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## Executive Summary

Globally and locally, community awareness and concern about plastic consumption and pollution is at an unprecedented level. This gives rise to increasing community expectations that businesses and governments will do more to address single-use plastic items (SUPI).

The bans introduced in the *Waste Reduction and Recycling Act 2011* (WRR Act) have been effective, achieving their objectives to:

- promote and support the waste and resource management hierarchy; and
- reduce plastic pollution by reducing the number of items used or sold and become waste and are littered or disposed of to landfill; and
- encourage retailers and consumers to reduce the use and sale of single-use plastic items; and use suitable alternatives to single-use plastic items; and
- encourage manufacturers to identify innovative product designs for sustainable alternatives; and
- recognise the needs of persons with a disability and healthcare needs; and
- ensure manufacturers and consumers are aware of and understand information about compostable plastic items.

The lightweight plastic shopping bag ban resulted in a significant reduction in the supply and sale of plastic bags in Queensland. Litter audit results demonstrate a 70 per cent decrease in these bags being littered.

Consultation survey results report the lightweight plastic shopping bag ban has had a positive effect on the community and retailers, with those surveyed feeling that the implementation of the ban ran smoothly.

Litter audit results support the effectiveness of the single-use plastic items ban through a reduction in the volume of plastic cutlery and straws littered to the environment. Consultation survey results identified that 91 per cent of survey respondents reported that the ban had no effect, or a positive effect. Of the small percentage of people that noted the ban negatively impacted them (9 per cent), the primary cause of dissatisfaction was the identified as the performance of replacement products (i.e. in particular, paper straws).

Industry stakeholders, community members and retailers all had a good understanding of the single-use plastic items that were banned in Queensland. However, the survey identified some confusion regarding suitable alternative products, and in particular how best to dispose of the alternative products. Industry stakeholders and retailers raised inconsistency of single-use plastic bans across Australia, noting that this causes complications, frustration, and confusion. Queensland Government has continued engagement with key stakeholders and the community prior to progressing further actions. The National Retail Association has been engaged to deliver regular information sessions, meetings, a call centre service, website material and sharable resources as well as face to face engagement throughout retail precincts. This is designed to ensure the community and retailers are aware of the requirements and to conduction compliance activities supporting bans and suitable alternatives.

Like the banned single-use plastic items, many of the alternate products are designed for use only once (e.g. paper straws, bamboo cutlery). Action is needed to move away from a linear model where products are made, used and then disposed of to landfill. Where single-use items cannot be avoided, it is critical for actions which support a circular economy, where products and materials are kept circulating within the economy at their highest value for as long as possible (e.g. through reuse and recycling) are taken.

To continue reducing single-use problematic and unnecessary plastic items and achieve long term benefits which support a circular economy, several recommendations have been made. These are outlined in tables in the Summary of Findings and Recommendations section.

Regarding future plastic bans, 87 percent of survey participants from the community support further action. This includes banning additional single-use plastic items in the next few years. This support mirrors results from previous consultation. However, retailers are less supportive of future bans, primarily due to the perception that suitable alternatives may not be available, alternative items may have increased costs or concerns about customer complaints. Replacing one single-use item with another single-use item made of an alternative material may not greatly impact community. However, this approach may not deliver significant environmental benefits which are highly dependent on the lifecycle impacts of the alternative material.

Lifecycle assessments can guide future policies to achieve both waste hierarchy and circular economy principles and this work is currently underway. Further legislation will require public consultation and impact assessment before further bans can be introduced. Subject to this work, the recommendations of this review together with national collaborative actions, will guide the next phase of addressing plastic pollution in Queensland.

# Summary of review findings and recommendations

## WRR Act objectives of Part 3AA Plastic items

Objective	Finding	Recommendation
Promoting and supporting the waste and resource management hierarchy	Elimination of items is the most preferable outcome to managing waste as set out in the waste and resource management hierarchy.	Continue delivering waste reduction actions addressing plastic pollution in line with the waste and resource management hierarchy.
Reduce plastic pollution by reducing the number of items used or sold and become waste and are littered or disposed of to landfill	Banning the supply of items achieves avoiding those items being used or sold or becoming waste and being littered or disposed of to landfill.	
Encourage retailers and consumers to reduce the use and sale of single-use plastic items	The introduction of bans has increased retailer and consumer awareness. However, further work is needed to reduce the use and sale of single-use plastic items by retailers and consumers.	Increase consumer and retailer awareness through education on waste reduction and reuse behaviours.  Continue to support programs such as Plastic Free Places to deliver education where items are used.
Use suitable alternatives to single-use plastic items	Following the bans there has been an increase in the availability of alternatives to single-use plastic items, e.g. bamboo, paper. There has also been an increase in the availability of reusable items such as metal straws, plastic cutlery.	Continue delivering waste reduction actions addressing plastic pollution in line with the waste and resource management hierarchy, and awareness and education programs.  Undertake lifecycle assessment of alternative products to inform guidance material of suitable alternative items.
Encourage manufacturers to identify innovative product designs for sustainable alternatives	Stakeholders reported some confusion regarding suitable alternative items, particularly with compostable products and where to source these.  Challenges have been encountered with alternative items being fit-for-purpose and meeting food safety standards.	Ensure stakeholder engagement and industry partnerships to identify innovative product designs.  Support industry research and innovation programs to develop new solutions.  Provide sufficient timeframes between announcement and action commencement to ensure suitable alternatives are available.
Recognise the needs of persons with a disability and healthcare needs	The WRR Act provides exemptions for persons with a disability and healthcare needs to continue to use the items subject to the single-use plastic items (SUPI) bans. This does not preclude persons with a disability or healthcare from using alternative items.	Ensure stakeholder engagement and industry partnerships continue to deliver actions recognising all of community's needs.

SUPI Ban review item	Finding	Recommendation
Effect of the ban on the community, especially persons with a disability or healthcare need	<p>43 per cent of the community sector survey respondents felt the ban had a positive impact on them personally, while 48 per cent felt it had no impact on them.</p> <p>52 per cent of retailers interviewed reported both a positive and negative impact.</p> <p>The WRR Act provides exemptions for persons with a disability and healthcare need to continue to use the items subject to the single-use plastic items (SUPI) bans. This does not preclude persons with a disability or healthcare from using alternative items.</p>	No change to the exemption enabling persons with a disability or healthcare need to use banned single-use plastic items.
<p>Level of public knowledge and understanding about the ban, including:</p> <ul style="list-style-type: none"> <li>: what is or is not a banned single-use plastic item</li> <li>: alternatives to banned single-use plastic items</li> <li>: whether or not plastic items are compostable</li> </ul>	<p>87 per cent of Queenslanders were aware of the bans.</p> <p>Stakeholders reported frustration about lack of national consistency.</p> <p>Some difficulties reported from stakeholders in sourcing alternative products.</p> <p>Industry reported that obtaining clarity from suppliers on the specific composition of alternative items can be challenging.</p>	<p>Continue communication and engagement approaches that have been employed.</p> <p>Continue participation with national harmonisation work.</p> <p>Work with industry partners to assist with availability of information on suitable and compliant alternative items.</p>
<p>Effectiveness of the ban in reducing the number of single-use plastic items</p> <ul style="list-style-type: none"> <li>: used or sold</li> <li>: that become waste and are littered or disposed of to landfill</li> </ul>	<p>Banning the supply of items has significantly reduced the number of SUPI. ,This is notwithstanding some reports of places that still have items available. (Discussed further in compliance).</p> <p>57 per cent of survey participants reported taking or using sustainable or reusable items and 55 per cent reported choosing products with less packaging.</p> <p>85 per cent of retailers made changes beyond the banned items.</p> <p>Retailers reported a need for more recycling and composting facilities, particularly in shopping centres / centre management.</p> <p>Littering behaviour of straws slightly declined to 1.2 items per 1,000 m<sup>2</sup> at the last audit in March 2023. A product substitution appears to be occurring, with paper straws littered increasing from 0.1 to 0.7 items per 1,000 m<sup>2</sup>. The concentration of plastic straws has reduced from 1.4 to 0.5 items per 1,000m<sup>2</sup>, with paper straws now more commonly littered.</p>	<p>Continue delivering on actions in the Plastics Plan, including recovery and recycling pathways.</p> <p>Investigate undertaking work with industry on waste diversion in shopping centres.</p> <p>Continue delivering waste reduction actions addressing plastic pollution in line with the waste and resource management hierarchy, and awareness and education programs.</p> <p>Increase consumer and retailer awareness through education on waste reduction and reuse behaviours.</p> <p>Continue broader educational and compliance activities to reduce littering.</p>
Effect of the ban on the use or sale of alternatives to single-use plastic items, including whether or not the alternatives are sustainable or designed to be used only once	<p>A number of the alternative products are generally designed or only practically useful for single use (e.g. paper straws and bamboo cutlery).</p> <p>Industry reported concerns with a proliferation of alternative products impacting recycling options and preventing circular economy opportunities.</p>	Undertake further analysis of materials of alternative products, through lifecycle assessment (LCA) studies.

