

17/10/16

The Secretary
Environment and Planning Committee
Parliament House, Spring Street
EAST MELBOURNE VIC 3002

Dear Secretary,

Re: Environment Protection Amendment (Banning Plastic Bags, Packaging and Microbeads) Bill 2016

Port Phillip EcoCentre Inc (PPE) is a not-for-profit environment organisation established in 1999. We are committed to action research and mutually beneficial, cross-sectoral partnerships to achieve practical solutions to environmental issues for the benefit of the whole community. The PPE team has been recognised with over 27 awards ranging from local to international. We are home to the Port Phillip Baykeeper and members of the global Waterkeeper Alliance protecting fishable, drinkable, and swimmable waters.

Port Phillip EcoCentre endorses the overarching intent on the *Environment Protection Amendment (Banning Plastic Bags, Packaging and Microbeads) Bill 2016* as a necessary measure to reduce plastic pollution in our waterways. This endorsement is based on our long-standing commitment to practical action and research to improve water quality in Port Phillip Bay.

EcoCentre projects in recent years include cigarette butt litter studies, design and conduct of beach litter audits, trawls to measure microplastics in the Yarra and Maribyrnong Rivers, litter removal from foreshore areas (not just beaches) and riverbanks, delivery of litter and educational programs in schools and community settings, and production of documentary film featuring community efforts to prevent plastic pollution in Port Phillip Bay.

In addition to action research projects, PPE participates in a range of forums convened by Sustainability Victoria; Melbourne Water; Metropolitan Waste and Resource Recovery Group; and Department of Environment, Land, Water and Planning. PPE also contributes submissions to the various levels of government, including to the *Federal Inquiry into Marine Plastic Pollution* in October 2015. We note that the findings of the Federal Inquiry released in April 2016 include:

Recommendation 21

8.91 The committee recommends that the Australian Government support states and territories in banning the use of single-use lightweight plastic bags. In doing so, the Australia Government should ensure that alternatives do not result in other pollutants entering the environment.



Recommendation 22

8.95 The committee recommends that the Australian Government move to immediately ban the importation and production of personal care products containing microbeads.

The above recommendations appear to clearly align with the proposed Amendment, as do *Key Messages* of the peer-reviewed United Nations Environment Programme *'Marine Plastics Debris and Microplastics Report 2016'*. These include:

A Precautionary Approach is justified – however the case for making an intervention should be informed by a risk-based assessment, backed up by an adaptive management approach.¹

From the available limited evidence, it is concluded that microplastics in seafood do not currently represent a human health risk, although many uncertainties remain:²

Reduction measures are essential to minimise leakage of plastic to the ocean – measures can be based on best practice, most appropriate technologies and techniques, education, awareness raising, voluntary agreements and legislation, but the choice must take into account the social and economic circumstances of the community or region, and should be guided by a risk-based approach.³

The Executive Summary (emphasis added) concludes:

There is sufficient evidence that marine plastics and microplastics are having an unacceptable impact to invoke the Precautionary Approach. This means that society should not wait until there is unequivocal and quantified evidence of the degree of impact before acting to reduce plastic inputs to the ocean. But this needs to be accompanied by an adaptive management approach. This should allow for sufficient flexibility to be built into governance frameworks, or technical measures, to permit for adjustment as more knowledge becomes available. In this way perverse incentives and unforeseen negative consequences can be removed as soon as they are recognised.

... There is a great need to improve the sharing of knowledge and expertise, to encourage a more multi-disciplined approach, to develop public-private partnerships and empower citizen-led movements. ⁴

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¹ UNEP Marine Debris and Microplastics Report 2016. Key message # 4

² Ibid. Key message # 10

³ Ibid. Key message # 12

⁴ Ibid. Executive Summary



Implications of plastics for fisheries and human health.

The capacity for plastics to adsorb oil-based chemical pollutants from waterways has been well established by organisations such International Pellet Watch. Their analysis of pre-production plastic pellets from Port Phillip Bay found them to be contaminated with Polychlorinated Biphenyls (potential carcinogens). Despite this:

- there is no known local research on ingestion of plastics by fish species commonly targeted by recreational anglers; and
- the current State Government is committed to delivering its \$46 million 'Target One Million' plan for recreational fishing, which aims to grow participation to one million anglers by 2020.

International Pellet Watch has identified contaminants found on pre-production pellets are generally a legacy of ports or industrial activity in a given region. This is a concern given that Australia's largest port is located in Port Phillip Bay and around two thirds of Victorians live in water catchment areas around the Bay. These circumstances are expected to continue into the future.

As Port Phillip Bay is a large, almost enclosed waterway with a rate of water exchange between ocean and the bay of around one full year, there is a reasonable likelihood that contaminants and plastics generated within the Bay's urban catchments may be ingested by fish and pose a risk to human health at some future point.

Inadequacy of current mitigation measures

Local agencies tasked with land-based litter management are generally geared to eliminate high visibility items in order to achieve a perceived standard of visual amenity to local residents and visitors. Despite this, items such as plastic shopping bags do escape to the Bay; as do the many smaller plastic consumer items and fragments that are washed from local streets by the next rainfall event.

Mesh sizes on stormwater system litter traps need to be sufficiently large to allow water to escape (so as not to cause flooding upstream). Consequently, many smaller plastic items pass through or over these traps.

With the exception of calls for the introduction of container deposit legislation (endorsed by Port Phillip EcoCentre) there has been limited discussion/resourcing of localised educational initiatives to change consumer culture towards avoidance and/or re-use of plastics.

Implications of increased availability of single-use plastic items

Various research has identified that (excepting ghost nets probably originating in international waters) most marine plastic pollution is predominantly single-use consumer goods (food and beverage containers and packaging) originating from land-based sources.

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According to the Plastics Europe (Association of European Plastics Manufacturers) global plastics production in 2013 was 299 million tonnes. Europe produced 20% of global production (second to China with 24.8%).

It is not unreasonable to assume that the scale of the ecological impacts of marine plastics (with particular regard to wildlife entanglement, ingestion by wildlife and resultant bio-accumulated toxins entering our food chain) will be proportionate to the increase in global production of plastics. This probability warrants application of the 'precautionary principle' in regard to regulatory legislation and management of plastic.

Economic cost of non-action

Australia is effectively a marine nation, with more marine territory than terrestrial mainland. The Australian "blue economy" is expected to contribute \$100 billion to our annual economy by 2025. However, increasing levels of marine debris in the world's fresh waters and oceans are having a major economic impact, with direct and indirect costs including:

- Lost tourism: marine debris-incurred damage to tourism in the Asia Pacific Economic Cooperation region is estimated at US \$622 million. 5 Tourism is a significant economic driver for Victoria worth \$21.7 billion (directly and indirectly) in 2014-2015 – worth 6.0 per cent of the State's Gross State Product. Two out of three international visitors enjoy Australia's aquatic or coastal environments in some way – from scuba diving to simply going to the beach.
- Clean up costs: litter and street sweeping services cost Victorian local governments more than \$78 million in 2009-2010.7

Marine debris is an avoidable cost. Plastic bags, packaging and microbeads do not provide an essential service to the community. There are safer alternatives.

In Summary

We submit that the imperative to address marine plastic pollution at the source must logically extend to the point of supply; and that legislation to eliminate plastic bags, packaging and microbeads is warranted.

Yours Sincerely,

April Seymore

Executive Officer

Neil Blake, OAM Port Phillip Baykeeper

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⁵ Understanding the Economic Benefits and Costs of Controlling Marine Debris in the APEC Region, 2009

⁶ tourism.vic.gov.au

⁷ Victorian Litter Strategy, 2012-2014

