

Final

# Regulatory impact statement: Proposed by-law on single-use plastic take-away food packaging

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PREPARED FOR

City of Hobart



City of **HOBART**



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## Abbreviations and glossary

DoEE	Department of the Environment and Energy
RIS	Regulatory Impact Statement
UNEP	United Nations Environment Programme
WEF	World Economic Forum

# 1. Purpose and process of a regulatory impact statement

When a council seeks to make a new by-law or a significant amendment to an existing by-law, the *Local Government Act 1993* requires a regulatory impact statement (RIS) be prepared.

The preparation of a RIS is a rigorous process aimed at analysing the most efficient and effective options available to address a particular issue and avoiding unnecessary regulation.

A RIS is required to identify whether the benefits of regulation outweigh the costs of a restriction on competition or an impact on business imposed by the by-law. It requires an assessment of direct and indirect social, economic and environmental impacts of the proposed by-law and alternatives considered.

A RIS should also briefly detail its purpose and the statutory context in which it operates to help the general public understand the function and role.

Once the RIS has been prepared, the council must submit it to the Director of Local Government for assessment. If the Director is satisfied the RIS meets the statutory requirements, a certificate will be issued and the council may then commence the public consultation process.

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## 2. Objectives

### Context

There is growing concern about the pervasive use of single-use plastics in Australia, including the impact of plastics entering marine ecosystems and its effect on human health and the environment. The concern is further driven by the low recycling rate of plastics and the impact of recent Chinese import restrictions on the viability of recycling plastics.

Plastics are made from organic polymers including petrochemicals, cellulose, coal, natural gas and salt. The World Economic Forum (WEF) estimates that over 90% of plastics produced are derived from virgin fossil feedstocks, representing around 6% of global oil consumption (WEF 2016). To produce plastics, the polymers are mixed with a blend of plasticisers, stabilisers, pigments and potentially other impurities. The growth in use of plastics in recent decades has been exponential, with global production increasing from an estimated 15 million tonnes in 1964 to around 311 million tonnes by 2014; this is expected to double again in 20 years and almost quadruple by 2050 (WEF 2016). The 2016 Senate inquiry into marine plastic pollution (Commonwealth of Australia 2016) estimated that in 2012-13 Australia consumed around 1.5 million tonnes of plastics (or around 65 kg per person), of which around 37% was single-use disposable packaging.

While the amount of plastics entering the environment is not known, the 2016 Senate inquiry into marine plastic pollution in Australia (Commonwealth of Australia 2016) noted the estimates of a range of studies:

- a 2005 United Nations Environment Programme (UNEP) report which estimated 6.4 million tonnes of litter entered marine environments each year, with over 13,000 pieces of plastic floating on every square km of ocean surface
- a 2014 study which estimated ocean surface water contained 5 trillion plastic pieces
- a 2015 study which estimated between 4.8 and 12.7 million tonnes entered the ocean in 2010, most of which was single-use plastics
- a 2016 WEF study estimating over 150 million tonnes of plastic waste was in the ocean, and which was forecast to grow to 250 million tonnes in 2025.

Most takeaway food packaging is made from polypropylene (plastic type 5), which is known to be susceptible to oxidation and ultraviolet degradation. In the natural environment this degradation can lead to small plastic particles (or microplastics) entering waterways and oceans, where they can be mistaken for food and ingested by birds, fish and other marine animals. Other single-use plastic items such as cutlery, straws, balloons, etc. can result in similar outcomes.

The lethal effects of plastic ingestion by marine and birdlife have been widely reported by the media, however the impacts on human health are less well understood. Studies have shown that humans can ingest microplastics through the consumption of seafood, although this may depend on the size of the plastic particles. Recent research (Commonwealth of Australia 2016) indicates that some microplastics may enter the circulatory system and be stored in the body for a long time.

