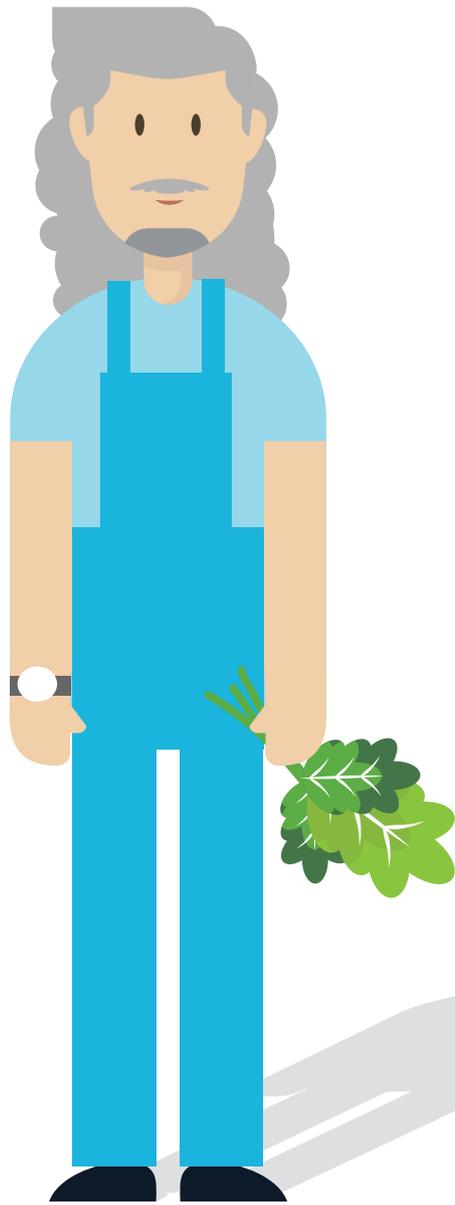




Glenorchy City Council

Waste Management Strategy

REVISED 2020



Contents

Foreword from the Mayor & General Manager	v
The Strategy – a summary	1
Vision and Objectives	2
Vision	2
Goals and objectives	2
Strategic Drivers	3
Glenorchy City Council Strategic Plan and Community Goals	3
Goal 1: To promote the sustainable management of resources	5
Goal 2: To provide convenient and affordable waste services that meet the needs of the community	7
Goal 3: To minimise negative impacts of waste on the natural and built environments	9
Action Plan	13
Context	20
Update on progress to date	34
Other activities	40
Acronyms, abbreviations and definitions	41
References	43

List of Tables

Figure 1: What happens to waste from Glenorchy	31	Figure 11: Comparison of average quantities of waste received at Jackson Street landfill by sector, excluding cleanfill	39
Figure 2: Core waste in Australia by waste stream	33	Figure 12: Comparison of mixed waste received at Jackson Street landfill by sector	39
Figure 3: Resource recovery and recycling rates of core waste by source stream, Australia 2016-17	34	Figure 13: Tonnages of waste received over 5 years at Jackson Street landfill	40
Figure 4: Recycling and energy recovery rates of common waste types in Australia	35	Figure 14: Tonnages of waste received over 5 years at Jackson Street landfill, excluding cleanfill	40
Figure 5: Estimated resource recovery and recycling rates of core waste by jurisdiction, 2016-16	36		
Figure 6: Estimated percentages of households receiving kerbside services – Australia overall and Tasmania	37		
Figure 7: Waste received by the Glenorchy City Council in an average year by source	37		
Figure 8: Kerbside recycling as a percentage of total kerbside collection, 2017-18	38		
Figure 9: Composition of waste received at Jackson Street landfill in an average year	38		
Figure 10: Comparison of tonnages of waste received at Jackson Street landfill by sector	39		

List of Figures

Table 1: Changes in volume of core waste generated, recycled and disposed of by waste stream, 2006-07 to 2016-16	34
Table 2: Change in total volume of core waste generated by waste stream	36
Table 3: Progress against 2013 strategy actions to date	46



Foreword from the Mayor & General Manager

We have a vision for the future Glenorchy – a clean, safe and vibrant city that makes all of us proud. A city where we work together to minimise waste and conserve resources for the future.

Waste continues to be a significant challenge for society – particularly in developed countries with high levels of consumerism. We all have a responsibility for the waste generated by our activities and purchasing decisions, which is both financially and environmentally costly. Progress is being made as new technologies, new attitudes and new ways of doing things help us to divert re-usable or recyclable resources from the waste stream. But continued improvement is essential. While Australians are producing less waste per person, we are still generating higher volumes of waste overall.

We believe Glenorchy can be a leader in resource recovery. A clear strategy that is both aspirational and realistic will help us to continue to demonstrate leadership in waste reduction and management – provided it remains up-to-date and focused on the right activities.

That's why the Glenorchy City Council 2013-2023 Waste Management Strategy included a requirement for review five years after its adoption in 2014.

Today, the overall strategy direction remains the same but new priorities have emerged requiring a shift in focus. There are compelling reasons to improve how we all manage our wastes. We have limited remaining space in our landfill, which has provided a convenient service to our local community for many years. The landfill will need to be replaced with an alternative long-term solution and the transition must be managed carefully.

It's also important that we think long term about future generations and the wider environment. Waste products can have negative impacts on both natural and built environments. We have a shared responsibility to minimise these to ensure a healthy environment for our children and grandchildren.

This revised strategy sets out three key goals with supporting objectives, underpinned by the City of Glenorchy Community Goals. It also includes an updated action plan to ensure they are achieved.

A key action in the short to medium term will be the implementation of a kerbside service for food organics and garden organics (FOGO). This service will provide multiple benefits to the municipality and was strongly supported by the community during an extensive consultation process.

The Council remains committed to providing convenient, cost effective and equitable waste services and to leading by example. We will continue to listen to the community and seek your feedback on major decisions.

We sincerely thank the residents of Glenorchy for engaging in good waste reduction practices and particularly those who volunteer their time and efforts to improve the environment for all of us. With your help, we can achieve our vision for Glenorchy.

Alderman Kristie Johnson
Mayor
Glenorchy City Council

Tony McMullen
General Manager
Glenorchy City Council

THE STRATEGY – A SUMMARY

DRIVERS

Community Goals and Council Strategic Plan

Vision

“Glenorchy is a clean, safe and vibrant city that makes us proud. Together, we minimise waste and conserve resources for the future.”

Waste Management context and issues

OBJECTIVES

Goal 1: To promote the sustainable management of resources.

- Support and educate the community in separation, recovery and reuse, and lead by example.
- Collaborate with others regionally and nationally to improve effectiveness and sustainability.
- Ensure the appropriate use of the Jackson Street landfill and maximise its lifespan.

