Waste Management and Resource Recovery Strategy

Queensland Government

Minister's foreword

There is a groundswell of community support for better waste management in Queensland and the Palaszczuk Government is leading the way.

The Waste Management and Resource Recovery Strategy (Waste Strategy), developed in partnership with industry and local government, presents a fundamental shift in the way we manage waste in Queensland. Using waste as a valuable resource to create new products, industries and jobs and disposing of it to landfill only as a last resort.

Our vision is for Queensland to become a zero-waste society, where waste is avoided, reused and recycled to the greatest possible extent.

We will achieve this by moving away from our current 'take-make-use-dispose' approach, and creating a new, more circular system that keeps materials in use for longer, extracting the maximum value from them.

To kick-start the transition the Queensland Government is introducing a levy on waste going to landfill, starting on 1 July 2019. The levy will align Queensland with other states and encourage sustainable alternatives to landfill.

The levy will also provide vital funding for infrastructure investment, research and development into new technologies that bolster our recycling, and resource recovery industries. Ultimately, that will mean increased job opportunities in Queensland.

The Queensland Government has already committed $100 million over the next three years for new and expanded resource recovery facilities that are tailored to our unique regional waste management challenges.

This investment will be complemented by a suite of education and support programs. These programs will be funded under the Queensland Government's commitment to devote 70 percent of waste levy proceeds to resource recovery and other programs that reduce the impact of waste and protect our environment and local communities—an unprecedented commitment in Australia.

This is in addition to programs that are already helping to reduce waste and litter, including the ban on the supply of single-use lightweight plastic bags and the introduction of the hugely popular container refund scheme, Containers for Change.

I thank everyone who provided feedback on the strategy and have been involved in shaping this important plan for our future.

The Waste Strategy will boost our economy, create new jobs and drive significant economic growth as we make better use of resources and develop new industries.

Leeanne Enoch MP
Minster for Environment and the Great Barrier Reef
Minister for Science and Minister for the Arts

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Introduction

The Waste Management and Resource Recovery Strategy for Queensland (the Strategy) presents a plan for a better way of managing waste in Queensland. It will provide benefits in the form of economic growth and jobs by recovering more materials and gaining more value from those recovered materials.

There is significant potential for economic growth in the waste management and resource recovery sector in Queensland. For every 10,000 tonnes of waste that goes to landfill, it is estimated that fewer than three jobs are supported, but where that waste is reused or recycled, it is estimated that there are more than nine jobs created[1]. We can all do more to extract more value from our waste and protect the environment through reducing waste generated, improving recovery facilities and reducing litter. The Queensland Government intends to take the lead in growing the Queensland recycling and resource recovery sector.

Background

In 2017–18, Queensland produced nearly 11 million tonnes of waste, with the increase in waste generated over the last decade outstripping population growth by 19 per cent. This extra growth can be partly explained by increased consumption and partly attributed to the growing volume of interstate waste transported to Queensland for disposal due to low landfill gate prices and the absence of a waste levy.

In 2017–18, the amount of resources recovered or recycled was 4.9 million tonnes, or around 45 per cent of waste generated. This is below the national average of resource recovery performance across all Australian jurisdictions, and well below those states with the highest recycling rates. Over the past 10 years the amount of waste being sent to landfill in Queensland has increased while the recycling rate has remained steady. Local governments also continue to clean up significant amounts of littered and illegally dumped waste at a cost of over $18 million each year.

The Queensland Government is working with the Commonwealth Government and other states and territories to update the National Waste Policy to guide the actions for states and territories to build resilience to international market fluctuations and drive improved recovery. For example, to provide a solution to the ban on the import of recycled material with higher levels of contamination into China which has affected the commercial viability of kerbside recycling in Queensland.

An absence of policy certainty and strategic direction has inhibited investment in the recycling and resource industry in Queensland. In particular, insufficient investment in recycling and resource recovery infrastructure has restricted Queensland's ability to improve waste recovery performance. Diminishing landfill capacity is placing increasing pressure on the resource recovery sector to separate and process materials in lieu of disposal; and an important export market for recyclable mixed plastic materials and paper/cardboard has been restricted. As a result, improved on-shore reprocessing capacity will be needed to contend with a growing stock of recyclable materials.

1 Deloitte Access Economics, *Employment in waste management and recycling*, 2009.

Snapshot of waste in Queensland

In 2017–2018 ...

10.9 million tonnes
of headline wastes reported

55%
of waste goes to landfill

45%
of waste is recycled or recovered

Local governments sent
340,000 tonnes
of paper and packaging to recyclers

1.24m tonnes
of mixed domestic waste picked up by weekly council kerbside collection

Organic processors converted
1.4 million tonnes
into products such as soil, potting mixes and mulches

It cost local governments
$18.4m
to deal with **6,000 tonnes**
of illegally disposed of waste

37% increase
in the annual amount of waste from
interstate sources
sent to Queensland waste facilities

The need for change

These challenges have brought about a clear need for the Queensland Government, local governments, and the waste management and resource recovery sector to help households, communities, businesses and industry to reduce waste generation and to seek more value from recovered resources.

