

**In Confidence**

Office of the Associate Minister for the Environment

Cabinet Environment, Energy and Climate Committee

**Moving away from hard-to-recycle plastics and single-use plastic items – approval to consult**

**Proposal**

- 1 In December 2019, the Government signalled<sup>1</sup> that it would set goals to shift away from low value and hard-to-recycle plastic packaging, and consider phasing out more single-use plastic items. Following consultation with industry and further consideration by officials, this paper seeks:
  - 1.1 decisions about specific plastic types, applications and single use items to target for phase out; and
  - 1.2 approval to publicly consult on phase out proposals and release the consultation paper attached to this paper - *Reducing the impact of plastic on our environment: moving away from hard-to-recycle plastics and single-use plastic items*.

**Relation to government priorities**

- 2 Taking action on hard-to-recycle and single-use plastics is a key step towards building a low waste economy, with an effective resource recovery and recycling system. This contributes to the Government's objective to transition to a clean, green, and carbon neutral New Zealand.

**Executive Summary**

*Background*

- 3 Although plastic has many desirable properties, poorly managed plastic waste can enter the environment and cause enduring harm. Households and consumers come into contact with plastics every day, as packaging for groceries and household goods, and as convenience items designed to be used once. Some of these plastics cannot be reprocessed or recycled in New Zealand and there is widespread confusion about how to correctly dispose of these items. This means that many of these items are either sent to landfill or enter our environment, causing harm.

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<sup>1</sup> Press Release by the Prime Minister and Associate Minister for the Environment, 8 December 2019, <https://www.beehive.govt.nz/release/govt-pledges-next-steps-plastic-waste>

*Government action on waste*

- 4 As part of a broader work programme encompassing action across all waste streams, the Government's plastic waste work programme has been informed by a report from a panel convened by the Prime Minister's Chief Science Advisor, *Rethinking Plastics in Aotearoa New Zealand*<sup>2</sup>. When this report was released in December 2019, the Government committed to delivering a full response to the report and to progressing a range of priority actions. This paper addresses one of those actions - setting goals to shift away from low value and hard-to-recycle plastic packaging, and single-use plastic items.

*Proposed plastic types and items to target*

- 5 There are two components to the proposal, as set out below.

One:	<p>A proposal to progressively phase out certain problematic classes of plastics – namely;</p> <ul style="list-style-type: none"> <li>- polyvinyl chloride (PVC) and polystyrene plastic packaging, starting with a phase out of food and beverage packaging for PVC and polystyrene, followed by a later phase out of all expanded polystyrene plastic packaging</li> <li>- all applications of oxo-degradable plastics (packaging and all other applications)</li> </ul>
Two:	<p>A proposal to phase out certain single-use plastic items, building on momentum created by the ban on single-use plastic bags in 2019</p>

- 6 The objective of this proposal is to reduce impact on our resource recovery system and the environment through eliminating (or significantly reducing) the amount of PVC and polystyrene packaging, oxo-degradable plastics, and single-use plastic items in use.

*PVC and polystyrene plastic packaging*

- 7 PVC and polystyrene are only small volumes of the overall plastic packaging waste stream<sup>3</sup>, but have disproportionately large impacts on our resource recovery system and environment. Both waste material types cannot be recycled in New Zealand and have limited markets offshore. PVC is a significant contaminant in the recycling system<sup>4</sup> and expanded polystyrene (EPS, a type of polystyrene) is a source of marine litter. Phasing out these materials will help improve the recyclability of materials entering our resource recovery system, enable resources to circulate longer and reduce environmental impacts.
- 8 As a first step, I am proposing that we progressively phase out PVC and polystyrene food and beverage packaging, and all EPS packaging. These

<sup>2</sup> <https://www.beehive.govt.nz/release/govt-pledges-next-steps-plastic-waste>

<sup>3</sup> Refer to paragraph 34 for examples of how these plastics are used

<sup>4</sup> Even very small quantities of PVC can contaminate large volumes of recycled plastic



types and applications of plastics are prevalent in the waste stream and cause significant issues in New Zealand's recycling system and environmental impacts from litter.

- 9 Subject to consultation, I propose that we take a staged approach to the phase outs. Stage One will involve phasing out all PVC food and beverage packaging and some types of polystyrene food and beverage packaging by January 2023. Stage Two will target any remaining polystyrene food and beverage packaging and all EPS packaging for phase out by January 2025. This approach is to allow time for businesses to transition to viable alternatives.
- 10 The proposed changes will benefit the environment and wider resource recovery sector, making it more likely that the materials collected for recycling can be recycled into new packaging or products. Because there are a range of alternative options and transition is already underway, I expect that many businesses will adjust relatively quickly to the change. Where transition issues arise, this can be accounted for by adjustments to phase out timing and if required, exemptions, post consultation.

*Oxo-degradable plastics*

- 11 Oxo-degradable plastics are a specific type of degradable plastic incorporating additives that cause the plastic to fragment into smaller sized pieces. Although they are often marketed as a better alternative to other types of plastic, oxo-degradable plastics cannot be composted or recycled, contaminate the waste stream and degrade into microplastics. There is a risk that as businesses look for alternatives to traditional plastics, oxo-degradable plastics may become more commonly used. In line with a range of other jurisdictions (including France, Spain, Italy and some states in Australia<sup>5</sup>), I propose that we target all applications of this type of plastic for phase out by January 2023, subject to consultation.
- 12 On the basis of current knowledge, we consider that business and consumer impact will be low, especially when balanced with environmental considerations. Consultation will enable officials to confirm impacts, alternatives and timing of the proposed phase out.

*Single use items*

- 13 Single use plastic items are high volume, and tend to be quickly discarded, sometimes directly into the natural environment as litter. In most cases, such items cannot be recycled. Many businesses are moving away from using these items and/or replacing them with alternatives. There are many examples of items being phased out in overseas jurisdictions.
- 14 On the basis of an analysis of environmental harm, availability of alternatives and likely impact, I am recommending that we consult on detailed proposals to phase out seven single use items. The items are: plastic straws, plastic cotton buds, plastic drinks stirrers, single use plastic tableware (plates, bowls

<sup>5</sup> In Australia, action on oxo-degradable plastics is under consideration by Australian Capital territory and New South Wales, and a ban will be considered by the South Australian Parliament in 2020/2021



and cutlery), single use plastic produce bags, some types of single use plastic cups (i excluding disposable coffee cups) and non-compostable produce stickers.. Specific phase out timing for each single use item will be informed by consultation, but I am proposing that phase outs be no later than January 2025.