The large surface area to volume ratio of microplastics also allows accumulation of significant quantities of chemicals and bacteria. Therefore when microplastics are ingested by marine life, and in turn consumed by humans, it is not only plastics that are of concern. It is believed that ingested microplastics in humans may result in cellular and tissue disruptions and act as delivery mechanisms for chemicals (such as bisphenol-A) which are endocrine disruptors and potentially carcinogenic.

The recovery and recycling of single-use plastic packaging at its end-of-life shows limited success in Australia. The Department of the Environment and Energy (DoEE) released the *2016-17 Australian Plastics Recycling Survey* (DoEE 2018), which showed the 2016-17 national recycling rate for all plastics was 11.8%; for polypropylene, the estimated recycling rate was lower at around 10%. The report notes that local reprocessing in Australia of recovered plastics has been flat from 2015-16, and export for reprocessing has fallen by 20%. Specific figures for takeaway food packaging and for Tasmanian plastics in total are not available.

Large volumes of takeaway food are consumed in public areas, and the disposal of waste from this activity generates a significant load on the environment. Councils bear the cost of cleaning up this waste in the first instance through the management of public waste bins. Even where this infrastructure exists, however, a great deal of takeaway food packaging ends up as litter. Despite efforts to manage urban litter with gross pollutant traps and street sweeping activities, takeaway food and beverage packaging accounts for 17% of litter nationally and by quantity represents the second largest category of litter behind cigarette butts (Keep Australia Beautiful 2016-17 National Litter Index). Keep Australia Beautiful's 2016-17 litter count also found that the amount of litter in Tasmania increased by 6% compared to the previous year.

Many stakeholders are therefore of the view that avoiding the use of plastic would provide significant environmental, health and cost benefits. This has driven the recent European Union directive on banning the use (from 2021) of single-use plastics including food containers, beverage containers and lids, cotton buds, cutlery, straws and stirrers, balloons and their sticks, cigarette filters, wipes, packets and wrappers, and fishing gear. Australian Commonwealth and State Environment Ministers have also agreed to a national target of 100% of Australian packaging being recyclable, compostable or reusable by 2025.

The City of Hobart has a legislated responsibility (under the *Local Government Act 1993*) to provide for the health, safety and welfare of the community. It is also bound by the *Environmental Management and Pollution Control Act 1994*, the *Litter Act 2007* and other national regulations to protect the environment and prevent adverse risks arising from litter and the disposal of waste. The City of Hobart is therefore obligated to act where harmful environmental impacts are known to occur.

In 2003 Coles Bay became the first town in Australia to stop using plastic shopping bags. This small local initiative grew into a national movement, now embodied in legislation in most Australian states (including the Tasmanian *Plastic Shopping Bags Ban Act 2013*). The City of Hobart's proposal to ban single-use plastic food packaging, through advocacy with the Tasmanian Government and implementation of a targeted by-law, is another example of local efforts which are expected to spread widely as local and state governments move to meet the national 2025 target for 100% recyclable, compostable or reusable packaging.

### Objectives of the by-law

The City of Hobart seeks to address the distribution of single-use, petroleum-based plastic packaging from takeaway food outlets.

The proposed by-law is intended to minimise the harm and risks to the environment and human health from the use of single-use plastics in takeaway food packaging. This aligns with growing consumer expectations concerning environmental sustainability.

In eliminating the use of non-compostable single-use plastic food packaging, retailers will be required to cease supply of unnecessary items or supply takeaway food in packaging that meets the criteria of Australian Standard AS 4736-2006 *Biodegradable plastics—Biodegradable plastics suitable for composting and other microbial treatment*.

The by-law encompasses the packaging in which takeaway food is supplied to consumers at the point of sale. It includes items such as plates, cups and lids, straws and sachets for sauces and condiments – where these are supplied in rigid plastic (cling wrap is not included).

The objectives of the by-law are set out in Table 1, together with the means of achieving them.

