



Final

Cradle Coast WMG Strategic Plan 2023-2028

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PREPARED FOR

Cradle Coast Waste Management Group

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Abbreviations and glossary

BCC	Burnie City Council
CCC	Central Coast Council
CCWMG	Cradle Coast Waste Management Group
CHC	Circular Head Council
CRS	container refund scheme
C&D	construction and demolition
C&I	commercial and industrial
DCC	Devonport City Council
DTF	Department of Treasury and Finance (Tasmania)
DWM	Dulverton Waste Management
EPA	Environment Protection Authority
FOGO	food organics and garden organics
KC	Kentish Council
LCC	Latrobe City Council
LGAT	Local Government Association of Tasmania
MSW	municipal solid waste
MRF	materials recovery facility
WRRB	Waste and Resource Recovery Board
WTS	waste transfer station
WWC	Waratah-Wynyard Council

Summary

Introduction

The Cradle Coast Waste Management Group (CCWMG) represents seven local government authorities in north west Tasmania participating in a voluntary waste levy arrangement. The WMG is comprised on representatives from each participating council, viz. Burnie City, Central Coast, Circular Head, Devonport City, Kentish, Latrobe and Waratah-Wynyard. The vision for CCWMG is to deliver a sustainable community in the Cradle Coast region of Tasmania by implementing strategies which minimise waste through increases in diversion and recovery.

Where we are now

In 2020-21, the total waste and recycling materials generated within Cradle Coast councils was approximately 136,785 tonnes. This included around 45,386 tonnes of municipal solid waste to landfill, 34,352 tonnes of other wastes such as commercial and industrial waste and construction and demolition waste landfilled, 13,343 tonnes of a combination of kerbside recycling, cardboard recycling and other recycling, 30,058 tonnes of composted waste and 13,645 tonnes of organic waste (composed of food organics and garden organics, or FOGO, from CCC and green waste collected elsewhere). The overall recovery rate for the region was measured at 42%. Achievements against the 2017-2022 targets are summarised in Table S1 below.

Table S1 Parameters and achievements of 2017-2022 targets

Parameter	Target	Achievement
Municipal solid waste diversion	50%	42%
Pass results for residential recycling bin assessments	90%	85%
Reduction in illegal dumping hotspots	25%	Incomplete data due to technical issues associated with new database
Collect and report a standardised set of data in relation to waste and resource recovery activities	All councils	Waste data collection portal established

The challenges ahead

As part of the development of the 2023-2028 strategic plan, representatives from member councils provided input on challenges and opportunities. This feedback guided the development of this strategy and identified the following challenges:

- limited education opportunities leading to apathy in community regarding waste programs
- regional inconsistency on pricing, contracts, transparency and education
- lack of local, viable market for diverted material
- contamination of divertible material
- uncoordinated FOGO collection and implementation
- contending perspectives of state and local government during a period of transition
- limited infrastructure.

This strategic plan aims to address these challenges to meet the waste management vision of the region for the benefit of councils, residents, industry and protect the local environment while minimising carbon emissions from the region, improving environmental health outcomes and strengthening the regional economy.

Objectives for the future

CCWVG has set measurable and achievable goals in the form of key performance indicators which will allow the group and member councils to track their progress over the 5-year plan:

1. By 2028, establish regionally consistent practices for waste management in all member council areas for consistent waste contracts, services and best practice principles
2. By 2028, target 60% MSW resource recovery
3. By 2028, target <10% contamination rate in kerbside recycling bins (based on annual kerbside recycling auditing)
4. By 2028, phase out priority single-use plastics.

Progress against these indicators will be measured using data provided by member councils, or collected during specific project work, and reported to the group on a regular basis.

How do we achieve this?

The goals will be achieved through 30 actions developed over a range of sectors within the region's four key strategic focus areas described in Table S2.

Actions have been developed, assessed and prioritised based on their potential net community benefit according to environmental, social and economic outcomes. Those with higher net community benefit are prioritised.

Notable outcomes expected to be achieved include the following:

- Community education will contribute to behavioural change, reducing materials consumption and minimising the amount of waste generated. Reductions to the amount of waste requiring disposal can deliver cost savings to councils and ratepayers, and reduce detrimental environmental impacts.
- Diversion of food and garden organic waste from landfill will reduce the generation of methane, a greenhouse gas with high global warming potential. Processing of organic waste into value-added products such as soil conditioners and composts can generate income from a waste product and is useful in contributing to soil health and enhanced agricultural and horticultural production.
- Increased recovery and availability of materials can support the development of reprocessing and remanufacturing industries in the region, enhancing regional economic and employment opportunities, as well as investment in the Cradle Coast region.
- Waste avoidance and enhanced management (including rollout of systems such as the container refund scheme) can reduce litter, avoiding impacts on local ecosystems and the green credentials of Tasmania's tourist and agricultural industry. It also rewards the community for good recycling practices, reinforcing behavioural change opportunities.

Table S2 Key strategic focus areas and action sectors

Strategic focus area	Sector
Regional management and planning	Work with the Tasmanian Government Waste and Resource Recovery Board Regional governance arrangements Regional consistency Data collection and reporting
Waste diversion	Container refund scheme (CRS) Kerbside recycling Construction and demolition waste Commercial and industrial waste Controlled waste Food organics and garden organics Illegal dumping Single-use plastic elimination
Partnerships	Collaborating with other regions Working with industry
Community engagement	Community education Public events School group engagement

1. Introduction

The Cradle Coast Waste Management Plan provides direction for delivering effective and sustainable waste management for the Cradle Coast Waste Management Group over the next five years (2023-2028).

The Cradle Coast Waste Management Group (CCWMG) represents seven local government authorities in north west Tasmania historically participating in a voluntary waste levy arrangement. The participating councils are:

- Burnie City Council (BCC)
- Central Coast Council (CCC)
- Circular Head Council (CHC)
- Devonport City Council (DCC)
- Kentish Council (KC)
- Latrobe Council (LC)
- Waratah-Wynyard Council (WWC).

The WMG is comprised of the general manager from each council and is governed by the CCWMG Terms of Reference. This document sets out the expectations of group members, Councils and the managing company Dulverton Waste Management (DWM).

The CCWMG has a strategic focus on four key areas:

- **Regional planning and contract management:** Provide regional planning and coordination of waste infrastructure and services to provide improved resource recovery, delivering efficiencies and reducing costs of services/waste infrastructure with the Waste and Resource Recovery Board (WRRB) as funding partner.
- **Waste diversion:** Diversion of materials from landfill to increase resource recovery, extend the life of existing landfills and reduce greenhouse gas emissions from waste.
- **Partnerships:** Maintain partnerships with government, planning authorities and the three waste regions to shape waste management policies and regulation to influence future regulatory requirements and to identify programs and infrastructure best delivered with a state-wide approach.
- **Community engagement:** Work with the community and industry, through education and feedback, to take ownership of waste avoidance and reuse to improve the use of existing and future services.

The vision of the CCWMG is to deliver a sustainable community in the Cradle Coast region of Tasmania by implementing strategies which minimise waste through increases in waste diversion and recovery. In line with the region’s strategic focus areas, the 2028 goal is to provide regional planning and coordination of waste infrastructure and services with the Tasmanian Government Waste and Resource Recovery Board (WRRB), increase waste diversion from landfill, maintain and develop partnerships between local councils, regional groups and to engage with the community to ensure sustainable waste management becomes a normal, embedded behaviour.

2. Context

The CCWVG operates within the context of national and state-based waste policies and regulations, as well as the needs and priorities of its member councils.

The waste management hierarchy is the key principle of Australian waste policy and legislation. The hierarchy sets out the way in which waste should be managed, placing avoidance as the most preferred option and disposal to landfill as least preferred. The circular economy is becoming increasingly important in Australian waste policy. Tied to product stewardship, the key principles are extending the value of resources entering the economy and cycling resources back into productive use.

2.1 Waste policy framework

Commonwealth Government

The *National Waste Policy: Less waste more resources 2018* provides a framework for national efforts in reducing waste where possible and making productive use of waste where waste generation cannot be avoided. The policy employs circular economy and waste minimisation principles. The accompanying *National Waste Policy Action Plan 2019* sets out the following targets:

- ban on the export of:
 - glass (January 2021)
 - mixed plastics (July 2021)
 - tyres (December 2021)
 - single resin or polymer plastics (July 2022)
 - mixed and unsorted paper and cardboard (July 2024)
- reduce total waste generated in Australia by 10% per person by 2030
- 80% average resource recovery rate from all waste streams following the waste hierarchy by 2030
- significantly increase the use of recycled content by governments and industry
- phase out problematic and unnecessary plastics
- halve the amount of organic waste sent to landfill by 2030
- make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions.

The bans on exporting recyclable materials will impact the Cradle Coast area and the need for minimal contamination of recyclable materials will increase as will a need for new markets. A key outcome of this policy is the Recycling Modernisation Fund which will drive a billion-dollar transformation of Australia's waste and recycling capacity.

The *Recycling and Waste Reduction Act 2020* was developed by the Commonwealth Government in 2020 and addresses the waste export ban, compliance and audits, and places increased expectation and responsibility on manufacturers to consider the entire life cycle of products through increased product stewardship which employs principles of the circular economy.

The 2021 National Plastics Plan lays national targets for 100% reusable, recyclable or compostable packaging, 70% of plastic packaging being recycled or composted, 50% of average recycled content included in packaging and the phase out of problematic and unnecessary single-use plastics packaging by 2025. This will impact the Cradle Coast area with increased quantities of plastics to be recycled and changing contamination risk.

Tasmanian Government

The *Draft Waste Action Plan 2019* sets out a framework for waste management and resource recovery in Tasmania in line with national frameworks. The Action Plan targets:

- introduction of a waste levy by 2021 to fund waste management and resource recovery activities
- introduction of a container refund scheme (CRS)
- transition to 100% reusable, recyclable or compostable packaging by 2025
- reduction of waste generated in Tasmania by 5% per person by 2025 and 10% by 2030
- a 40% average recovery rate from all waste streams by 2025 and 80% by 2030
- lowest incidence of littering in the country by 2023
- work at the national level and with local government and businesses in Tasmania to phase out problematic and unnecessary plastics by 2030
- reduce the volume of organic waste sent to landfill by 25% by 2025 and 50% by 2030.

The *Waste and Resource Recovery Act 2022* establishes a Waste and Resource Recovery Board (WRRB) to provide strategic oversight and drive a circular economy agenda. The board will be responsible for developing and implementing a state-wide waste strategy and managing the funds derived from the new state-wide levy.