- 15 The main benefit of the single-use plastic item phase outs is to the environment and local government due to a reduction in waste and litter. The main costs will fall on those businesses that manufacture or import single use plastics items included in the phase out, with the magnitude dependent on whether such items form a large part of their product lines or not. Costs to retailers may be passed on to consumers<sup>6</sup>.

#### *Mechanism for phase outs*

- 16 If Cabinet agrees to target the plastic types and single use items as set out above, I recommend that the phase outs be effected by regulation under the Waste Minimisation Act 2008 (the Act), subject to public consultation and meeting the requirements of the Act. Out of several options considered, I consider that regulation will be the most effective and straightforward mechanism within our current regulatory framework. Our experience with regulating to phase out single use plastic bags has shown how effective such measures can be.

#### *Consultation*

- 17 A draft consultation document providing detail about the proposals (incorporating a preliminary regulatory impact assessment) is attached at Appendix Two. Subject to Cabinet decisions, I intend to release the consultation document<sup>7</sup>, in the week beginning 3 August 2020 with the consultation period lasting for 12 weeks.

#### **Background – New Zealand's plastic waste problem**

- 18 As noted by the *Rethinking Plastics* report, plastic has many desirable properties that make it easy and affordable to transport and suitable for a range of applications, including durability flexibility and affordability<sup>8</sup>. However, when poorly managed (i.e. via littering, illegal dumping or escape from waste management systems), plastic waste can enter the environment, causing significant harm<sup>9</sup>.
- 19 Millions of tonnes of plastic enter aquatic and marine ecosystems annually, endangering wildlife and potentially, human health. Most plastic produced is from fossil fuels, consuming between four and eight percent of global oil production. Rapid growth in plastic production is projected, despite concerns over plastic pollution and climate change. As referenced in the *Rethinking Plastics* report, projections indicate that plastics will be responsible for up to

<sup>6</sup> Note that those already using alternatives and manufacturers, suppliers and importers of alternatives will benefit from this proposal

<sup>7</sup> Adjusted in line with Cabinet decisions if necessary

<sup>8</sup> *Rethinking Plastics in Aotearoa New Zealand*, December 2019, page 19

<sup>9</sup> See for example, the *Our Marine Environment* report, prepared by the Ministry for the Environment, which identifies plastic waste as a threat to the marine environment



fifteen percent of the total 'carbon budget' by 2050 – more than air travel (currently around two per cent of emissions)<sup>10</sup>. This has become a global concern, with a number of international commitments, initiatives and partnerships being established to mobilise global action.

- 20 New Zealanders are concerned about plastic waste. The recent 2020 Better Futures report by Colmar Brunton highlighted the build-up of plastic waste in the environment to be one of the top concerns amongst both adults and youth in New Zealand.<sup>11</sup> As described by the Royal Society Te Apārangi in their 2019 report *Plastics in the Environment*, plastic pollution affects our recreational, cultural and spiritual values as New Zealanders. Build-up of plastic waste in our ecosystem can interfere with the mauri (life force) of our environment<sup>12</sup> and has growing economic impacts.
- 21 Despite public concern, the amount of waste that New Zealanders are sending to landfill is increasing, with only a small proportion of New Zealand's plastic waste currently reused or recycled. We currently have limited onshore processing capability for recycling plastic at its end of life, but this does not cover all plastic types.
- 22 Households and consumers come into contact with plastics every day, as packaging for groceries and household goods, and as convenience items designed to be used only once. Some of these plastics cannot be reprocessed or recycled in New Zealand and there is widespread confusion about correct disposal. This means that many of these items either end up in the environment, or landfill, or until recently, were exported as low value mixed plastic waste to overseas countries.
- 23 Import restrictions imposed by China has resulted in the removal of the largest recycling market in the world for low-value mixed plastics. Similar measures by other countries to impose strict quality requirements and the recent impact of COVID-19 has seen further restraints<sup>13</sup>.
- 24 Adding to the problems set out above, kerbside recycling systems in New Zealand vary across regions with some collecting all plastic types and others collecting only high-value materials where access to reliable markets exist. In addition, because there is no standardised recycling labelling system in New Zealand, householders and consumers are unsure what to place in their recycling bins. This makes it difficult for recyclers to maintain clean streams of high-quality recyclable materials.

<sup>10</sup> Geyer et al., "Production, Use, and Fate of All Plastics Ever Made," *Science Advances* 3, no. 7 (2017), noted in the *Rethinking Plastics in Aotearoa New Zealand* Report, page 19.

<sup>11</sup> Ranked number two across ten issues with 69 per cent of adults and 61 per cent of youth highly concerned.

<sup>12</sup> Royal Society Te Aparangi (2019), *Plastics in the Environment*, <https://issuu.com/royalsocietynz/docs/plastics-in-the-environment/1?ff>

<sup>13</sup> New Zealand recently agreed to an amendment to the *Basel Convention for Transboundary Movements of Hazardous Waste*, which when implemented, will see further restrictions on the trade of low value and hard to recycle plastic packaging. Decisions on implementation are expected in late July 2020.

## Government Action on Waste

- 25 The Government has a waste and resource efficiency work programme underway, which aims to build a low waste economy, with an effective resource recovery and recycling system. Initiatives underway are:
- 25.1 the design of a container return scheme for beverage containers (with decisions expected in November 2020)
  - 25.2 regulated product stewardship schemes for problematic waste materials including tyres, agrichemicals (and their containers), e-waste, farm plastics, refrigerants and plastic packaging. The framework for these schemes was approved by Cabinet on 29 June 2020, [ENV-20-MIN-0024 refers]
  - 25.3 investment in onshore recycling and reprocessing infrastructure as part of a wider national resource recovery work programme (which has recently received COVID-19 Wave Three funding for a range of projects)
  - 25.4 the expansion of the waste disposal levy, approved by Cabinet on 4 June 2020 [ENV-20-MIN-0018 refers].
- 26 Work on plastic waste is a key part of the overall programme. In 2018, New Zealand joined the Ellen MacArthur Foundation and the United Nations Environment Programme's (UNEP) - New Plastics Economy Global Commitment. This sets out a global framework that outlines a vision for a circular plastics economy. In 2018, alongside Hon David Parker, I also launched New Zealand's own Plastic Packaging Declaration (NZPPD), which includes a commitment from businesses to using 100 per cent reusable, recyclable or compostable packaging by 2025<sup>14</sup>. In addition, early action taken was the mandatory phase out of microbeads used in personal care products in 2018, and single use plastic shopping bags in 2019.
- 27 In December 2019, the Prime Minister's Chief Science Advisor released the *Rethinking Plastics* report, which recommended a broad range of actions, including the development of a National Plastics Action Plan. As noted by the Environment, Energy and Climate Committee prior to release of the *Rethinking Plastics* report, the Government's preliminary response was to announce priority actions consistent with its recommendations. These were to;
- 27.1 Set goals to shift away from low-value, hard-to-recycle and single use plastics
  - 27.2 Stimulate innovation and development of solutions to the soft plastic problem
  - 27.3 Accelerate work with local government and industry on better and more consistent kerbside collection of recyclables.