The waste management and resource recovery sector is well established in Queensland, and well placed to expand operations to further reprocess and recycle material. This transition will be supported by the strategy and a policy and regulatory framework that is designed to facilitate sustainable waste management practices.

The next decade will bring significant change in the way waste is managed, but will also provide opportunities for growth in employment and expansion in the sector.

Foundation measures

The Queensland Government has already implemented a number of initiatives to reduce waste generation, increase resource recovery and eliminate littering including:

- the introduction of a ban on the supply of single-use lightweight plastic shopping bags from 1 July 2018
- the introduction of a Container Refund Scheme to improve recycling of beverage containers from 1 November 2018
- regulatory reform of the regulated waste and environmentally relevant activity frameworks
- the development of strategic partnerships to improve the management of organic wastes
- the development of the Litter and Illegal Dumping: A Plan for Queensland
- the development of a Plastic Pollution Reduction Plan
- the introduction of a waste disposal levy commencing 1 July 2019
- the establishment of a $100 million three-year Resource Recovery Industry Development Program
- the announcement of a $5 million Waste to Biofutures Fund
- Queensland Resource Recovery Industries 10 Year Roadmap and Action Plan
- Queensland Biofutures 10 Year Roadmap and Action Plan.

These policy measures provide an important foundation to help Queenslanders reduce waste, gain more value from recovered materials and dispose of materials only where no beneficial use remains inherent in the product. The development and implementation of a new strategic waste management and resource recovery framework will help Queensland benefit from the associated economic and employment opportunities. A progressive, stable policy and regulatory framework is required to underpin industry confidence to invest in the state's resource recovery economy.

The Transforming Queensland's Recycling and Waste Industry—Directions Paper was released for public consultation in June 2018 and feedback from this has helped shape this Strategy. The Strategy's policy direction is also guided by principles set out in the *Queensland Waste Reduction and Recycling Act 2011* and *Environmental Protection Act 1994*, and national policies and strategies.

Strategy overview

The Strategy presents a strategic plan for a better way of managing waste in Queensland, by harnessing the potential value of resources that have traditionally been discarded. The Strategy's three strategic priorities will guide the transition to a more circular economy, reduce the amount of waste disposed of to landfill, or illegally, and provide a more sustainable source of end-of-life products and materials to create new products.

The Strategy will be accompanied by a series of action plans that detail the implementation of the strategic priorities, including timeframes and responsibilities.

Vision

Queensland will become a zero-waste society, where waste is avoided, reused and recycled to the greatest extent possible. Strategic investment in diverse and innovative resource recovery technologies and markets will produce high-value products and generate economic benefits for the state.

Identifying waste as a potential resource provides opportunities for both the economy and the environment. Materials that would otherwise have been sent to landfill can be reprocessed and remanufactured into new products.

The disposal of waste into landfill creates environmental problems for Queensland. Landfills emit additional greenhouse gas emissions (particularly from organic waste) and the need for long-term management of contaminated land can cause a cost burden. Odour and noise emissions from waste facilities can lead to potential land-use conflicts.

Providing an incentive to recover and recycle material can help protect the natural environment and conserve natural resources that would otherwise have been used in new product manufacture.

Ambitious stretch targets, supported by nearer-term interim targets have been developed to support the Strategy's vision.

Targets for 2050

- 25% reduction in household waste
- 90% of waste is recovered and does not go to landfill
- 75% recycling rates across all waste types

By reducing the amount of waste that goes to landfill, and subsequent greenhouse gas emissions, the Strategy will also directly contribute to the goals of the Queensland Climate Transition Strategy including to:

- achieve zero net emissions by 2050
- reduce emissions by at least 30 per cent below 2005 levels by 2030 (interim target).

The deployment of certain types of energy recovery technology may also contribute to achieving the goal of powering Queensland with 50 per cent renewable energy by 2030.

The Strategy's focus on gaining more value by recycling and recovering materials aligns with the Queensland Government's Advance Queensland initiative to foster innovation and position the state as an attractive destination for investments in new ideas. It will help create a commercial environment that supports investment in new, innovative and expanding businesses.

The collective challenge for households, communities, business, industry and government is to reduce the amount of waste created in the first instance; maintain, reuse and repair products to extend their lives; and maximise the value of materials before energy can be recovered or they must be discarded. The waste hierarchy, enshrined in the *Waste Reduction and Recycling Act 2011*, provides an enduring framework which sets out guidance for managing waste (Figure 1).

What does zero-waste mean? The only waste that goes to landfill is waste for which there is no alternative environmentally, socially or economically viable solution.

Moving towards a circular economy for waste

The global economy is transforming towards a more circular model. Queensland's economy is predominantly linear, which means that things are typically made from virgin raw materials, used and then thrown away as part of a 'take-make-use-dispose system'. The majority of these end-of-life products end up in landfill.

In contrast, a circular economy is one in which products and materials keep circulating within the economy at their highest value for as long as possible, through reuse, recycling, remanufacturing, delivering products as services, and sharing (Figure 2).

The waste sector is well placed to take advantage of a transition to the circular economy. A more circular model encourages improved resource efficiency, and can protect businesses from fluctuating and sometimes volatile commodity prices. The circular economy can also provide a more stable operating environment for manufacturers, retailers and consumers.