Goal 2: To provide convenient and affordable waste services that meet the needs of the community.

- Provide a high-quality, cost-effective and flexible kerbside collection service.
- Provide long-term continuity of convenient waste disposal options.
- Maintain effective and timely communication to keep the community engaged and informed.

Goal 3: To minimise negative impacts of waste on the natural and built environments.

- Minimise environmental impacts of Council-controlled landfill.
- Introduce a kerbside service to recover food and garden organic waste (FOGO).
- Reduce litter and dumped rubbish in public places.

ACTIONS



- Provide education and assistance to the community, including businesses.
- Promote local re-use and recycling businesses.
- Engage with business to identify and minimise barriers to waste separation.
- Advocate on behalf of the community.
- Implement a sustainable purchasing policy.
- Improve separation of Council works waste.
- Collaborate with others in the region and participate in national initiatives.
- Optimise landfill operations and extend the existing landfill area.
- Increase diversion/recovery of usable materials.
- Reduce contamination of recyclables.



- Deliver a fortnightly collection service with flexible bin upgrade options.
- Investigate options for a local transfer station.
- Join regional collaborative waste management arrangements.
- Undertake regular waste monitoring/audits.
- Review and improve Council data systems.
- Provide up-to-date information on services, charges and disposal requirements.
- Consult the community on significant changes.



- Manage landfills to meet environmental standards and legislation.
- Ensure independent monitoring of landfill emissions and leachates.
- Continue partnering with others to extract landfill gas for energy.
- Introduce a food and garden organic waste kerbside bin for composting.
- Work with other agencies to prevent dumping and remove litter.
- Develop a targeted program to educate and assist those having difficulty managing their waste.
- Encourage reporting and remove rubbish in a timely manner.
- Ensure adequate waste management arrangements for events on public land.

VISION AND OBJECTIVES

Vision

Glenorchy is a clean, safe and vibrant city that makes us proud. Together, we minimise waste and conserve resources for the future.

Goals and objectives

Goal 1: To promote the sustainable management of resources.

OBJECTIVES:

- 1.1 Support and educate the community in separation, recovery and reuse, and lead by example.
- 1.2 Collaborate with others regionally and nationally to improve effectiveness and sustainability.
- 1.3 Ensure the appropriate use of the Jackson Street landfill and maximise its life.

Goal 2: To provide convenient and affordable waste services that meet the needs of the community.

OBJECTIVES:

- 2.1 Provide a high-quality, cost-effective and flexible kerbside collection service.
- 2.2 Provide long-term continuity of convenient waste disposal options.
- 2.3 Maintain effective and timely communication to keep the community engaged and informed.

Goal 3: To minimise negative impacts of waste on the natural and built environments.

OBJECTIVES:

- 3.1 Minimise environmental impacts of Council-controlled landfill.
- 3.2 Introduce a kerbside service to recover food and garden organic waste.
- 3.3 Reduce litter and dumped rubbish in public places.

Strategy timeframe

The timeframe of this strategy is 10 years, with a review after five years.

The action plan will be reviewed on an annual basis to ensure that it remains relevant and appropriate to ensure satisfactory progress against the above objectives. Progress against the action plan will be reported to the Council annually.



STRATEGIC DRIVERS

This strategy is underpinned by our Council values, the Glenorchy Community Goals and specific key Council strategies. These provide the foundation for our activities over the next 10 years to reduce waste.

Glenorchy City Council Strategic Plan and Community Goals

The Council's Strategic Plan 2016-25 identifies five fundamental Council Values:

People:

We believe that each person is equal and has a positive contribution to make. The rights and opinions of all are heard, valued and respected.

Diversity:

We value differences that enrich our community and the positive contributions everyone can make in improving the quality of community life.

Progress:

We value innovation, flexibility and imagination in building a better and sustainable community.

Prosperity:

We commit ourselves to achieving social and economic prosperity for all.

Environment:

We work together to improve our City so we can enjoy a safe and healthy environment and a good quality of life. We respect our heritage and have pride in our City.



City of Glenorchy Community Goals

The Plan sets out four community goals, developed in consultation with the community. These goals have guided the review of our Waste Management Strategy and objectives. The City of Glenorchy Community Goals are:

Making Lives Better

- Know our communities and what they value
- Support our communities to pursue and achieve their goals
- Facilitate and/or deliver services to our communities

Open for Business

- Stimulate a prosperous economy
- Identify and support priority growth sectors

Valuing our Environment

- Create a liveable and desirable City
- Manage our natural environments now and for the future

Leading Our Community

- Govern in the best interests of our communities
- Prioritise resources to achieve our communities' goals
- Build strong relationships to deliver our communities' goals

These goals together support an overarching goal of “Building Image and Pride”.

Strategies to achieve community goals

The Council's strategies to realise the community goals that guide this Waste Management Strategy are:

- 1.2.2 Build relationships and networks that create opportunities for our communities.
- 1.3.2 Identify and engage in partnerships that can more effectively deliver defined service levels to our communities.
- 3.1.4 Deliver new and existing services to improve the City's liveability.
- 4.1.2 Manage the City's assets soundly for the long-term benefit of the Community.
- 4.2.1 Deploy the Council's resources effectively to deliver value.
- 4.3.1 Foster productive relationships with other levels of government, other councils and peak bodies to achieve community outcomes.



Glenorchy City Council

Waste Management Strategy

Our Goals

GOAL 1:

To promote the sustainable management of resources

Sustainability means that we live and act in a way that ensures future generations – our children, grandchildren and their children – can enjoy a similar quality of life. Our choices and behaviours ensure they will have sufficient resources for healthy and fulfilling lives, including access to clean and healthy soil, air and water. In short, it means allowing them their share and ensuring they do not carry the costs of our resource usage.

We can ensure quality of life for future generations by using resources carefully, not producing, buying or using resources unnecessarily, and by reusing items and recycling materials. Reducing our consumption of resources conserves them for the future. Reusing and recycling materials allows them to provide extended benefits rather than being buried in the ground after a single use.

Community goals

This waste management goal links to the following community goals:

- Manage our natural environments now and for the future.
- Facilitate and/or deliver services to our communities.
- Identify and support priority growth sectors.
- Build strong relationships to deliver our communities' goals.



Supporting and educating the community in separation, recovery and reuse, and leading by example

It's easy to forget what a difference our day-to-day actions and decisions can make to future generations, particularly our children and grandchildren. Cumulatively, individual actions and decisions do matter and can have a significant impact. Nationwide recycling by individuals and households is a positive example of this, while air pollution in big cities is an example of when many individual actions add up to produce detrimental outcomes.

We live in a society increasingly crunched for time and often it's just easier to take shortcuts. The Council can help both businesses and households by providing support and education to increase awareness, encourage smart purchasing decisions and improve resource recovery and recycling.

