

Waste Reduction and Recycling Plan 2019-2022

Revised October 2019



Foreword

This Waste Reduction and Recycling Plan (the Plan) is required under the *Waste Reduction and Recycling Act 2011* (Qld) (the Act). Under the Act, this Plan must have regard to the hierarchy, principles, goals and targets of the State Waste Strategy and report annually to the Department of Environment and Science on the implementation of this plan.

The Plan aligns with Queensland's new Waste Management and Resource Recovery Strategy (the Strategy) which provides the strategic framework for Queensland to become a zero-waste society, reducing waste, gaining more value from recovered materials, disposing of materials only where no beneficial use remains inherent in the product, and help Queensland gain economic and employment benefits.

The Strategy focuses on transitioning Queensland to achieve the principles of a circular economy to help retain the value of material in the economy for as long as possible. It provides the framework to help deliver coordinated, long-term and sustained growth for the recycling and resource recovery sector while reducing the amount of waste produced, and ultimately disposed of, by promoting more sustainable waste management practices for business, industry and households.

Within the Strategy, long-term targets for 2050 have been established:

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

While the department will continue to implement the Waste Reduction and Recycling Plan 2019-2022 actions, there will be a greater emphasis on improving material supply chains, to maximise procurement of recycled products and materials; improved waste collection services to departmental office locations and schools; and improved data collection of landfill and recycled waste collection rates.

Waste reduction and recycling also plays an important part in achieving the Queensland Government's climate change objectives. By reducing the amount of waste going to landfill, and subsequent greenhouse gas emissions, the Strategy will also directly contribute to the goals of the Queensland Climate Transition Strategy, including the goal to achieve zero net emissions by 2050 and 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.

Under this Plan, we will continue to focus our waste reduction and recycling efforts through education, and the delivery of school-based initiatives that support local community efforts to improve waste management practices. The goals and targets outlined in this plan have been developed to align with the Strategy. This Plan will aim to meet the Queensland Government targets for 2050, including a 25% reduction in household waste, 90% of waste recovered and not in landfill, and 75% recycling rates across all waste types.

The Department of Education (DoE) is committed to the Strategy's vision for Queensland to 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.

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Definitions

In order for targets and goals to be accurately set and measured, the following definition from the *Environmental Protection Act 1994* (Qld), section 13, has been adopted to define waste:

Waste includes any thing, other than an end of waste resource, that is—

- a. left over, or an unwanted by-product, from an industrial, commercial, domestic or other activity; or
- b. surplus to the industrial, commercial, domestic or other activity generating the waste.

The Strategy defines **zero-waste** as:

The only waste that goes to landfill is waste for which there is no alternative environmentally, socially or economically viable solution.

Queensland Government Drivers

The Strategy includes the Queensland Government targets and sets out key actions.

Targets

Ambitious stretch targets, supported by nearer-term interim targets, have been developed to support the Strategy's vision. Targets for 2050 include:

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

Incremental targets have also been set for waste avoidance, waste reduction and recycling rates.

Waste Reduction targets (per capita)					
Stream	Baseline (2018)	2025	2030	2040	2050
MSW	0.54t	10%	15%	20%	25%

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%

Recycling rate (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%

Table 1: Targets

(https://www.qld.gov.au/data/assets/pdf_file/0028/103798/qld-waste-management-resource-recovery-strategy.pdf)

(MSW: municipal solid waste; C&I: commercial and industrial; C&D: construction and demolition)

Queensland Government key actions

To support Queensland's transition to a less wasteful future, the Queensland Government proposes to take the following key actions:

- work with councils to raise awareness about locally-available recycling options;
- deliver information and education programs that support waste avoidance, repurposing, reuse, recycling, and litter and illegal dumping prevention;
- support councils to improve waste and recycling collection services and tackle problem wastes;
- work with businesses to reduce excessive packaging and make packaging waste recyclable;
- make government purchasing decisions that avoid waste and support products containing recycled materials;
- support research into new uses and markets for recycled materials; and
- support infrastructure investment in locations to help improve community access to recycling.

Policy and Legislation

In order to develop this Waste Reduction and Recycling Plan, the following policies and legislation have been taken into consideration:

- [*Environmental Protection Act 1994 \(Qld\)*](#);
- [*Waste Reduction and Recycling Act 2011 \(Qld\)*](#);
- [*Queensland Waste Avoidance and Resource Productivity Strategy \(2014-2024\)*](#);
- [*Waste Management and Resource Recovery Strategy*](#);
- [*Queensland Climate Adaptation*](#) and [*Transition Strategies*](#);
- [*Australian Packaging Covenant*](#);
- [*Container Refund Scheme*](#);
- [*Plastic bag ban*](#); and
- [*Waste Reduction and Recycling Regulation 2011 \(Qld\)*](#).