<sup>14</sup> New Zealand participants in the declaration include Foodstuffs, Countdown (including SuperValue and Fresh Choice), New Zealand Post and Frucor Suntory. International participants include Amcor, Danone, L'Oréal, Mars, PepsiCo, The Coca-Cola Company, Unilever and Nestlé



27.4 Investigate options for a recycling labelling scheme for packaging.

- 28 A Government response to the *Rethinking Plastics* Report and an update on progress on items 27.3 and 27.4 above is contained in a separate Cabinet paper, *Government Response to the Rethinking Plastics Report*<sup>15</sup>. This paper deals with hard-to-recycle and single use plastics (item 27.1 above).

#### Hard-to-recycle and single use plastics

- 29 As set out above, some plastics in every-day use by consumers and households are not designed for reuse or recyclability, and can be hard to recycle due to limited markets onshore and internationally. This impacts the effectiveness of our recycling system and causes environmental harm. In addition, overuse and reliance on single-use plastic items is causing plastic pollution. To address these problems, and subject to public consultation, I propose to phase out:

- 29.1 food and beverage plastic packaging, made from PVC and polystyrene and all types of packaging made from EPS
- 29.2 all applications of oxo-degradable plastics (including packaging and any other use)
- 29.3 seven types of single use plastic items.

- 30 I see these phase outs as a key first step in cleaning up our waste stream, improving our recycling system and moving to more sustainable business practices. Our specific objectives for these proposals are:

- 30.1 reduced risk of adverse environmental impacts including through litter and poor environmental management practices
- 30.2 less contamination in our recycling stream and increased uptake of high-value packaging materials
- 30.3 improved recyclability of the overall plastic packaging stream to better reflect the principles of the waste hierarchy and a circular approach to resource management.

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<sup>15</sup> Due to be considered by the Cabinet Economic Development Committee on 29 July 2020

**Overview of Plastic Types**

31 Plastic waste is made up of seven different types of plastic, as per the graphic. Each material (or resin type) has unique properties making them suitable for different applications. Type (1), (2) and (5) are generally accepted as high-value recyclable materials.

32 Types, (3), (4), (6) and (7) are lower in value and harder to recycle. Type (4) is used as a soft-plastic and is useful for protecting food from contamination and deterioration. There are two types of polystyrene, hard polystyrene and expanded polystyrene (EPS). Type (7) is a catch all group, but includes oxo-degradable plastics (described in more detail below).

**Ease of recycling different types of plastics**



Figure 1: Ease of recycling different plastics – source: royalsociety.org.nz/plastics licenced under CC BY 3.0 NZ.

**PVC and polystyrene plastic packaging**

33 Both PVC (3) and polystyrene (6) are problematic. PVC and polystyrene are only small volumes (estimated as 133 tonnes (0.19 percent) and 1716 tonnes (2.47 percent) per annum respectively) of the overall plastic packaging waste stream but have disproportionately large impacts on our resource recovery system and environment.

34 PVC and polystyrene are used within the food and beverage industries for a variety of packaging applications, including meat and/or biscuit trays, snap off yoghurt pottles, takeaway containers and sushi packs. PVC and polystyrene are used for other types of packaging including homeware, electronics, toys, hardware and medical items. Because of its ability to cushion impact, EPS is often used as protective packaging for electronics and homeware.

35 Both waste material types have limited (if any) markets on shore and internationally. Reliable access to offshore recycling markets for low-value plastic was an existing problem prior to the COVID-19 pandemic. COVID-19 has created further disruption, making it more difficult to recycle these plastics.



- 36 By sight, PVC is not easily distinguished from high-value polyethylene terephthalate (PET, resin code (1)), making it a contaminant in the recycling system. It only takes a small concentration of PVC (0.005 percent by weight) to lead to significant quality reductions in a batch of clear PET and to devalue the recycled material. PVC interferes with our ability to effectively recycle and reprocess the full amount of PET placed in recycling bins by New Zealand households.
- 37 Polystyrene does not interfere with recycling in the same way as PVC but is difficult to recycle due to limited offshore markets. EPS is a source of marine litter. Recent data from Sustainable Coastlines demonstrates that foamed plastic containers, such as EPS, make up around 6.2 per cent of litter found on New Zealand beaches. This percentage may seem small but as EPS is lightweight it is easily windblown. It also fragments easily, making it high risk for causing microplastic pollution<sup>16</sup>.
- 38 To clean up our recycling system and limit environmental harm, I am recommending that we progressively phase out PVC and polystyrene food and beverage packaging, and all types of EPS plastic packaging<sup>17</sup>
- 39 Data showing the proportion of PVC and polystyrene currently in 'use' as food and beverage packaging compared with other types of packaging is not available. However, due to its 'fast moving' nature, food and beverage packaging, is likely to make up a high proportion of the materials collected through kerbside recycling. Although EPS used for other types of packaging is not as prevalent in the waste stream, EPS is hard to recycle and bulky by its nature, which makes it difficult to collect and transport and takes up space in landfill.
- 40 As set out in detail in the consultation document, many international jurisdictions are taking steps to deal with PVC and polystyrene, using a variety of approaches. Some international measures specifically target PVC and polystyrene (eg South Korea for PVC, a range of US states, including New York City, San Diego and Washington DC for polystyrene) and others target particular items made from such materials (eg European Union for beverage containers, cups, cutlery and plates). Overall, there is increasing momentum internationally toward measures that target single-use plastic items, increase producer responsibility through product stewardship, and create economic incentives for the use of recyclable plastics.
- 41 On timing for the phase out, PVC food and beverage packaging and some types of polystyrene packaging can be phased out in the short term, whereas others (for example high-impact polystyrene containers and EPS chiller bins) will take some time to move away from, suggesting a phased approach will be required. Because the phase out of EPS packaging is wider in scope, and will impact a broader range of products (including those imported as finished

<sup>16</sup> We note that all types of plastic can break down into microplastics

<sup>17</sup> Some exemptions may apply, as set out further in the consultation document. For example, an exemption may be available where there are no practicable alternatives to maintain the quality or safety of the product for distribution to either the New Zealand importer/retailer from overseas, or to overseas markets



products), my intention is to provide clear signalling, and a longer phase out time.