Some waste issues are outside the Council's direct influence. For instance, the Tasmanian and Australian governments have responsibility for some important areas which nonetheless affect our present and future community. In such situations, the Council can advocate for the needs of our community and promote its interests.

The Council will not ask the community to do what it does not do itself. The Council is committed to ongoing improvement of its waste management practices and to demonstrating best practice in waste management.

The Council will:

- continue to provide education to schools and community groups about the importance of waste reduction and how they can improve waste management
- extend waste education activities to specifically target sporting clubs and households
- commence a targeted education campaign to the commercial/industrial sector
- promote local re-use and recycling businesses or initiatives to the wider community
- engage with businesses, identify their barriers to waste separation and support them to develop sustainable waste solutions
- advocate for the interests of the Glenorchy community to the Tasmanian and Australian governments
- develop and implement an internal sustainable purchasing policy
- improve separation and recycling of Council works waste.

Collaborating with others regionally and nationally to improve effectiveness and sustainability

Working with others can help us achieve our objectives more efficiently and save time and money. By pooling resources, we can develop better long-term solutions. Collaboration enables us to share knowledge and develop consistent approaches across municipalities.

Pooling resources can create options for managing waste that are not possible for one municipality alone. This will be important for Glenorchy as the Jackson Street landfill reaches its capacity. Once the landfill is full, the service will be discontinued in Glenorchy. In the long term, the most effective solution for disposal of Glenorchy's waste will require collaborative arrangements involving regional facilities.

The Council participates in national initiatives and campaigns, including Keep Australia Beautiful, Garage Sale Trail, soft plastics recycling, and national schemes such as e-waste recycling. These not only provide efficiencies through access to shared resources and ideas, but also remind us that many people and organisations around Australia are all working to reduce waste.

The Council will:

- explore opportunities for enhanced regional collaboration on an ongoing basis, including participating in joint long-term waste management operations
- continue to participate in national waste reduction initiatives.

Ensuring the appropriate use of the Jackson Street landfill and maximising its life

If the landfill continues to fill at the current rate, it will be completely full within the next two years. The Council believes the landfill is filling faster than it needs to, as much of the material disposed of (at the landfill) doesn't need to go there.

Re-usable or recyclable materials are often mixed in with other wastes. The Council actively removes some materials from landfill, such as metal and tyres, but better separation of different wastes before they get to landfill will make a significant difference to how quickly the site is filled.

Conversely, contamination of kerbside recycling with other wastes means recycling is sometimes disposed of as general waste.

Another contributing issue is the daily cover material the Council is required to use as part of landfill operations. Cleanfill is the conventional material used, but this takes up a lot of valuable space. Alternative technologies may now provide sufficient cover while taking up less space.

The Council is developing a suite of projects and responses that it believes will extend the life of the landfill by an additional 10 years or more.

The Council will:

- review landfill operations and investigate new technologies to reduce the volume of cover material used
- extend the landfill area by utilising an existing quarry void
- increase diversion of materials that do not need to be buried by increasing awareness of the value of landfill space and incentivising better separation of waste, and continue materials recovery
- monitor and respond to contaminated recycling.



GOAL 2:

To provide convenient and affordable waste services that meet the needs of the community

The Council considers waste management a core service for Glenorchy residents. This includes the ongoing provision of kerbside collections for standard household waste and a facility for disposal of other wastes. With the anticipated closure of the Jackson Street landfill in the short to medium term, it is important we have a long-term plan for a facility that provides ongoing convenient and affordable waste disposal services.

This does not diminish the Council's commitment to reducing waste. In fact, the Council has used a number of mechanisms to incentivise better separation and disposal practices and will continue to do so.

A key component of our service is ensuring that up-to-date information is available and that we maintain open, two-way communication with the community.

Community goals

This waste management goal links to the following community goals:

- Facilitate and/or deliver services to our communities.
- Create a liveable and desirable City.
- Know our communities and what they value.

Providing a high-quality, cost-effective and flexible kerbside collection service

The Council provides a kerbside garbage and recycling collection service to all residences and some participating commercial properties – over 42,000 bins in total. Around 8,000 tonnes of garbage and 4,000 tonnes of recyclables are collected from Glenorchy kerbsides annually.

The kerbside collection provides a convenient method of disposal for regular residential waste. At the same time, it is essential that household waste is sorted properly to reduce pressure on the landfill and conserve resources. The Council led the way in introducing a fortnightly collection service, which is increasingly being adopted by other councils in Australia.

The standard 140L garbage bin collected fortnightly is more than adequate for the large majority of households in Glenorchy who are “good sorters”. In special circumstances, larger bins may be desired. The Council will develop criteria to assess requests for upgrades for an additional fee. This will ensure an affordable standard option is available to all households that encourage proper sorting of waste, while providing some flexibility on a user pays basis in justifiable circumstances.

The Council will:

- continue to deliver a fortnightly service
- develop criteria and procedures to assess requests for bin size upgrades.

Providing long-term continuity of waste disposal options

Once the current landfill has reached capacity, no new landfill will be provided within the municipality. However, the Council is committed to providing an ongoing convenient disposal facility for Glenorchy households and small businesses with no break in services. The Council is investigating options for long term solutions, including the provision of a transfer station to provide a convenient drop-off facility. The Council will assure itself that any long-term solution is sustainable even if wastes are transferred outside of Glenorchy and will continue to incentivise waste reduction and separation.

Accurate and reliable information is important to ensure sound decision-making and long-term planning. This means having both the right information and appropriate systems to manage it efficiently. We also need to ensure that our information is presented in a format that is consistent with regional and national reporting to provide a wider benefit.

The Council will:

- investigate options for development of a transfer station within the municipality for convenient waste disposal.
- join a regional authority for collaborative waste management arrangements.
- undertake regular monitoring and/or audits of the various waste streams.
- review Council's data systems to ensure efficiency, reliability and consistency.

Maintaining effective and timely communication to keep the community engaged and informed

Communication is a two-way street. Our community needs up-to-date information about our services and fees and any changes that are on the way. Accordingly, the Council needs to hear from the community about its priorities and values to ensure decision making and planning reflect community preferences. We also continue to seek community concerns or feedback in regards to our services. The Council will continue to provide avenues for feedback in accordance with the Council's Customer Service Charter.

The Council will:

- ensure the community is kept up-to-date with our services and charges
- ensure the community receives clear information on how to separate, divert and dispose of materials
- consult the community on significant changes to Council services.

GOAL 3:

To minimise negative impacts of waste on the natural and built environments

The quality of our natural and built environments has a significant impact on the community's image and sense of pride.

Environments where waste is disposed of properly are attractive, healthy and safe. Poor waste management or disposal practices can lead to unpleasant and sometimes dangerous conditions, from making our streets and waterways look messy to posing significant health or safety risks to humans and wildlife. Waste products can pollute the environment, sometimes for many years or decades to come.