**Table 1 Objectives of the by-law**

	Objective	Means to achieve them
1	To minimise the exposure of community and the environment to the risks and harm associated with single-use plastic in takeaway food packaging	Single-use plastic packaging will be prohibited from use in supplying takeaway food to customers, and avoided or replaced with materials such as paper/cardboard and bioplastics which present lower risks to human health and the environment.
2	To reduce the overall quantity of plastic litter arising from takeaway food retailing, and its long-term impacts	Where takeaway food packaging escapes capture by council services such as public litter bins and street-sweeping, its long-term impact on the environment and biodiversity will be diminished by a higher rate of decomposition in the natural environment, as any single-use plastic will need to be compostable or biodegradable.
3	To provide a stimulus for the development and uptake of innovative and sustainable takeaway food packaging solutions	In establishing a new standard for takeaway food packaging, the by-law will boost demand and long-term market opportunities for innovation in takeaway food packaging.
4	To align the practices of takeaway food retailers with growing community concern regarding the risks of single-use plastic in everyday life	The by-law will result in a tangible and significant reduction in single-use plastic in takeaway food packaging, addressing growing community expectations.

### 3. Impact on business and restriction of competition

#### Business impacts

In minimising the environmental harm of single-use plastic in takeaway food packaging, the single-use plastics by-law will help align the practices of takeaway food businesses with growing consumer sentiment concerning single-use plastic. Consultation undertaken by the City of Hobart indicates consumers would welcome a reduction in single-use plastic and support businesses doing so.

Once the by-law comes into effect all takeaway food retailers will need to comply with its provisions and penalties will apply for non-compliance. The City of Hobart will provide support to affected food retailers in managing the transition to compliance.

Food retailers will need to ensure their packaging suppliers can certify the biodegradability of their packaging in accordance with Australian Standard AS 4736-2006 *Biodegradable plastics—Biodegradable plastics suitable for composting and other microbial treatment*. Current Tasmanian packaging suppliers include compostable products among their range, so the impact is not considered to be significant. The by-law is also expected to stimulate the development of new packaging products and solutions; one such supplier of reusable takeaway containers in Tasmania has already emerged.

The by-law also applies to cups, cup lids, utensils, straws and condiment sachets; where appropriate arrangements are not already in place, some retailers may need to:

- ensure cups, cup lids and utensils are biodegradable (in line with Australian Standard AS 4736-2006 *Biodegradable plastics—Biodegradable plastics suitable for composting and other microbial treatment*)
- cease providing straws or provide reusable straws for sale
- purchase condiments in bulk and provide to consumers via dispensers.

These arrangements are either already implemented by Tasmanian food retailers or being introduced by other retailers across Australia.

The impacts of the by-law on Hobart businesses will differ but could include the following:

- Franchised businesses may be bound by packaging supply agreements negotiated by parent companies on a national or international basis. Some international franchises are known to be more responsive than others in changing established practices to meet local conditions; consequently some takeaway food retailers may find it challenging to comply with the by-law.
- Businesses who have recently received packaging orders may need to dispose of existing supplies and re-stock with compostable packaging. Where this imposes a significant cost-burden, a phased introduction may lessen the financial impact.
- Small food retailers may be able to respond more quickly to the by-law provisions than large retailers (particularly national or international businesses). Conversely larger retailers may be better able to absorb any cost increases (where applicable) in packaging than smaller retailers. The relative impact on both small and large retailers may depend on the type and availability of suitable packaging that is used.
- Food retailers within the City of Hobart may receive more community support than retailers in adjoining municipalities, particularly where this is reinforced by advertising. This could translate into increased patronage and turnover.
- Suppliers of compostable packaging may be initially challenged to meet the demand of all takeaway food retailers for their product. Packaging suppliers may need to grow their local businesses to fill orders and meet on-going demand.

Investigations by the City of Hobart show that one third of Hobart’s approximately 300 takeaway food retailers already supply compostable takeaway packaging items on a voluntary basis. Given community support for this initiative, there may currently be market pressure for the remaining retailers to introduce compostable packaging in order to meet customer preferences.

### **Restriction on competition**

The by-law will apply to all takeaway food retailers in the City of Hobart and no significant restrictions on competitive conduct are considered likely.