Businesses operating under the circular economy model create opportunities for new revenue streams and markets and product lines, which help to further economic growth. The process forms a productive cycle that involves collecting discarded materials, sorting and separating them into material types, reprocessing specific materials to become clean feedstock for the manufacture of new products, and the subsequent purchase and use of the new products by consumers.

The circular economy has been shown to have significant benefits through additional revenue opportunities and new jobs in the areas of reuse, remanufacturing and materials innovation.

Creating market demand

Sustained growth of the waste management and resource recovery sector is predicated on the growth of markets for recycled produce, which in turn is dependent on demand. Market demand for products with recycled content will drive increased commercial investment in resource recovery and reprocessing technologies. The circular economy must therefore be driven by the purchasing behaviour of consumers and investment by the resource recovery and manufacturing sectors.

The Queensland Government will play a pivotal role in facilitating the growth of these markets by identifying pathways for industry development, as outlined in the Resource Recovery Industries 10 Year Roadmap and Action Plan. State-wide waste infrastructure planning will be undertaken and the Queensland Government will work with local governments to develop region-specific plans to deliver recycling and resource recovery facilities appropriate to these areas.

To provide a sustained feedstock for the recycling and resource recovery sector, the Queensland Government will pursue landfill disposal bans on selected waste streams. Such bans will be underpinned by economic modelling and market development plans for the diverted material. The Queensland Government recognises the need to give sufficient time for industry to transition and for infrastructure to be built, so a clear implementation timeframe will be provided prior to bans commencing. The applicability of bans on a regional basis will also be considered.

The Queensland Government will continue to explore product stewardship schemes to help drive market development, and will continue to work with the Australian Government to implement them.

In the medium term, there will be some wastes that cannot be recycled, and this provides an opportunity to consider the role of waste to fuel or energy. The Queensland Government will develop a policy for energy from waste that will seek to position it as an alternative to landfill, and not as an alternative to recycling as part of a longer-term solution.

Figure 1. Waste and resource management hierarchy

The waste and resource management hierarchy is a framework that guides the order of preference for managing waste. Waste should be avoided as a first priority, after which options for reuse and recycling should be explored. The options of fuel production, energy production or disposal should be reserved for residual waste that is unsuitable for higher order options. The hierarchy shapes the Strategy's priorities and provides the basis for the development of actions.

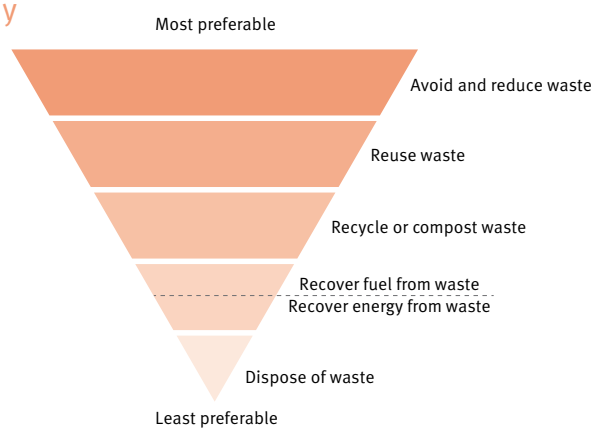
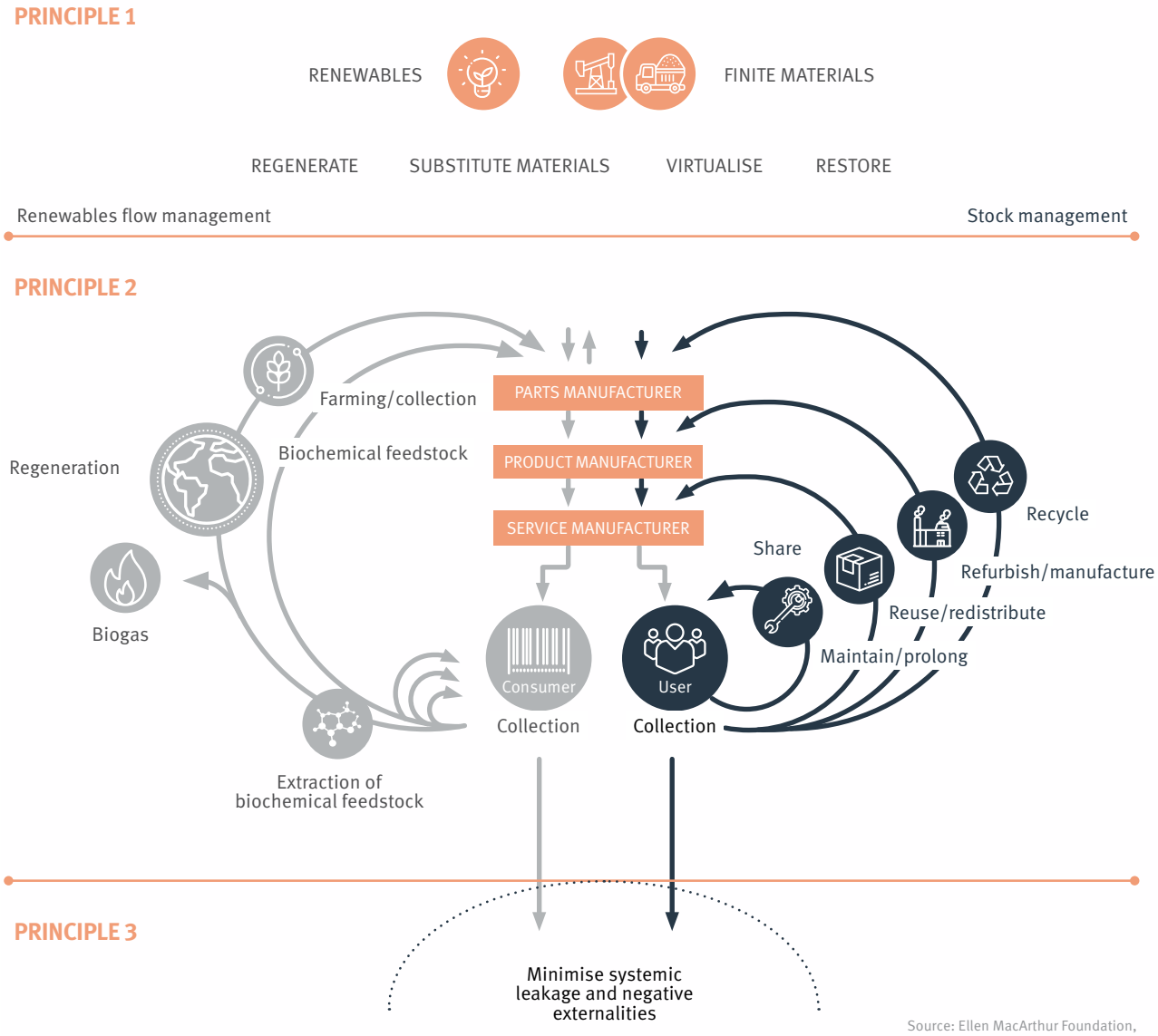