Principles of Waste Management

The Waste Management Principles outlined in the Act will guide the department in waste management decisions. These are:

- the **polluter pays principle** – all costs associated with minimising the amount; containing, treating and disposing of waste; and rectifying environmental harm caused by waste should be borne by those who generate the waste;
- the **user pays principle** – all costs associated with the use of a resource should be included in the prices of goods and services that result from the use;
- the **proximity principle** – waste and recovered resources should be managed as close to the source of generation as possible; and

- the **product stewardship principle** – there is a shared responsibility between all persons who are involved in the life cycle of a product for managing the environmental, social and economic impact of the product.

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.

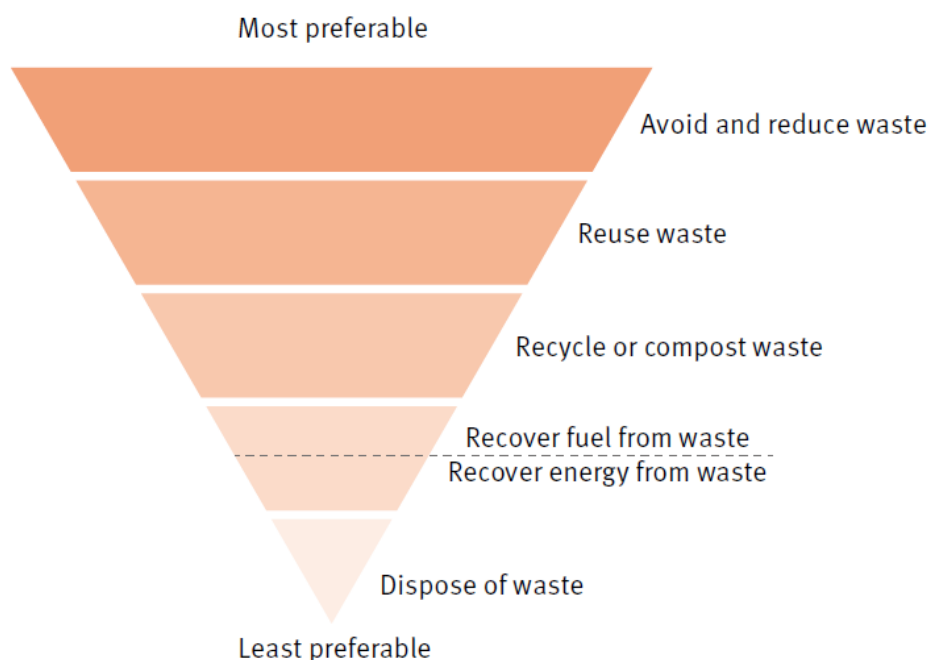


Figure 1: The waste and resource management hierarchy
https://www.qld.gov.au/_data/assets/pdf_file/0028/103798/qld-waste-management-resource-recovery-strategy.pdf

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; and
- building economic opportunity.

The legislative requirements, the Waste and Resource Management Hierarchy, the Principles of Waste Management and the Strategic Priorities have all been taken into consideration by the department when implementing this Action Plan.

A Plan for Action

Scope

This Waste Reduction and Recycling Plan 2019-2022 (the Plan) has been developed by DoE to provide strategic goals and targets for waste management, while also ensuring that all legislative requirements and government objectives are met.

It will transition the department's waste management away from the current 'take-make-use-dispose' approach and create a new more circular system that keeps materials in use for longer, extracting the maximum value from them.

The Plan will be actioned by:

- reducing the amount of waste created in the first instance;
- maintaining, reusing and repairing products to extend their lives; and
- maximising the value of materials before energy can be recovered or they must be discarded.

This action plan applies to all areas of the department.

Taking a collaborative approach

Working together to make the change

The Queensland Government will take a lead role in guiding the department, which already has strong internal relationships and external relationships with local councils and environmental groups. Good governance will enable the transparent management of opportunities and barriers to change to deliver optimal waste management outcomes.

A comprehensive education program will ensure waste management becomes a priority for schools, communities and industry partners and drive changes in expectations, knowledge and behaviour to reduce waste and increase recycling.

Infrastructure Services Branch will lead the implementation of this plan in collaboration with internal and external stakeholders.

Actions and Success Measures

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 wellbeing. Waste management solutions that increase resource recovery and divert waste from landfill will reduce the impact on Queensland's environment.

Actions for DoE

DoE divisions will implement these five simple actions in any way that is suitable to reduce waste, increase resource recovery and divert waste from landfill to reduce the impact on Queensland's environment:

- recycling better;
- avoiding waste;
- reducing waste;
- choosing to reuse; and
- finding better ways to dispose of waste.

Future waste management solutions will include:

Schools

An expansion of the Container Refund Scheme (CRS) drop off points into most school sites, and P&Cs taking ownership of other CRS drop off points, e.g. at shopping centres or sporting clubs.

Waste audits

Students engage in a school waste audit to determine the quantities and makeup of the waste generated at their school. This baseline data is collected to calculate the total waste output of the school. Students investigate landfill, co-mingled recycling, paper and organic waste. Based on this data, schools can explore how to reduce their waste.