All of us have a responsibility to reduce wastes and dispose of them carefully. The Council plays a very active role by:

- managing its facilities to a high standard and preventing escape of pollutants, particularly from the Glenorchy landfills
- providing public litter and recycling bins, and providing bins at some community events
- sweeping streets daily to keep them clean and tidy
- encouraging reporting of and investigating dumped rubbish, and removing rubbish promptly.

Community goals

This waste management goal links to the following community goals:

- Create a liveable and desirable City.
- Manage our natural environments now and for the future.

Minimising environmental impacts of Council-controlled landfill

Because of the types of wastes disposed of to landfill, there is potential for greenhouse gases to escape into the air or for pollutants to leach into groundwater or waterways – even after the landfill is closed. The Council monitors both the current Jackson Street landfill and the Chapel Street landfill (which has been closed for around 30 years) to ensure emissions and leachates meet applicable environmental standards. Monitoring is conducted by an independent party and results are reported to the Environmental Protection Agency (EPA).

The Jackson Street landfill permit granted by the EPA includes conditions to ensure a high level of environmental management is maintained. Permits provide confidence that landfills are properly prepared and managed through all stages of their life and beyond, and don't have negative impacts on the nearby community or the wider environment. This includes proper preparation of new areas, rehabilitation once the landfill is full and ongoing monitoring during and after operations.

The Council will:

- manage its landfills to meet applicable environmental standards and legislation
- ensure regular independent monitoring of gas emissions from both open and closed landfills
- ensure regular independent monitoring of leachates into groundwater and surface water
- continue to partner with others to extract landfill gas for conversion to energy.

Introduction of a kerbside service to recover food and garden organic waste

Almost half of the waste placed in kerbside bins comes from food and garden organics (FOGO). FOGO in landfills can produce unhealthy or unpleasant leachates, gases or odours and can encourage pest animals. It takes up valuable space which is needed for other things and is a waste of a useful resource – if disposed of properly, FOGO waste can provide a substantial amount of compost for gardening and agriculture for the community.

The Council has consulted the community on the option to introduce a new kerbside collection for FOGO waste, and the responses indicate a very high level of support within the community for this initiative.

The Council will:

- introduce a new kerbside collection for FOGO
- arrange for processing of collected FOGO into compost for re-use.

Reducing litter and dumped rubbish in public places

The Council provides over 500 rubbish and recycling bin stations in main streets, parks, sportsgrounds, bus stops and shopping malls around Glenorchy, including 60L pole mounted bins and, in busy areas, larger 140L bins. The Council also undertakes daily street sweeping activities to remove litter as well as natural detritus.

Not all members of the community dispose of their wastes responsibly or understands why they should. Dumped rubbish can create health and safety risks to the public, attract pests and pollute waterways, sometimes lingering in the environment for many years. The presence of rubbish in public areas can also lead to further rubbish dumping, as others begin to accept this as normal behaviour.

The Council works with Corrective Services Tasmania on litter removal activities. We also organise and participate in litter removal projects for volunteers. Prompt removal of rubbish and reporting by members of the public are key to managing the issue and keeping our city clean, safe and inviting. Targeted education and assistance for those who have difficulty knowing how to deal with their unwanted items can improve waste disposal practices and help reduce rubbish dumping.

The Council will:

- continue work with other agencies to prevent dumping and remove litter
- develop a targeted program to identify, educate and assist households having difficulty managing their waste
- encourage reporting and remove rubbish in a timely manner
- ensure adequate waste management arrangements for events on public land.



Glenorchy City Council

Waste Management Strategy

Action Plan

This action plan sets out how the Council will implement the Waste Management Strategy. The plan will be revised annually to ensure we stay on track towards our goals.

Action	Relevant objective/s	Target	Responsibility	
1	Document and implement a targeted education campaign plan to improve resource conservation, recovery and waste separation, including engaging with businesses to identify and minimise barriers and providing education and assistance to households and sporting clubs.	1.1	<ul style="list-style-type: none"> • Campaign plan documented and implementation commenced by June 2019. • All primary students receive waste education by Grade 6. • Educational material provided to the wider community at least every two months. 	Waste Services
2	Provide clear and up-to-date information to the community on how to separate, divert and dispose of materials.	2.3	<ul style="list-style-type: none"> • Information on how to separate, divert and dispose of materials is provided or readily accessible to all members of the community. 	Waste Services
3	Review pricing, types and volumes of waste accepted for disposal at landfill to incentivise separation.	1.3	<ul style="list-style-type: none"> • Develop a plan to divert mattresses from landfill by December 2020. • Implement plan by June 2021. 	Waste Services
4	Undertake ongoing monitoring and enforcement of correct separation of recyclables.	1.3	<ul style="list-style-type: none"> • Contamination of recyclables <10% each year. 	Waste Services
5	Promote reuse/recycling businesses in the area.	1.1	<ul style="list-style-type: none"> • Information on local reuse/recycling businesses readily accessible to the community, and updated on a 6 monthly basis. • New agreement between the Recovery Centre and Council in place by December 2020. 	Waste Services
6	Separate all waste from Council works and make available for re-use where practicable.	1.1, 1.3	<ul style="list-style-type: none"> • All works construction waste separated. 	Works
7	Adopt and adhere to the revised code of tenders and contracts.	1.1	<ul style="list-style-type: none"> • Council to approve a revised code of tenders and contracts by August 2020 which contains requirements for Council buyers to consider ecological risks and issues when planning major procurements. (continued) 	Corporate Services

Action	Relevant objective/s	Target	Responsibility	
7	Adopt and adhere to the revised code of tenders and contracts. (Continued)	1.1	<ul style="list-style-type: none"> Consider opportunities for sustainable purchasing including the review of the asphalt supply contract. Capital works and maintenance contracts to ensure that specifications include proper definition of environmental management practices and processes and identify the applicable environmental aspects and impacts. 	Corporate Services
8	Maintain a comprehensive recycling program in Council buildings.	1.1	<ul style="list-style-type: none"> Recycling receptacles placed in Council chambers building and Works Depot. All Council staff regularly provided with up to date information on how to recycle. 	Waste Services
9	Actively participate in regional groups, including joint advocacy on important waste topics.	1.2	<ul style="list-style-type: none"> Attendance at all regional meetings. 	Waste Services
10	Participate in national waste reduction initiatives as appropriate opportunities arise.	1.2	<ul style="list-style-type: none"> Participate in at least five national initiatives each year. 	Waste Services
11	Extend the current landfill area to provide additional capacity.	1.3	<ul style="list-style-type: none"> Construction substantially completed by 30 June 2021. 	Waste Services
12	Finalise and implement updated plan to optimise landfill management, including ensuring most effective use of void space.	1.3	<ul style="list-style-type: none"> Finalise and implement plan by July 2021. Landfill life extended to at least 2030. 	Waste Services
13	Manage landfills to meet applicable environmental standards and legislation, including preparation of new areas and rehabilitation of closed areas.	3.1	<ul style="list-style-type: none"> No EPA breaches identified in any year. 	Waste Services
14	Ensure independent monitoring of open and closed landfills for leachates and gas emissions and reporting of results to EPA on a regular basis.	3.1	<ul style="list-style-type: none"> Report at least 6 monthly. 	Waste Services