Landfill facilities receiving more than 100 tonnes of waste per year are required to pay a levy and submit a monthly waste levy return; those receiving less than 100 tonnes/year, or receiving only excluded waste, are not required to pay a levy or report. Resource recovery facilities receiving more than 10,000 tonnes/year of waste are required to submit a monthly resource recovery return and an annual report of material received, stored and recovered from 1 July 2022. Resource recovery facilities receiving more than 1,000 tonnes/year are required to report from 30 June 2024; those receiving less than 1,000 tonnes/year are exempt from reporting.

For each tonne of waste deposited to landfill, operators must pay a levy of 12 fee units (or \$20 where each fee unit is approximately \$1.65), increasing to 24 fee units (or \$40) and 36 fee units (or \$60) at two-yearly intervals. Certain materials are excluded from the levy including asbestos, biosecurity risk waste, organic waste used for soil improvement in agriculture, and some mining materials. Waste may be excluded by the Minister in emergency situations such as bushfire or flood, and assistance programs may be implemented for cleaning up illegal dumping, charities or resource recovery businesses.

While regional levies are replaced, regional arrangements will remain. Funding is consistent across the state and no regional waste management group is left worse off than under the previous voluntary levy arrangements. A role for local government regional waste management groups will be incorporated into the initial waste strategy and all regional groups may apply for a disbursement to fund that role from the collected levies account. Isolated municipalities are allowed to apply for additional funding.

The CRS to be implemented in early 2023 aims to reduce litter and boost recycling by offering a refund per container to incentivise the collection of and appropriate recycling of recyclable containers. The costs for the CRS are covered by the beverage industry with 10 cents refunded for each eligible container deposited.

Other

The *LGAT Waste and Resource Management Strategy 2017* outlined the needs of the three Tasmanian local government regions. The strategy focused on policies around the introduction of the landfill levy, pursuit of a circular economy and container deposit scheme, and recovery of organic material. It further

examined the need for cohesive regional and state-wide governance, improved transparency and improved data collection at landfill and resource recovery sites.

The *LGAT Feasibility study into a State-wide Waste Arrangement* was compiled in response to the performance gap between Tasmania and other states and territories of Australia in the pursuit of a state-wide waste management arrangement.

There are two other waste regions in Tasmania, viz. the Northern Tasmanian Waste Management Group and the Southern Tasmanian Waste Management Group. As in the past, the CCWMG will collaborate with other regional groups where there is commonality of strategic opportunities.

2.2 Stakeholder consultation

A workshop was held with member council representatives in Burnie on 17 February 2022 to discuss and identify existing and future challenges and opportunities for the CCWMG. Key themes discussed at the workshop are detailed in Appendix A and are summarised in Table 1. These themes were used to inform development of the strategic plan.

Table 1 Stakeholder consultation: challenges and opportunities

Challenges	Opportunities
<ul style="list-style-type: none"> • Limited education opportunities leading to apathy in community regarding waste programs • Regional inconsistency on pricing, contracts, transparency and education • Lack of local, viable market for diverted material • Contamination of divertible material • Uncoordinated FOGO collection and implementation • Contending perspectives of state and local government during period of transition • Limited infrastructure 	<ul style="list-style-type: none"> • Improved regional consistency in governance arrangements, information sharing and contracts • Expansion of regional processing involving other groups and local employment • Further integration of regional systems • Increasing community commitment to best waste practice through community buy-in • Targeted solutions for key materials • Further support for Rethink Waste • Improved structure of key performance indicators • Regional leadership on procurement opportunities

3. Information review

This chapter reviews the current status of waste management in the Cradle Coast region. A full analysis of waste data is provided in Appendix B.

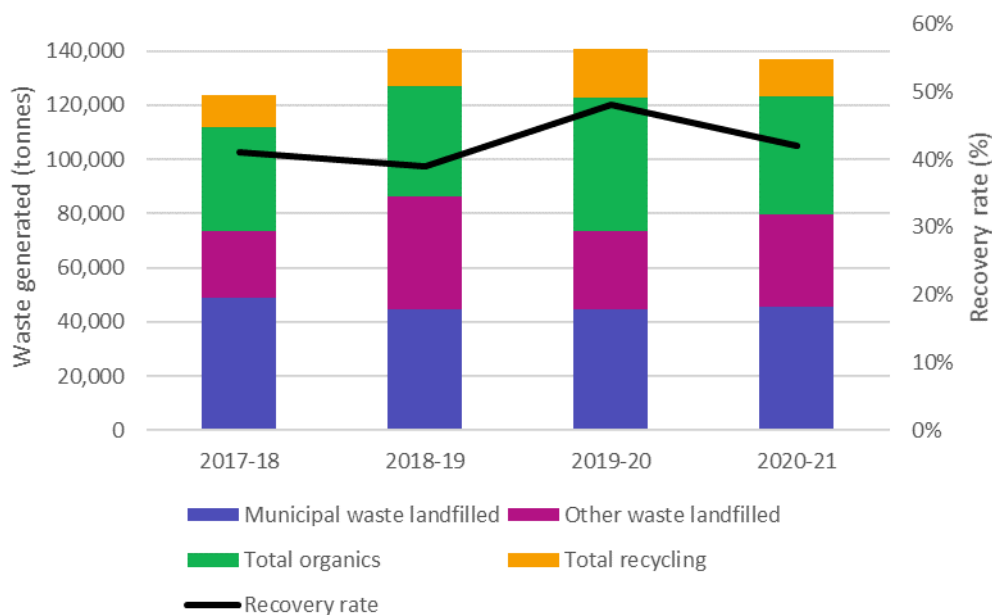
3.1 Waste management and collection systems

CCWVG member councils run several transfer stations, landfills and recovery centres that assist in waste management in north west Tasmania. There are eleven transfer stations (at Castra, Preston, South Riana, White Hills, Spreyton, Sheffield, Wilmot, Port Sorell, Wynyard and Waratah), a recycling facility (at Mooreville), three landfill sites (at Dulverton, Port Latta and Ulverstone) and an organics compost facility (at Dulverton).

3.2 Material generation and recovery

In 2020-21, the total waste and recycling materials generated within the Cradle Coast councils was approximately 136,785 tonnes. This included around 45,386 tonnes of municipal solid waste (MSW) to landfill, 34,352 tonnes of other wastes such as commercial and industrial (C&I) waste and construction and demolition (C&D) waste landfilled, 13,343 tonnes of a combination of kerbside recycling, cardboard recycling and other recycling, 30,058 tonnes of composted waste and 13,645 tonnes of organic waste (composed of food organics and garden organics, or FOGO, from CCC and green waste collected elsewhere). The overall recovery rate for the region was measured at 42%. This is illustrated in Figure 1 below.

Figure 1 Waste generation and recovery rate in the Cradle Coast region 2017-2021 (tonnes)



In 2020-21, 6,795 tonnes of kerbside recycling were collected (approximately 0.73 tonnes per household). Additionally, 478 tonnes of cardboard and 6,070 tonnes of ‘other recyclables’ including e-waste and mattresses were collected. The rate of cardboard recycling has decreased slightly and may be attributed to changed C&I recycling habits (possibly a response to the COVID pandemic).

Combined organic waste and green waste has been received at transfer stations and FOGO collection was introduced in CCC in 2019. Around 10,933 tonnes of green waste were collected from all councils and 2,712 tonnes of FOGO were collected in CCC in 2020-2021 (Figure B8 in Appendix B).

3.3 Projections

The Cradle Coast region is projected to experience a mild contraction (-1.3%) in population by 2035. Of each member council, Latrobe has the highest projected growth 19.9% and each of Circular Head, Burnie and Waratah-Wynyard will experience a population contraction of approximately -7% (Figure B3 in Appendix B).

In contrast, the quantity of waste produced in the region is projected to increase (Figure B2 in Appendix B) especially green waste with the introduction of FOGO and recycling.

3.4 Council and regional contractual arrangements

CCWMG has a regional contract with Veolia Environmental Services for recycling, which is taken to their Spreyton materials recovery facility (MRF). Each member council has independent collection systems; other opportunities to recycle at waste transfer stations (WTS) or elsewhere in the area are detailed in Table 2.

Table 2 Other recycling opportunities available in the Cradle Coast region

Waste stream	Recycling service at WTS/council	Other sites and opportunities
Bread tags	Some council offices	Small collection services
Batteries - household	All council WTS and some council offices – regional contract in place	
Batteries – cars	Most WTS	Regional contract opportunity
Bric-a-brac and furniture	Most WTS have a reuse shop	Not for-profit second-hand retailers
Cardboard	Most WTS – regional contract in place	
Cement and builders’ rubble	Most WTS	Regional contract opportunity
Compact discs, DVDs	Some council offices	Some retailers (e.g., Officeworks) Regional contract opportunity
Cooking oil	Most WTS	Regional contract opportunity
Chemical containers	Most WTS - ChemClear and drumMuster services	Regional contract opportunity
Coffee pods		Some retailers
Contact lenses, cases and blister packs	Some council offices	Optometrists, retailers
Cosmetics and hair care products (selected brands)		Some retailers
Clothing and textiles	Reuse shops at all WTS	Not-for-profit second-hand retailers
E-waste – TVs, music players, computers, accessories	Most WTS – regional contract in place	
Gas bottles	Most WTS	Regional contract opportunity
Green waste	Most WTS – regional contract in place	
Controlled waste	Regular events	

Waste stream	Recycling service at WTS/council	Other sites and opportunities
Light globes and fluorescent tubes	Most WTS – regional contract in place	
Metal and steel	Most WTS	Regional contract opportunity
Mobile phones and accessories	Most WTS	Retailers through Mobile Muster
Motor oil	Most WTS	Regional contract opportunity
Paint	All WTS – regional contract in place	
Plaster		Regional contract opportunity once composting facility upgrade completed
Printer cartridges	Most WTS	Some retailers through PlanetArk
Polystyrene (expanded form)		Regional contract opportunity
Soft plastics – household		Through Redcycle at retailers - regional contract opportunity
Soft and hard plastics (industrial)		Regional contract opportunity
Sport shoes		Some retailers and not-for-profit shops
Timber	Most WTS	Regional contract opportunity
Toothbrushes (including electric), toothpaste tubes		Some dentists and retailers
Tyres	Most WTS – regional contract in place	
Writing markers		Some retailers
X-rays		Regional contract opportunity

4. Performance to date

This section details the progress on targets and actions set out in the *CCWMG Strategic Plan 2017-2022*.

4.1 Strategic plan 2017-2022

The strategic direction of the CCWMG over the past five years was established in the Cradle Coast Waste Management Strategic Plan 2017-2022 (CCWMG 2017) which was a subsequent report to the CCWMG Strategic Plan 2012-2017. The 2017-2022 Strategic Plan benchmarked past performance and incorporated a detailed action plan to guide activities and opportunities undertaken by the CCWMG. Programs and actions were benchmarked against the four priority areas of the WMG:

- increase waste diversion
- provide regional planning and coordination of waste infrastructure and services
- maintain and develop partnerships between local councils
- regional groups and the Tasmanian Government
- engage with the community to ensure sustainable waste management becomes a normal and embedded behaviour.