Schools will also have the opportunity to collaborate with Cleanaway to trial some new waste streams to reduce general waste output by:

- capturing organic waste for composting (Cleanaway off-site composting available in Brisbane and Rockhampton);
- targeting drink containers for recycling and earning a rebate (Cleanaway can collect and rebate around South-East Queensland);
- starting an e-waste program for recycling any computers, laptops, printers, mobile phones, televisions, etc, that traditionally went to general waste;
- segregating batteries and fluorescent tubes for resource recovery;
- exploring harvest recycling instead of cardboard only, schools can recycle bulky packing materials (like polystyrene) in the cardboard bin; and
- recovering green waste and pine pallets for reuse as woodchips.

Continue supporting school efforts towards zero carbon schools (existing and new)

Corinda State High School (CSHS) was accredited with being the only carbon neutral secondary school in Australia. The department will support CSHS in maintaining their accreditation and assist other schools in obtaining this accreditation.

Corporate

- Increasing our use of recycled paper products, e.g. in photocopiers, envelopes, etc;
- Using electronic white boards more instead of paper-based resources like wall-sized sticky notes;

- Making purchasing decisions that avoid waste and support products containing recycled materials.
- Leverage multi-agency procurement of waste collection services.

Tuckshops

- Reusing leftover food from the tuckshop, e.g. using leftover tomatoes to make pasta sauce;
- A push to reduce packaging, especially plastics, and using alternative products such as cornstarch-based containers or upcycling fabric scraps to sew reusable bags if needed;
- Introducing a reward system for returning lunch containers for reuse; and
- Zero-waste lunch initiatives to reduce food and wrapping waste by collecting organic waste and turning it into compost, recycling some waste, and students taking non-usable waste home.

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; and
- savings from avoiding unnecessary waste.

Data on each of these outcomes will be collected and recorded annually in the Queensland Waste Data System, as required by the Act.

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.

Actions for DoE

The department will improve recycling performance by:

- implementing the topic-specific policies currently in development, including the built environment waste and the fuel from waste policy;
- incorporate effective waste collection, recycling and waste management reporting requirements into construction and demolition contracts;
- continuing to work closely with local government to reduce the amount of business waste and e-waste sent to landfill, and deliver information and education programs that support avoidance, reuse, recycling and proper handling and disposal of waste;
- supporting the P&C Association in expanding the successful CRS on school sites; and
- supporting schools conducting waste audits to better understand waste streams and work towards a zero-waste target.

Future waste management solutions will include:

Schools

Schools working on recycling art projects, e.g. Yorkey's Knob State School, will work to enculture sustainability as the norm, not a novelty, and will work on creating a mural made from 100% recyclable material sourced from the school community.

The department will develop and maintain working relationships with local councils and their waste programs, and key environmental groups, such as 'Reverse Garbage' who organise art classes for recycling waste, and Cool Australia who have templates available for schools to conduct waste audits.

One of the department's waste contractors will be trialling e-waste and battery/fluorescent tubes resource recovery streams which will lead to waste reduction.

Corporate

The department will also investigate the option of developing a 'repair before replace' policy to keep materials, particularly e-waste, in use for longer, extracting the maximum value from them, to move away from the current 'take-make-use-dispose' approach and creating a new, more circular system.

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; and
- a clear position and policy on the role of fuels and energy from waste in Queensland.

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.

Actions for DoE

The department will proactively implement waste-related legislation to support new ways for managing waste.

Through our procurement processes we will work with other departments to develop more efficient waste management and resource recovery services.

We will support innovation, research and development and the commercialisation of projects to reduce the amount of waste generated and avoid the disposal of waste to landfill.

We will collaborate with local councils and environmental groups to implement local solutions to waste management, including recycled materials upcycled and organic waste for bio-extracts or high-quality compost.

We will encourage tuckshops to reduce food miles and purchase locally grown seasonal foods or products grown on the school gardens.

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; and
- schools that can reduce their 'food miles' through designing better tuckshop menus can decrease their carbon footprint.

Measurement and Reporting

The department will continue to work with its partners to help establish a baseline dataset for waste, waste flow and recycling. Once baseline data is established, DoE will review the data collected and will formulate a more targeted plan, to achieve waste reduction and recycling goals and targets as set by the State when the department reviews this plan after 2019.

Annual Reporting

In accordance with the Act, a report will be generated within two months after the end of each financial year regarding the implementation of DoE's Waste Reduction and Recycling Plan.

Infrastructure Services Branch will take the lead in reporting, and will consult with schools, education associations and waste collection contractors to collect baseline data that relates to the Strategy targets. This will include amounts for waste:

- generated;
- recycled or recovered; and
- disposed.

We will also report on actions taken by the department to:

- reduce the amount of waste generated, recycled or reused; and
- increase the use of recycled materials.

The department will also support the following whole-of-government action under Strategic Priority 2 'Transitioning to a circular economy for waste':

'to explore options to expand reporting of waste to build baseline datasets and inform decision making'.

The next review of this plan will be completed by 31 December 2022, to ensure the department is striving towards best practice waste reduction and recycling.