Action	Relevant objective/s	Target	Responsibility	
15	Support the capture of landfill emissions and reuse for energy production.	3.1	<ul style="list-style-type: none"> Agreement in place to ensure capture of landfill gas to at least 2030. 	Waste Services
16	Provide a fortnightly collection of all kerbside garbage, FOGO and recycling bins.	2.1	<ul style="list-style-type: none"> Maximise diversion of waste from landfill. Increase percentage of recycling and FOGO and reduce general waste. 	Waste Services
17	Provide a mechanism for supplying 240L garbage bins where requests meet relevant criteria.	2.1	<ul style="list-style-type: none"> Waste Services Policy reviewed by December 2019, including development of criteria for assessing bin requests. All requests for 240L bins assessed and actioned appropriately within seven days of request. 	Waste Services
18	Investigate options for participating in joint, long-term waste management operations.	2.2	<ul style="list-style-type: none"> Plan for implementation of preferred option completed by June 2022. Agreement in place with relevant parties for development of transfer station in the municipality by December 2020. 	Waste Services
19	Continue to audit kerbside bins to ensure up-to-date information for planning and decision making.	2.2	<ul style="list-style-type: none"> Audit completed at least 2 yearly. Results reported within six weeks of completion of audit. 	Waste Services
20	Undertake a review of Council's data systems.	2.2	<ul style="list-style-type: none"> Review completed and improvement plan implemented by June 2020. 	Waste Services
21	Ensure up-to-date information on services, charges and kerbside collection dates is available and readily accessible to the community.	2.3	<ul style="list-style-type: none"> Up-to-date information on services and charges is readily available at all times. Changes to services or charges are publicised prior to coming into effect. Dates for all kerbside collections are provided or readily accessible to all users of the service. 	Waste Services

Action	Relevant objective/s	Target	Responsibility
22	Continue to work with other agencies to reduce and remove litter and dumped rubbish as practicable.	3.3 <ul style="list-style-type: none"> • Provide support for Correction Services to undertake litter removal at agreed locations on a weekly basis. 	Works
23	Ensure dumped rubbish is removed from public land promptly.	3.3 <ul style="list-style-type: none"> • Reporting hotline publicised at least annually and readily accessible at all times. • 95% of dumped rubbish reported within timeframes set out in the relevant Roads and Parks/Reserves service manuals. 	Waste Services/ Works
24	Review proposals for events on public land to ensure adequacy of waste management arrangements.	3.3 <ul style="list-style-type: none"> • All proposals reviewed by Waste Services prior to approval. 	Waste Services/ Property Services
25	Ensure adequate waste management arrangements are required as part of sporting club leases of council land or facilities.	1.1, 3.3 <ul style="list-style-type: none"> • All new/renewed sports club leases require provision of waste recycling facilities. 	Waste Services/ Property Services
26	Ensure the Council is updated on progress against these actions regularly.	<ul style="list-style-type: none"> • Progress report provided to the Council on an annual basis. 	Waste Services



Glenorchy City Council

Waste Management Strategy

Context

What's the problem with waste?

Waste creates several significant problems:

- If not managed properly waste creates pollution, contaminating air, soil or water. Some waste materials persist in the environment for decades or even centuries. Plastics are particularly troublesome. They are often carried to the sea by streams, wind or stormwater drains and slowly break down into smaller and smaller pieces, damaging and quite often killing wildlife. They release toxins as they breakdown, which can accumulate in living organisms.
- Waste depletes potentially valuable resources which may be needed in the future. This includes not only the materials that make up a discarded product but also the energy required to make it in the first place. Waste, by definition, means we are not using a resource to obtain the most benefit from it.
- Waste can create health and safety risks – for instance, from bacteria or dangerous articles in dumped rubbish (e.g. needles), particles from asbestos or toxins produced by chemical wastes.
- Waste requires costly infrastructure and facilities to manage, which we must all contribute to.
- Waste can be messy, smelly and can attract pests.
- There is just too much of it!

What happens to waste after we throw it out?

Where does your rubbish go after you have responsibly disposed of it? What happens to waste after the Council receives it depends on how well it is sorted.

Kerbside recyclables get recycled either locally or offshore. Some recyclable materials, such as metals, can be sold. Others, such as tyres and oil, are cost-neutral while the Council must pay facilities to accept some recyclable materials, such as glass.

Recycling helps conserve useful resources but can use a lot of energy and produce waste by-products and emissions. Materials can only be recycled a limited number of times as their quality declines. Additionally, recycling is not always cost-effective. Re-using products is cleaner, more efficient and cheaper. Smarter purchasing decisions are better still – choosing items with less packaging and not buying unnecessary items that will soon be thrown away.

Recyclables contaminated with non-recyclable products or placed inside bags get taken to landfill. Kerbside garbage and waste from public litter bins are also taken to landfill.

Most of the waste the Council receives has been deposited directly at Jackson Street Waste Management Centre by the public. If it has been properly sorted, recyclable materials are sent off for recycling, and re-usable materials are diverted to the Tip Shop for resale. Council and Tip Shop staff divert any recoverable materials from unsorted waste as they are able.

