste stream. Recent studies have shown that the toxicity of plastic packaging is apparent even whilst it is in transit from the production line to the supermarket shelves<sup>16</sup>. There is a growing anxiety facing waste, public health and well-being, particularly amongst the ensuing generations who will inherit the problem. Education will be required to adapt to living without the convenience of plastic for the sake of human health and well-being; as well as the obvious environmental health improvements of the planet once we decrease our dependence upon unnecessary single-use packaging.

- Public health concerns

Human health is deeply threatened when microplastics enter the body (via inhalation, food ingestion or through the skin). We are exposed to hundreds of additives: hormone disruptors (BPA, BPF, brominated flame) that have harmful effects on our health, especially for children that are still in developmental stages<sup>17</sup>. The toxic chemicals in plastics can enter the body via skin absorption and more alarmingly can harm the health of future generations through intergenerational endocrine disruption<sup>18</sup>. We find a huge amount of microplastics in many species of seafood, as well as in sea salt and drinks. For instance, shellfish lovers are eating up to 11,000 plastic fragments in their seafood each year<sup>19</sup>. These chemical components cause disruption in fertility cycles, delayed neurodevelopment in children, immune disorders, and high risks of hormone-related cancers. These endocrine disrupting chemicals (EDC's) were found in breastmilk, making new-born babies extra vulnerable<sup>20</sup>.

Hazardous chemicals are present in plastics and other materials that come into contact with food such as packaging. The Danish Consumer Council project "THINK Chemicals" showed that chemicals can migrate from the plastic walls of containers into warm fatty foods, such as gravy or lasagna. Other packaging items (not plastic) but which are of concern are pizza boxes made from recycled paper. A recent testing of international brand pizza boxes by the Danish Consumer Council found fluorinated chemicals, phthalates, bisphenol A and nonylphenol in pizza boxes as well as the carcinogenic dyes used in the colourful print and packaging of coffee cups, paper straws and lolly bags which can migrate to the food<sup>21</sup>. If we eliminate these toxins in food packaging then there is less chance of them reaching marine environments. At least 63 substances that are used in plastic packaging are toxic for health<sup>22</sup>. These chemicals include bisphenols, phthalates, pesticides, perfluoroalkyl chemicals (PFCs), perchlorate. Some government are taking this seriously and so should our Australian Government. The US National Toxicology Programme (NTP) says it has "some concern" for BPA's effects on the brain, behavior, and prostate gland in fetuses, infants and children<sup>23</sup>. BPA (Bisphenol A) is used to make water bottles, coat the inside of food tins, bottle tops, food trays and water pipes<sup>24</sup>.

- Visual amenity / Economic losses

Plastic products (including packaging), microplastics and cigarette butts are the most common items found in our beach cleans-ups. The visual amenity caused by landfilled packaging is huge, and as much waste ends up being dumped into the oceans, the tides always bring more rubbish back to our shores. Up to 40,000 pieces of plastic are estimated to float in every square kilometer of ocean. Over 75% of what is removed from our beaches is made of plastic<sup>25</sup>.

Plastic pollution is one of the biggest threats to the environmental beauty of our Australian coastlines, which is why we identify the decrease of economic value from polluted beaches in touristic areas. The plastic lifecycle is itself a major cause of pollution, from the production to the end-of-life of the products<sup>26</sup>. Single-use plastic products should all be banned *immediately* from an environmental, economic and health point of view. Not only do these items accumulate in our landfill and on the seabed, they spell environmental disaster for flora and fauna, and have zero future economic and health benefits for humanity.

<sup>16</sup> <https://www.foodpackagingforum.org/news/plastic-health-summit-conference>

<sup>17</sup> Plastic Soup Foundation (website), 2019

<sup>18</sup> <https://www.youtube.com/watch?v=OifnPOAoLLw>

<sup>19</sup> Yang, D., et al.. (2015). Microplastic pollution in table salts from China. *Environmental science & technology*, 49(22)

<sup>20</sup> Plastic Soup Foundation (website), 2019

<sup>21</sup> <http://kemi.taenk.dk/bliv-groennere/test-chemicals-plastic-food-containers-migrate-warm-fatty-foods>

<sup>22</sup> Health and Environment Alliance 'HEAL', may 2019

<sup>23</sup> National institute of Environmental Health Sciences (NIH), 2018

<sup>24</sup> CommonSeas, *We eat and breath plastic. How does it affect our health ?*, John Vidal & Jo Royle, Plastic Health Coalition, 2019

<sup>25</sup> Australian Marine Debris Initiative (website), 2019

<sup>26</sup> In 2019, the production and incineration of plastic will produce more than 850 million metric tons of greenhouse gases—equal to the emissions from 189 five-hundred megawatt coal power plants.

### Support and additions for the Bill's amendments:

- Targets

**Regarding Division 2 40B (2):** there is NO provision about reusable packaging and NO targets in the Bill. The targets set in the Product Stewardship Amendment identifies the collective amount of reusable, recyclable or compostable packaging targets by 2025, however there is no specific provision identifying reusable plastic packaging nor targets.

The Explanatory Memo (on page 4) refers to industry responsibility but makes no reference to requirements for reusable packaging. If the target is for 70% to be recyclable or compostable by 2025, it is therefore reasonable to require a target for reusable packaging as a minimum at 30% by the same date. The Surfrider Foundation prefers packaging to be REUSABLE and COMPOSTABLE in the first instances (then finally recyclable) as the plastic lifecycle produces greenhouse effects at every stage of its transformation. At the very least we want the same provision for reusable packaging, as is specified for recyclable and compostable packaging in the Bill. Our preference is for better producer design so that we are not reliant upon single-use plastics for packaging, as plastics have a negative impact on human health, flora and fauna.