<b>SUPI Ban review item</b>	<b>Finding</b>	<b>Recommendation</b>
Level of compliance with the ban	<p>167 reports of suspected non-compliance were investigated by the National Retail Association. 95 per cent of these reports found retailers were compliant. The NRA worked with the remaining businesses facilitating their becoming compliant.</p> <p>2,667 spot-checks across 337 precincts were conducted.</p>	Continue to work with the NRA to monitor compliance, information available and support for businesses to ensure maximum compliance with the bans.
<b>Ministers' requested items for review Item</b>	<b>Finding</b>	<b>Recommendation</b>
Consider the appropriateness of schools being defined as an exempt business or undertaking (permitting them to supply banned SUPI)	<p>Many schools have led the way with the war on waste through the implementation of the Straw No More campaign and many others.</p> <p>Comparing other jurisdictions, no other state or territory government provides a specific exemption for schools or places of education.</p>	Consideration of the results of public consultation is required prior to any proposed changes to the legislation. Public consultation would be required for any proposal to remove schools as an exempt business.
Consider the appropriateness of an expiry date ceasing the exemption for banned items that are part of a shelf ready packaged product	<p>Western Australia and Australian Capital Territory have exemptions for shelf ready products without an expiry date. Of the other states that have an existing ban on shelf-ready products (New South Wales, Victoria, South Australia), all have an expiry date of 1 January 2025, 1 January 2026 and 1 September 2025.</p> <p>Litter reports continued to identify shelf-ready items that are included as pre-packed and continue to end up as litter.</p> <p>In an effort toward national harmonisation, Queensland introduced an expiry date of 31 December 2025, with the 2023 legislative amendments broadening the SUPI ban.</p>	The expiry date of 31 December 2025 has been set.
<b>Other items for review</b>		
Exemption for disability or healthcare need	<p>Other jurisdictions limit the exemption to straws only.</p> <p>Queensland's exemption is for all banned SUPI, based on advice received from the Disability sector.</p>	No change to the current exemption provisions for people with a disability or healthcare needs.
Definitions and legislative clarity	Enquiries have been received seeking clarity on the meaning of "single-use" and "reusability" and whether the ban included bowls used for animals or whether straws included straws used for research.	In line with national harmonisation work, the Queensland Government will consider the appropriateness of the terms used in the WRR Act to ensure they adequately meet the original intent of the single-use plastics ban.
Plastic lined plates and bowls	Difficulties were identified with sourcing suitable food grade plastic-lined paper plates and bowls. Four of the five jurisdictions with bans on plastic plates have an exemption with an expiry date.	Consideration for prescribing a time limited exemption for plastic lined plates and bowls, and consideration of industry reporting on the progress of sourcing food safe alternative items.

SUPI Ban review item	Finding	Recommendation
Penalties associated with false or misleading information	New South Wales and Victoria have the highest penalties in the country for providing false or misleading information regarding banned single-use plastic items, Australian Capital Territory has maximum penalty amounts similar to Queensland and Western Australia has the lowest maximum penalty amount of \$5,000.	No further action as the maximum penalty amount for providing false or misleading information in relation to a banned single-use plastic item in Queensland is considered appropriate.
Plastics Plan outcome areas	Many actions in Queensland focus on the “away from home” outcome area, with items being banned and program support through programs such as Plastic Free Places focusing on items used away from the home.	The Queensland Government will consider actions addressing other outcome areas (e.g. marine, agricultural, industrial, and commercial areas). Consideration for guidance on product design standards, product stewardship schemes and effective collection pathways driving a circular economy for plastic in Queensland.

Bag ban	Finding	Recommendation
Effect on the community and retailers	95 per cent reported adjusting well to the change. 89 per cent of retailers surveyed had positive experiences as a result of the ban, although 59 per cent also experienced negative consequences, most commonly being customer negativity.	No recommendation required.
Level of retailers’ knowledge and understanding about the prohibition on giving banned plastic shopping bags to persons	75 per cent of retailers surveyed had a good awareness and understanding of the ban. Further information of why the ban was being introduced and the types of plastics covered by the ban were requested.	The Queensland Government is committed to early engagement with the community, businesses and impacted stakeholders for all future bans. This will enhance knowledge and understanding about future potential bans.
Effectiveness in reducing the quantity of banned plastic shopping bags - : used or : becomes waste and is littered or disposed of to landfill.	Results reported one third of survey participants had not had to purchase shopping bags from supermarkets in the previous eight months, with those who had reporting having to purchase infrequently (every fifth shop or less). Litter audits conducted in the first 12 months after the ban commenced indicated a 70 per cent reduction in plastic bag litter. Despite litter increasing post pandemic, lightweight plastic shopping bags decreased. Compared with other litter items, plastic bags seem to have become less common in the environment.	Bans are effective in eliminating single-use items. Support to encourage reuse behaviours and develop new, more sustainable products will be the focus for future actions.

## Purpose of this Report

This Report consists of two separate legislative review processes under the *Waste Reduction and Recycling Act 2011* (WRR Act); a review of Part A (single-use plastic items ban) and Part B (lightweight plastic shopping bag ban). The lightweight plastic shopping bag review, required under section 99G of the WRR Act, was hindered by the inability to conduct litter monitoring audits due to the COVID-19 pandemic intra and interstate travel restrictions. Litter monitoring audits are a key component in assessing the effectiveness of bans. They were conducted across more than 270 sites annually across Queensland between October 2018 and March 2020. COVID restrictions, including restrictions on travel into vulnerable communities, prevented audits from mid-2020 to November 2022. This Report provides a holistic review of Queensland's single-use plastics policy instruments including specific bans and trends over an extended time enabling assessment of the necessary long-term change required.

### Single-use plastic items

As part of implementing the single-use plastic items ban in 2021, the Queensland Government committed to conducting a review of the ban under section 99GI of the WRR Act. The aim of the review is to ensure that the ban has been effective and is functioning as intended. Specifically, the review must include an assessment of:

- (a) the effect of the ban on the community, especially persons with a disability or healthcare need; and
- (b) the level of public knowledge and understanding about the ban, including—
  - (i) what is or is not a banned single-use plastic item, and alternatives to banned single-use plastic items; and
  - (ii) whether or not plastic items are compostable; and
- (c) the effectiveness of the ban in reducing the number of single-use plastic items—
  - (i) used or sold; and
  - (ii) that become waste and are littered or disposed of to landfill; and
- (d) the effect of the ban on the use or sale of alternatives to single-use plastic items, including whether or not the alternatives are sustainable or designed to be used only once; and
- (e) the level of compliance with the ban.

Additionally, the Honourable Meaghan Scanlon MP, former Minister for the Environment and the Great Barrier Reef and Minister for Science and Youth Affairs requested the review also include an assessment of the exemption to schools and the exclusion for shelf-ready products<sup>1</sup>. The Department of Environment, Science, and Innovation (the department) identified additional matters for consideration from stakeholder feedback as part of this review.

### Lightweight plastic shopping bags

As part of implementing the lightweight plastic shopping bag ban in 2018, the Queensland Government committed to conducting a review of the ban under section 99G of the WRR Act. The aim of the review was to ensure the ban was effective in reducing the volume of lightweight plastic shopping bags that end up in the environment or disposed to landfill. Specifically, the review must include an assessment of:

- (a) the effect of this part on the community and retailers; and
- (b) the level of retailers' knowledge and understanding about the prohibition on giving banned plastic shopping bags to persons; and
- (c) the effectiveness of this part in reducing the quantity of banned plastic shopping bags—
  - (i) used; and
  - (ii) that become waste and is littered or disposed of to landfill.

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<sup>1</sup> Waste Reduction and Recycling (plastic Items) Amendment Bill, Second Reading Speech, Hon. MAJ Scanlon, 9 March 2021.

## The Plastic Problem

Plastic is one of the most enduring products on the planet. The same properties that make plastics so durable are also the same properties that see it persist in the environment for many decades. Plastic does not completely break down. Instead, it fragments into smaller and smaller pieces, becoming micro-plastic<sup>2</sup>. Practically every piece of plastic ever created, still exists in some shape or form today. This is because plastic items are manufactured to last for hundreds of years, even if the item is only used once, for a few minutes, before being discarded. Today more than 400 million tonnes of plastic are produced annually, including the production of approximately one million plastic bottles every minute and up to five trillion plastic bags every year<sup>3</sup>. Of all the plastic produced, a very small proportion is reused or recycled. Many plastic items produced either end up in landfill, or as litter in the environment, including our oceans<sup>4</sup>.

Microplastics can enter the human body through inhalation or absorption and can accumulate in our organs. Microplastics have been found in the lungs, liver, spleen, and kidneys of humans as well as in the placentas of newborn babies<sup>5</sup>. Communities, environmental groups, businesses, industries, and governments worldwide have called for action to avoid the use of plastic, encourage responsible consumption of plastic, increase recovery of plastic resources, and reduce the impact of plastic on our environment. Given the complexity and enormity of plastic pollution worldwide, there is a need for concerted and coordinated state, national and international action. This needs to be well targeted and phased over the short, medium, and long-term.

## National and International actions addressing plastic pollution

### *International focus*

Plastic pollution is a global problem, with increasing focus across the country and world. An historic agreement was reached at the United Nations Environment Programme (UNEP) assembly in March 2022, with 175 nations committing to develop a legally binding agreement on plastic pollution by 2024.

The resolution plans to present an instrument, which would reflect diverse alternatives to address the full lifecycle of plastics, the design of reusable and recyclable products and materials. It also addresses the need for enhanced international collaboration to facilitate access to technology, capacity building and scientific and technical cooperation. An Intergovernmental Negotiating Committee (INCE) was established in 2022 with the ambition of completing a draft agreement by the end of 2024<sup>6</sup>.