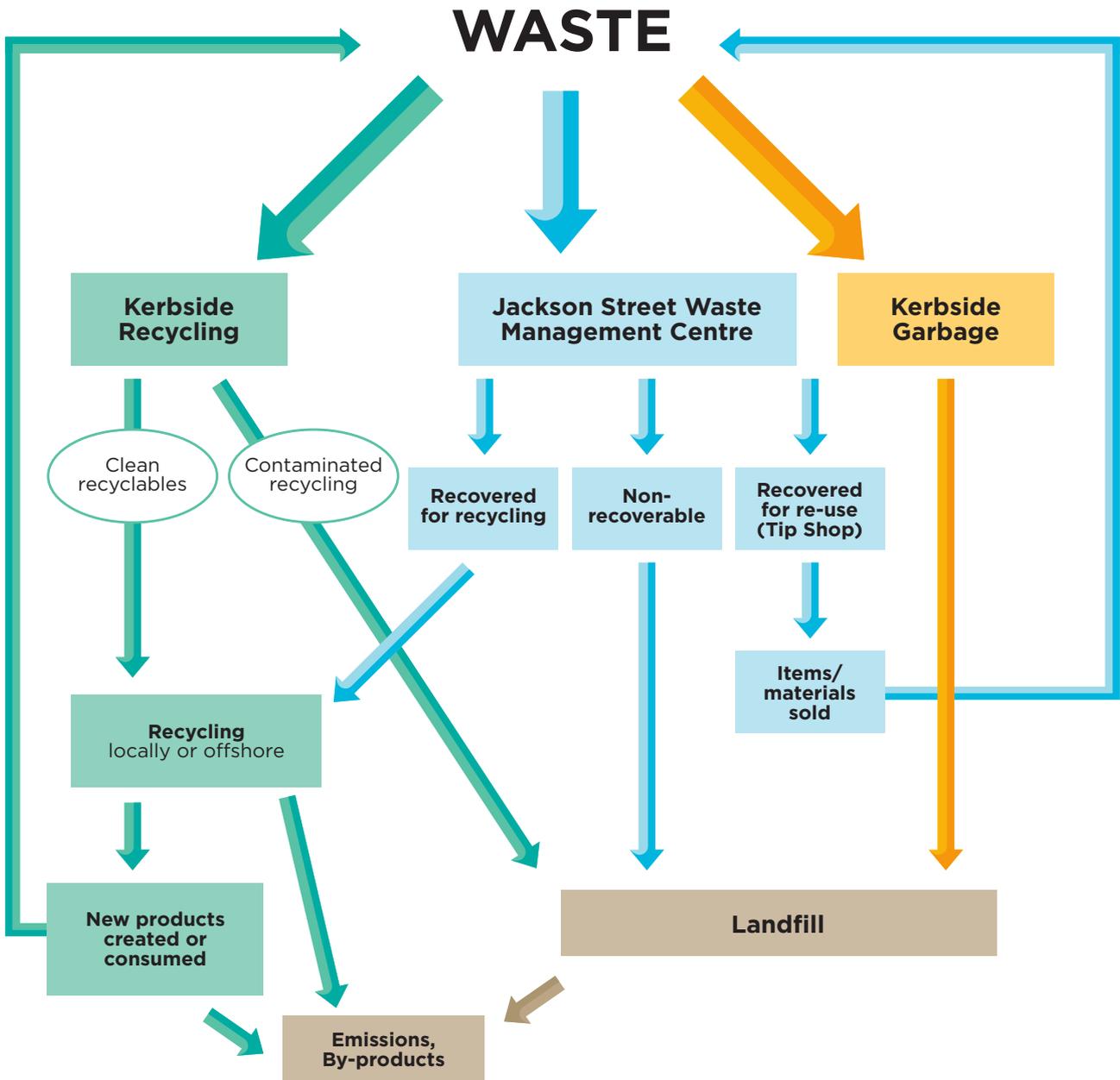
Vegetation is mulched/chipped and can be used for site rehabilitation. Clean fill (soil, rubble, etc.) is used as daily cover, as required by our EPA landfill permit. However, it takes up a lot of valuable space that could be better used for other materials, such as hazardous or special wastes.

Wastes containing organic matter tend to degrade in the landfill and generate leachates and gas emissions. These require resources to monitor and manage, including lining and capping the landfill, collecting gas for energy, measuring emissions and ensuring liquid waste is suitable for entering the sewage system.

The Council collects dumped rubbish and litter, which are taken to the landfill. Waste that is not disposed of properly or cannot be collected generally ends up in the environment, polluting soil or water bodies.

The following diagram summarises what happens to our waste.

Figure 1: What happens to waste from Glenorchy



Legislative and policy response to waste

Waste is both an important and a complicated issue. Both the Australian and State governments have put in place a range of mechanisms to deal with waste. These include:

Australian Government

- National Waste Policy, providing a 10 year direction for management of Australia's waste.
- Product Stewardship Act 2011 – a framework for managing the impacts of product disposal, recognising that those involved in producing, selling, using and disposing of products have a shared responsibility to manage disposal properly.
- The Australian Government also works with others to develop agreements to better manage waste (for instance, the National Packaging Covenant and product stewardship programs and schemes).

Tasmanian Government

- The Tasmanian Waste and Resource Management Strategy (2009) (under review), which provides a framework for developing waste avoidance and reduction programs and resource recovery activities, but does not contain numerical targets.
- *Environmental Management and Pollution Control Act 1994* and associated regulations.
- *Litter Act 2007*.
- The *Land Use Planning and Approvals Act 1993* provides control and regulation over the impact of land use.
- *Public Health Act 1997*.
- The State Policy on *Water Quality Management 1997*, which provides the overarching framework for managing water quality in Tasmania.
- EPA Classification and Management of Contaminated Soil for Disposal (Bulletin 105).
- The EPA Landfill Sustainability Guide – this guide is not legally binding but forms the basis for reviews of permit conditions and assessments of new landfill proposals from the time of its release.

Landfills generally require planning approval and a permit to operate, including conditions and approval of a submitted Environmental Management Plan.

The Council response to waste – our services

Glenorchy City is Tasmania's fourth largest city. It is home to around 47,000 residents and around 2,200 local businesses, both producing a significant quantity of waste. The Council provides the following waste management services to the community:

- Kerbside and recycling collections – kerbside and recycling bins are provided to all residential properties (around 21,500 bins for each waste type).
- Jackson Street Waste Management Centre, providing:
 - landfill disposal facility for household and small business waste, including hazardous household substances (batteries, paint cans, etc.) and some approved controlled wastes
 - free public recycling drop off facility
 - recycling areas for white goods/metals, tyres and greenwaste

- recovery centre (Australia's first tip shop)
- methane extraction to generate electricity and reduce emissions.

Approximately 130,000 tonnes of materials are disposed of at the landfill each year. Around half of this is cleanfill, which is used for cover material. Around 4,000 tonnes of material are recovered or composted. Note that the Waste Management Centre is also used by customers from outside the municipality who are not residents or ratepayers.

- Litter bins – around 500 bins in public places, collecting around 85 tonnes of litter each year.
- Removal of litter, dumped rubbish and dead animals from public land.
- Street sweeping.
- Education and information, including visits and presentations.
- Pollution control – monitoring and management of emissions and leachates from landfill.