Figure 2. Circular economy principles

Globally, governments and businesses are moving toward a circular economy model. Adopting circular economy principles presents opportunities for both industry and government to alter the way a substantive part of the economy operates, while creating growth and improved environmental sustainability. Shifting away from the linear 'take-make-use-dispose' model will deliver benefits through reduced waste and improved resource efficiency, can create new economies and build long-term market, environmental and economic resilience.



Source: Ellen MacArthur Foundation, www.ellenmacarthurfoundation.org

A circular economy aims to ensure that:

- products and materials are used efficiently to minimise the amount of waste created
- waste that is produced can be recovered and beneficially used to make other products and contribute to the economy
- products and materials keep circulating within the economy at their highest value for as long as possible, through remanufacturing, reuse and recycling.

The following circular economy principles can be applied to waste management and resource recovery sector.

- Generation of waste should be avoided where possible (for example, by eliminating the need for single-use plastic bags).
- Product design should make optimal use of recycled materials, use only materials that are able to be designed for repair, recycled, and strive for efficient disassembly at the end of product life.
- The post-consumer recovery, reprocessing and marketing cycle should be efficient and integrated.

Strategy targets

The Queensland Government has a long-term vision, with corresponding targets that will facilitate sustained growth of the recycling and resource recovery sector, while reducing Queensland's waste footprint. Targets are set for 2025, 2030, 2040 and 2050 to enable ongoing measurement of progress and to recognise that there is potential for significant change in the short to medium term. Performance targets will be measured from the commencement of the Strategy, using baseline data from the 2017–18 financial year.

When setting the Strategy targets, consideration was given to the reasonableness, appropriateness, compatibility and achievability of the targets. This was achieved by undertaking a qualitative assessment which compared the targets against selected Australian and international jurisdictions for reasonableness and appropriateness; and a quantitative assessment which involved high-level modelling of predicted changes to the composition of waste and recycling to assess the compatibility and achievability of the targets.

The following targets have been developed to support the Strategy's vision, drive market growth and deliver the benefits associated with improved waste management.

Targets for 2050

- 25% reduction in household waste
- 90% of waste is recovered and does not go to landfill
- 75% recycling rates across all waste types

Waste avoidance

Waste avoidance is the highest priority on the waste hierarchy. The waste avoidance target seeks to reduce the amount of waste that each household in Queensland generates. The Queensland Government will support Queensland businesses and households to reduce the amount of waste generated through the delivery of targeted education and information-sharing programs.

The waste reduction target focuses on the waste produced by households and referred to as municipal solid waste (MSW), and will be calculated per-capita. In reducing household waste, Queenslanders will see reduced grocery bills as less waste, especially food, is generated.

The waste produced under the commercial and industrial (C&I) and construction and demolition (C&D) streams is often influenced by macro-economic conditions, so these wastes are excluded from the waste avoidance target.