To measure performance against these priority areas, four measurable targets were set:

1. by 2022, divert 50% of all MSW from local government landfill facilities across the region.
2. by 2022, increase the proportion of recycling bins receiving a pass mark as part of recycling bin assessments to 90% across the region (based on the 2015-16 assessment pass rate of 81%).
3. by 2022, reduce incidents of illegal dumping at hotspot sites by 25% across the region (subsequent to establishing baseline data from council reports).
4. by 2022, all member councils to collect and report a standardised set of data in relation to waste and resource recovery activities (in terms of material types, units, etc.).

Performance against these targets is summarised in Table 3.

Table 3 Performance against priority areas 2017-2022

Parameter	Target	Achievement
Municipal solid waste diversion	50%	42%
Pass results for residential recycling bin assessments	90%	85%
Reduction in illegal dumping hotspots	25%	Incomplete data due to technical issues associated with new database
Collect and report a standardised set of data in relation to waste and resource recovery activities	All councils	Waste data collection portal established

Performance data from 2020-21 indicates a recovery rate of 42% for all waste generated, indicated in the *CCWMG Data Collection Portal 2021-2022 Q2* and *Annual Waste Management Report 2020-21*. This is an increase from the previous years which is attributed to better data input from member councils in the data portal, an increase in wastes under the 'Other diverted waste category' and the introduction of FOGO in CCC.

The annual report states that the recycling bin pass mark was 85% (CCWMG 2020). This has remained constant since 2017-18. One in every five bins assessed was contaminated; soft plastics was one of the major contaminants in kerbside recycling bins. The assessment further indicated that this contamination was due to the community's well-meaning intention to recycle as much as possible, however not having complete knowledge of what can be recycled and where it can be recycled. The CCWMG aims to include this in future education programs by highlighting soft plastics recycling programs at relevant supermarkets.

Baseline data for illegal dumping was established through the creation of a regional illegal dumping website in 2014. BCC, CCC, DCC and KC councils applied for and received either partial or full funding to address illegal dumping. This was used for signage, surveillance cameras, transfer station vouchers and funding assistance for clean ups. Data on the percentage of reduced incidents is not yet available.

The 42% recovery rate from MSW achieved above is indicated to be a result of councils using the data portal to input waste data in a uniform category. This has resulted in better data collection and more accurate analysis of waste trends, issues and opportunities.

5. Opportunities and priorities

This section indicates priority areas where action can be taken to improve waste management practices in the Cradle Coast region and increase the rate of resource recovery. The chapter identifies specific actions to achieve the goals of the Strategic Plan 2023-28. The themes are consistent with the priority outcomes discussed at the strategic workshop.

5.1 Regional management and planning

Working with the Tasmanian Government WRRB

The new legislation indicates CCWGM can expect to see more involvement in waste management and resource recovery from the Tasmanian Government in future. The recent separation of responsibilities between NRE and EPA is likely to see both organisations liaising with CCWGM, with possible further collaboration with the WRRB.

CCWGM should maintain dialogue with all government organisations to ensure future state-wide strategies consider all issues relevant to CCWGM. CCWGM representatives currently attend industry consultations and assist government decision-making in relevant areas of waste management and resource recovery. The framework for cooperation and collaboration between state government, waste management groups and local councils should be maintained.

The following opportunity relates to working with the Tasmanian Government WRRB:

No.	Action
1	Maintain framework for cooperation and collaboration between state government, waste management groups and local councils to influence policy and strategy documents, highlight current issues impacting on waste management in the region and contribute to and support government policy on emerging waste issues.

Regional governance arrangements

The introduction of the Waste and Resource Recovery Act 2022, and particularly the waste levy, is likely to see increased emphasis on CCWGM governance arrangements (as well as other regional waste groups). Government protocols regarding management of public funds are likely to require increased oversight of CCWGM's receipt and spending of levy monies; this may include regular, transparent reporting by CCWGM to the proposed WRRB. Following investigation and implementation of the 2018 Cradle Coast Waste Governance Project, this is not expected to be a major issue to CCWGM, however it may be prudent to ensure management reporting systems are appropriate to future requirements.

There is also some potential for increased council membership and/or involvement in CCWGM programs and contracts, for example by West Coast Council and King Island Council. Financial arrangements, including the payment of a voluntary levy, affected their participation to date. With the state-wide implementation of the waste levy, and the potential funding available via regional programs, these councils may reconsider their position.

The following opportunities relate to regional governance arrangements:

No.	Action
2	Review 2018 governance report recommendations and where relevant align contract dates for future implementation of regional contracts. Implement regional contracts for waste services where considered beneficial.
3	Ensure supporting structure is provided within regional contracts to support member councils' future ambitions, including a potential regional call centre, infrastructure and waste management procedures.
4	Ensure management reporting systems allow for potential increased oversight by Tasmanian Government, as well as changed composition of member councils involved in CCWVG in response to state-wide levy.
5	Consider possibilities and issues regarding increased council membership of CCWVG and/or increased regional participation in CCWVG programs and contracts.

Regional consistency

The introduction of waste levies in other Australian states has seen increased collaboration and consistency within regional waste groups, often driven by enhanced best practice standards introduced at a state-wide level. The focus of regional outcomes has differed according to local circumstances, but interstate examples include:

- price parity in gate fees charged at similar facilities within the same region
- joint procurement contracts for a range of goods and services (including regional applications for relevant exemptions from the Australian Competition and Consumer Commission)
- council infrastructure funding applications facilitated by the regional waste management group (to capitalise on regional staff skills and ensure infrastructure designs meet best practice standards)
- devolvement of council education responsibilities to regional education officers, who implement state-wide waste education strategies and use common education materials.

The appetite for CCWVG member councils for consistency across the region is likely to differ according to each issue and may be driven by the strategic direction of NRE and the WRRB. Where considered relevant, CCWVG should explore the potential for regional efficiencies (including cost and service efficiencies) from collaborative action among member councils.

Key areas for collaborative action facilitated by CCWVG include infrastructure management issues, such as:

- the development of best practice guidelines for reuse shops in the region
- funding applications and regional support for upgrades to WTS to meet transfer station best practice guidelines.

Consideration should be given to other opportunities to establish regional procurement contracts for:

- garbage collection
- recycling collection and processing
- FOGO collection
- commercial FOGO collection
- public place waste collection
- C&D contracts (including concrete, plastics and timber)
- collections for scrap metal, batteries and oil
- green waste

- approach to CRS implementation
- reuse shop diversion (especially for safety and systems consistency)
- transfer of waste assets and management to DWM through governance arrangements.

Table 4 Existing and target practices to be reviewed for regional consistency

Current practice	2028 outcome
Each member council has its own contract with waste collection operators	All member councils are involved in a collection contract coordinated by CCWVG
C&D contracts are unmonitored	
Household hazardous waste collections are conducted annually by CCWVG	Household hazardous waste collections are conducted biannually
n/a	CRS points are available in all council areas
Reuse shops operate under individual practices	Reuse shop operations are guided by regional best practice principles
WTS operate with outdated, inconsistent infrastructure.	WTS have improved infrastructure and operate under best practice principles.

The following opportunities relate to regional consistency:

No.	Action
6	CCWVG should explore regional procurement opportunities where beneficial, including development of regional contracts for WTS recycling and waste management services.
7	CCWVG should develop regional best practice guidelines for reuse shops and assist councils to implement upgrades to meet transfer station best practice guidelines.
8	CCWVG to deliver support systems which assist councils in the delivery of services.

Data collection and reporting

New waste and levy reporting requirements have been introduced by the Waste and Resource Recovery Act 2022; data will need to be reported using the Australian standard for waste and resource recovery data and reporting (DAWE 2021) and measured in accordance with this national standard. The Act specifies data recording via weighbridge at large facilities; at smaller facilities an estimation method approved by NRE can be used.

Where required, CCWVG may facilitate member council applications for levy funding from the WRRB to establish weighbridges, develop appropriate data recording and reporting systems, and train staff in their use (as well as other levy implementation projects).

CCWVG should ensure that the existing CCWVG data portal is complementary to levy reporting requirements, and issues that have arisen in current use (as noted in Appendix B) are appropriately identified and addressed (e.g. through software refinement, staff training, etc.).

The following opportunities relate to data collection:

No.	Action
9	Consider opportunities for levy funding for member councils to establish relevant infrastructure, systems and training for new data reporting requirements for the waste levy. CCWMG should assist applications where necessary.
10	Replace data portal with regional software system which enables consistent data reporting.

5.2 Waste diversion

Container refund scheme (CRS)

The introduction of the CRS in Tasmania in early 2023 presents the opportunity for an alternative avenue of recovery in the Cradle Coast region. Cradle Coast councils could expect to see some reduction of beverage containers collected in kerbside systems, with enhanced return rates experienced across the state from a variety of sources.

It is important that the Cradle Coast region is adequately serviced under the CRS, with opportunities for both regional and remote communities to return eligible containers. Where relevant, CCWMG should liaise with member councils, charities and community groups interested in establishing a collection point to facilitate adequate coverage across the region.

The following opportunities relate to the CRS:

No.	Action
11	Where relevant, support local Councils, charities and community groups to establish CRS collection points to ensure the region is adequately serviced.

Kerbside recycling

The Cradle Coast region has maintained a relatively constant rate of kerbside recycling since 2017 and contamination is an ongoing issue that has plateaued with only incremental year-on-year improvements. The most recently recorded pass rate for the region was 86.7% recorded between August and October 2021, a slight increase from 85.9% recorded in 2018. There was a slight decrease to 7.1% of bins with 5-10% contamination and a slight increase in bins with more than 10% contamination to 6.2% (DWM, 2021). The national average is less than 15% although anecdotal data suggests ranges between 3% and 30% contamination around Australia (Kaufman et al. 2020).

Dulverton Waste Management's 2021-22 *Recycling Bin Education & Assessments Report* found contamination comprised of:

- soft plastics – 32.4%
- recycling packed in bags or boxes – 22.3%
- garbage – 16.4%
- FOGO – 10.4%
- polystyrene – 9.6%
- clothing – 3.8%
- metal – 3.2%
- e-waste 1.0%

Some of these contaminants could be attributed to a community overeager to recycle and may be improved with ongoing education programs. Further promotion of the availability of soft plastics recycling options at national supermarket chains may assist. Campaigns such as ‘if in doubt, leave it out’ could also play a role in improving contamination rates.

Significant government funding into the development of local recycling facilities is expected to see enhanced opportunities for Tasmanian recycling for a range of materials. Three new plastic recycling facilities were announced in 2021 to be opened in Tasmania supported by the Recycling Modernisation Fund; it is estimated that the projects will recover 15,000 tonnes of plastic every year. Local tyre recycling options have also increased. The promotion of local opportunities may see greater community ‘ownership’ and participation in recycling.