- 42 Subject to feedback via the consultation process, it is proposed to phase out all PVC food and beverage plastic packaging and some types of polystyrene by January 2023, with the remaining polystyrene food and beverage plastic packaging and all EPS packaging being phased out by January 2025, as set out below.

1	Stage One (soon – by January 2023):	5	Stage Two (later – by January 2025):
2	All PVC food and beverage packaging	6	All PS food and beverage packaging not already captured by Stage One.
3	Some PS food and beverage packaging	7	All other EPS packaging (e.g. homewares and electronics)

- 43 The proposed phase out will apply to products sold in New Zealand meaning that it will capture domestic products, as well as imported goods.
- 44 Officials expect that many businesses will adjust relatively quickly to the change and will absorb costs to transition to new materials or will pass on a small fee to consumers. In the case of the food and beverage sector, many of the larger supermarkets, brands, and manufacturers (including Countdown and Foodstuffs supermarkets) are already shifting away from use of PVC and polystyrene, and have indicated broad support for the change<sup>18</sup>.
- 45 Where the change required is more significant and may impact imports from international jurisdictions, clear signalling and longer phase out timings (in line with action taken overseas) will smooth the transition. The proposed changes will benefit the wider resource recovery sector including recyclers, re-processors and waste operators, making it more likely that the materials collected for recycling will not be contaminated and can be recycled into new materials. The preliminary assessment of impacts across all sectors are set out in more detail in the attached consultation document.

**Oxo-degradable plastics**

- 46 Oxo-degradable plastics are a specific type of degradable plastic. They are composed of either bio-based sources or traditional fossil fuel based plastics but incorporate specific additives that accelerate their degradation. These types of plastics become brittle and fragment into smaller sized pieces when exposed to heat, UV light, or a combination of both. Although use of such plastics is not widespread currently, their use is increasing, with common

<sup>18</sup> Officials from the Ministry for the Environment has engaged a range of stakeholders when developing this proposal, including with Fonterra, Packaging New Zealand, Countdown, Retail NZ, Plastics NZ and the Packaging Forum



applications being bin liners, dog waste bags, straws, cutlery, single-use plastic cups, refuse and compost sacks, food and clothes packaging, and agricultural mulch film.

- 47 Although they are often marketed as a better alternative to other types of plastic, oxo-degradable plastics cannot be composted or recycled. When disposed of, they can contaminate the waste stream, and degrade into microplastics that can enter the environment and ultimately, the food chain, with health impacts currently unclear.<sup>19</sup>
- 48 There is a risk that as the Government looks to restrict other types of plastics, some operators may promote oxo-degradable plastics as an environmentally friendly alternative. To avoid such plastics getting a foothold in the system, I am proposing that in line with a range of other jurisdictions, we take decisive action to phase out all applications of this type of plastic. Although such plastics are found in plastic packaging applications, they are also found in various types of refuse bags and single use items (such as straws and cups), so I am proposing a total phase out, not limited to food and beverage packaging, by January 2023.
- 49 On the basis of current knowledge, officials consider that alternatives are available for oxo-degradable plastics and business and consumer impact will be low (especially when balanced with environmental considerations). Consultation will enable officials to obtain detailed information on impacts, alternatives and timing of the proposed phase out.

**Mechanism for phase out – PVC and polystyrene food and beverage plastic packaging, all EPS packaging and oxo-degradable plastics**

- 50 To effect a phase out for the above plastic types, I considered a range of options, as set out in the consultation document, including voluntary action via a national agreement or pact, establishing packaging reduction targets, labelling requirements, imposing a levy or tax, product stewardship, and recycled content requirements. Options were assessed against criteria including effectiveness, cost, alignment with circular economy goals and achievability within existing legislative frameworks. Analysis of these options is set out in detail in the draft consultation document and public feedback sought on the analysis<sup>20</sup>.
- 51 Subject to feedback, my view is that a ban on the sale and manufacture of such plastic types and applications via regulation under the Waste Minimisation Act will provide a clear and effective means for removing PVC and polystyrene packaging and oxo-degradable plastic from the New Zealand waste stream. A mandatory phase-out will stop the flow of such plastics at the design and production stage and, align with the thinking set out in the *Rethinking Plastics* Report.

<sup>19</sup> Research on the risks of microplastics to human health has concluded that the dietary risk to microplastics cannot be determined at this time. New Zealand Food Safety Technical Paper No: 2019/09, *Risk Profile, Microplastics in the Diet*, November 2019, <https://www.mpi.govt.nz/dmsdocument/38756-risk-profile-microplastics-in-the-diet>

<sup>20</sup> The consultation document seeks feedback on the problem definition, objectives, options for phase out, criteria for evaluating options and analysis assessing the options



52 A mandatory phase out will require businesses and individuals to transition to using alternative products and packaging. For most packaging proposed for phase out in this document, there are clear alternatives. Businesses will either switch to other plastic materials like PET (1), HDPE (2) or polypropylene (5) that have good markets onshore and internationally. Alternatively, they may move to non-plastic alternatives like cardboard or glass (particularly for single-use plastic items or takeaway packaging). Guidance may be required to help support informed decisions by businesses and reduce the risk of unintended consequences (e.g. businesses moving to other hard-to-recycle materials or increased food waste).

**Single Use Plastics**

53 Single-use plastic items, including, drink stirrers, plates and cutlery, are often low-cost, and therefore quickly discarded as trash or litter, sometimes directly into the natural environment. Such items are often unnecessary and can be replaced with alternatives, or simply not used at all. They are often not recycled because they are often small and used “on the go”, so not easily collected, cleaned and sorted for recycling. These items cause environmental impacts, and can break down into microplastics.

54 Many businesses, particularly in the food and beverage industry, are moving to cease using such items and/or replacing them with alternatives, reflecting public concern. There are also many examples of items being phased out in overseas jurisdictions, as detailed in the attached consultation document. In proposing phase outs of a range of single use items, my objectives are to:

- 54.1 reduce the risk of adverse environmental impacts from single-use plastic items including through litter and poor environmental management practices; and
- 54.2 better reflect the principles of the waste hierarchy and a circular economy approach to resource management.