Table 1—Waste reduction targets for households (per capita)

Stream	Baseline (2018)	2025	2030	2040	2050
MSW	0.54t	10%	15%	20%	25%

Reduced waste to landfill

In 2017–18, more than 50 per cent of Queensland's waste was sent to landfill. To drive the growth of recycling markets, the Queensland Government will introduce a waste disposal levy in July 2019 to provide a clear price signal to divert valuable material away from landfill. The levy will be accompanied by a series of companion measures that will subsequently create an alternative pathway for these materials to be recycled or recovered. There are a number of wastes, such as asbestos, for which landfill is unavoidable and these have been accounted for in the long-term targets. The targets reflect the overall diversion rate for all material diverted from landfill. The ninety per cent target for 2050 reflects only ten per cent of waste going to landfill.

Table 2—Waste diversion from landfill targets (recovery rate as a percentage of total waste generated)

Stream	Baseline (2018)	2025	2030	2040	2050
MSW	32.4 %	55%	70%	90%	95%
C&I	47.3 %	65%	80%	90%	95%
C&D	50.9 %	75%	85%	85%	85%
Overall	45.4 %	65%	80%	85%	90%

The recovery of energy from waste may be suitable for waste that cannot be recycled and otherwise would be destined for landfill.

Increasing recycling rates

Increased recycling rates will be supported by the development of markets and the delivery of infrastructure to meet market demand for recycled material. The Queensland Government will work with industry and local government to identify infrastructure needs and support planning for new infrastructure. The percentages in Table 3 relates to waste that is reported as recycled or reused, specifically excluding material from which energy is recovered. Recovering fuels or energy from waste may be suitable for waste that cannot be recycled.

Table 3—Recycling rates (as a percentage of total waste generated)

Stream	Baseline (2018)	2025	2030	2040	2050
MSW	31.1%	50%	60%	65%	70%
C&I	46.5%	55%	60%	65%	›65%
C&D	50.9%	75%	80%	›80%	›80%
Overall	44.9%	60%	65%	70%	75%

Strategic priorities

Three strategic priorities set out below have been identified to help drive a fundamental shift in the way waste is managed in Queensland and support the transition to a zero-waste society.

- Reducing the impact of waste on the environment and communities.
- Transitioning towards a circular economy for waste.
- Building economic opportunity.

Reducing the impact of waste on the environment and communities

The Queensland Government is committed to reducing the environmental and social impacts of waste. Waste crime, including littering and illegal dumping of waste, can undermine legitimate businesses through reckless or cheap disposal of waste. This can harm the environment, particularly in aquatic settings, where littered items can adversely affect marine life and compromise water quality.

Over time the need for fewer landfill facilities will reduce local air, land and water pollution, and together with the reduction of interstate waste transportation and less organic waste in landfill will contribute to a reduction in greenhouse gas emissions.

The Strategy will guide the development of educational programs to inform consumers about how they can reduce the amount of waste they produce, and to inform businesses about options to improve waste management. The Queensland Government will support this through the implementation of clear and transparent regulatory policy, and enhanced compliance frameworks to provide consistency across the waste management and resource recovery sector and reduce waste crime.

Transitioning to a circular economy for waste

The Queensland Government recognises the benefits of transitioning to a circular economy for waste. It will encourage the community, business and industry to manage waste so that its value is retained in the economy for as long as possible. Value can be gained from material otherwise destined for landfill when there are increased options for reuse, recycling and recovery of resources. All Queenslanders can play a role in this transition by adopting purchasing and consumption behaviours that help reduce waste and increase recycling and resource recovery.

Building economic opportunity

The Queensland Government recognises that the waste management and resource recovery sector is already an important contributor to the economy. However, there is further potential to grow the sector. The government will work with local government, business, industry and the recycling and resource recovery sector to expand reuse, recycling and recovery capability so that Queensland becomes a highly competitive centre for the remanufacture of waste materials into new products. Fostering sustained growth of the sector and establishing a progressive, stable policy and regulatory framework will provide business and industry with confidence to invest. It will also create new jobs, provide upskilling opportunities for the workforce, build infrastructure capacity and markets in regional areas, and contribute to sustainable growth in Queensland.

Working together to make the change

The Queensland Government will take a leading role in guiding and facilitating the transition to a zero-waste society to deliver improved environmental protection and better economic prosperity.

Action is also needed by local government and the recycling and resource recovery sector, who are responsible for managing waste services and infrastructure and have a vital leadership role to play in delivering more sustainable waste management. The waste management and resource recovery sector in Queensland is well positioned to grasp the commercial opportunities presented by the transition to a circular economy.

Business and industry, waste generators, product designers, consumers and potential investors in resource recovery and reprocessing technologies and practices have a role to play in rethinking how they innovate and stimulate market demand for recycled content.

Households and the community can also play a vital role in considering what to purchase and what to do with products and materials that have reached the end of their current life cycle, including sorting and segregating wastes at home.

Enabling the change

There are a number of actions that need to be undertaken to facilitate the change required to deliver on the strategic priorities. These were identified through extensive consultation with stakeholders during the development of the Strategy.

- ✓ A strong **policy and legislative framework** will provide certainty, consistency and a clear policy direction that industries can use to inform proactive decision-making.
- ✓ Good **governance** will ensure that opportunities and barriers to change can be managed transparently to deliver optimal waste management outcomes.
- ✓ Effective **compliance management** will reduce waste crime and ensure a level playing field across the waste sector that requires and encourages waste management operators to not only comply with the prevailing law, but aspire to best practice.
- ✓ Robust **partnerships and collaboration**, and a sound **knowledge platform**, will drive innovation, investment, information sharing and the uptake of opportunities.
- ✓ A comprehensive **education** program will ensure waste management becomes a priority for communities as well as industries, and will drive changes in consumer expectations, knowledge and behaviour.