### *National focus and actions*

The National Plastic Plan outlines the Australian Government's approach to increase plastic recycling, find alternatives to unnecessary plastics and reduce the impact of plastic on the environment. The National Plastics Plan sets actions across Prevention; Recycling; Consumer education; Oceans and waterways and Research, setting roles for consumers, industry and all levels of government as set out in the National Waste Policy Action Plan.

All Australian jurisdictions are working to reduce the reliance on plastic and transition to a circular economy. This involves targeting problematic and unnecessary plastic items. State and territory's have published plastic strategies and action plans, with each having implemented or proposing various single-use plastic item bans.

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<sup>2</sup> <https://www.unep.org/interactives/beat-plastic-pollution/>

<sup>3</sup> <https://www.unep.org/interactives/beat-plastic-pollution/>

<sup>4</sup> Geyer, R., Jambeck, J. R., & Law, K. L. (2017). Production, use, and fate of all plastic ever made. *Science Advances*, 3(7).

<sup>5</sup> <https://www.unep.org/interactives/beat-plastic-pollution/>

<sup>6</sup> <https://www.unep.org/news-and-stories/press-release/historic-day-campaign-beat-plastic-pollution-nations-commit-develop>

In the last year across Australia:

- Australian Capital Territory implemented a ban on plastic shopping bags.
- Western Australia is banning coffee cups, cup lids and trays.
- New South Wales has undertaken consultation on a discussion paper proposing a ban on more than 20 items, and
- South Australia has undertaken consultation on draft regulations proposing to ban over 20 items over the next two years.

The lack of consistency across jurisdictions makes it challenging for industry and consumers to fully understand and comply with regulations. Recognising these challenges, Australia's Environment Ministers made a commitment in October 2022 to develop nationally harmonised definitions to support the phase out of problematic single-use plastic<sup>7</sup>. A draft Roadmap for national harmonisation of actions on problematic plastics and plastic items is in development. Working groups have been convened to deliver on these commitments and promote greater national harmonisation.

To further inform jurisdictions in their considerations for future policies and actions on single-use plastic items a national single-use plastic (SUP) lifecycle assessment (LCA) project is underway. This is anticipated for completion in late 2024. LCA is a methodology for assessing the full 'cradle-to-grave' environmental benefits of products and processes by assessing environmental flows (impacts) at each stage of the life cycle. This project will be analysing key environmental impact indicators, relating to greenhouse gas emissions, water use, toxicity, human health, resource, and land use impacts for six single-use plastic product categories. The LCA project is to compare the environmental impacts of replacing common single-use plastic products with alternatives including reusable materials, non-plastic single-use materials, biobased materials, and certified compostable materials.

The SUP LCA project is a joint project with all Australian jurisdictions and New Zealand. It is being led by the Western Australia Department of Water and Environmental Regulation and will examine several common single-use plastic (SUP) items in current and best practice scenarios, accounting for jurisdictional variations.

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<sup>7</sup> <https://www.dcceew.gov.au/sites/default/files/documents/emm-communicue-21-oct-2022.pdf>

## Tackling Queensland's Plastic Waste

As part of Queensland's transition to a circular economy, a fundamental shift in the way that we design, use, reuse and process plastic items is needed. The Queensland Government's *Waste Management and Resource Recovery Strategy* (Waste Strategy) sets the course for Queensland to become a zero-waste society, where waste is avoided, reused, and recycled to the greatest possible extent. The Waste Strategy focuses on transitioning a circular economy with the value of material retained for as long as possible.

On 7 November 2019, the Queensland Government released the *Tackling plastic waste: Queensland's Plastic Pollution Reduction Plan* (the Plastics Plan), which complements the Waste Strategy. The Plastics Plan sets the direction for Queensland to be part of the global solution to plastic pollution by identifying and prioritising actions at every step in the supply chain to help reduce plastic waste and the negative impacts of plastic pollution on the environment. As a key headline action in the Plastics Plan, the Queensland Government introduced legislation to ban the sale, supply, and distribution of certain single-use plastic items with the primary aim to reduce plastic pollution caused by these items.

Several other initiatives have been implemented in Queensland to tackle plastic pollution, including the:

- ban on the supply of single-use lightweight plastic shopping bags on 1 July 2018, which has seen a reduction of 70 per cent in plastic bag litter.
- implementation of the container refund scheme on 1 November 2018, which has seen over 9 billion containers collected, with the scheme expanded to include glass wine and pure spirit bottles from 1 November 2023.
- expansion of education and awareness campaigns around single-use plastic items.
- roll-out of litter and illegal dumping programs.
- commitment to ensuring best practice sustainable events are run in Queensland.
- banning single-use plastic straws, stirrers, cutlery, plates and unenclosed bowls, and expanded polystyrene (EPS) takeaway containers and cups from 1 September 2021
- release of Queensland's five-year roadmap for action on single-use plastic items on 1 July 2022.
- grant programs supporting development of plastic circular economy industries (e.g. Resource Recovery Industry Development Program and Queensland Recycling Modernisation Fund).
- expansion of the Plastic Free Places program across the state and broadening the program scope to include tourism and accommodation sector in 2023.
- investment in research and innovation, delivering a coffee cup innovation challenge in 2023.
- expansion of the ban on 1 September 2023 to include cotton buds with plastic stems, plastic microbeads in rinseable personal care and cleaning products, loose-fill packaging material made of expanded polystyrene (EPS), and for heavyweight plastic shopping bags with a thickness of 35 microns or more to require recycled content and meet durability and endurance standards ensuring their reusability.
- introduction of legislation in 2023 banning the outdoor release of lighter-than-air balloons and introducing an expiry date of 31 December 2025 for the exemption on otherwise banned single-use plastic items as part of a shelf-ready product.
- supporting the successful bid for the establishment of the Solving Plastic Waste Co-operative Research Centre, commencing in 2024.

# Single-use plastic items bans

## *Single-use plastic items*

Following the overwhelming feedback received on the proposed bans, and to achieve the headline action in the Plastics Plan, the WRR Act was amended to ban the supply and sale of the following single-use plastic items in Queensland from 1 September 2021:

- (a) a -
  - (i) straw;
  - (ii) stirrer;
  - (iii) bowl;
  - (iv) plate;
  - (v) item of cutlery (e.g. plastic forks, spoons, knives, splayds, chopsticks and food picks);
  - (vi) a takeaway food container made, in whole or part, of EPS; and
  - (vii) a cup, made whole or in part, of EPS.
- (b) an item prescribed by regulation to be a banned single-use plastic item.

The ban does not apply to single-use plastic items that are an integral part of a shelf-ready product, such as a straw attached to a juice box, or a fork included in a pre-packaged salad. Exemptions were also provided for schools and to healthcare businesses and businesses that provide these single-use plastic items to persons with a disability or healthcare need (e.g. pharmacy and hospitals).

Further bans commenced in Queensland from 1 September 2023, through the Waste Reduction and Recycling Regulation 2023. These include cotton buds with plastic stems, plastic microbeads in rinseable personal care and cleaning products, loose-fill packaging material made of EPS, and for heavyweight plastic shopping bags with a thickness of 35 microns or more to require recycled content and meet durability and endurance standards ensuring their reusability. These items are not being considered as part of this review.

## *Lightweight plastic shopping bags*

From 1 July 2018, it became an offence in Queensland to supply or sell a banned plastic shopping bag. A banned plastic shopping bag is defined as a carry bag with handles -

- (a) made, in whole or part, of plastic (whether or not the plastic is degradable) that has a thickness of less than—
  - (i) the thickness prescribed by regulation; or
  - (ii) if a thickness has not been prescribed by regulation—35 microns; or
- (b) prescribed by regulation to be a banned plastic shopping bag.

The ban does not apply to all plastic shopping bags and other types of plastic bags, for example barrier bags used for unpackaged perishable food such as fruit and vegetables. The plastic bag ban also does not apply to bin liners and garbage bags, nappy bags, dog waste bags or to single-use heavyweight department store plastic bags.

Requirements mandating minimum recycled content and durability standards for heavyweight plastic bags thicker than 35 microns commenced on 1 September 2021.



# PART A: SINGLE-USE PLASTIC ITEMS BAN

## Support for the ban

Two separate rounds of consultation were carried out by the department regarding the single-use plastic items ban that commenced on 1 September 2021. The first round of consultation was run between 13 March and 30 April 2020 via a Consultation Regulatory Impact Statement (CRIS) and a 'Have Your Say' communications campaign. The campaign focused on the banning of single-use plastic straws, stirrers, plates, and cutlery. The first round reached over 5,003,900 people through social media, 980,190 people through Spotify and in excess of 897,560 people through newspapers. A total of 19,622 submissions were received - 18,942 through the online survey and 680 written submissions through email and post.

The feedback expressed overwhelming support for a proposed ban on the specified single-use plastic items, with 94 per cent of all respondents in favour of the ban on straws, stirrers, plates, and cutlery. Thirty per cent of respondents supported an exemption to allow the continued supply of single-use plastic items that are part of a shelf-ready packaged product, for example, a juice box with an attached plastic straw. All submissions supported options that recognised people's disability and healthcare needs, with over 50 per cent supporting the provision of these items through healthcare businesses such as pharmacies, hospitals, and dental and medical clinics.