55 Following the Government announcement about further phase outs of single use items in December 2019, officials considered a long list of 15 items to target against a range of considerations, including availability of alternatives, impacts and risks and international precedent. Based on that analysis (see Appendix One) the table below sets out our recommendations about which items should be targeted for phase out, noting rationale, potential objections and other considerations.

(1) Recommended for phase out	(2) Recommended, for phase out, noting potential objections/issues	(3) Not recommended for phase out at this stage
Viable alternatives, good practice operators have already made the change	Desirable due to environmental/waste stream impact, some good practice operators have made the change but potential issues to be considered	No viable alternatives and/or information gaps/little international precedent.
• Straws (possible)	• Disposable cups made from hard-	• Cigarette filters (high



(1) Recommended for phase out	(2) Recommended, for phase out, noting potential objections/issues	(3) Not recommended for phase out at this stage
<p>Viable alternatives, good practice operators have already made the change</p> <ul style="list-style-type: none"> <li>exemption for disabled people and the health and care sectors)</li> <li>• Cotton buds (note possible exemption for medical and scientific applications)</li> <li>• Coffee/drink stirrers</li> <li>• Plastic cutlery and plates (may add some cost for smaller operators)</li> </ul>	<p>Desirable due to environmental/waste stream impact, some good practice operators have made the change but potential issues to be considered</p> <ul style="list-style-type: none"> <li>to-recycle plastics (types 3, 4, 6 and 7) including paper cups with plastic linings but excluding disposable coffee cups and cups made from recyclable plastics (high environmental impact and may require behaviour change as use is widespread).)</li> <li>• Plastic produce bags (high environmental impact but there may be objections based on hygiene/food safety considerations)</li> <li>• Produce stickers (high environmental impact but industry concerns may be raised about impacts for exporters, food safety and efficacy of alternatives)</li> </ul>	<p>No viable alternatives and/or information gaps/little international precedent.</p> <p>environmental impact, but complex considerations apply)</p> <ul style="list-style-type: none"> <li>• Plastic tea bags (limited information on environmental and business impact)</li> <li>• Bread tags (information gaps and no known commercial alternatives)</li> <li>• Till receipts (limited data on volumes, further information required on potential business impacts)</li> <li>• Balloons and balloon sticks (may require public education prior to action)</li> <li>• Glitter (may require public education prior to action)</li> <li>• Lollipop sticks (no international precedent and may result in product being pulled from market)</li> <li>• Wet wipes (will require behaviour change by consumers and objections on the basis of hygiene may be raised.</li> <li>• Disposable coffee cups (high environmental impact but will require behaviour change by consumers, may raise objections from the tourism sector).</li> </ul>

56 I am recommending that we target the items set out in columns (1) and (2) above for phase outs, subject to consultation to inform the detailed design of any phase out. In my view, this mix of items strikes the right balance between reducing environmental harm from single use plastics, and taking a progressive approach to change.

57 Details about each item, alternatives, a proposed definition<sup>21</sup> and preliminary thinking about potential exemptions for the recommended items are set out in the consultation document. As regards exemptions, I am particularly mindful of the need to ensure that disabled people still have access to essential tools

<sup>21</sup> In some cases, definitions may include alternatives that, although marketed as environmentally friendly, are in fact also harmful, such as degradable plastics, or plastics that cannot be composted unless under specific circumstances



to ensure that they can live in a dignified way. Accordingly, targeted consultation will be carried out with organisations representing disabled people and the care sector.

- 58 Following consultation, the timing of phase outs will be considered on a case by case basis, but we are proposing that all phase outs be in place by January 2025.
- 59 Disposable coffee cups and wet wipes, set out in column (3), both contain plastic and have high environmental impacts. Although reusable alternatives exist, I acknowledge that these may not always be accessible for every situation (eg, mobile coffee vendors, when travelling, or in health care settings). Plastic-free disposable alternatives are not widely available. Rather than proposing a phase out of these items, we are seeking feedback on other options to reduce their use such as scaling up re-use systems for coffee cups, investing in innovation, and better education. The consultation document also seeks feedback on what an appropriate timeframe would be to work toward a future phase out of these items, once viable alternatives are more readily available. The consultation document also seeks views about whether to phase out some of the other items set out in column (3), to inform future phase out proposals.
- 60 As set out in detail in the draft consultation document, the main benefit of the single-use plastic item phase outs are to the environment and local government which would have less waste and litter to manage. In addition, businesses that manufacture, import, or supply alternatives to single-use plastic goods may see a benefit. The main costs will fall on those businesses that manufacture or import single use plastics items included in the phase out, with the magnitude dependent on whether such items form a large part of their product lines or not. Retailers will need to meet any additional cost associated with moving to alternatives, which may be passed on to consumers. In some cases, retailers may save money by moving away from using the item altogether (eg straws).
- 61 Finally, I see these phase outs as contributing to an overall cultural shift on the part of consumers and businesses. In the months leading up to the plastic bag ban coming into force, we saw a rapid change in behaviour amongst the public. Data collected by Statistics NZ suggested that by the beginning of 2019, reusable bag use was very high with 96 per cent of people surveyed stating they (or someone in their household) usually used a reusable bag. This was months before the bag ban came into effect.

#### **Mechanism for Phase out – Single Use Items**

- 62 To effect a phase out for the proposed single use items, I considered a range of options, including voluntary action via a national agreement or pact, establishing targets for reducing single-use plastics, labelling requirements, imposing a levy or tax, product stewardship and mandatory phase out by regulation. As set out in detail in the consultation document, these options were assessed against criteria including effectiveness, cost, alignment with



circular economy goals and achievability within existing legislative frameworks.

- 63 Subject to consultation, our preferred option is a restriction on the sale and manufacture of such items under the Waste Minimisation Act (discussed further below). Internationally, bans have significantly reduced the use of single-use plastic items and their presence in litter overseas. Due to the relative simplicity of such a measure, administrative and transaction costs are likely to be less than the other options.