The following opportunities relate to kerbside recycling:

No.	Action
12	Work with member councils to promote opportunities for recycling, including soft plastics recycling at national supermarket chains and local services where applicable.
13	Review opportunities for a regional contract for soft plastic recycling at WTS.

Construction and demolition waste

The C&D sector generates significant amounts of waste, and simultaneously presents opportunities for reuse and recovery. International supply chain interruptions experienced during the COVID pandemic have had significant impacts on the construction industry, limiting the availability of many materials, increasing costs and delaying construction programs; this situation is expected to continue for at least the next two years and possibly longer.

Recovery opportunities for C&D waste in the Cradle Coast region are therefore increasingly important. Materials that are particularly recoverable and/or reusable include clean timber, plasterboard, plastic packaging, bricks, tiles, concrete and rubble. The costs associated with installation of infrastructure and equipment to assist in C&D recycling were assessed as too high in the 2012-2017 strategic plan, however with changing industry dynamics and the introduction of the waste levy, the feasibility of C&D recycling has changed and should be reassessed.

The Tasmania EPA reports that approximately one third of total waste streams in Tasmania originate from the C&D sector, with 2018 studies suggesting only 1% of waste in the industry is recovered for reuse or recycling. This is the lowest rate in Australia, falling 63% below the national average. In other parts of Australia (e.g. NSW, WA) state-wide standards have been developed for waste reduction in the C&D sector. CCWVG has the opportunity to advocate for Tasmanian standards to improve C&D waste practices to be developed by the EPA.

The following opportunities relate to C&D resource recovery:

No.	Action
14	Develop a regional contract for concrete crushing at WTS to provide a reliable output for material collected.
15	Develop a regional contract for plaster recovery and recycling at WTS.
16	Advocate for development of Tasmanian standards for C&D recycling.
17	Support WRRB C&D resource recovery initiatives.

Commercial and industrial waste

The introduction of the waste levy provides a financial incentive for sorting and recovery of the waste stream. Due to the large waste flows in the C&I sector, the levy is likely to be a significant driver of change in business waste management practices; as the levy increases over time, the impetus for C&I recovery is expected to grow even further.

As with the C&D sector, cost structures which may have previously inhibited recovery and recycling of C&I waste will change with the introduction of the levy. There is potential for CCWMG to re-visit past assessments of C&I waste generation in the Cradle Coast region, and consider opportunities for intervention in key areas (e.g. by sector or by material) which are deemed most feasible.

The consultation workshop (refer Appendix A) identified some potential opportunities which may be ‘piggy-backed’ onto existing council services, especially the diversion of C&I food waste (e.g. from hospitals, aged care facilities, restaurants, etc.) to regional organics processing. The level of interest among relevant businesses in the region to participate in food organics recycling could be explored as part of a detailed feasibility assessment.

In the longer term, as the levy increases and C&I waste diversion becomes more accepted, further diversion opportunities could be assessed. This could include support for development in the region of a ‘dirty MRF’ for separation and recovery of C&I waste (the MRF may also accept C&D waste). Levy funding may be available in future to assist in development of such infrastructure, either by local government or a private proponent, and CCWMG should consider assessing the viability of development towards the latter end of the 2023-2028 strategic planning period.

The following opportunities relate to resource recovery in C&I:

No.	Action
18	Re-visit past assessments of C&I waste generation and consider opportunities for intervention in key areas.
19	Conduct a feasibility study into diversion of C&I food organics to existing regional organics processing facility.
20	Consider development of additional C&I waste recycling infrastructure in the long term.

Controlled waste

Controlled waste (or hazardous waste) provides potential risks to the environment and human health, and needs to be safely managed in accordance with Tasmanian regulations. In recent years, product stewardship arrangements have been put in place for some potentially hazardous materials (such as batteries, paint and e-waste), which has seen local collection points established and funded by industry.

CCWMG has in the past (in conjunction with other Tasmanian regional waste groups) held collection events for household hazardous waste. These have proven popular with the community and should continue where possible, however these programs are expensive to run and regional coverage can be limited by available funding. It is noted that in other states with a levy in place (e.g. SA, Vic), household hazardous waste collection programs are operated and funded by relevant state government authorities (Green Industries SA, Sustainability Victoria). With the introduction of a levy in Tasmania, CCWMG could advocate for a similar state-wide program to be managed and financed by NRE.

The generation and appropriate management of hazardous waste in Tasmania is inhibited by the lack of implementation of a state-wide tracking system; these are in place in most other Australian states.

CCWMG should continue to advocate for the current tracking framework to be fully implemented by EPA in the short term.

The following opportunities relate to hazardous waste:

No.	Action
21	Continue holding collection events for household hazardous waste where possible.
22	Advocate for expanded state-wide household hazardous waste collection program to be managed and financed by NRE.
23	Advocate for implementation of state-wide hazardous waste tracking system by EPA.

Food organics and garden organics

The immediate priority in addressing FOGO in the Cradle Coast region is to finalise the regional FOGO contract (scheduled for 2021/22 financial year). A 2018 audit of kerbside garbage bins in Cradle Coast found that 51% of material in bins bound for landfill was suitable for composting. Introducing FOGO will allow the Cradle Coast region to significantly reduce waste going to landfill, and meet state and national diversion targets. Kerbside FOGO collection services operate successfully in a range of LGAs in Tasmania and mainland Australia. Analysis of FOGO services in 34 councils in NSW found that the best performing councils were achieving food organic capture rates as high as 78% (Moffat, 2020); most councils also report very low contamination rates, averaging 2.2%.

Region-wide FOGO services will have a significant impact on MSW recovery rates. Using trend data and the proportion of FOGO collected per tenement and per capita in CCC in 2019 and 2020 it is predicted that the MSW recovery rate will rise to approximately 60% by 2028 if regional FOGO collection is successfully introduced to approximately 80% of the region. Table B1 and Table B2 (in Appendix B) describe the projected recovery scenarios.

As many member councils have regional constituents there is likely to already be diversion from landfill occurring through home composting practices, worm farms and as animal feed. Where necessary, councils could support these ratepayers through advisory services and educational material (e.g. through on-site inspections and 'how to compost' fact sheets). This support could also assist in regional or remote areas where kerbside FOGO collection services are not viable and home composting methods are preferred.

Through the waste hierarchy, 'avoidance' is the most preferred practice. Further education around avoiding food waste may also assist in diverting FOGO from landfill. There are existing Australian resources that could be leveraged for use in the region, including at national level (e.g. the Fight Food Waste Cooperative Research Centre, <https://fightfoodwastecrc.com.au/>) and from interstate authorities (such as Green Industries SA and Sustainability Victoria). Tasmanian Government responses to the 2021 *Tasmanian Organics Strategy* are also likely to see additional local resources made available in future.

The following opportunities relate to FOGO and support planned areas of focus included in CCWMG’s 2022-23 annual plan:

No.	Action
24	Finalise arrangements for FOGO rollout and work in partnership with contractor and councils to implement information materials, bin rollout and performance monitoring of collection services for recovered organics.
25	Encourage home composting in areas where FOGO kerbside collection is unviable. Provide councils with education and resource materials for use in home composting support services.
26	Consider use of existing and future education resources to support food waste minimisation initiatives in the region.

Illegal dumping

Illegal dumping was set as a major target in the 2017-22 strategic plan. While action has been taken to deter illegal dumpers through the installation of signage, cameras and better information resources, the success of the measures is difficult to quantify. The transfer of tracking systems between online hosts with the dumping database managed by CCWMG being out of use for twelve months and difficult to access, and a state-wide database run by the EPA working in parallel, has made tracking changes in illegal dumping activity difficult. For these reasons a definitive understanding of the status against the 2017 target of reducing illegal dumping by 25% across the region is not available. The CCWMG 2020-21 annual report noted anecdotal evidence from member councils suggesting initiatives are having a beneficial impact on rates of illegal dumping but more data is required to draw accurate conclusions.

There has been some concern expressed that the introduction of the state-wide levy may increase illegal dumping activity. The experience in other states on the introduction of levies resulted in a mostly small, temporary increase in dumping, and was generally managed by a targeted focus on enforcement. CCWMG could support Cradle Coast councils to implement a short-term enforcement program, e.g. through regional dissemination of media releases on enforcement outcomes to dissuade illegal dumping in the first 3-6 months after the introduction of the levy.

The following action relates to illegal dumping:

No.	Action
27	Continue to support efforts to reduce illegal dumping through signage, surveillance of dumping hot spots and support for clean-up efforts. Consider short-term enforcement program focused on introduction of the levy.
28	Advocate for new state-wide illegal dumping initiatives and support Tasmanian Government endeavours.

Single-use plastic bans

Currently over 41% of all litter in Tasmania is beverage and food takeaway packaging (Clean Up Australia 2022a), predominantly plastic. Tasmania has introduced a ban on single-use plastic bags, but is lagging behind the rest of Australia on bans on other single-use plastics (such as straws, stirrers, cutlery, food containers, coffee cups/lids, cotton buds, balloons, etc.). Most other Australian states have either implemented or announced future bans on these types of plastics. While Tasmania originally led Australia’s plastic ban initiatives (banning plastic bags in Coles Bay in 2003), further local initiatives now rely solely on the cities of Hobart (with a ban on plastic food containers) and Launceston (a ban on various single-use plastics at council events and locations).

CCWGMG could support reduction of single-use plastics in the Cradle Coast region. As well as a waste reduction initiative, it would align with the ‘green’ credentials and branding of various local industries and the Tasmanian tourism sector. Subject to levels of interest among member councils and the local business community, this could take the form of:

- supporting member councils to introduce localised plastic bans (e.g. implemented by local laws at local government level across selected/all townships in the municipality)
- developing a regional single-use plastic elimination strategy or facilitating local strategies for implementation by member councils
- providing support to member councils to reduce single-use plastics at council/community events
- advocating with Tasmanian Government for introduction of widespread single-use plastic bans across the state.

CCWGMG could examine opportunities for reduction of single-use plastics in the region through a study of what single-use plastic wastes are being produced and where. CCWGMG could then work with and support member councils to implement reduction and/or elimination of single-use plastics where considered feasible.

The following opportunities relate to single-use plastic bans:

No.	Action
29	Support member councils to introduce local plastic bans.
30	Develop a regional single-use plastic elimination strategy.
31	Advocate with Tasmanian Government for introduction of state-wide single-use plastic bans.
32	Implement single use plastic bans for council supported events.
33	Provide support to event decision makers to develop sustainable waste management plans and reduce event waste sent to landfill.