The banning of single-use EPS takeaway food containers and cups was not initially contemplated in the first round of consultation. However, due to the overwhelming support received for their inclusion and consistency with bans in other jurisdictions<sup>8</sup>, a second round of consultation was run between 30 November 2020 and 15 January 2021. The second round included an online survey as part of the 'Have Your Say' campaign and targeted retailer consultation to seek the views of community members and businesses about including single-use EPS takeaway food containers and cups in the single-use plastic items ban. 6,865 people completed the online survey regarding single-use EPS takeaway food containers and cups, most of which were community members. Of those that completed the survey, 97 per cent supported the inclusion of EPS takeaway food containers and cups in the 2021 ban alongside the other single-use plastic items.

To ensure the views of the retail and business sectors were considered, 413 retail representatives were engaged through 312 face-to-face and in-person interviews and 101 online retailer surveys completed. Of the retail representatives surveyed and interviewed, 76 per cent supported EPS takeaway food containers and cups being included in the 2021 ban alongside the other single-use plastic items.



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<sup>8</sup> South Australia and the Australian Capital Territory had banned EPS takeaway items.

## Data informing the review

The department engaged two independent service providers to gather data to inform the review. This Report includes a summary of the findings from the data gathered.

### *Surveys and interviews*

Three components of closed research were carried out to support the review of the single-use plastic items ban. The three components of research are outlined below.

*An online general population survey* that included 1,500 Queensland residents. The aim of the survey was to determine the community's thoughts on the current ban and their consideration for the ban of additional single-use plastic items. Quotas for age and location were used to ensure the sample was representative of the Queensland population.

*Qualitative in-depth interviews* with industry and community members, which included people from the food preparation/meal delivery sectors right through to the packaging suppliers. Amongst other things, the aim of the qualitative interviews was to understand the experience to date with the bans, including the benefits, challenges, and outcomes. A total of 11 interviews were conducted over the phone or via Microsoft Teams. The interviews averaged 45 minutes.

*311 face-to-face interviews with retailers* to determine considerations for the ban of additional single-use plastic items and signal the longer-term items that may be subject to the ban. The interviews were conducted by the National Retail Association (NRA) on behalf of the service provider. Retailers were selected from different regions within Queensland, including Southeast Queensland and regional locations (Townsville, Rockhampton, Gladstone).

### *Litter monitoring audits*

A service provider was engaged to conduct litter monitoring audits throughout Queensland to determine the effectiveness of the single-use plastic items ban that commenced on 1 September 2021. To ensure the audit was robust and representative, 271 monitoring sites were audited. Sites included parks, waterways, highway roadsides, retail strips, industrial and residential precincts, and carparks in regions representative of Queensland metropolitan, regional, rural, remote, and very remote areas. The data gathered during this audit was then compared against the baseline data collected at the same sites prior to the single-use plastics ban commencing.

### *Other information sources*

Several other sources have contributed to this review. For example, advice provided by the Single-use Plastic Stakeholder Advisory Group and data provided by the National Retail Association (NRA), who conduct compliance checks and education and awareness activities on behalf of the Queensland Government. The department will carry out targeted consultation with interested parties should any amendment be made as a result of this review (e.g. with the Department of Education, Queensland Health, disability and aged care peak bodies, industry, retailers, community etc).



## Review Findings

### *The effect of the ban on the community*

Overall, the ban of single-use plastic items has had a positive effect for the Queensland community. Of those surveyed, two in five Queenslanders (43 per cent) felt the ban of these items has had a positive impact on them personally, while almost half (48 per cent) felt it has had no impact at all. Of those that reported a positive impact, feeling good about helping the environment and reducing waste was the top reason for this. The ban has also made some people mindful about their use of single-use plastic items and encouraged them to change their behaviour. Very few people (9 per cent) felt the ban had a negative impact on them. Of these people, the primary area of concern related to being unsatisfied with the alternative products, particularly paper straws.

*"there needs to be a better solution than paper straws"*

*"paper straws are the worst. They ruin the drink and get soggy and split"*

Overall, there is general industry support for the reduction of plastic pollution where the material has a limited end of life application, has limited recyclability or little contribution to the circular economy. In general terms, the single-use plastic items ban has been largely well received and has not created major issues for industry. Positive feedback on the ban included the level of consultation and communication between the Queensland Government and industry stakeholders prior to bans commencing as well as incorporating appropriate lead times between announcing and commencing the ban.

However, there was a range of views around how plastic items are more broadly perceived. Some industry stakeholders felt that demonising plastics could lead to negative impacts as some plastics provide a useful feedstock in the creation of new plastic items. Industry stakeholders also felt that the plastic items banned to date represent the 'easier' items and that the harder items are yet to come.

For just over half of the retailers interviewed (52 per cent), the ban has had both a positive and negative impact on their business. Positive impacts relate to being pro-environment and it being the 'right thing to do'. Retailers' concerns relate to customer complaints about the bans, the lack of suitable alternative products and the increased cost of available alternative products.



## ***The level of public knowledge and understanding about the ban***

The public survey found that 87 per cent of Queenslanders were aware that plastic straws, stirrers, plates, and cutlery were banned on 1 September 2021. Of those people noting a positive impact, 15 per cent reported that the ban made them mindful about their use of single-use plastic items and encouraged them to change their behaviour. 19 per cent noted that the bans meant they were using more reusable items and less plastic and opting for the alternative items where possible.

*“[the bans] have made me choose paper products and even more environmentally friendly items instead of plastic”*

*“[the ban] makes me realise how many times I could have said no to single-use and I am more aware and prepared now”*

Responses from industry stakeholders indicate this sector have a good knowledge and understanding of the single-use plastics ban, and of the alternative products available. Stakeholders felt the communication provided as part of the Government-led bans positively contributed to the acceptance by their customers of the items being banned. Of the industry members interviewed, most felt they haven't had to communicate too extensively about the single-use plastics ban to customers as, in addition to Government, other progressive businesses ran campaigns about the ban meaning that consumers had an overall understanding of the bans and lived experience (e.g. the use of bamboo cutlery is now accepted). In addition, peak bodies and brand leads provided information about the bans to retailers, which meant they had a good understanding of the ban specifications (e.g. legislative requirements and practical implications). However, there was widespread frustration about the lack of national consistency, particularly around resources and the time it takes for stakeholders to understand, coordinate, and ensure compliance with the bans across different jurisdictions.

Some stakeholders felt that the information around the bans had not widely included information on where to source alternative products, which made finding compliant alternative items difficult. Industry reported that obtaining clarity from suppliers on the specific composition of alternative items could be challenging. There was a strong desire from stakeholders that a clear set of alternatives to banned items would make it easier to find a solution. So, although stakeholders appear to have a good knowledge and understanding of the bans, sourcing suitable alternatives can be challenging.

Retailers were aware of the single-use plastic items ban but had little knowledge about alternative products available to them. Retailers felt they needed to be better educated on what products will be included in a ban, and alternative products that are best for the environment. Retailers felt that if there was better education for themselves and customers, it may help alleviate some customer frustration and complaints that are directed at them about the ban. Retailers located outside southeast Queensland were significantly more likely to feel they needed resources and support in terms of fact sheets and signage on the ban.

When asked what alternative products should be allowed, retailers' responses were mixed, with 44 per cent saying they were unsure and 26 per cent saying only recyclable alternatives should be allowed. The Queensland Government will continue to work with industry and retailers to support awareness of alternative products.

## ***The effectiveness of the ban in reducing the number of single-use plastic items***

Banning single-use plastic items has been an effective method in restricting the supply and use of these items. However, a quarter of those who completed the survey mentioned that they were aware of places that were supplying or selling banned single-use plastic items. Younger residents (aged between 14 to 30 years) were significantly more likely to be aware of such a place. Without reports of these places, the survey did not provide information supporting further investigation of these places. From the survey data and without investigation of those responses, it was not possible to determine whether those places continued supplying or selling banned single-use plastic items or were in fact, complying with the bans.

Data provided through compliance checks conducted by the National Retail Association (NRA) showed that of the 167 public complaints made about non-compliant businesses, 95 per cent of those businesses were compliant when investigated. Businesses were most often reported for supplying straws and cutlery, however when examined by the NRA, these businesses were able to demonstrate that the item complied with the single-use plastic bans. The NRA continued to work with the remaining 5 per cent of businesses facilitating them becoming compliant with the bans, citing stock levels and availability of alternative products contributing to the delays.

When Queenslanders were asked about what actions they are taking to reduce their reliance on single-use plastic items, more than half said they took or used sustainable or reusable items (57 per cent) and/or chose products with less plastic packaging (55 per cent). This demonstrates that overall, the bans have been effective in reducing the number of single-use plastic items bought and used and disposed of in landfill.

85 percent of retailers made changes beyond those items subject to bans. This highlights the broader awareness of the impacts of plastic pollution and has contributed to a reduction in single-use plastic items being used and sold by retailers. Retailers stated that they need better access to recycling and composting facilities. A number of retailers called for centre managements to better coordinate and encouraging recycling. Some retailers cited that their centre had removed recycling bins, has never had recycling bins, or that centre management only recycles paper, not plastics.

One retailer went as far as taking rubbish home to recycle as the centre in which their business is located does not provide a system for recycling. For such reasons, retailers emphasised the need for all parties to be educated about recycling – particularly relating to what can and cannot be recycled. So, whilst the number of single-use plastic items sold and used has decreased as a result of the bans, there is a need for better recycling facilities to be established for retailers to ensure items that are reusable, or recyclable have collection pathways. This is necessary to fully realise circular economy benefits and maximise diversion from landfill.