#### Requirements for Mandatory Phase Outs

- 64 The Waste Minimisation Act 2008 (WMA) provides for the making of regulations to mandate a phase out of the items as recommended above. Section 23(1)(b) of the WMA provides for making regulations controlling or prohibiting the manufacture or sale of products that contain specified materials.
- 65 Through the Gazetting of regulations, a date would be set for the prohibition of the sale or distribution of a specified plastic material or item allowing for time for consumers/businesses to adjust to the requirements. Phase-out dates could vary depending on the individual plastic types and/or item and the adjustments that businesses will need to make to be compliant.
- 66 There are requirements that must be met before making regulations under the WMA including:
- 66.1 adequate consultation with persons or organisations who may be significantly affected
  - 66.2 reasonably practicable alternatives are available;
  - 66.3 cost benefit analysis – the benefits should exceed the cost of implementing the regulations; and
  - 66.4 consistency with New Zealand's international obligations and the purpose of the Waste Minimisation Act.
- 67 Our preliminary analysis has indicated that the above requirements can be met, but consultation is required to provide detailed information to support that analysis and develop final policy proposals.

#### Proposed Approach to Consultation and Timing

- 68 I recommend that Cabinet approve the release of a consultation document as per Appendix Two (as adjusted in line with Cabinet decisions). I expect the consultation process to gauge support for the proposals across iwi/Māori and a broad range of stakeholders, including business, councils, consumers, and NGOs. Business consultation will provide useful information to inform thinking on impact, timing of phase outs, potential exemptions and complementary measures. This information will be particularly important to ensure that the impacts of the COVID -19 crisis are factored into ultimate decisions, so businesses are supported and empowered to make change.

- 69 I am mindful of the impact of the COVID-19 pandemic on businesses, especially those in the food and beverage and tourism sectors, and the risk that this may limit some businesses' capacity to respond. Officials from the Ministry for the Environment are planning to work closely with various industry body groups to ensure that their views are captured as part of the consultation. This may include carrying out webinars and other direct forms of consultation.
- 70 In line with advice from the Office for Disability Issues, the Ministry for the Environment will prepare alternate formats for the consultation document to ensure that it is fully accessible, and will engage with groups representing the interests of disabled people, such as the Disabled People's Organisations Coalition.

### Next Steps and Timing

- 71 Subject to Cabinet decisions, I intend to release the consultation document<sup>22</sup> with the consultation period lasting for 12 weeks. To reduce delays, I recommend that authority to approve the final consultation document be delegated to me as the Associate Minister for Environment, subject to consistency with Cabinet decisions.
- 72 As agreed with the Prime Minister's office, I intend to launch the consultation document in the week beginning 3 August 2020, with consultation to run until the week beginning 26 October 2020. I understand that in the weeks prior to the General Election, the Ministry for the Environment will engage with targeted stakeholder groups to seek specific feedback on the technical detail contained in the proposals. In the weeks following the General Election, the Ministry for the Environment will encourage engagement with the broader public and as part of this process, may develop a shorter summary document to help with public understanding of the proposals.
- 73 Following completion of the consultation process, there will be a report back to Cabinet on the outcomes and, if appropriate, policy decisions will be sought.

### Financial Implications

- 74 I anticipate that if these proposals go ahead, implementation will place costs on industry and government, including the costs of supporting education, awareness and compliance. Information gathered during consultation will help inform the quantum of these costs. There may be reduced costs to Councils and recycling facilities due to reduced waste stream contamination.

### Legislative Implications

- 75 After consultation and final policy decisions have been made, regulations will be made under the Waste Minimisation Act 2008. The requirements to be met prior to making such regulations are set out at paragraph 65. See also paragraph 81, on consistency with New Zealand's international obligations.

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<sup>22</sup> Adjusted as necessary to reflect Cabinet decisions



### Regulatory Impact Analysis

- 76 The attached consultation document substitutes for a Regulatory Impact Assessment. The joint Quality Assurance Panel (chaired by the Ministry for the Environment, with a representative from the Regulatory Quality Team at the Treasury) has reviewed the consultation document and confirmed that it is likely to lead to effective consultation and support the delivery of Regulatory Impact Analysis to support subsequent decisions.

### Climate Implications of Policy Assessment

- 77 The Ministry for the Environment has determined that the Climate Implications of Policy Assessment requirements do not apply to this proposal as the threshold for significance is not met.

### Population Implications

- 78 Phase outs of some items (for example, single use plastic straws) may impact disabled people and the care sector. As set out above, we expect to receive further information about impacts on disabled people via targeted consultation, to inform final policy decisions and potential exemptions. We are not aware of specific impacts for other population groups, but this can be tested as part of the consultation process.

### Human Rights

- 79 The proposals in this paper and the attached consultation document are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

### Consultation

- 80 Te Puni Kōkiri and the Department of Internal Affairs, have been consulted on the proposals outlined in this paper. The Department of Prime Minister and Cabinet has been informed.
- 81 The Treasury, Ministry of Foreign Affairs and Trade (MFAT), Ministry of Business, Innovation and Employment (MBIE), Department of Conservation, Ministry of Primary Industries, the Environmental Protection Authority, the Ministry of Health and the Ministry of Social Development (including the Office for Disability Issues) have provided feedback on the proposals, which have been reflected in this paper.

- 82 s 9(2)(h)
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s 9(2)(h)

- 83 Ministry for the Environment officials also consulted with the Office of the Prime Minister's Chief Science Advisor, who confirmed support for the proposals set out in this paper, and suggested minor adjustments to the consultation document, which have been incorporated.
- 84 Ministry for the Environment officials consulted with a number of key stakeholders to inform the proposals set out in this paper, including Zespri, Visy, Packaging New Zealand, Auckland Council, Sustainable Coastlines, WasteMINZ, Reclaim, Countdown, Retail NZ, Plastics NZ and the Packaging Forum. It should be noted that this consultation was carried out prior to the COVID 19 pandemic. In addition, Ministry officials have recently consulted with Fonterra about the proposals.

#### Communications

- 85 Should Cabinet agree to the recommendations in this paper, the attached consultation document will be released on the Ministry for the Environment's website for public comment. Advertising about the proposals and requests for feedback will be commenced after the General Election on 19 September 2020.
- 86 I intend to issue a media release to announce the proposals, with details to be confirmed in consultation with the office of the Prime Minister.

#### Proactive Release

- 87 I propose to proactively release this Cabinet paper at the same time as the consultation document. The documents will be redacted as appropriate under the Official Information Act 1982. MFAT have advised that it considers the advice contained in paragraph 81 to be legally privileged.