5.3 Partnerships

Collaborating with other regions

CCWGMG has historically collaborated with other regional waste management groups (particularly the Northern Tasmanian Waste Management Group) on a range of government advocacy, education, infrastructure, audit and communication programs. With the recent establishment of the Southern Tasmanian Waste Management Group (and given new legislation, likely greater longevity than its precedent organisations), there is an opportunity for greater collaboration between all Tasmanian groups.

There may also be a role for increased collaboration among the three groups in holding the WRRB accountable for transparency and information dissemination with respect to funding disbursement and resource recovery improvement outcomes.

The following opportunity relates to collaborating with other regions:

No.	Action
34	Maintain transparent communication and collaboration with other regional waste management groups on relevant issues and programs.

Working with industry

Industry is a key player in provision of services, facilities, end-markets and opportunities for innovation in the waste and resource recovery industry. Both as waste generators, recyclers and re-manufacturers, commercial businesses and industry organisations play an important role in establishing local initiatives within a circular economy.

CCWMG should maintain ongoing relationships with local businesses and industry associations to encourage participation in a circular economy and promote innovation in resource recovery. This should include encouraging the use of recovered materials in local re-manufacturing endeavours, as well as the purchase of products manufactured with recycled content.

The following opportunities relate to working with industry:

No.	Action
35	Maintain ongoing relationships with local businesses and industry associations to promote innovation in resource recovery and participation in a circular economy.
36	Encourage procurement opportunities that use products manufactured with recycled content.

5.4 Community engagement

Community education

A local government survey in 2019 indicates that the Cradle Coast region is leading the state in community satisfaction with waste recycling services and that residents of the north-west Tasmania value their garbage collection service more than the rest of the state (LGAT 2019). However high contamination rates show that further work on community behaviours is needed.

Opportunities to engage with the public are crucial for making impactful change on waste streams. Consistent messaging and educational resources across the region are of key importance in behaviour change programs; the role of the Rethink Waste online website in facilitating this is well recognised. Rethink Waste has provided a successful, informative and interactive platform for communities in the Cradle Coast region as well as wider Tasmania. The resource library, events, school workshops and active social media presence is a valuable resource for the area. Over the next five years the continued support for Rethink Waste will be a valuable investment as an established source of accurate information for ratepayers.

The following opportunities relate to community education:

No.	Action
37	Conduct a review of the existing education program, identifying outcomes, challenges and reach.
38	Continue to support and expand Rethink Waste platform to supply community education resources, events and engagement programs.

Public events

High levels of community engagement with CCWMG at public events has been noted over the past five years. The role of CCWMG in the 'Repair café' at Ecofest has been very successful and roles like these should continue to be pursued and engaged.

The following opportunities relate to public events:

No.	Action
39	Conduct a review of past community events, identifying outcomes, challenges and reach.
40	Continue to support public events including Repair Café at Ecofest to reinforce community behaviours and maintain an informed community.
41	Develop relationships with event planners and support the use of event waste management plans and waste reduction in event settings.

School group engagement

Opportunities for education in school-based programs through Rethink Waste initiative have been strongly engaged with by councils, with interactive programs running as COVID-safe internal incursions through 2019-2021. Although opportunities in 2021 were slowed due to schools focussing on catching up on curriculum following COVID there will be renewed opportunities moving forward.

The following opportunities relate to school group engagement:

No.	Action
42	Continue to support and expand school-based programs to schools in the region.
43	Develop FOGO education opportunity for school groups.

6. Sustainability assessment

This chapter summarises the potential opportunities identified in Section 5 and assesses their sustainability.

The net community benefit, based on positive (✓), negative (✗), or neutral (=) impacts on environmental, social and financial factors, is provided for each opportunity. Note where actions require additional expenditure by CCWVG, the financial assessment identifies this as negative, however this does not necessarily outweigh all other factors. In the absence of a detailed economic analysis, wider economic benefits (such as increased regional employment opportunities) have been considered as a social benefit. The outcomes of all environmental, social and financial factors have been considered and prioritised (as high, medium or low priority) according to the total net community benefit.

No.	Action	Environmental	Social	Financial	Priority
Working with the Tasmanian Government WRRB					
1	Maintain framework for cooperation and collaboration between state government, waste management groups and local councils to influence policy and strategy documents, highlight current issues impacting on waste management in the region and contribute to and support government policy on emerging waste issues.	=	✓	✓	H
Regional governance arrangements					
2	Review 2018 governance report recommendations and where relevant align contract dates for future implementation of regional contracts. Implement regional contracts for waste services where considered beneficial.	=	✓	✓	H
3	Ensure supporting structure is provided within contracts to support member councils' future ambitions, including a potential regional call centre, infrastructure and waste management procedures.	=	✓	✓	H
4	Ensure management reporting systems allow for potential increased oversight by Tasmanian Government, as well as changed composition of member councils involved in CCWVG in response to state-wide levy.	=	✓	✓	H
5	Consider possibilities and issues regarding increased council membership of CCWVG and/or increased regional participation in CCWVG programs and contracts.	=	✓	✓	L
Regional consistency					
6	CCWVG should explore regional procurement opportunities where beneficial, including development of regional contracts for WTS recycling and waste management services.	=	✓	✓	H

No.	Action	Environmental	Social	Financial	Priority
7	CCWVG should develop regional best practice guidelines for reuse shops and assist councils to implement upgrades to meet transfer station best practice guidelines.	=	✓	✓	H
8	CCWVG to deliver support systems which assist councils in the delivery of services.	=	✓	✓	H
Data collection and reporting					
9	Consider opportunities for levy funding for member councils to establish relevant infrastructure, systems and training for new data reporting requirements for the waste levy. CCWVG should assist applications where necessary.	=	✓	✓	H
10	Replace data portal with regional software system which enables consistent data reporting.	=	✓	✓	H
Container refund scheme					
11	Where relevant, support local Councils, charities and community groups to establish CRS collection points to ensure the region is adequately serviced.	✓	✓	✓	M
Kerbside recycling					
12	Work with member councils to promote opportunities for recycling, including soft plastics recycling at national supermarket chains and local services where applicable.	✓	✓	✓	H
13	Review opportunities for a regional contract for soft plastic recycling at WTS.	✓	✓	✓	M
Construction and demolition waste					
14	Develop a regional contract for concrete crushing at WTS to provide a reliable output for material collected.	✓	✓	✓	H
15	Develop a regional contract for plaster recovery and recycling at WTS.	✓	✓	✓	H
16	Advocate for development of Tasmanian standards for C&D recycling.	=	✓	✓	L
17	Support WRRB C&D resource recovery initiatives.	=	✓	✓	M
Commercial and industrial waste					
18	Re-visit past assessments of C&I waste generation and consider opportunities for intervention in key areas.	=	✓	✓	M
19	Conduct a feasibility study into diversion of C&I food organics to existing regional organics processing facility.	✓	✓	✓	M

No.	Action	Environmental	Social	Financial	Priority
20	Consider development of additional C&I waste recycling infrastructure in the long term.	=	✓	X	M
Controlled waste					
21	Continue holding collection events for household hazardous waste where possible.	✓	✓	X	H
22	Advocate for expanded state-wide household hazardous waste collection program to be managed and financed by NRE.	✓	✓	✓	L
23	Advocate for implementation of state-wide hazardous waste tracking system by EPA.	✓	✓	✓	L
FOGO					
24	Finalise arrangements for FOGO rollout and work in partnership with contractor and councils to implement information materials, bin rollout and performance monitoring of collection services for recovered organics.	✓	=	X	H
25	Encourage home composting for areas where FOGO kerbside collection is unviable. Provide councils with education and resource materials for use in home composting support services.	✓	✓	X	M
26	Consider use of existing and future education resources to support food waste minimisation initiatives in the region.	✓	✓	✓	H
Illegal dumping					
27	Continue to support efforts to reduce illegal dumping through signage, surveillance of dumping hot spots and support for clean-up efforts. Consider short-term enforcement program focused on introduction of the levy.	✓	✓	✓	H
28	Advocate for new state-based illegal dumping initiatives and support Tasmanian Government endeavours.	✓	✓	✓	M
Single-use plastic bans					
29	Support member councils to introduce local plastic bans.	✓	✓	✓	M
30	Develop a regional single-use plastic elimination strategy.	✓	✓	=	M
31	Advocate with Tasmanian Government for introduction of state-wide single-use plastic bans.	✓	✓	✓	M
32	Implement single-use plastic bans for council supported events.	✓	✓	✓	M
33	Provide support to event decision makers to develop sustainable waste management plans and reduce event waste sent to landfill.	✓	✓	=	M

No.	Action	Environmental	Social	Financial	Priority
Collaborating with other regions					
34	Maintain transparent communication and collaboration with other regional waste management groups on relevant issues and programs.	=	✓	✓	H
Working with industry					
35	Maintain ongoing relationships with local businesses and industry associations to promote innovation in resource recovery and participation in a circular economy.	✓	✓	✓	H
36	Encourage procurement opportunities that use products manufactured with recycled content.	✓	✓	✓	H
Community engagement					
37	Conduct a review of the existing education program, identifying outcomes, challenges and reach.	=	✓	✓	M
38	Continue to support and expand Rethink Waste platform to supply community education resources, events and engagement programs.	✓	✓	✓	M
Public events					
39	Conduct a review of past community events, identifying outcomes, challenges and reach.	=	✓	✓	M
40	Continue to support public events including Repair Café at Ecofest to reinforce community behaviours and maintain an informed community.	✓	✓	✓	M
41	Develop relationships with event planners and support the use of event waste management plans and waste reduction in event settings.	✓	✓	✓	M
School group engagement					
42	Continue to support and expand school-based programs to schools in the region.	✓	✓	✓	M
43	Develop FOGO education opportunity for school groups.	✓	✓	✓	M

7. Strategic plan 2023-2028

The strategic plan 2023-2028 aims to deliver sustainable waste management and build on the trajectory of achievement set out in previous strategic plans to minimise waste through diversion and recovery and reduce carbon emissions from waste management. The introduction of the Waste and Resource Recovery Act 2022 and CRS will have constructive impacts on resource recovery activity in the Cradle Coast region. The collaboration and participation of local communities and businesses aligns with the Tasmanian Government's commitment to implementation of a circular economy.

This strategic plan has been developed in line with the four key strategic focus areas of the CCWMG – waste diversion, regional planning and efficiencies, partnerships, and community engagement. Notable outcomes expected to be achieved include the following:

- Community education will contribute to behavioural change, reducing materials consumption and minimising the amount of waste generated. Reductions to the amount of waste requiring disposal can deliver cost savings to councils and ratepayers, and reduce detrimental environmental impacts.
- Diversion of food and garden organic waste from landfill will reduce the generation of methane, a greenhouse gas with high global warming potential. Processing of organic waste into value-added products such as soil conditioners and composts can generate income from a waste product and is useful in contributing to soil health and enhanced agricultural and horticultural production.
- Increased recovery and availability of materials can support the development of reprocessing and remanufacturing industries in the region, enhancing regional economic and employment opportunities, as well as investment in the Cradle Coast region.
- Waste avoidance and enhanced management (including rollout of systems such as the container refund scheme) can reduce litter, avoiding impacts on local ecosystems and the green credentials of Tasmania's tourist and agricultural industry. It also rewards the community for good recycling practices, reinforcing behavioural change opportunities.