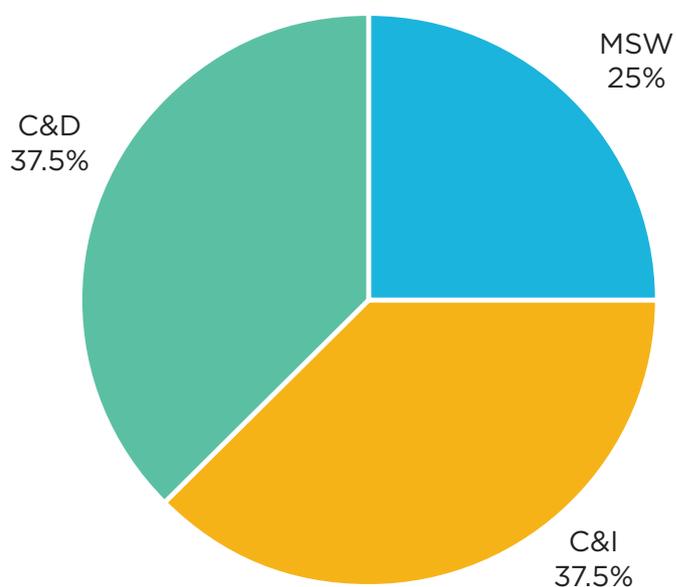
Waste generation, disposal and recovery in Australia

Australians generate around 2.7 tonnes of waste each. This per capita quantity is higher than many other developed economies and the proportion we recycle is a little lower. Although individually we are reducing the waste we produce, the total amount of waste produced Australia-wide is increasing over time.

Core waste generated by waste stream

Waste is largely generated by three key waste streams – municipal solid waste (MSW), commercial and industrial (C&I), and construction and demolition (C&D). Of the waste generated from these three sources ('core waste'), the C&D and C&I sectors contribute the largest portions (in similar quantities).

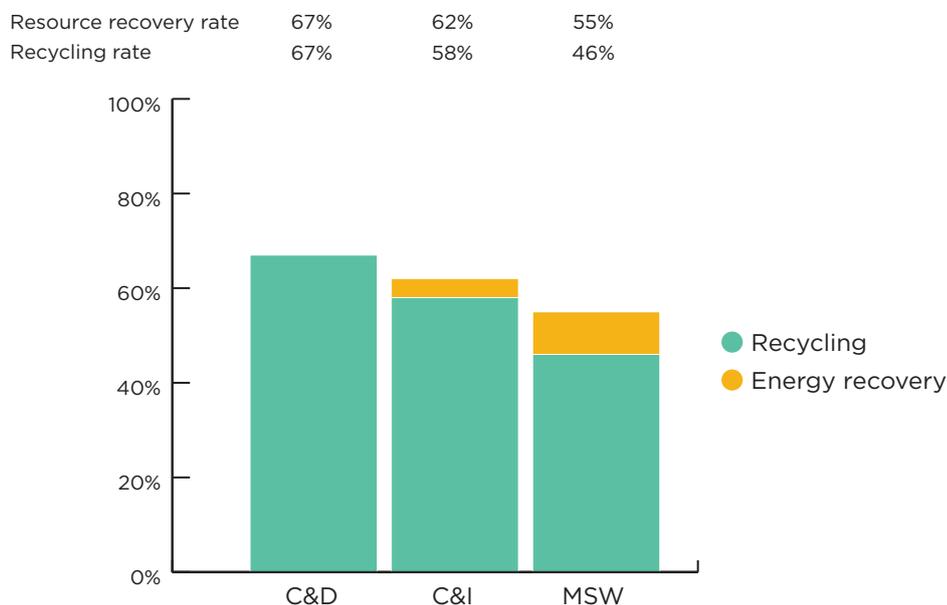
Figure 2: Core waste in Australia by waste stream (Source: National Waste Report 2018)



Resource recovery by waste stream

Over half of core waste generated is recovered by recycling or energy recovery. Recovery from the C&D waste stream is highest. C&D waste tends to contain some high value materials and has a higher potential for recycling. Less than half of MSW is recycled.

Figure 3: Resource recovery and recycling rates of core waste by source stream, Australia 2016-17. (Source: National Waste Report 2018)



Changes in recycling of core waste in Australia – by stream and per capita

There have been some significant changes in volumes of waste generated, recycled and disposed of (i.e. without being made use of). The following table shows changes over an 11-year period (2006-07 to 2016-16) by waste stream. These are shown as total volumes for Australia and as volumes per capita.

Table 1: Changes in volume of core waste generated, recycled and disposed of by waste stream, 2006-07 to 2016-16. (Source: National Waste Report 2018)

Waste stream	CHANGE IN VOLUME OF WASTE GENERATED		CHANGE IN VOLUME OF WASTE RECYCLED		CHANGE IN VOLUME OF WASTE DISPOSED OF	
	Total annual volume	Per capita	Total annual volume	Per capita	Total annual volume	Per capita
MSW	↑ 7%	↓ -10%	↑ 31%	↑ 11%	↓ -11%	↓ -25%
C & I	↑ 8%	↓ -8%	↑ 17%	↓ -1%	↓ -2%	↓ -17%
C & D	↑ 20%	↑ 2%	↑ 34%	↑ 13%	0%	↓ -15%

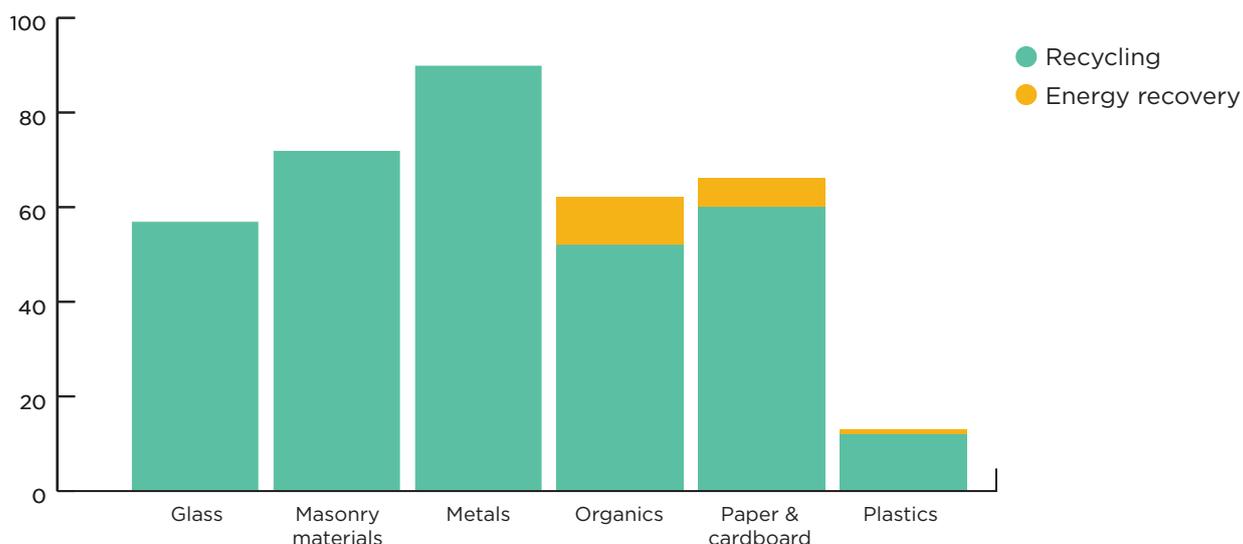
Waste recovery by type

Resource recovery includes recycling of materials and recovery of energy (e.g. capture of gas from decomposition for conversion into electricity). Recovery rates vary across resource types. Metals, for instance, have a high value resulting in a recovery rate of 90% compared with plastic, only 13% of which is recovered.