Litter audit results found a dramatic reduction in plastic straws but a corresponding increase in the alternate paper straws, demonstrating minimal overall change in littering behaviour.

When assessing trends between March 2020 and November 2022, litter audits showed an increase at directly comparable sites of all littered items from 79 items in 2020 to 116 items per 1,000 m<sup>2</sup> in 2022. The concentration of beverage containers increasing three-fold, lids two and a half times and all takeaway food containers, drink cups, coffee cups, plastic stirrers and heavy-duty plastic bags increasing. Only plastic cutlery, lightweight plastic bags and plastic straws decreased clearly as a direct result of bans.

Littering behaviour of straws slightly declined to 1.2 items per 1,000 m<sup>2</sup> at the last audit in March 2023. However, a product substitution appears to be occurring. Littering of paper straws increased from 0.1 to 0.7 items per 1,000 m<sup>2</sup>. The concentration of plastic straws littered has reduced from 1.4 to 0.5 items per 1,000m<sup>2</sup>, demonstrating that paper straws are now more commonly littered.

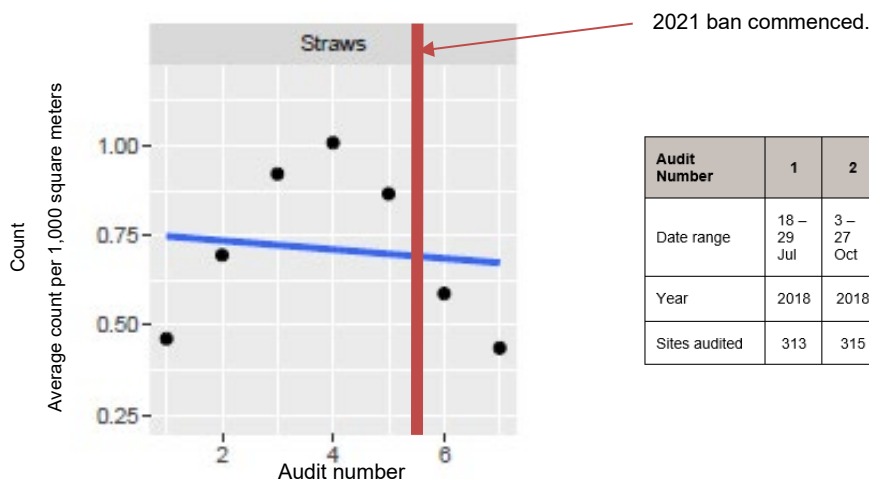


Figure 1. Average count of straws in litter over seven surveys.

Audit Number	1	2	3	4	5	6	7
Date range	18 – 29 Jul	3 – 27 Oct	4 – 20 Feb, 25 – 30 Mar	14 – 30 Oct	15 – 22 Mar	14 Nov – 3 Dec	27 Mar – 23 Apr
Year	2018	2018	2019	2019	2020	2022	2023
Sites audited	313	315	267	269	266	291	291

Table 1. Trend analysis by average count per 1,000 square meters for straws at all sites by survey.



## The effect of the ban on the use or sale of alternatives to single-use plastic items

The general population survey provides evidence that alternative products are replacing single-use plastic items. As with the single-use plastic items subject to bans, many of the alternate products appear to be designed for single-use (e.g. paper straws and bamboo cutlery).

Industry stakeholders raised concerns around the multitude of alternative products, and negative impacts on the ability to recycle. Where bans have been introduced quickly, some respondents cited concerns that there has been insufficient time to develop and test alternative products, with a result that alternatives may not be fit-for-purpose or fully deliver environmental benefits. Alternative materials may not best support the waste hierarchy, and recycling of plastic may be a more viable option.

Further analysis would be beneficial to help understand the lifecycle impacts, costs and benefits of alternate products and materials. This includes whether they are reusable or simply a single-use substitute. This is important to assess whether the overall intent of the bans are being delivered, notably to transition to a circular economy and reduce landfill and littering.

Concerns were raised about cross-contamination of recycling feedstocks, consumer confusion when sorting, and a general impact on recycling efforts driven by the multitude of new materials (e.g., biodegradable, compostable). Some respondents highlighted that certain plastics pose opportunities for end-of-life applications and re-useability.

Action is needed to move away from a linear waste model where products are made, used, and disposed of to landfill or as litter. Where single-use items cannot be avoided, actions need to support a circular economy. The focus needs to be on products and materials circulating within the economy at their highest value for as long as possible (e.g. through reuse and recycling). The circular economy model has been shown to have significant benefits through additional revenue opportunities and net job creation in the areas of reuse, remanufacturing, and materials innovation.

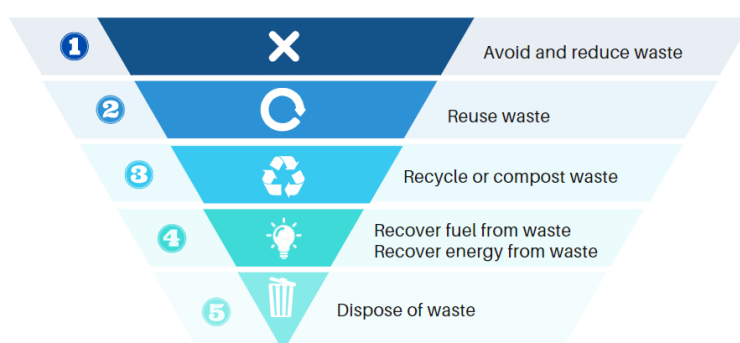


Figure 2. Waste hierarchy

## The level of compliance with the ban

A quarter of the Queenslanders surveyed are aware of a place that was still supplying or selling banned single-use plastic items. Younger residents (aged between 14 to 30 years) are significantly more likely to be aware of such a place. Without reports of these places, the survey did not provide information supporting further investigation. From the survey data and without investigation of those responses, it was not possible to determine whether those places continued supplying or selling banned single-use plastic items or were in fact, complying with the bans.

The National Retail Association (NRA) provide initial investigation for public reports about suspected non-compliance with the SUPI ban. The NRA received 167 reports about suspected banned items being sold by retailers. Following the NRA investigating, it was confirmed that 159 (approximately 95 percent) of the reports found the retailers were compliant with the SUPI ban. The most frequently reported items were straws and cutlery, particularly bioplastic cutlery.

The remaining 5 per cent (8 cases) were progressed or reported through to the department, with issues of stock levels and availability of alternative products contributing to the delays in becoming compliant with the bans.

The NRA also carried out 2,667 random spot-checks across 337 precincts in Queensland that were deemed 'high-risk'. For this reason, the rate of compliance is only representative of retailers deemed 'high-risk', not of all retailers in Queensland. Of all the businesses audited, 77.7 per cent were compliant with the SUPI bans. Of the remaining businesses, 11 per cent were found to be non-compliant and 10 per cent were found to be using a bioplastic item, albeit the compostability could not be verified. The Queensland Government has taken an education-first approach and continues to work with businesses to resolve non-compliance issues.

The NRA found that further educational effort was needed in relation to culturally and linguistically diverse (CALD) communities and businesses. The NRA have resources available on the [qldplasticsban.com.au](http://qldplasticsban.com.au) website that have been translated into 15 different languages to support CALD retailers' awareness and compliance. Extra efforts will be made to promote these resources and address any gaps in information.

The Queensland Government will continue to work with the NRA to monitor compliance, make information available and to support businesses to ensure maximum compliance with the bans.

#### *Other matters considered in the Review*

The former Minister for the Environment and Great Barrier Reef and Minister for Science and Youth Affairs determined that the review should include an assessment of the exemption provided to schools and the exclusion provided for shelf-ready products to determine whether these measures are still necessary<sup>9</sup>. Additional matters were identified by the department during the development of this report and that are discussed below.

#### ***Exemptions provided to schools***

Pursuant to section 99GD of the WRR Act, schools are prescribed as an exempt business or undertaking in Queensland. This means that the single-use plastic items ban does not apply to a business or undertaking that is classified as a school. The exemption for schools was provided to ensure teachers, students and other staff with a disability or healthcare need had continued access to single-use plastic items that would have otherwise been banned. Listing schools as an exempt business did not prohibit them from providing sustainable alternatives. Indeed, many schools have led the way with the war on waste through the implementation of the Straw No More campaign and many other actions.

During the implementation of the ban, the Queensland Government made clear that the exemption did not apply to Outside School Hours Care, boarding school catering operations, Parent and Citizen's (P&C) Associations and Parents and Friends' (P&F) Association. It was also communicated that the exemption did not apply to external venue providers or operators, for example where school groups participated in camps, excursions or sporting events held at an external venue (i.e. not on a school site) or managed by a third-party.

During passage of the Bill, significant public comment was received regarding the exemption being provided to schools. As a result, Recommendation 4 in the Committee Report suggests the department review the exemption provided to schools as part of the review. In their speeches to Parliament<sup>10</sup>, the Honourable Grace Grace MP and the Honourable Meaghan Scanlon MP, also both committed to carrying out a review of this exemption as part of the WRR Act review requirement.

Comparing with other jurisdictions (see Figure 3), no other state or territory government provides a specific exemption for schools or places of education.

Removing this exemption in Queensland would mean that schools could not purchase, or supply banned single-use plastic items. Students with a disability or healthcare need who require a banned single-use plastic item would therefore need to source these items with schools no longer providing them.