In order to measure performance of the plan's actions, the following targets have been set and will be measured and reviewed throughout the life of the plan:

- By 2028, establish consistent practices for waste management in all member council areas for consistent waste contracts, services and best practice principles.
- By 2028, target 60% MSW resource recovery.
- By 2028, target <10% contamination rate in kerbside recycling bins (based on annual kerbside recycling auditing).
- By 2028, phase out priority single-use plastics.

References

APCO (2022) [Australia's 2025 National Packaging Targets](#), accessed 10 March 2022

Blue Environment (4 November 2020) *National Waste Report 2020*, report to the Department of Agriculture, Water and the Environment, Blue Environment, Melbourne

Central Coast Council (17 April, 2017) [Food Organics and Garden Organics \(FOGO\) Program](#) (PDF), Central Coast accessed on 11 June 2021

Clean Up Australia (2022a) ['Single-use Plastic Bags'](#), accessed 16 March 2022

—— (2022b) ['What's the deal with soft plastics?'](#), accessed 18 March 2022

Cradle Coast Waste Services (CCWMG 2020) [Annual Report 2020](#), Cradle Coast Waste Management Group, Dulverton Waste Management, Devonport

Department of Treasury and Finance (2019), [2019 Population projections for Tasmania and its Local Government Areas](#), Tasmanian Government

Parliament of Tasmania (2021) [Waste and Resource Recovery Act 2021 Fact Sheet](#)

Department of Agriculture, Water and the Environment (2020) [Recycling and Waste Reduction Act 2020](#), Government of Australia

Department of the Environment and Energy (2019) [National Waste Policy Action Plan](#), Government of Australia, accessed 9 March 2022

Department of Primary Industries, Parks, Water and Environments (2021) [Container Refund Scheme Bill 2021 Explanatory Paper](#), Tasmanian Government

Dulverton Waste Management (2022) *'2021/22 Recycling Bin Education & Assessments Report'*, Cradle Coast Waste Management Group, Dulverton, accessed 30 May 2022.

Kaufman S, Meis-Harris J, Spanno M, Downes J, (2020) ['Reducing Contamination of Household Recycling'](#), Behaviour Works Australia, accessed 18 March 2022

Johnston, M (14 December 2020) ['Tasmanian councils embark on the road to sustainability through landmark partnership'](#), Tyre Stewardship Australia, accessed 16 March 2022

LGAT (2019) ['Community Satisfaction Survey'](#), accessed 15 March 2022

Moffat, C (29 October 2020) ['FOGO is driving real reform in Australia'](#), Inside Waste, accessed 17 March 2022

Rethink Waste Tasmania (1 March 2018) ['Construction and Demolition Sector – Waste Management Fact Sheet'](#), accessed 16 March 2022

Rethink Waste Tasmania (2 September 2021) ['What we've learnt from Tasmania's waste levy experience'](#), accessed 11 March 2022.



Appendix A Workshop notes

The following challenges and opportunities were raised during the consultation workshop conducted with CCWVG member council representatives on 17 February 2022 in Burnie.

Challenges
<ul style="list-style-type: none"> • lack of market for recyclable products (regional variation)/north-west coast economy of scale • consumerism – production of non-recoverable waste/attitudes to consumption and waste • local/state political will – delivery and resourcing to achieve aspirational targets • perceived ‘willingness to pay’ issues of the community for big waste industry improvements • overlap and duplication of reporting • community expectation in response to the cost of waste/ value for money • customer and industry behaviour in response to sorting and waste generation.
<ul style="list-style-type: none"> • regional consistency in policy • regional education • school program • regional recycling contact centre • food contaminated plastic • commercial food collection • KPI is critically affected by business growth • workload on single operator WTS • compliance for unmanned sites • training.
<ul style="list-style-type: none"> • attitude and ability <ul style="list-style-type: none"> – WTS manager/employees – lack of understanding of reasoning for change including changed workloads and more upset customers. • IT access • interpretation and consistency in waste classification • increasing costs (WTS and kerbside) • treatment of all waste to landfill as equal eg. intent waste getting some levy • may lead to increased illegal dumping • regional consistency including charges • what the state will do with “our” money • FOGO rollout north-west coast.
<ul style="list-style-type: none"> • customer perception for pricing/explanation of cost streams • downstream for recycling • infrastructure change for site meeting new compliance • education for staff/reasons for levy-sorting-load types and why • contractor costs and availability for downstream activities eg. concrete and green waste • volume increase for domestic and FOGO implementation solution • increased usage by contractors, builders etc. • passing costs onto consumers and education for consumers.
<ul style="list-style-type: none"> • FOGO collection and service implementation • waste levy hypothecation to region

Challenges

- waste governance regionally
 - recycling of bulky plastics and plastic lined containers
 - CRS implementation – role for council
 - improved C&I and C&D recovery
 - state of education for community on levy – to use the levy funds.
-
- site reconfiguration costs
 - classification of unsorted loads
 - encouragement of commercial waste
 - layout of site to encourage recycling
 - computer system set up of waste management section
 - strong assessment of load types
 - effective weighing mechanism of waste
 - general ledger setup of waste management section
 - ability to implement FOGO
 - apathy in community to allow for effective waste diversion
 - truck sharing and contamination of loads for different types
 - encouraging the “undesirable” but still divertible loads
 - federal government intervention over packaging.
-
- tyre cost
 - poor recycling
 - cardboard waste
 - reuse shop and what they offer to the community
 - bin quality/waste/recycling
 - illegal dumping.
-
- rethinking extent of community education
 - access to schools/groups
 - structured education programs and resourcing
 - clear consistent messaging for the state
 - interest/understanding of elected members across region as people who need to sell/explain process/ costs and rationale
 - consistent approach by all councils in the region to pricing, transparency, education and FOGO.

Opportunities

- education
 - for consumers on correct practices
 - on levy and its purpose
 - cost to dispose of waste.
- transfer station layouts that assist disposal of non-landfill waste
- development of downstream recycling streams that promote end usage
- more state government support
- state-wide policies and processes
- regional or state processing of:

Opportunities

- tyres
 - silage wrap
 - polystyrene
 - regional consistency in:
 - education programs
 - fees and charges
 - regional contract
 - governance – regional waste management activity
 - rethink waste
 - reduce waste products in general so diversion is not required
 - community education
 - FOGO products – find an economic way to make it more viable
 - improve and protect wording around ‘compostable’ and ‘recyclable’
 - seamless process for producer so they don’t feel burdened
 - federal and state government legislation around single-use plastics
 - levy to feed community to find solutions first before private/commercial/‘for profit’
 - bulk contract management.
-
- separation of organics and other recyclables from landfill products for hospitals, nursing homes and corporates
 - formal and engrained education programs from department of education, schools, primary, secondary and tertiary levels
 - community based, solution-focused action groups
 - full life cycle awareness – procurement, op shops
 - supply chains – silage wrap.
-
- regional contracts/collection
 - regional call centre
 - regional education
 - regional policy
 - KPI within the groups control
 - measurable KPIs that public can contribute to
 - clear communication about waste issues and solutions
 - investment/subsidy new recycling markets
 - tie Tasmanians’ waste performance to green image/branding
 - commit to an integrated, empowered regional approach
 - education (internal external, business, mums & dads. etc.)
 - get it rolling sooner rather than later using existing groups
 - consistency in WTS layouts and operations and charges
 - what do we see as it being in 10 years’ time (e.g. regional body) and jump to it now, as complexity and expectation will only increase.

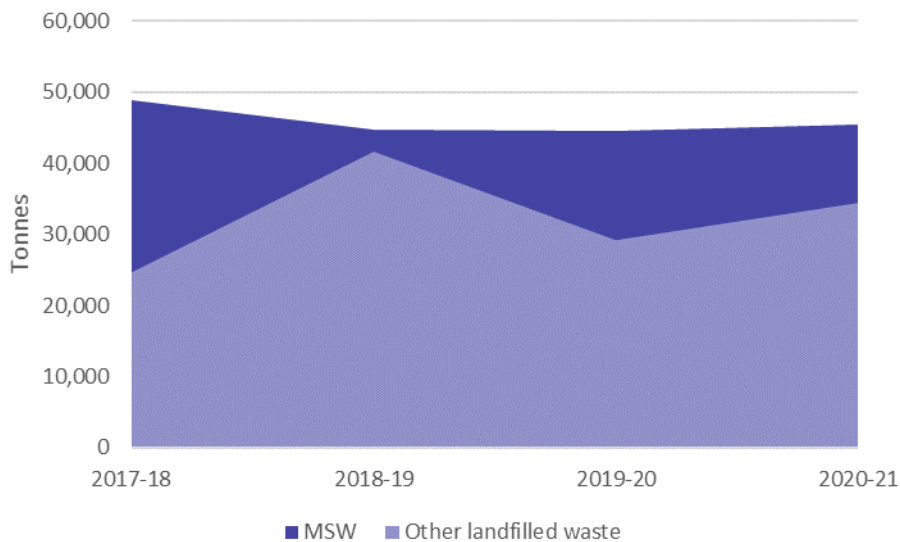


Appendix B Waste and recycling data

Waste generation

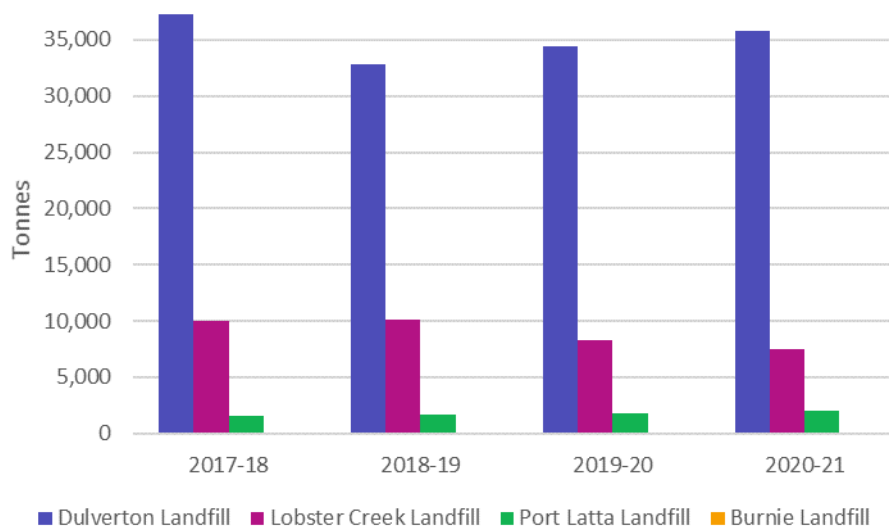
Figure B1 shows that total waste landfilled from 2017 to 2021 has been generally constant peaking in 2018-19 with 86,281 tonnes and most recently recorded with 79,738 tonnes in 2020-21. This was close to the 2016-18 quantities generated, indicating a constant generation of waste in the region. The category for other waste landfilled is considered unreliable (particularly in 2018-19) and was only recorded as annual totals for the region.