The by-law will restrict the market entry of plastic packaging suppliers to the food retailing industry, although there will be opportunities for entry by new suppliers of biodegradable packaging and reusable items (such as food containers and straws). As most existing suppliers to the Tasmanian market provide biodegradable packaging, the net effect is not considered significant.

### Costs and benefits

In some cases the cost of packaging compliant with the by-law is cheaper than non-compliant packaging, and businesses would save money by shifting to biodegradable packaging. Where there is a cost increase, this is relatively small. Based on Tasmanian packaging supplier price lists, the cost to food retailers of transitioning from single-use plastic to biodegradable food packaging may involve an increase of around 8-12 cents per unit, to a total cost of around 25-30 cents per unit (for average size food containers). The unit cost of biodegradable cups and cup lids is around 6-12 cents and 4-5 cents respectively (subject to size), while biodegradable cutlery is lower at around 1-5 cents per unit. This is within the additional 5% which surveys have shown the majority of the community is prepared to pay for sustainable packaging.

The cost of managing single-use plastic throughout its life-cycle is more significant. With only around 10% of food packaging being recycled (DoEE 2018), approximately 90% is treated as waste and disposed either to landfill or to the environment as litter. As food is taken away from the point of purchase, food retailers generally do not manage the waste packaging as part of their waste management collection. In most cases, the cost of management is borne by the City of Hobart (and ultimately ratepayers) either through domestic kerbside or public bin collections, or the clean-up of litter. Costs are also borne by public and non-profit organisations involved in clean-up activities on land, waterways and oceans.

Where it is separated from the residual waste stream, compostable packaging (and the food waste it contains) could provide a new feedstock for compost facilities, enabling more efficient recovery of organic waste. This will mean reduced generation of methane in landfill and reduced greenhouse gas emissions. It could also deliver increased financial viability of compost operations, an increase in the number and/or scale of processing facilities and reduced waste management costs to ratepayers. It could also result in increased employment opportunities in the waste management and packaging sectors.

Compliance with the by-law will see the environmental footprint of Hobart takeaway food retailers diminish. This provides opportunities to reduce the environmental, social and financial costs to Hobart businesses and the wider community (including direct reduction of packaging costs in some cases). There are also likely to be flow-on benefits resulting from less-degraded natural ecosystems and a cleaner environment to the Tasmanian tourism and aquaculture industries, and potentially other industry sectors too.

In demonstrating their response to community sustainability concerns, Hobart takeaway food businesses are likely to receive support from customers and potentially increased business. The experience of Hobart businesses in transitioning to more sustainable packaging is also likely to be well-regarded by businesses in other states in their efforts to meet national packaging targets by 2025. This experience could prove to be a valued and saleable commodity as Hobart businesses lead the way in compostable packaging.

## 4. Direct and indirect economic, social and environmental impacts

Table 2 identifies the direct and indirect environmental, social and economic impacts of the by-law.