#### Recommendations

- 88 The Associate Minister for the Environment recommends that the Committee:

##### General

1. **Note** that the Government has a broad waste/resource efficiency work programme underway, which aims to build an effective and resilient system for reducing, recycling and managing our waste responsibly
2. **Note** that in response to the *Rethinking Plastics in Aotearoa New Zealand* report, work is underway to develop a national action plan and advice on high priority items, including standardising kerbside collection and enabling recycling labelling on packaging, with a report back on progress, scheduled for consideration by the Cabinet Economic Development Committee on 29 July 2020.



3. **Note** that there is an opportunity to improve the plastic waste management system and reduce harm to the environment by taking action to phase out certain types of hard-to-recycle plastics and single use items.
4. **Note** that the Waste Minimisation Act 2008 requires that adequate consultation is undertaken with persons or organisations who may be significantly affected by regulations (s 23(3)(b)(i)), prior to regulations being made
5. **Note** that work is under way to consider potential implications to our international obligations, so it can be considered when final policy proposals are considered

Polyvinyl chloride and Polystyrene plastic packaging

6. **Note** that the use of packaging made from polyvinyl chloride and polystyrene negatively affects New Zealand's resource recovery system and causes environmental harm
7. **Agree** to publicly consult on a mandatory, progressive phase out of food and beverage plastic packaging made from polyvinyl chloride and polystyrene, and all packaging made from expanded polystyrene, via regulation subject to meeting the requirements of the Waste Minimisation Act 2008, and the outcome of public consultation
8. **Agree** that the consultation document will propose phase out timing as follows:
  - a. All PVC and some polystyrene food and beverage packaging (details to be confirmed), by January 2023
  - b. All other types of food and beverage plastic packaging made from polystyrene and all plastic packaging made from expanded polystyrene by January 2025.

Oxo-degradable plastics

9. **Note** that oxo-degradable plastics degrade into microplastics and cannot be recycled or composted, causing contamination of the waste stream and environmental harm
10. **Agree** to publicly consult on proposals for a mandatory phase out of the sale and manufacture of all types of oxo-degradable plastics via regulation subject to meeting the requirements of the Waste Minimisation Act 2008, and the outcome of public consultation.
11. **Agree** that the consultation document will propose phase out timing for all types of oxo-degradable plastics by January 2023.

Single use plastic items

12. **Note** that the use of unnecessary plastic single-use items harms the natural environment and does not align with a circular plastics economy

IN CONFIDENCE

13. **Agree** to publicly consult on proposals for a mandatory phase out of the items listed below, via regulations, subject to meeting the requirements of the Waste Minimisation Act 2008, and the outcome of public consultation;
- a. plastic straws,
  - b. plastic cotton buds,
  - c. plastic drinks stirrers,
  - d. single use plastic table ware,
  - e. single use plastic produce bags,
  - f. single-use cups made from hard-to-recycle plastic types 3, 4, 6 and 7 (including lids and excluding coffee cups), and
  - g. non-compostable produce stickers.

14. **Agree** that the consultation document will propose that timing for agreed single-use item phase outs is confirmed post consultation, but that such phase out dates will not be later than January 2025.

Consultation Document, Media and Next Steps

15. **Agree** to release the attached consultation document, (adjusted if necessary in line with Cabinet decisions)
16. **Agree** to delegate authority to the Associate Minister for the Environment (Hon Eugenie Sage) to make changes needed to the consultation document in line with the policy intent outlined in this Cabinet paper and in accordance with Cabinet decisions
17. **Agree** that the consultation document will be published on the Ministry for the Environment website in the week beginning 3 August 2020 and that consultation will run for approximately 12 weeks until the week beginning 26 October 2020.
18. **Note** that the Ministry for the Environment will engage with targeted stakeholder groups to seek feedback on the proposals in the weeks prior to the General Election. In the weeks following the General Election, the Ministry for the Environment will encourage engagement with the broader public.
19. **Note** that the Associate Minister for the Environment (Hon Eugenie Sage) intends to release a media announcement to accompany the public consultation, with details to be confirmed with the office of the Prime Minister.
20. **Note** that the Associate Minister for the Environment will report back to Cabinet on the outcomes of the consultation and, if appropriate, seek policy decisions.



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Authorised for lodgement.

Hon Eugenie Sage

Associate Minister for the Environment

Proactively released under the provisions  
of the Official Information Act 1982

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Appendix 1 – Single Use Items Analysis

Single-use Plastic Item	Viable Alternative(s)	Environmental Impact	Waste Industry Impact	Business Impact	Extent of public behaviour change required	Other considerations (including risks, exemptions and international precedent)
Straws	Single-use paper straws, and reusable straws (metal, bamboo, etc.)	High impact on marine life, source of litter	Minimal	Minimal  Many businesses are already phasing out straws voluntarily.	Minimal	Some people require a straw due to physical disabilities or conditions. We could make pharmacies or similar specialist stores exempt from the ban.  Several international bans (UK, China, France and EU). Proposed bans in South Australia and Canada
Cotton buds	<ul style="list-style-type: none"> <li>Paper cotton buds</li> <li>Reusable options with metal or wooden handles and replaceable heads.</li> </ul>	High for marine life and litter	Minimal	Minimal  Some supermarkets have already moved to biodegradable paper options which are available for roughly the same price as plastic cotton buds.	Minimal	Potential exemption for medical, forensic and scientific purposes  Bans to take effect in France, UK, China and EU (by 2021 at the latest)
Coffee/ drink stirrers	<ul style="list-style-type: none"> <li>Single-use fibre/ wooden options</li> <li>Reusable utensils</li> </ul>	Low- Medium. sometimes littered, often sent to landfill	Low  Can contaminate recycling	Minimal	Minimal	Bans planned in UK, France and the EU, between 2020 and 2021. Proposed bans in South Australia and Canada
Plastic barrier (produce) bags	<ul style="list-style-type: none"> <li>Reusable produce bags</li> <li>Going without is often an option</li> </ul>	Medium as a source of pollution and contamination	Low-medium as they can contaminate recycling streams	Minimal	Minimal - Stakeholders have suggested that consumers are generally happily go without once the existing option is removed	No specific international bans but voluntary action taken by supermarkets