Figure B1 Total waste landfilled from 2017-21 in Cradle Coast (tonnes)



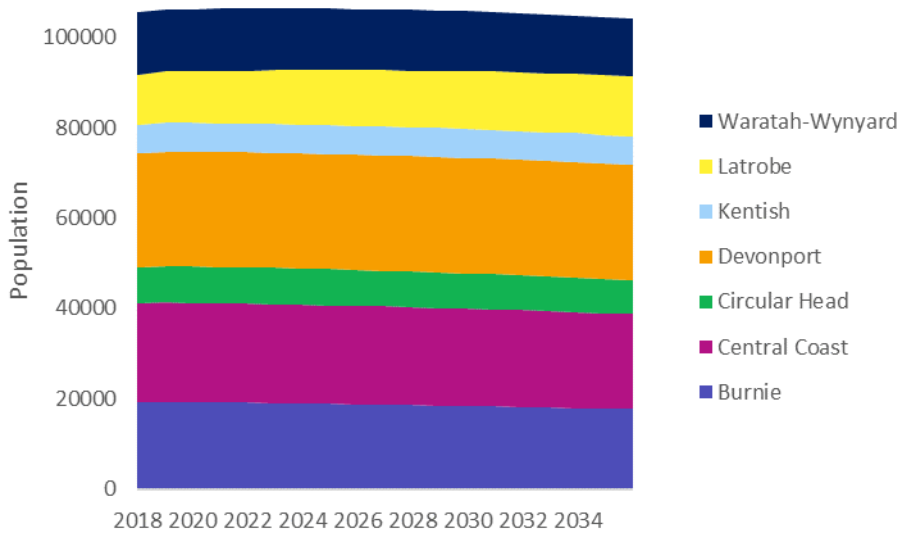
Data for individual landfill sites are not available for C&I and C&D waste, however data on MSW sent to each landfill site is available and is shown in Figure B2. Dulverton landfill received the largest portion of MSW in all years, followed by Port Latta Landfill and Lobster Creek Landfill. Dulverton received ~79% of MSW, while Port Latta received ~17% and Lobster Creek received ~5%.

Figure B2 MSW landfilled in Cradle Coast by site 2017-21 (tonnes)



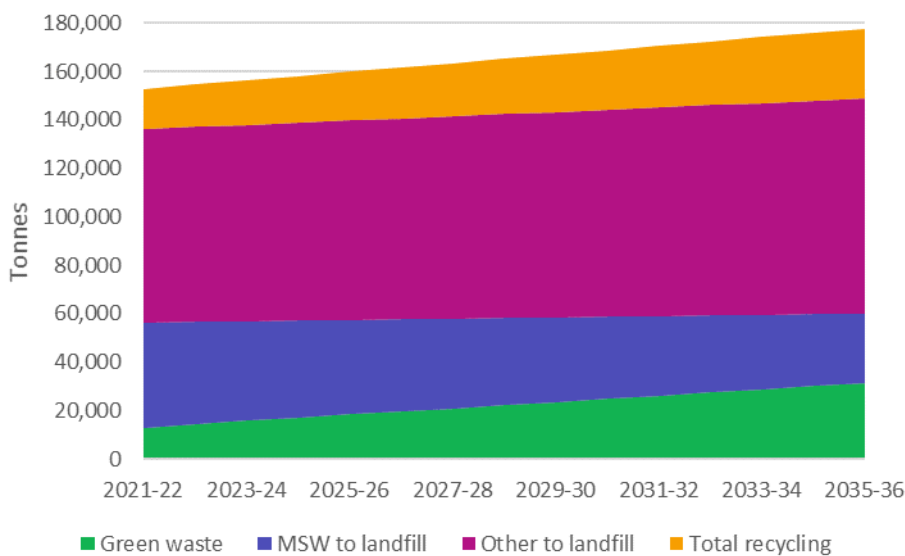
The quantity of materials generated in the future is likely to be impacted by the population. DTF (2019) have projected the overall population of the Cradle Coast region to contract by 1.3% by 2035. Figure B3 presents the estimated population growth for individual councils over the same period. The largest population growth is expected to be in Latrobe (19.9%). DTF predicts that some of the councils will experience a contraction, most significantly Circular Head (-7.6%), Burnie (-7.9%) and Waratah-Wynyard (-7.9%).

Figure B3 Population projection (medium projection) for Cradle Coast by LGA 2017-37 (tonnes)



Waste generation over the medium to long term is expected to remain at a similar average. Total waste generation is projected to reach around 97,301 tonnes in 2041-42. Figure B4 presents total waste generation projections under a business-as-usual scenario. These projections are based on the population projections provided in Figure B3 and do not take into account any strategic actions which may affect the amount of waste generated or diverted from landfill.

Figure B4 Waste generation projection in Cradle Coast region 2022-36 (tonnes)



Recovery

In 2021, 44,082 properties were provided with kerbside recycling services in the region. Figure B5 shows the amount of kerbside recycling collected between 2017 and 2021 decreased steadily from 6,874 to 6,671 tonnes/year but has risen slightly in 2021 to 6,795 tonnes/year. Devonport and Central Coast Councils contributed the largest share of kerbside recyclables being collected at around 25% and 24% respectively each year.

Figure B5 Kerbside recycling collection from 2017-21 (tonnes)

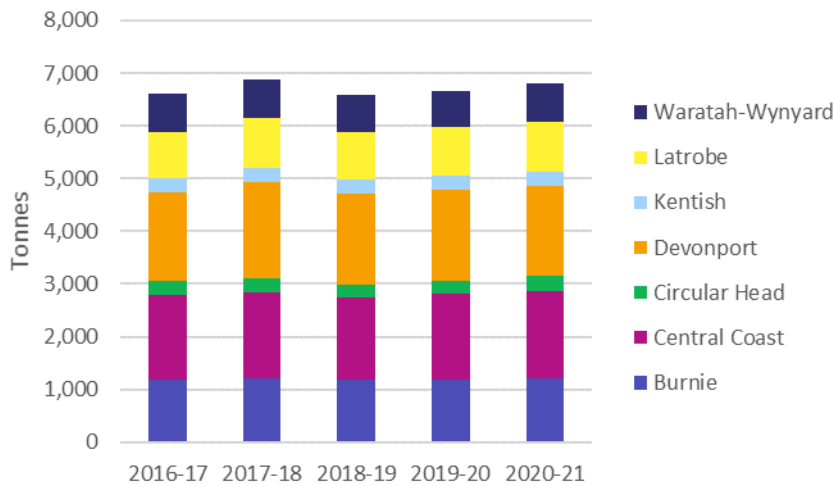
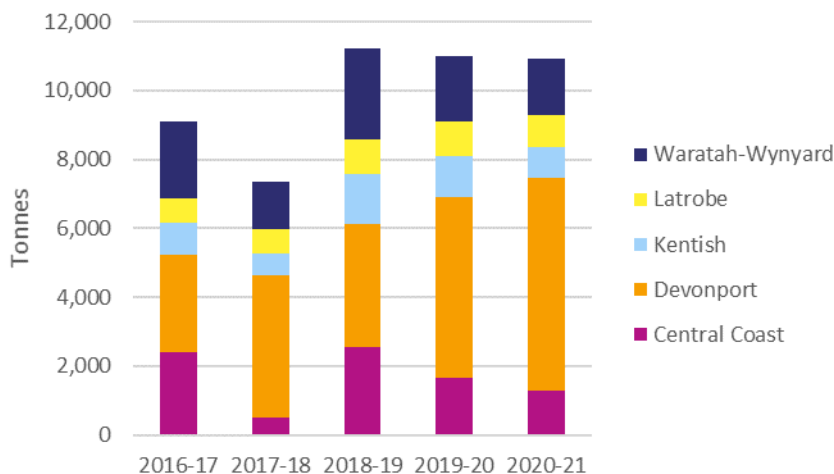


Figure B6 shows the estimated recycling performance per household for each council in the Cradle Coast region. In 2020-21, the regional average was 151 kg/household/year. Central Coast had the highest performance for kerbside recycling at 186 kg/household/year, followed by Latrobe at 169 kg/household/year. Circular Head had the lowest estimated performance at 130 kg/household/year.

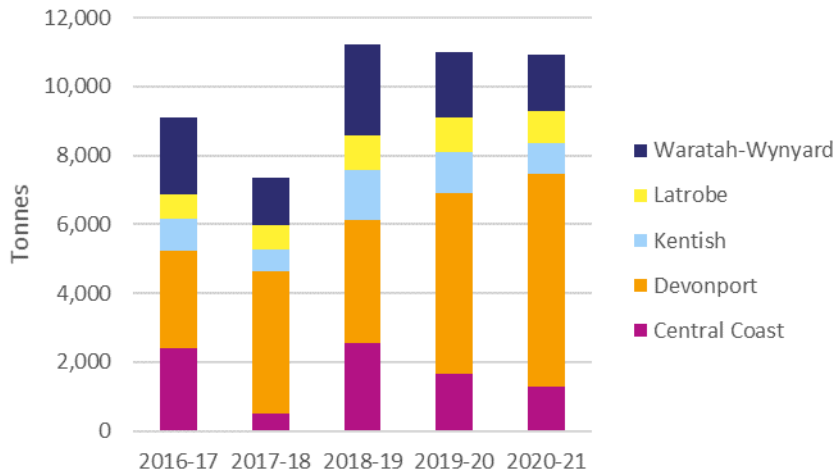
Figure B6 Kerbside recycling per household by council of Cradle Coast 2017-21 (kilograms)



In 2020, a new contract was implemented between Central Coast Council, Circular Head Council, Devonport City Council, Latrobe Council, Kentish Council, Waratah Wynyard Council and Fieldwicks Crushing and Screening (FC&S). FC&S were also the previous contractors for green waste in the region. Burnie Council was not included and Circular Head has not yet used the service through the contract. Unless councils have a specific use for mulched green waste, it is transported to the Dulverton Organics Recycling Facility (DORF) for composting. Figure B7 shows the tonnes of green waste collected from 2017