No consideration is being given to amending other businesses prescribed as an exempt business or undertaking - such as a pharmacy, hospital, a medical or dental clinic, allowing the supply or sale of banned items to continue.

Full public consultation would be undertaken prior to any proposed changes to the legislation.

It is recommended to undertake public and targeted consultation for the proposal to remove schools as an exempt business.

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<sup>9</sup> Waste Reduction and Recycling (plastic Items) Amendment Bill, Second Reading Speech, Hon. MAJ Scanlon, 10 March 2021.

<sup>10</sup> [https://documents.parliament.qld.gov.au/events/han/2021/2021\\_03\\_10\\_WEEKLY.pdf](https://documents.parliament.qld.gov.au/events/han/2021/2021_03_10_WEEKLY.pdf)

### Is an exemption provided for schools?

New South Wales	✘	No, single-use plastic item exemptions are not provided for schools or places of education.
Victoria	✘	No, single-use plastic item exemptions are not provided for schools or places of education.
South Australia	✘	No, single-use plastic item exemptions are not provided for schools or places of education.
Western Australia	✘	No, single-use plastic item exemptions are not provided for schools or places of education.
Northern Territory	?	Single-use plastic item bans have not been implemented at a state level in this jurisdiction.
Australian Capital Territory	✘	No, single-use plastic item exemptions are not provided for schools or places of education.
Tasmania	?	Single-use plastic item bans have not been implemented at a state level in this jurisdiction.

Figure 3. Cross-jurisdictional analysis of whether other jurisdictions in Australia provide single-use plastic item exemptions to schools.

### Exemption provided for shelf-ready products

An exemption is provided for single-use plastic items that form an integral part of a shelf-ready product. A shelf-ready product is defined as food or a beverage that is pre-packed as a single serve and ready for immediate consumption, or consumption after cooling or heating the food or beverage (e.g. a plastic straw attached to a juice box, or a plastic fork included in a pre-packaged salad). An exemption was provided for shelf-ready products as, at the commencement of the ban, there were no or limited suitable alternatives for these products. This exemption is consistent with how bans have been implemented in other Australian jurisdictions.

When speaking to Parliament about the bans, the Minister encouraged businesses to make the transition away from single-use plastic items in shelf-ready products as soon as possible.

The Victorian and South Australian Governments have recently set expiry dates, of 1 January 2026 and 1 September 2025 respectively on the exemption for single-use plastic items in shelf-ready products.

Supporting national harmonisation efforts and in consultation for the additional bans that commenced in Queensland from 1 September 2023, the shelf ready single-use plastic items exemption expires in Queensland on 31 December 2025.

### Is an exemption provided for shelf-ready products?

New South Wales	✔	Yes. An exemption is provided for shelf-ready products, however, the exemption for plastic straws as part of shelf-ready products ends 1 January 2025.
Victoria	🕒	Yes. An exemption is provided for shelf-ready products until 1 January 2026.
South Australia	🕒	Yes. An exemption is provided for shelf-ready products until 1 September 2025.
Western Australia	✔	Yes. An exemption is provided for shelf-ready products.
Northern Territory	?	Single-use plastic item bans have not been implemented at a state level in this jurisdiction.
Australian Capital Territory	✔	Yes. An exemption is provided for shelf-ready products
Tasmania	?	Single-use plastic item bans have not been implemented at a state level in this jurisdiction.

Figure 4. Cross-jurisdictional analysis of other Australian jurisdictions related to whether exemptions are provided for shelf-ready products.

## Exemption provided for people with a disability or healthcare need

In Queensland a blanket exemption is provided to certain businesses and undertakings that sell or supply banned single-use plastic items for use by persons with a disability or healthcare need. This exemption captures all current banned single-use plastic items, such as plates, bowls, straws, stirrers, and items of cutlery.

Other Australian jurisdictions (see Figure 5), only provide an exemption for the sale and supply of banned single-use plastic straws to persons with a disability or healthcare need.

Through the consultation around the ban, advice received from the Disability sector recommended the exemption apply to all the banned items as healthcare and disability needs may similarly apply for a person managing the use of a plastic straw or plastic cutlery. Given the extent of the consultation and feedback supporting the exemption provided for people with a disability or healthcare need, there is no current consideration for reconsidering the provisions of this exemption.

Is an exemption provided for people with a disability or healthcare need?	
New South Wales	Yes. An exemption is provided for the supply of single-use plastic straws to ensure access for people with a disability or other medical need.
Victoria	Yes. An exemption is provided for the supply of single-use plastic straws to ensure access for people with a disability or medical need.
South Australia	Yes. An exemption is provided for the supply of single-use plastic straws to ensure access for people with a disability or medical need.
Western Australia	Yes. An exemption is provided for the supply of single-use plastic straws to ensure access for people with a disability or medical need.
Northern Territory	Single-use plastic item bans have not been implemented at a state level in this jurisdiction.
Australian Capital Territory	Yes. An exemption is provided for the supply of single-use plastic straws to ensure access for people with a disability or medical need.
Tasmania	Single-use plastic item bans have not been implemented at a state level in this jurisdiction.

Figure 5. Cross-jurisdictional analysis of other Australian jurisdictions and whether they provide a single-use plastic item exemption for people with a disability or healthcare need.

## Legislative clarity

### Definitions and legislative clarity

The purpose of the single-use plastic items ban is to reduce the number of single-use plastic items being disposed of to landfill and being littered to the environment. These items are predominantly unable to be recovered for recycling through mainstream and widespread collection systems and can end up contaminating recycling streams.

Since the implementation of the single-use plastic items ban, the department has received several enquiries about the meaning of certain terms used in the WRR Act related to the ban. For example, questions have been raised regarding:

- the meaning of 'single-use' versus 'reusability' (e.g. is there a durability measure that must be met in order for a product to be deemed reusable).
- the lack of suitable alternatives for takeaway plastic bowls with lids (i.e. the ban should only apply to unenclosed single-use plastic bowls).
- whether the ban only applies to single-use plates and bowls used by humans, or whether it applies to all plates and bowls (e.g. a single-use plastic bowl used as a dog water bowl at a café).
- whether the ban should only apply to drinking straws, or to all single-use plastic straws (e.g. straws used for research).

All jurisdictions are committed to addressing plastic pollution and the Queensland Government is participating in national harmonisation efforts, working to achieve agreed terms and definitions in addressing plastic pollution. It is proposed that updates to terms in the WRR Act will be undertaken consistent with the approach and timing of the national harmonisation work. This will best support the intent of the single-use plastics bans, whilst also providing greater certainty to businesses and the community.

## Plastic-lined plates and bowls

In Queensland, the single-use plastic ban captures single-use plastic plates and bowls. The ban extends to paper plates and bowls with a plastic lining or coating (e.g. paper plates printed with cartoon characters used for children's parties and festive season prints).

The department is aware of difficulties sourcing alternative products as there are not currently suitable food grade replacement products available within Australia or internationally. The department understands that paper products that are printed or coloured currently need a thin coating or lining of plastic to meet food safety standards and protect food from ink migration.

As the availability of a suitable alternative is one of the legislative criteria for deciding to ban a single-use plastic item (section 99GC (3) of the WRR Act), consideration will be given to prescribing a time limited exemption for plastic lined plates and bowls. Industry would be required to report through the stakeholder advisory group about the progress and availability of alternative products to ensure timeframe for the exemption is appropriate.








New South Wales		Yes. A time limited exemption is provided for plastic-lined paper plates and bowls until 31 October 2024 while suitable alternatives are sourced.
Victoria		Yes. A time limited exemption is provided for plastic-lined paper plates and bowls until 1 November 2024 while suitable alternatives are sourced.
South Australia		Yes. A time limited exemption is provided for plastic-lined paper plates and bowls until 31 October 2024 while suitable alternatives are sourced.
Western Australia		No. The ban of single-use plastic plates and bowls commenced on 1 July 2022 and did not include an exemption for plastic-lined plates and bowls.
Northern Territory		Single-use plastic item bans have not been implemented at a state level in this jurisdiction.
Australian Capital Territory		Yes. A time limited exemption is provided for plastic-lined paper plates and bowls until 31 October 2024 while suitable alternatives are sourced.
Tasmania		Single-use plastic item bans have not been implemented at a state level in this jurisdiction.

Figure 6. Cross-jurisdictional analysis of other Australian jurisdictions related to whether exemptions are provided for plastic-lined paper plates and bowls.

## Penalties associated with false or misleading information

During passage of the Bill, significant public comment was received regarding the penalty amount for providing false or misleading information about single-use plastic items. As a result, Recommendation 5 in the Committee Report suggested the department review the penalty amount as part of this review process. Section 99GE of the WRR Act makes it an offence for a person to give information that the person knows is false or misleading to another person about a banned single-use plastic item. The maximum penalty for this offence is 50 penalty units. Currently the penalty unit value in Queensland is \$154.80 (current from 1 July 2023).

With regards to the penalty amounts prescribed in other Australian jurisdictions, New South Wales and Victoria have the highest penalties in the country for providing false or misleading information regarding banned single-use plastic items. South Australia has a set maximum penalty amount (\$20,000) that applies equally to individuals and corporations, whereas the Australian Capital Territory has maximum penalty amounts similar to Queensland. Of those jurisdictions that have banned certain single-use plastic items, Western Australia has the lowest maximum penalty amount of \$5,000. Based on this analysis, Queensland's maximum penalty amount sits in the mid-range of other jurisdictions. Given this benchmarking, changes to the maximum penalty amount for providing false or misleading information in relation to a banned single-use plastic item are not considered necessary at this stage.