**Regarding Schedule 1 Division 2 40B (2) (e):** This refers to the phasing out of “problematic and unnecessary plastic packaging” but fails to include a target date and figure; this should be more specific or else we end up with a voluntary phase out which is too weak. We want the target figures and dates to be consistent with the rest of the Bill, and in line with current global trends and research.

**Regarding 40D (page 7):** these provisions are to be made by Regulations which are usually made AFTER the Bill is passed. There are no specific obligations in relation to REUSABLE packaging noted, and we feel that this will take responsibilities away from manufacturers to produce reusable products and/or compostable packaging. Our first preference is for REUSE, and then recycle (if there are no other options available).

**Regarding 40D (2) (e):** requires the making of scheme return payments. This is defined in sub section (4) but appears to refer to a deposit scheme *rather than ANY RESPONSIBILITY on the Manufacturer to produce REUSABLE products*. We want the Manufacturer to be accountable for designing REUSABLE packaging rather than ‘recyclable’ packaging which puts a burden on the environment. Also, recycling is finite and eventually the offensive plastic packaging makes its way back into the environment. We need manufacturers to be held accountable for all stages of their product’s life. You make it – you take it back!

**Regarding 40D (2) (f):** more specific provisions are required to ensure responsibility and targets for REUSABLE packaging form a key part of the scheme. This proposes a reduction by 25% from level of consumption in 2019. How will that be measured and why only 25% when alternatives are already available?

- Deposit Schemes

Australia has set a target of 80% recycling of all beverage containers by 2025. To achieve this, we want to add:

- 1) attach container caps and lids to beverage containers by 2023;
- 2) introduce a National Container Deposit Scheme at 20 cents per container by 2021;
- 3) standardise state-based container deposit schemes;
- 4) *utilise materials for beverage packaging that are not finite in their recycling capabilities*
- 5) ensure that financial contributions towards the cost of disposing of and cleaning up are included in budgets, and most importantly - public awareness campaigns.

### Division 5 – Prohibition of certain plastics (page 14)

**40M (1):** our concern is that section 40M (1) does not cover the thinner produce bags currently provided in most fruit & vegetable, meat & deli departments in supermarkets, green-grocer shops and butchers.

**40M (4) (a) and (b):** further defines from 1 January 2023, prohibited plastic to cover food or beverage container. We propose this be brought forward to include the prohibited plastics in 40M (1) and be amended to read *lightweight carrier bag with or without handles* to cover those thinner lightweight produce bags used in supermarkets, delis and butchers; we would like this to take effect from 1 January 2021.

- Product bans

The Surfrider Foundation seeks to ban ALL plastic packaging products where there is an existing and reusable alternative. We seek to ban all problematic plastic packaging as a matter of urgency.

- Design requirements

Whilst plastic has many excellent applications and uses – food and beverage containers have been proven to be toxic. Plastic is a design failure. We should be utilising reusable and naturally compatible alternatives whenever possible.

- Labelling

Product labels should be easy to read and not in scientific jargon or be microscopic in size. Citizens lack knowledge of the dangers of plastics in packaging, therefore monies should be spent on campaigns to educate the wider community.

- Financial contributions & monitoring

**Division 7 – Financial contribution requirements** (page 19)

**40U (1)** is very weak and only specifies that the regulations MAY require ...a covered person...to make a financial contribution of a specified amount etc... We feel this is too 'soft' and will enable powerful industry to manipulate and interpret laws to their commercial advantage, which disadvantages the environment.

**40V** addresses breaches of financial contribution requirements but the preceding section has **no legs** as it is all based on the Regulations which have yet to be drafted.

The Government must not relent to the power of the plastics industry through lobbying, greenwashing, and misleading the government and consumers with 'sustainable' facades and campaigns.

**Conclusion:**

Society has become addicted to the convenience of plastic. Plastics are destroying our natural environment and proving toxic to human health. This Bill allows the Government to address policies offering alternatives to plastic that compliment and are compatible with nature. Plastic is a design failure. We ask that the Government adopt a 'You make it – you take it back' stance where the manufacturer is responsible for the product right from its inception through to its end of life. Our Government must set strict policies to eliminate harmful additives as there are thousands of unknown toxic 'cocktail' chemical combinations of plastics.

Plastic pollution is exponentially increasing, meanwhile biodiversity is rapidly declining. Half of the plastic ever produced was made in the past 15 years. Economic and societal pressures continue the rampant growth of plastic production with no solutions capable of dealing with the problem at scale. "Plastic packaging generates significant negative externalities, conservatively valued by UNEP (United Nations Environmental Programs) at US \$40 billion". Today's commodity plastics are simply too cheap and notions of recycling our way out of this does not take into account the scale and toxicity of the problem. We cannot ignore the environmental footprint after materials have been recycled their final time as recycling is finite.

This Bill provides us with a momentous opportunity to show a renewed commitment to the environment if backed by strong political will, a responsible private sector and engaged local communities. The current level of single-use plastic dependence has reached crisis levels, it is unsustainable, and we need to ensure that any future plans provide long term solutions. Our objective is *no plastic leakage* into the natural environment to safeguard the well-being and prosperity of future generations. The plastic 'soup' in our oceans and its correlation with climate change has been proven. We must quit our addiction to plastic and turn off the 'plastic' tap so we can turn the tide on plastic pollution and tackle the issue at the source.

Yours Sincerely,



Susie Crick - Chair  
Surfrider Foundation Australia