Strategy summary

Vision

Queensland will become a zero-waste society, where waste is avoided, reused and recycled. Strategic investment in diverse and innovative resource recovery technologies and markets will produce high-value products and generate economic benefits for the state.

Outcomes

- Reduction in the amount of waste that goes to landfill, is littered or illegally dumped.
- Reduction in waste-related greenhouse gas emissions.
- Reduction in the long-distance transport of waste.
- Protection of Queenslander's lifestyles and the enjoyment of our natural environment.
- Savings for households from avoiding unnecessary waste.
- Reduction in the impact from waste facilities on neighbouring communities and amenity value.

Strategic priority 1

Reducing the impact of waste on the environment

Actions for Queenslanders

- Recycle better.
- Avoid waste.
- Reduce waste.
- Choose to reuse.
- Find better ways to dispose of waste, and not litter or dump.

Government actions

- Implement the Plastic Pollution Reduction Plan.
- Continuously improve the effectiveness of waste sector environmental compliance operations.
- Audit landfills to test the quality of Queensland landfill infrastructure and identify non-compliance.
- Provide assistance for alternative arrangements where landfill facilities are to be progressively closed.
- Develop the Litter and Illegal Dumping: A plan for Queensland.
- Develop an education strategy to integrate waste and recycling behaviours into the education system.

Actions for local government

- Support and contribute to targets and actions under Litter and Illegal Dumping: A plan for Queensland.
- Deliver litter and illegal dumping interventions within local communities and at targeted hotspots.
- Support delivery of waste education through existing networks.
- Improve or close redundant landfill facilities.

Waste sector actions

- Strategically locate facilities in accordance with land use planning guidelines.
- Avoid and minimise the long-distance transport of waste where practicable.
- Continue to educate industry members about the appropriate management actions to take for particular wastes.

Outcomes

- Sound management of waste as a valuable resource.
- Improved data and information sharing on material flows across Queensland.
- Clear standards and guidelines for reuse and recycling.
- Clear position and policy on the role of energy and fuels from waste in Queensland.

Outcomes

- Growth in the economic value of the waste management and resource recovery sector.
- Increased number of jobs in reuse, recycling and recovery.
- Clear and transparent waste and resource recovery infrastructure planning framework.
- Stimulated markets for new and innovative products containing recycled content and demand for recycled material.

Strategic priority 2

Transitioning to a circular economy for waste

Government actions

- Assess the opportunities of the circular economy model for Queensland.
- Collect and amalgamate data to understand material flows across the economy and address knowledge gaps.
- Explore options to expand reporting of waste to build baseline datasets and inform decision making.
- Develop material-specific action plans for problem wastes.
- Deliver community campaigns and education programs that support waste avoidance, re-purposing, reuse and recycling.
- Explore scope for industry leadership in developing a voluntary specification code for minimum recycled content in packaging and products.
- Develop programs to increase business recycling.
- Support and develop extended producer responsibility and product stewardship initiatives.
- Develop an energy from waste policy.
- Work with other governments to develop quality standards for product packaging.

Actions for local government

- Optimise waste collection services.
- Improve community understanding about recycling and waste avoidance.
- Develop consistent messaging in delivery of services between councils.

Waste sector actions

- Inform and educate business clients about options to reduce waste and increase recycling.
- Offer service options that provide clients with choice about the level of recycling they want to adopt.

Strategic priority 3

Building economic opportunity

Government actions

- Develop and implement the Advance Queensland Resource Recovery Industries 10 Year Roadmap and Action Plan.
- Continuously improve and reform waste-related legislative frameworks.
- Develop proposals for landfill disposal bans.
- Work with the Commonwealth Government to standardise waste policy, legislation, regulation and messaging.
- Review the land-use planning system to ensure pathways for industry development are supported.
- Promote the development of waste precincts.
- Develop a coherent state-wide waste infrastructure-planning framework and regional infrastructure plans.
- Support the commercialisation of successful recycling and remanufacturing technologies.
- Create market development plans for key waste types and waste sectors.
- Investigate alternative end-uses and markets for recycled materials.
- Consider how procurement can stimulate demand for recycled material manufactured in Queensland.
- Develop programs to stimulate the growth of markets for recycled materials.
- Strengthen collaborative partnerships with key organisations in the sector.

Actions for local government

- Collaborate with state government planning on provisions to optimise land use and transport planning.
- Take a regional approach to infrastructure planning and collaboration.
- Collaborate across councils to create economies of scale and meet multiple infrastructure needs.
- Invest in improved infrastructure and standards for council run facilities.
- Rationalise waste facilities.

STRATEGIC PRIORITY 1

Reducing the impact of waste on the environment

A healthy environment creates safe and healthy communities, supports our economy and contributes to our general health and well-being. Which is why it is so important that we protect it for future generations.

Future waste management solutions that increase resource recovery and divert waste from landfill will reduce the impact on Queensland's environment and deliver better outcomes for local communities.