New South Wales	In connection with supply: Maximum penalty (individual) = 100 penalty units (\$11,000) Maximum penalty (corporation) = 500 penalty units (\$55,000) Provided by brand owner: Maximum penalty (individual) = 1,000 penalty units (\$110,000) Maximum penalty (corporation) = 4,000 penalty units (\$440,000)
Victoria	Maximum penalty (individual) = 60 penalty units (\$11,538.60) Maximum penalty (corporation) = 300 penalty units (\$57,693)
South Australia	Maximum penalty = \$20,000 Expiration fee = \$1,000
Western Australia	Maximum penalty = \$5,000
Northern Territory & Tasmania	Not applicable. Single-use plastic item bans have not been implemented at a state level in this jurisdiction.
Australian Capital Territory	Maximum penalty (individual) = 50 penalty units (\$8,000) Maximum penalty (corporation) = 50 penalty units (\$40,500)
Queensland	Maximum penalty = 50 penalty units (\$7,740)

Figure 7. Cross-jurisdictional analysis of other Australian jurisdictions maximum penalties related to false or misleading information regarding banned plastic items

### Plastics Plan outcome areas

The Plastics Plan developed by the Queensland Government sets the goal of reducing plastic waste and pollution in Queensland, through evidence-based action and collaboration on plastic consumption and disposal. The Plastics Plan looks at potential pathways for reducing plastic waste and pollution throughout the entire product lifecycle. It does so across five outcome areas, identified through involvement of industry stakeholders—at home, away from home, commercial and industrial, marine and agriculture.

Many of the actions to-date have prioritised the ‘away from home’ category acknowledging the challenges with correct disposal of items and higher likelihood of these entering the environment as litter. This is plastic generated or used away from home at places like cafes and takeaway outlets and including single-use plastic items such as straws, sachets, plates, and bowls. The current and majority of future single-use plastic item bans continues to focus on items used away from the home for this reason. Supporting this focus, the Plastic Free Places program works with retailers across Queensland and throughout other jurisdictions in the hospitality sector to switch from single-use plastic items to more sustainable alternatives.

As community awareness and behaviours reducing reliance on single-use plastic items increases, the opportunity to exists to target actions across other outcome areas (i.e. marine, agricultural, industrial and commercial sources of pollution). Consideration could also be given to plastic materials and mixed compositions enabling more effective circular economy outcomes and reuse and recycling opportunities. Whilst the five-year roadmap provides a list of possible single-use plastic items to be banned in future, a focus on guiding manufacturers in product design standards is likely more effective and efficient than continually updating the list of items to be banned. Design standards with product stewardship schemes, effective collection pathways and viable reuse and recycling processes, will be vital to achieving greater economic, environmental, and social benefits and complementary to single use plastic bans. .

# PART B: LIGHTWEIGHT PLASTIC SHOPPING BAG BAN

## Support for the ban

A discussion paper *'Implementing a lightweight plastic shopping bag ban in Queensland'* was released for public consultation on 25 November 2016. During the consultation period, which ran from November 2016 to February 2017, the department received over 26,000 submissions. Over 96 per cent of submissions supported the introduction of the ban on 1 July 2018 and over 60 per cent of submissions supported the inclusion of biodegradable plastic shopping bags in the ban.

As a result, on 1 July 2018 the ban on the supply of single-use lightweight plastic shopping bags (less than 35 microns) took effect in Queensland. The ban aimed to reduce plastic pollution by reducing the number of plastic bags that become waste and enter the environment as litter and encourage retailers and consumers to reduce their overall use of plastic carry bags. Prior to the bag ban commencing, approximately one billion single-use lightweight plastic shopping bags were being used in Queensland each year. While most of these bags ended up in landfill, around 16 million bags ended up being littered, having negative impacts on Queensland's environment and wildlife. Queensland was the fifth Australian jurisdiction to introduce such a ban, following South Australia, the Northern Territory, the Australian Capital Territory and Tasmania. All Australian jurisdictions have a ban on lightweight plastic shopping bags.

## Data informing the review

The department engaged two independent service providers to gather data to inform the review. This report includes a summary of the findings from the data gathered.

### Surveys

An *online public survey* ran from 16-26 July 2020 to determine the public's awareness, attitudes, and behaviours in relation to plastic pollution. A representative sample of regions across Queensland was achieved with a total of 804 people completing the survey.

*207 surveys were completed with retailers* to determine levels of awareness, understanding, support and impact of the plastic bag ban in Queensland. The interviews were conducted three months after the bag ban took effect by the National Retail Association (NRA) on behalf of the service provider. Retailers were selected from different regions within Queensland, including Southeast Queensland and regional locations (Townsville, Mackay, Warwick).

### Litter Monitoring audits

Litter monitoring audits were conducted throughout Queensland to inform and determine the effectiveness of environmental policies and the single-use lightweight plastic shopping bag ban that commenced on 1 July 2018. Audits were conducted before and after the ban took effect to assess and compare the impact of the ban. Monitoring sites were selected to ensure the audit was robust and representative of the state. The lightweight plastic shopping bag review, required under section 99G of the WRR Act, has been hindered by the inability to conduct litter monitoring audits with movement restrictions arising from COVID-19 pandemic requirements. Litter monitoring audits are a key component in assessing the effectiveness of bans. Litter monitoring was conducted across more than 270 sites around Queensland annually since 2018. This monitoring was undertaken pre- and post- the ban commenced in 2018, twice in 2019 and only once at the start of 2020. Monitoring resumed in November 2022. Consideration of litter audit results over time enables long-term trend analysis.



## Review Findings

### *The effect of the plastic bag ban on the community and retailers*



**Three months post ban** reusable plastic bags and paper bags were the most common bag type being offered



Since the ban commenced people report **being more mindful of their impacts on the environment**, particularly related to the usage of plastic bags



**89%** of Queenslanders support the plastic bag ban



**75%** of retailers are satisfied with how the Government implemented the bag bans



**96%** of retailers expressed support for the plastic bag ban after its implementation



There was a **significant increase** in the visible reduction of plastic bags in the environment & streets after the ban took effect.

Of those surveyed, 95 per cent of Queenslanders believed that they adjusted well to the change from single-use plastic bags and were optimistic that the bag ban will have positive outcomes for the environment and our waterways. A small percentage of Queenslanders noted that the bag ban caused some inconvenience, particularly for those who were already re-using single-use plastic shopping bags and having to purchase alternate shopping bags. Others felt that replacing single-use lightweight plastic shopping bags with heavyweight plastic shopping bags was not consistent with the intent of the ban.

*“It’s in the interests of the environment but I’m not sure that replacing them with thicker plastic bags are going to achieve much.”*

*“[the bag ban] is an excellent idea but should go further. No pre-packaging on fruit or vegetables for example.”*

Of those retailers who supported the bag ban, common themes included that the environmental benefits would be widespread and that it should have happened sooner. Most Queensland retailers surveyed (89 per cent) had positive experiences as a result of the bag ban (e.g. customers now take fewer bags and retailers have received praise from customers for implementing the ban). Three in five (59 per cent) surveyed Queensland retailers also experienced negative consequences as a result of the plastic bag ban, with the most common being general negativity from customers about the ban.

Retailers found it difficult to determine whether they were financially better or worse off because of the plastic bag ban as the new bags cost more to purchase but people were taking fewer. Of those interviewed, 94 per cent of retailers noted that implementation of the plastic bag ban had not been challenging for them. Retailers attributed this to being very well prepared, having a smooth transition, with few to no noticeable changes.

The data indicates that the plastic bag ban, although not without challenges, had a positive overall effect on the community and retailers. The data identified that many Queenslanders wanted to see the ban extended to heavyweight plastic shopping bags and other single-use plastic bags (e.g., barrier bags for fruit and vegetables).

### ***The level of retailers' knowledge and understanding about the ban***

75 per cent of retailers who participated in the survey stated that they were satisfied with how the Government had implemented the ban. Retailers were particularly pleased with the level of awareness raised by the Government and with how smoothly the transition to the ban was overall. Issues with the Queensland Government's implementation was seen as the lack of explanation of 'why' the ban was being introduced and what type of plastics were covered by the ban.

Three months after the bag ban took effect, retailers had a good awareness and understanding of the ban but that more information about the reason for and types of plastic banned would be helpful for future bans.

It is recommended that early engagement with the impacted stakeholders is undertaken for all future bans to enhance knowledge and understanding.

### ***The effectiveness of the ban in reducing the quantity of banned plastic shopping bags***

Of those interviewed, one third of Queenslanders stated they had not had to purchase shopping bags from supermarkets in the previous eight months. Of those Queenslanders that had purchased plastic bags in the previous eight months, they mentioned this was infrequently (i.e., every fifth shop or less).

When in a situation requiring a shopping bag, half of shoppers stated they would seek an alternative to purchasing bags (e.g. carrying the items to the car by hand or loading them unbagged into the shopping trolley). If shoppers were required to purchase a bag, 50 per cent stated that they would purchase a woven alternative.

Results of the survey support that the bag ban has been effective in reducing the quantity of banned plastic bags (but also heavyweight plastic bags) purchased and used by Queenslanders.

82 per cent of Queenslanders considered the bag ban had been effective in reducing plastic waste entering the environment as litter, primarily due to survey participants indicating they had seen significantly fewer plastic bags littered in the streets and general environment.