*Table 2 Direct and indirect economic, social and environmental impacts*

	Direct	Indirect
Environmental	<ul style="list-style-type: none"> <li>• Less use of non-renewable, petroleum-based plastics</li> <li>• Less likelihood of environmental degradation from plasticisers, contaminants and other pollution arising from plastic manufacturing</li> <li>• Reduced risk of harm to marine animals, birdlife and human health associated with single-use plastic</li> <li>• Diminished impacts from litter on the environment and biodiversity through reduced plastic waste and higher rates of decomposition in the natural environment</li> <li>• Reduction in greenhouse gas emissions from use of fossil fuels and improved recovery of organic waste</li> <li>• Reduced environmental footprint of Hobart takeaway food retailers</li> </ul>	<ul style="list-style-type: none"> <li>• Stimulus to the implementation of food collection and composting services for household and commercial waste</li> <li>• Stimulus to the development of more sustainable food packaging options, including reuse systems</li> <li>• Enhanced environmental awareness among consumers and businesses</li> <li>• Improved waste management outcomes for the Hobart community</li> <li>• Reduction in the amount of plastic packaging manufactured</li> <li>• Reduction in the amount of plastics needed to be managed by the City of Hobart, including plastics sent to mainland or international markets for reprocessing</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Better alignment of takeaway food practices with community expectations regarding sustainability</li> <li>• City of Hobart seen to respond to local community concerns</li> <li>• Improved amenity and community well-being through the reduction of litter</li> <li>• Reduced need for litter clean-up events by volunteer groups</li> </ul>	<ul style="list-style-type: none"> <li>• Supports community aspirations for sustainability</li> <li>• A boost to Hobart’s reputation as a leader in sustainability</li> <li>• Provides direction for reduction and management of other litter and single-use items</li> <li>• Establishes a framework for national actions to follow</li> <li>• Acknowledges Tasmanian leadership in meeting national packaging targets</li> </ul>
Economic	<ul style="list-style-type: none"> <li>• Potential for lower costs to the community in cleaning up litter from public places</li> <li>• May be additional costs to business in initial implementation</li> <li>• Costs to the City of Hobart (and ultimately ratepayers) in initial training and enforcement activities</li> <li>• Potential commercial impacts where suppliers have contractual arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Protective benefits to industries such as tourism, aquaculture and shipping that are vulnerable to urban and marine pollution (estimated by UNEP (UNEP 2014) to cost US\$1.3 billion per year in Asia-Pacific region)</li> <li>• Potential for enhanced opportunities for compost industry</li> <li>• Potential for increased local employment opportunities in waste, packaging and ancillary industries</li> </ul>

Direct	Indirect
<ul style="list-style-type: none"> <li>• Enhanced opportunities for sustainable packaging industry</li> <li>• Potential lack of replacement products for certain items</li> <li>• Less reliance on global markets for recycled plastic waste in the wake of Chinese import restrictions</li> </ul>	<ul style="list-style-type: none"> <li>• Potential to reduce negative externalities of plastic packaging industry, estimated by UNEP (UNEP 2014) globally to be over US\$40 billion.</li> </ul>

## 5. Alternative options

Potential alternatives to the by-law are considered in Table 3 below.

*Table 3 Alternative options*

Alternative option	Advantages	Disadvantages
Establish a program for voluntary introduction by food retailers	<ul style="list-style-type: none"> <li>• Less restrictive on businesses</li> <li>• Minimal requirement for enforcement</li> <li>• Potentially higher level of commitment from participating businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary programs demonstrate lower environmental performance compared to mandated programs</li> <li>• Likely to be much lower level of participation from all businesses</li> <li>• Would not deliver the change needed to significantly reduce litter and protect the environment and human health</li> <li>• Costs would be borne only by businesses choosing to adopt the code rather than being shared equitably by all food retailers</li> <li>• No method for oversight or certification could lead to unsubstantiated claims ('greenwash') and lack of confidence in program</li> </ul>
Increase littering enforcement, street sweeping and other litter clean-up services	<ul style="list-style-type: none"> <li>• Fines would impart a direct message to deter littering behaviour</li> <li>• Enhanced street sweeping and other litter clean-up services would improve amenity and prevent some packaging litter from entering waterways</li> </ul>	<ul style="list-style-type: none"> <li>• Very high cost to the City of Hobart and ratepayers</li> <li>• Fines could generate a backlash from the business community</li> <li>• Fines would be hard to apply due to inability to identify source of non-branded litter</li> <li>• Does not address issue at point of generation</li> <li>• Unlikely to result in total recovery of plastic food packaging; still some leakage to the environment</li> </ul>