Outcomes

Reducing the impacts caused by waste on the environment will help achieve the following outcomes.

- Reduction in the amount of waste that goes to landfill, is littered or illegally dumped.
- Reduction in waste-related greenhouse gas emissions.
- Reduction in the long-distance transport of waste.
- Protection of Queenslander's lifestyles and the enjoyment of our natural environment.
- Savings for households from avoiding unnecessary waste.
- Reduction in the impact on neighbouring communities and amenity value from waste facilities.

Actions for Queenslanders

Individuals have an important role to play in moving towards a more resourceful, less wasteful future. Queenslanders are encouraged to take up the challenge of reducing their own waste, in any way they can, through five simple actions:

- Recycle better.
- Avoid waste.
- Reduce waste.
- Choose to reuse.
- Find better ways to dispose of waste, and not litter or dump.

Queensland Government actions

The Queensland Government will continuously review waste sector environmental compliance operations to ensure that monitoring activities effectively reduce litter and illegal dumping and regulate environmental service facilities and operations. The government will also establish a clear environmental regulation and compliance monitoring framework that supports the efficient operation of the market to protect the environment and human health from waste crime, and provide a level playing field for all market participants.

The Queensland Government will work with the waste management and resource recovery sector, and local government to audit and assess the quality of existing landfill infrastructure, and identify facilities that are not compliant with the landfill guidelines and regulations. This information will help inform infrastructure needs assessments, and infrastructure planning and rationalisation of redundant facilities.

The Queensland Government will work with local government to reduce litter and illegal dumping through public education and information programs and capacity building. Continued data collection and research will support compliance and enforcement to support the Litter and Illegal Dumping: A Plan for Queensland. The plan will be supported by information and education programs undertaken by both the Queensland Government and local government about the impacts of litter and illegal dumping.

Local government actions

Local government is at the front line in dealing with the effects of litter and illegal dumping. They are well placed to lead the delivery of on-ground awareness, education and infrastructure with Queensland Government support programs and funding where appropriate. To achieve reductions in litter and illegal dumping across Queensland, local governments are needed to participate in actions that support the actions in the litter and illegal dumping strategy. This will ensure a unified voice and consistent approach to litter and illegal dumping is taken across all jurisdictional boundaries across Queensland.

Waste management and resource recovery sector actions

The sector has an important role to play in protecting the environment by positioning recycling and resource recovery facilities in strategic locations that minimise impacts on communities, taking action to reduce waste disposal that effectively minimises impacts on communities, managing landfill sites and reducing the transport of waste and recycled materials. The sector must also continue to educate its members about appropriate management actions for particular wastes, to ensure proper treatment, recycling and disposal.

STRATEGIC PRIORITY 2

Transitioning to a circular economy for waste

The transition to a circular economy will support higher recycling and recovery rates in Queensland, driven by world-class industry and technological advances.

Outcomes

Transitioning to a circular economy model for the waste management and resource recovery sector will help achieve the following outcomes.

- Management of waste as a valuable resource.
- Improved data and information sharing on material flows across Queensland.
- Clear standards and guidelines for reuse, recycling and recovery.
- A clear position and policy on the role of fuels and energy from waste in Queensland.

Queensland Government actions

The Queensland Government has identified a number of waste streams that require increased action to improve recycling performance. Clear and progressive policy will be complemented by a series of programs to focus on problem wastes including:

- built environment waste, including construction and demolition waste
- food and agricultural waste
- plastics
- waste electrical equipment and batteries
- glass
- paper and cardboard
- tyres
- textiles.

Topic-specific action plans will be developed as part of the Strategy to establish a clear picture of material flows, understand the supply and demand requirements for recycled content and establish market development plans.

Recycling

The Queensland Government will work with the waste contracting sector and local government to reduce the amount of business waste sent directly to landfill through more effective sorting at the source. It will develop a program to overcome the barriers to business waste recycling, and create mandatory conditions for new commercial premises to be designed and constructed with adequate waste disposal recycling systems in place.

The Queensland Government will continue to support and develop national extended producer responsibility initiatives, such as for the recovery and recycling of e-waste. These initiatives will be developed at a state level where there is no prospect of, or case for, a national solution, and where there is evidence that it would be beneficial to Queensland.

Knowledge

The Queensland Government will prioritise programs to improve the understanding of material flows across the economy and address key knowledge gaps. It will explore options to expand reporting of waste flow and recycling statistics across Queensland to build baseline datasets. A knowledge platform will be developed for industry, community and government to encourage innovation and collaboration.

Fuels and energy from waste

The Queensland Government will develop an energy and fuel from waste policy to ensure that technologies deployed to produce fuels and recover energy from waste materials are appropriate and in the best interests of Queenslanders. This will provide potential investment options to develop fuels and recover energy from wastes that cannot be reused or recycled as an alternative to landfill disposal.

Information and education

The Queensland Government will work with small and medium business, local government and community organisations to deliver information and education programs that support avoidance, reuse, recycling and proper handling (including disposal) of waste. These programs will aim to:

- build understanding of material flows across the economy and demonstrate the value of waste resources and the part that can be played by all Queenslanders to manage resources more efficiently
- connect material supply with demand markets through market planning and intelligence sharing
- develop measures to encourage positive waste behaviour so that all Queenslanders can make informed and active choices about managing waste as a potential resource.