Litter monitoring has been conducted annually across more than 270 sites around Queensland prior to and since the ban commenced in 2018. Litter monitoring was again conducted twice in 2019, only once at the start of 2020 being impacted by travel restrictions due to the covid-19 pandemic and resumed in November 2022, March and November 2023. Consideration of litter audit results over time enables long term trend analysis.

Litter audits conducted in the first 12 months after the bag ban commenced indicate that there had been a 70 per cent reduction in plastic bag litter across Queensland.

However, the impacts of the pandemic comparing results between March 2020 and November 2022 returned anomalous results with all littered items increasing at directly comparable sites, from 79 items to 116 items per 1,000 m<sup>2</sup> in 2022.

The concentration of beverage containers increased three-fold, lids two and a half times and all takeaway food containers, drink cups, coffee cups, plastic stirrers and heavyweight plastic bags increased.

Only plastic cutlery, lightweight plastic bags and plastic straws decreased clearly as a direct result of eliminating the supply and availability of these items.

It is recommended that actions eliminating single-use items are effective, however actions supporting reuse behaviours should be the focus for future actions.



# The road ahead for single-use plastics

## Support for additional future bans

Public consultation has consistently returned strong support for extending bans to other single-use plastic items, including takeaway containers, drinking cups, EPS trays and containers, bread bag tags, plastic wrapping on magazines, oxo-degradable plastics, takeaway coffee cups, heavyweight 'boutique style' plastic shopping bags, single-use plastic produce bags, balloons and balloon sticks, and bioplastic.



**87%** of Queenslanders support further action to ban additional single-use plastic items



Key reasons for supporting further bans:

- reducing waste, landfill, and plastic pollution
- helping the environment.



**Plastic wrapping on magazines and plastic drinking cups** have the greatest level of support for future bans



**3 in 5** Queenslanders would prefer other approaches be considered prior to banning additional items



**3 in 4** Queenslanders support plastic takeaway containers being banned in the longer term



**More than 60%** of Queenslanders support the banning of plastic dome lids, EPS trays and EPS packaging

*\*Based on Consumer Survey conducted by Enhance Research in 2022.*

With regards to industry, there is general support overall for the actions outlined in Queensland's five-year roadmap for action on single-use plastic items. There were however, mixed views as to the actual impact of banning the single-use plastic items outlined and the availability of suitable sustainable alternative items. There is agreement amongst stakeholders that, although bans are a helpful tool, more needs to be done to build Queensland's circular economy. Bans were felt to address the low-hanging fruit with tiers higher up the waste hierarchy (e.g. recycling systems and education) viewed as having greater opportunities and potential but greater challenges and costs to establish and maintain.

There is low support amongst retailers for the banning of produce bags, polystyrene trays, coffee cups and lids, balloons, plastic drinking cups and plastic takeaway containers in the next three years. Retailers feel that banning these single-use plastic items will be challenging. Whilst there is low retailer support for banning plastic dome cup lids, sauce sachets and thick plastic shopping bags in the next three years these items were seen as being somewhat less of a challenge. There was a reasonable level of support for banning cotton buds with plastic stems, balloon sticks and balloon closures in the next three years as these items were not perceived to be challenging.

Lack of support amongst the retailers was primarily driven by suitable alternative being unavailable, the cost of alternative items or customer complaints. Generally, there is a preference for an approach involving improved recycling and collection which would not require retailers to change their business practices.

## Queensland's future actions

Community, industry, and business consultation has shown strong support to expand the single-use plastic items ban. As a result, the proposed five-year roadmap for action on single-use plastic items (Roadmap) was released in 2022 to show how the Queensland Government proposed to continue to consult with suppliers, manufacturers and businesses on the inclusion of additional single-use plastic items in the ban. This sought to provide industry and businesses with an opportunity to provide feedback regarding supply chain challenges, sourcing suitable alternatives and timeframes, and preparing for future actions.

Prior to progressing future bans, the status of the issues raised regarding supply chain challenges, sourcing suitable alternatives and appropriate timeframes to enable industry to adequately prepare needs to be understood.

The timing of future actions and bans should give consideration to the outcomes of the work underway nationally and internationally before proceeding. Public consultation on proposed actions must be conducted before amendment to the legislation.

## Considerations for future actions

### Finding suitable alternatives

There was a strong desire from stakeholders, retailers, and the community that if an item is banned, clear alternatives should be identified early to support finding a suitable replacement. This is particularly the case for smaller stakeholders that are sourcing 'off the shelf' solutions. The Queensland Government, in partnership with its stakeholders, aims to provide information on suitable alternative items for future banned single-use plastic items. The Queensland Government is also providing support for research and development into more sustainable alternative products. The national Life Cycle Assessment work will also make a major contribution in identifying suitable alternative products.

For the current bans, information is available at: <https://qldplasticsban.com.au/>



### Timing of bans

The specific time of year that bans commence is important, particularly in a retail environment where there are peak retail seasons that constrain the effective implementation of changes. Through engagement with key partners to date, 1 September is an optimal time avoiding peak retail seasons and events. To optimise timing of bans, it is understood that consultation and sufficient lead time between announcements of confirmed actions and their commencement is a key element to successful implementation.

Industry noted that national and other jurisdictions should work together to coordinate the implementation of bans so that items, timeframes, and specifications of compliant alternatives align. 18 months from announcement to ban implementation was sought, with implementation dates too far beyond this potentially leading to inaction.

The Queensland Government is committed to working with industry in the development, design, and implementation of future actions on problematic and unnecessary single-use plastic items. The department will seek feedback regarding supply chain challenges, sourcing suitable alternatives and timeframes prior to implementing future actions.

### **Consumer education**

The prevalence of new alternatives can create consumer confusion, particularly on correct disposal. The multitude of materials, product material composition, and disposal labelling contributes to confusion and waste-stream contamination, preventing recyclability and resource recovery. To facilitate the success of future bans and actions the Queensland Government acknowledges the importance of effective education and awareness programs. Information on bans is managed by the National Retail Association on behalf of the Queensland Government and is available at (<https://qldplasticsban.com.au/>).

## Appendix 1. Cross-jurisdictional comparison of single-use plastic bans in Australia

Plastic Item	ACT	NSW	NT	Qld	SA	Tas	Vic	WA
Lightweight Plastic Bag	✓	✓	✓	✓	✓	✓	✓	✓
Straws & Cutlery	✓	✓	?	✓	✓		✓	✓
Drink Stirrers	✓	✓	?	✓	✓		✓	✓
Sauce Sachets		?		✓	✓			
EPS Food & Drink Containers	✓	✓	?	✓	✓		✓	✓
Plates & Bowls	✓	✓	?	✓	✓		✓	✓
Plastic Cotton Bud Sticks	✓	✓		✓	✓		✓	✓
Microbeads	✓	✓	?	✓				✓
Heavyweight Plastic Bags	✓	?	?	✓	✓			✓
Fruit & Vege Produce Bags		?		✓	✓			✓
Drinking Cups & Lids				✓	✓			✓
Coffee Cups & Lids				?	✓			✓
Release of Lighter-Than-Air Balloons		?	?	✓				✓
Takeaway Container	✓			✓	✓			✓
Oxo-Degradable Plastics	✓	?		✓	✓		✓	✓
Balloon Sticks & Closures		?		✓	✓			

## References

- Apc waste consultants Report for Queensland Government (2023), *Queensland litter monitoring program site assessments November 2022 and March 2023*
- Apc waste consultants Report for Queensland Government (2023), *Queensland litter monitoring program site assessments October 2023*
- Australian Government (2022), *Environment Ministers Meeting – 21 October 2022, Agreed Communiqué*
- Enhance Research (2020), *Department of Environment and Science: Plastic Bag Ban – Wave 3 Consumer Research – Strategic Research Report*
- Enhance Research (2022), *Department of Environment and Science: SUPI Next Tranche Consultation – Consumer Survey Research Report*
- Geyer R, Jambeck JR, and Law KL (2017), 'Production, use, and fate of all plastic ever made', *Science Advances*, 3(7)
- National Retail Association (2022), *Queensland single-use plastic ban, Annual report Sep 2021 – Oct 2022*.
- Queensland Government (2016), *Implementing a lightweight plastic shopping bag ban in Queensland*.
- Queensland Government (2022), *Queensland's five-year roadmap for action on single-use plastic items*
- Queensland Government (2019), *Tackling plastic waste: Queensland's Plastic Pollution Reduction Plan*
- Queensland Government (2019), *Waste Management and Resource Recovery Strategy*
- Queensland Parliament (2021), *Record of Proceedings, First Session of the Fifty-Seventh Parliament, Tuesday, 9 March 2021*
- Queensland Parliament (2021), *Record of Proceedings, First Session of the Fifty-Seventh Parliament, Wednesday, 10 March 2021*
- United Nations Environment Programme (2022), *Historic day in the campaign to beat plastic pollution: Nations commit to develop a legally binding agreement*, <https://www.unep.org/news-and-stories/press-release/historic-day-campaign-beat-plastic-pollution-nations-commit-develop>
- United Nations Environment Programme, *Our planet is choking on plastic*, <https://www.unep.org/interactives/beat-plastic-pollution/>
- Waste Reduction and Recycling Act 2011
- Waste Reduction and Recycling Regulation 2011
- Waste Reduction and Recycling Regulation 2023