Alternative option	Advantages	Disadvantages
Introduce a levy on single-use plastic used in takeaway food packaging	<ul style="list-style-type: none"> <li>• Would provide a financial incentive to businesses and consumers</li> <li>• Likely to result in some reduction in food packaging litter in the environment</li> </ul>	<ul style="list-style-type: none"> <li>• A levy may not be within the powers of the City of Hobart</li> <li>• Very high cost to administer and enforce</li> <li>• Complex and costly to businesses</li> </ul>
Lobby the Tasmanian Government to consider amending the <i>Plastic Shopping Bags Ban Act 2013</i> to include non-compostable single-use takeaway food packaging	<ul style="list-style-type: none"> <li>• Would deliver a more consistent platform for businesses and consumers across municipal borders</li> <li>• Has widespread community support</li> <li>• More widespread benefits in reducing the harmful impacts of takeaway food packaging</li> <li>• Builds upon existing legislation</li> <li>• Lobbying can occur concurrently with the implementation of the by-law</li> </ul>	<ul style="list-style-type: none"> <li>• Not in the direct control of the City of Hobart</li> <li>• Action may be deferred or ban not implemented</li> <li>• May become political issue susceptible to a change of government</li> <li>• Delay in implementation unpalatable to the community</li> </ul>

## 6. Greatest net benefit or least net cost to the community

In banning single-use plastic in takeaway food packaging, the by-law is considered to be the only approach with the capacity to achieve a wide-reaching reduction in the use of single-use plastic from this sector, and the resultant benefits in minimising its environmental harm and risks to the environment.

Voluntary approaches may be carried out at a lower cost and offer flexibility to businesses, however they would not deliver the sort of wholesale change sought to minimise the impacts of single-use plastic from takeaway food packaging. When measured against the number of participants or outcomes achieved, the cost of voluntary behaviour change programs often tends to be high.

In addressing the use of single-use plastic at the point of sale, the by-law tackles the use of single-use plastic at a source that is known to account for significant volumes of litter. In doing so it will minimise the use of non-renewable resources used in single-use plastic packaging before it becomes a problem in the form of urban litter, or pollution making its way to the ocean with long-lasting harm and risks to marine ecology, tourism, fisheries and human health. The value of the by-law is particularly of note in light of the high costs to the community, businesses and government in cleaning up litter.

The City of Hobart recognises the benefit a statewide ban, and has concurrently resolved to lobby the Tasmanian Government to consider amendments to the *Plastic Shopping Bags Ban Act 2013* to broaden the scope of the legislation to include non-compostable single-use takeaway food packaging.

## 7. Proposed public consultation process

Once a motion of intention to make the proposed by-law has been passed by the City of Hobart, the RIS will be submitted to the Director of Local Government. If satisfied the RIS meets the statutory requirements, a public consultation process will be undertaken.

The City of Hobart's research and consultation with businesses and the community to date shows a favourable response to banning single-use plastic packaging in takeaway food businesses.

A community survey conducted from February to March 2018 returned a significant response strongly in favour of reducing the use of single-use plastic. Of the 2,962 responses, 96% disagreed when asked "do you think it is appropriate to use single-use plastics?" An overwhelming 90% said they were willing to pay more for food and drinks if it meant that sustainable packaging was used. Survey responses indicated a sensitivity to how much more consumers would be willing to pay, with around two-thirds willing to pay up to 5% extra.

While a state government ban was perceived more favourably, 75% of surveyed participants felt that a local government ban would be an effective or highly effective way of getting more takeaway food businesses to use less single-use packaging. A ban was perceived to be significantly more effective than the use of support and education.

In a separate quick poll, 96% of the 638 survey responses supported a ban on single-use plastic takeaway items.

A third of the City of Hobart's approximately 300 food and beverage businesses already supply some form of compostable packaging, demonstrating there is minimal competitive disadvantage to retailers supplying this type of packaging. In surveys to date, businesses have indicated a favourable response to banning single-use plastic packaging, with a strong understanding of the reasons behind it.

Copies of the proposed by-law and RIS will be made available to the public, and feedback invited from businesses and the community via the City of Hobart's facebook page, website and on-line forum at <https://yoursay.hobartcity.com.au>.

Targeted consultation will also be held with business groups. Where appropriate, focus groups will be established in order to test out certain packaging requirements and share solutions with others.

Affected businesses will receive an information pack or 'toolkit' explaining how to achieve compliance. The kit will include a list of replacement products and suppliers. Businesses will be offered support during the transition to compliance, including one-on-one education with business owners.

## References

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