Product standards

The Queensland Government will work with Commonwealth and state and territory governments, and the Australian Packaging Covenant Organisation, to develop nationally consistent quality standards for product packaging and reduce excessive product packaging and the use of composite or non-recyclable packaging. The government will also work with industry to develop a voluntary specification code for minimum recycled content in packaging and relevant products.

Local government actions

Local government has a vital role in managing waste services to communities and local business, and is well placed to contribute to improving community-wide understanding of best recycling practice and behaviour specific to their local area.

Waste management and resource recovery sector actions

The waste management and resource recovery sector as the key waste management provider is well placed to drive the growth and investment required to grow the sector. The industry has a commercial and ethical responsibility to inform and educate its business clients about how to reduce waste and increase recycling and offer service options that provide them with real choice about the level of recycling they want to adopt. The willing participation of the waste management and resource recovery sector, in partnership with the Queensland Government, is vital to the Strategy's success.

STRATEGIC PRIORITY 3

Building economic opportunity

Building economic opportunity will stimulate investment and market development in the waste management and resource recovery sector and support economic and jobs growth.

Outcomes

Building and facilitating economic opportunities for the waste management and resource recovery sector will help achieve the following outcomes.

- Growth in the economic value of the waste management and resource recovery sector.
- Increased number of jobs in reuse, recycling and recovery.
- Clear and transparent waste and resource recovery infrastructure planning framework.
- Stimulated markets for new and innovative products containing recycled content and demand for recycled materials.

Queensland Government actions

Legislative and planning frameworks

The Queensland Government will allocate from waste levy revenue funds to facilitate industry development and the expansion and evolution of the state's waste management and resource recovery industry. This will be facilitated in partnership with industry and local government, who can provide certainty of feedstock and be consumers of large volumes of recycled commodities.

The Queensland Government will review and reform the waste-related legislative framework to ensure it facilitates and supports new ways for managing waste—where outputs from initial sorting or material recovery facility processes are recovered as raw materials for further processing.

The Queensland Government will consider how best to ensure appropriately classified wastes from one process can be used as a resource and feedstock for downstream value-adding processing. Such activity could be made more efficient by, for example, being co-located in industrial precincts.

The Queensland Government will continue to work with Commonwealth and state and territory governments to ensure strong alignment on waste policy, legislation and regulation. Working with local government, the Queensland Government will seek to identify the type of waste facilities that need to be delivered to achieve the Strategy's outcomes. This includes how land-use planning and other mechanisms can assist in supporting the delivery of these facilities, including through 'waste precincts'.

Infrastructure and services

The Queensland Government will work with business, industry and local government stakeholders to develop a coherent whole-of-state and regional infrastructure-plan for waste, incorporating requirements for remote, regional and metropolitan areas.

The Queensland Government will work with local government and the waste management and resource recovery sector to develop a consistent procurement contract framework for waste management and resource recovery services.

Innovation

The Queensland Government will support innovative research and development, including the rollout of demonstration projects to assist with the commercialisation of projects to reduce the amount of waste generated, avoid the disposal of waste to landfill, and trial new and innovative recycling technologies.

Market development

The Queensland Government has developed a Resource Recovery Industries 10 Year Roadmap and Action Plan in collaboration with business, the waste management and resource recovery industry and local government to develop alternative end uses and markets for recycled materials.

Market development plans will support the marketing of an increase in the availability and quality of recovered resources. Government investment in innovation will help identify commercially viable recovery options and uses to help drive market demand.

The Queensland Government will consider how both state and local government procurement can stimulate demand for recycled material manufactured in Queensland.

Industry support

The Queensland Government has developed a suite of programs, including the Resource Recovery Industries 10 Year Roadmap and Action Plan, to support business and industry using funding from waste levy revenue.

It will develop collaborative partnerships with key organisations in the waste management and resource recovery sector to facilitate business opportunities in resource recovery and remanufacturing.

Local government actions

Local government should work with the Queensland Government to review and plan regional infrastructure to deliver optimal recycling and recovery systems.

Local governments will be encouraged to review local planning provisions to ensure that development applications include adequate provision of waste management and resource recovery services.

Local governments should support the Queensland Government through adopting national or state standards for recycled content in procurement, to help stimulate demand for products containing recycled materials.

Local governments in regional and remote locations can collaborate to tackle specific challenges brought about by the often significant distance to the nearest reprocessing facility.

Local governments can give special consideration to alternative local uses for recycled materials—particularly where organic waste can be collected and processed to produce high value bio-extracts or high-quality compost, to be used in agriculture—and where innovative construction methods can be developed to use recycled materials locally, when cost-effective transport of recyclable materials is not possible.

Waste management and resource recovery sector actions

The waste management and resource recovery sector should work to identify where the opportunities for economic growth are, and be ready to invest accordingly.

Industry should work with local government to resolve planning issues for existing and new infrastructure.

Industry should also work with government to develop standards and specifications when using recycled material. A consistent approach will give consumers confidence in the quality and safety of these products and help drive market demand.

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