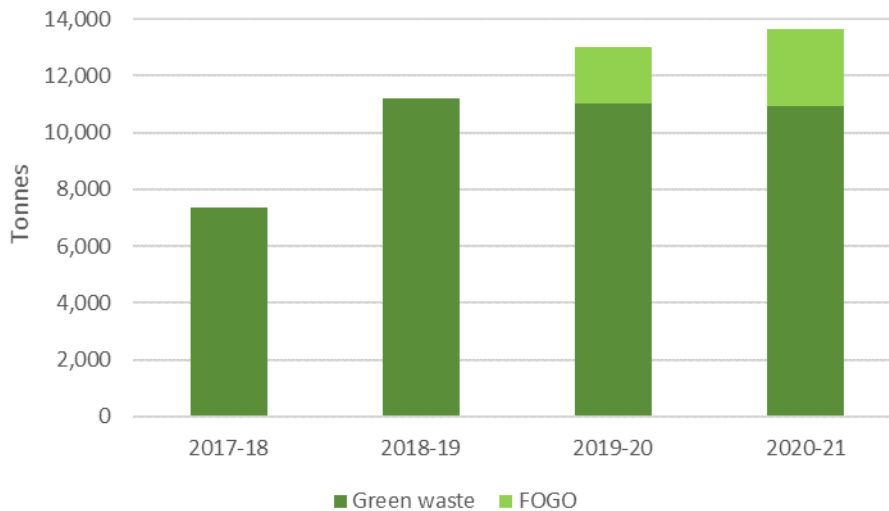
to 2021 from councils in the region. The total amount of green waste mulched has slightly declined since 2018, which may be attributed to a lower collection in CCC where FOGO has been implemented since 2019. In 2020-2021, 10,933 tonnes of green waste were mulched. Of this, Devonport Council is the largest contributor producing 57%, followed by Waratah-Wynyard with 15%.

Figure B7 Green waste mulched under contract 2017-21 (tonnes)



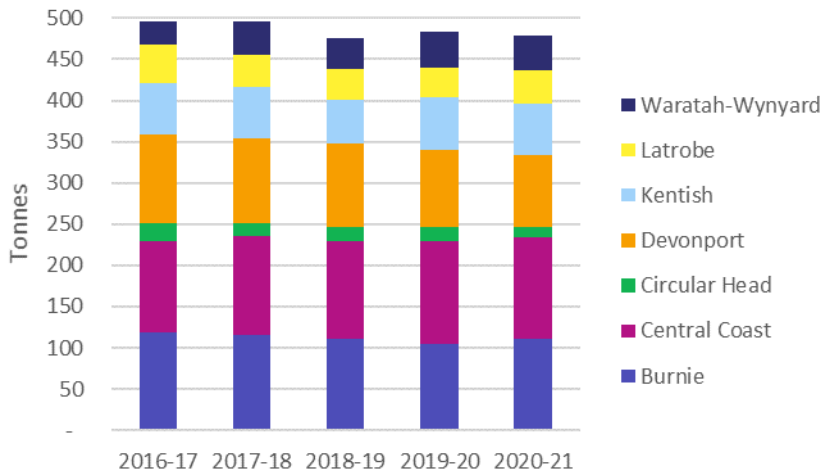
Central Coast introduced a FOGO bin in 2019-20 and collected 2,015 tonnes of FOGO in that year. This contributed to an increase in the total organic waste diverted from landfill (as shown in Figure B8). Currently the processing of this waste takes place at Launceston.

Figure B8 Total organic waste collected in Cradle Coast 2017-21 (tonnes)



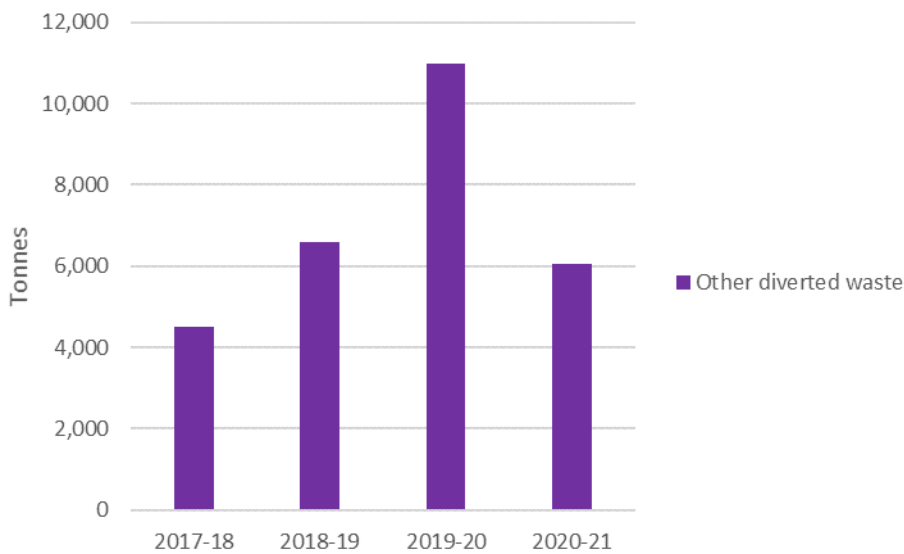
Regional cardboard collection has been undertaken since 2015. The estimated tonnes from cardboard recycling per council is shown in Figure B9. In 2020-21, around 478 tonnes were collected from all councils. Central Coast and Burnie Council contributed the most amount of cardboard recycling, with each contributing 26% and 23% respectively of the total collection.

Figure B9 Cardboard recycling in Cradle Coast 2017-21 (tonnes)



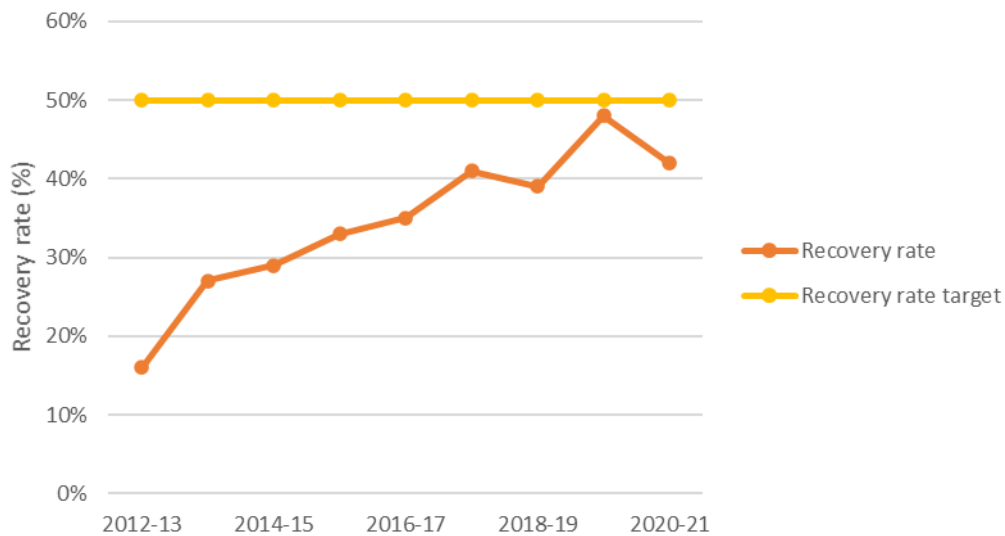
Other recyclable materials collected at regional facilities is shown in Figure B10; this was the largest portion of recycling material in 2019-20 and second largest in 2020-21. The spike in 2019-20 may be partly attributed to regional household hazardous waste programs. Around 6,070 tonnes of ‘other diverted wastes’ were collected in 2020-21. Individual council information was not available.

Figure B10 Other diverted waste in Cradle Coast 2017-21 (tonnes)



The overall recovery rate improved between 2017-18 and 2019-20 but declined slightly in 2020-21. It particularly increased between 2018-19 and 2019-20 and was close to meeting the recovery goal at 48% recovery rate in 2019-20. Figure B11 shows the estimated recovery rate as well as the recovery rate analysed in the last plan against the recovery rate goal of 50%.

Figure B11 Overall recovery rates in Cradle Coast region 2012-21



Recovery rate projections with region-wide FOGO

Further analysis was undertaken to understand the impact of expanding FOGO collection services to all councils in the region. The FOGO projections provided in Table B1 (overleaf) are based on the proportion of FOGO generated in Central Coast Council in 2020-2021 by tenement and also per capita. The number of tenements with access to kerbside services was projected to the focus year of this plan (2028) using trend analysis of 2015-2021 figures and the proportion per tenement forecast for projected tenements in 2028. The per capita scenario figures were applied to 2028 ABS population projections for the whole region.

The difference of FOGO collected in 2020 and 2028 was removed from the 2028 MSW landfill stream for both scenarios. The recovery rate projections are further divided between recovery of MSW including composted waste and MSW excluding composted waste. This is because the source stream proportions of composted waste in the region (while not recorded) is known to include both MSW and C&I waste.

The projection suggests that expansion of FOGO services will bring the region in line with the 60% MSW recovery rate goal outlined in the plan. Excluding composted waste gives a conservative estimate of MSW recovery. The recovery rate would be approximately 64% if calculated by tenement, or 57% if calculated by population.

Table B1 Recovery rate projections for 100% regional access to FOGO

Generation summary	FOGO projection by tenement		FOGO projection by population	
	2020-21	2028 (projection)	2020-21	2028 (projection)
MSW to landfill	45,386	24,153	45,386	28,926
Other waste to landfill	34,352	84,226	34,352	84,226
Commingled recycling	6,795	6,588	6,795	6,588
Cardboard recycling	478	442	478	442
Green waste	10,933	22,332	10,933	22,332
FOGO	2,712	14,512	2,712	9,739
Composted	30,058	35,185	30,058	35,185
Other recycling	6,070	15,678	6,070	15,678
Total waste generated	136,785	203,116	136,785	203,116
Overall recovery rate (%)	42%	47%	42%	44%
MSW + composted	53%	77%	53%	72%
MSW - composted	41%	64%	41%	57%

Financial and service constraints may mean that some populations in remote areas may not have access to FOGO services. Table B2 illustrates recovery rate projections if 80% of the population have access to FOGO services.

Table B2 Recovery rate projections for 80% regional access to FOGO

Generation summary	FOGO projection by tenement		FOGO projection by population	
	2020-21	2028	2020-21	2028
MSW to landfill	45,386	27,056	45,386	30,874
Other waste to landfill	34,352	84,226	34,352	84,226
Commingled recycling	6,795	6,588	6,795	6,588
Cardboard recycling	478	442	478	442
Green waste	10,933	22,332	10,933	22,332
FOGO	2,712	11,609	2,712	7,791
Composted	30,058	35,185	30,058	35,185
Other recycling	6,070	15,678	6,070	15,678
Total waste generated	136,785	203,116	136,785	203,116
Overall recovery rate (%)	42%	45%	42%	43%
MSW + composted	53%	74%	53%	70%
MSW - composted	41%	60%	41%	55%