Single-use Plastic Item	Viable Alternative(s)	Environmental Impact	Waste Industry Impact	Business Impact	Extent of public behaviour change required	Other considerations (including risks, exemptions and international precedent)
Table ware, plastic cutlery and plates	<ul style="list-style-type: none"> <li>Paper, wooden, cardboard and bamboo cutlery.</li> <li>Paper and cardboard plates.</li> <li>Reusable plates and cutlery.</li> </ul>	Medium impacts as these items are often littered on the move, creating micro plastic pollution.	Medium as these items can contaminate recycling and organics collections	<p>Minimal</p> <p>Non-plastic alternatives tend to be more expensive so small takeaway businesses may see increased costs if they continue to use single use table ware</p>	Minimal	France, EU and China have all taken some action to reduce the use of these items. Proposed bans in South Australia and Canada
Plastic single-use cups <sup>23</sup> (including plastic-lined cups and lids)	<ul style="list-style-type: none"> <li>Reusable cups (personally owned, exchangeable, or dine-in options).</li> <li>Some fibre only alternatives are in development but are not yet widely available</li> </ul>	High as a source of litter and contamination.	Medium – high as these items often contaminate recycling and organics collections	<p>Medium - High</p> <p>Alternatives without plastic are not widely available with one known supplier in New Zealand. Mobile vendors may incur the biggest impact from a blanket ban on cups, as they cannot easily implement a cup exchange scheme. Manufacturers and importers of single-use cups will also be impacted</p>	<p>Moderate – high</p> <p>A culture shift away from disposable options would be required</p>	France, Scotland and EU are all moving to regulate against plastic cups (including lids) over the next 2 years
Non compostable produce stickers	<ul style="list-style-type: none"> <li>Commercially compostable stickers</li> <li>Alternative labelling methods such as signposting, stamping or lasering.</li> <li>Go without stickers</li> </ul>	High as plastic stickers contaminate compost, adding microplastics to soils	High Causes contamination of composts	<p>Moderate - high</p> <ul style="list-style-type: none"> <li>Supermarkets have indicated that it may be too difficult for their staff/ customers to differentiate fruit varieties at checkout.</li> <li>Food safety may be a concern if a product was needing to be recalled and it had been mixed with similar varieties.</li> <li>Fruit growers have expressed concerns over increased costs (for</li> </ul>	Minimal	<p>Government intervention rare but voluntary action by major supermarkets in the UK has seen removal</p> <p>Trade implications (re traceability and branding) need to be considered</p> <p>Plastic stickers could still be used on exported products,</p>

<sup>23</sup> Single-use cups are discussed here as a broader category that encompasses all types of single-use cups including disposable coffee cups.

Single-use Plastic Item	Viable Alternative(s)	Environmental Impact	Waste Industry Impact	Business Impact	Extent of public behaviour change required	Other considerations (including risks, exemptions and international precedent)
				compostable stickers or converting to lasering options) and issues around marketing their products, traceability and assurance of food safety.		where long transit and storage times make compostable stickers less viable.
Lollipop sticks	<ul style="list-style-type: none"> <li>Fibre-based sticks are already in use by some companies.</li> </ul>	High as a source of litter and microplastic pollution	Minimal	Moderate, as brands of imported lollies use plastic sticks and may need time to adjust their production. Overseas manufacturers are prevalent in this area and a quick ban might inadvertently ban certain products (e.g. Chupa Chups)	Education on negative impacts may be required prior to any phase out	No international examples
Wet wipes that contain plastic	<ul style="list-style-type: none"> <li>Reusable cloths</li> <li>Cotton pads</li> <li>Wet wipes that do not contain plastics (one known supplier available)</li> </ul>	High Causes blockages in waste water systems	Medium	Most retailers of wet wipes will sell other products so we would expect a phase out to have little impact on their overall profit margin Manufacturers will be significantly affected	Consumers may be concerned about lack of access to wet wipes but may respond well if educated on non- plastic alternatives and protocols re flushing	EU requires extended producer responsibility scheme by 2024  Some voluntary action by supermarkets and department stores in UK  Consideration would have to be given to exemptions for the health, disability and care sector
Balloons and balloon sticks	<ul style="list-style-type: none"> <li>Rubber alternatives, banners or streamers</li> <li>Wooden alternatives to balloon sticks already exist.</li> </ul>	High as a source of litter and microplastic pollution  Medium as these are less common..	Low-medium as they can contaminate recycling streams	Minimal	Education on negative impacts may be required prior to or in place of any phase out	Extended responsibility schemes to apply to balloons and balloon sticks in EU from 2024 (with actions to raise awareness)
Glitter	<ul style="list-style-type: none"> <li>No clear alternative to glitter that completely removes plastic yet, but</li> </ul>	High as a source of litter and microplastic pollution	Minimal	Minimal	Education on negative impacts may be required prior to or in place of any	We are not aware of governments acting to restrict the use of glitter.



Single-use Plastic Item	Viable Alternative(s)	Environmental Impact	Waste Industry Impact	Business Impact	Extent of public behaviour change required	Other considerations (including risks, exemptions and international precedent)
	some are in development.				phase out	Some retailers have taken voluntary measures (eg UK department store chain, Selfridges will ban all plastic-based cosmetic glitter by 2021)
<b>Till receipts</b>	<ul style="list-style-type: none"> <li>Paper receipts printed with ink</li> <li>E receipts</li> </ul>	High although data is limited	Unknown	Medium to high  Changing till receipt systems may require significant costs on small and large businesses.	Minimal  Chemicals used are harmful to humans	Switzerland and EU have banned the use of paper of the type used for till receipts  New York City is considering a ban. Some voluntary action (eg US company Trader Joes)
<b>Cigarette filters</b>	<p>Alternatives not widely available.</p> <p>Using filter less cigarettes may have negative health consequences</p>	High as one of the most commonly littered items	Moderate as it is often littered so it does not enter the waste stream	A lack of alternatives would mean significant business impact on producers and retailers	A health/ education and social services response to smoking is likely a better option than banning cigarette filters. environmental outcomes	EU is taking measures to improve labelling and awareness of environmental impacts
<b>Bread tags</b>	<p>Little work has been done to develop alternatives</p> <p>Moving away from plastic packaging may be required (which would likely increase feed waste)</p>	Unknown Limited data, but bread sales volumes suggests high numbers are disposed of	Unclear	Phase out would require businesses to change packaging systems. Costing small and large businesses	Minimal, although consumers may be concerned about retaining bread freshness	No evidence of phase outs internationally
<b>Plastic tea bags</b>	<p>Loose leaf teabags and strainers</p> <p>Plastic free teabags</p>	Unknown, Limited data	Unknown	<p>Unclear but likely medium to high - A change could require manufacturers to change their processes</p> <p>Some manufacturers are taking action voluntarily</p>	Education on negative impacts may be required prior to any phase out	We are not aware of any bans except for a proposed ban in France