The graph below shows recovery rates for the most common waste types – masonry materials (concrete, bricks and rubble), organics (food, garden organics, timber, agricultural and fisheries waste), glass, metals, paper, cardboard and plastics.

Figure 4: Recycling and energy recovery rates of common waste types in Australia. (Source: National Waste Report 2018)

Resource recovery rate	57%	72%	90%	62%	66%	13%
Recycling rate	57%	72%	90%	52%	60%	12%



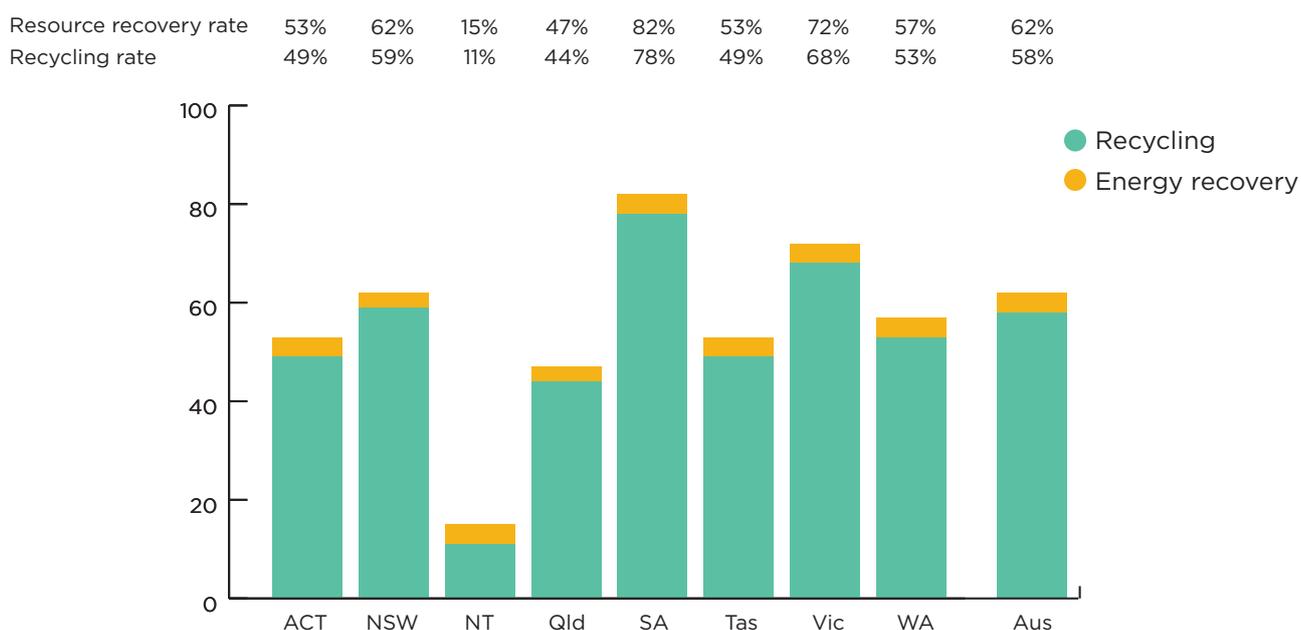
Waste generation, disposal and recovery in Tasmania

There is insufficient up to date and reliable waste data in Tasmania to provide a comprehensive comparison of the state's performance against other Australian states in relation to the generation and recovery of wastes. This section provides a general outline of Tasmania's performance based on the limited data available.

Tasmanian resource recovery rates

The following graph compares the percentage of waste recovered in Tasmania with the other Australian states. Tasmania's recovery rate is 6th highest, equal with ACT.

Figure 5: Estimated resource recovery and recycling rates of core waste by jurisdiction, 2016-17. (Source: National Waste Report 2018)⁴



The following table summarises changes in waste generation, recycling and disposal for all Australian states and territories over the 11 year period 2006-07 to 2016-17.

Table 2: Change in total volume of core waste generated by waste stream. (Source: National Waste Report 2018)

JURISDICTION	CHANGE IN TOTAL ANNUAL VOLUME OF CORE WASTE 2006-07 to 2016-17	CHANGE IN TOTAL ANNUAL VOLUME RECYCLED 2006-07 to 2016-17	CHANGE IN TOTAL ANNUAL VOLUME DISPOSED OF 2006-07 to 2016-17
ACT	↑ 34%	↓ -5%	↑ 164%*
NSW	↑ 14%	↑ 14%	↑ 14%
NT	↓ -34%	↓ -12%	↓ -37%
Qld	↑ 17%	↑ 18%	↑ 21%
SA	↑ 30%	↑ 37%	↓ -1%
Tas	↑ 13%	↑ 58%	↓ -7%
Vic	↑ 13%	↑ 40%	↓ -25%
WA	↓ -11%	↑ 49%	↓ -42%

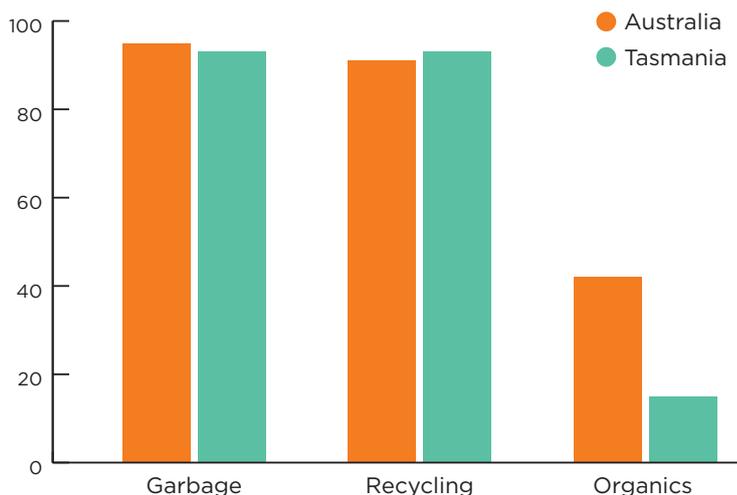
* Note: Disposal of waste rose substantially in ACT in 2016-17 due to large quantities of demolition waste under an asbestos removal program.

From the above graph and table it can be seen that while Tasmania has a low recycling rate compared with other states and territories, it has made the most progress in the percentage of waste now recycled.

Local Government Services

Approximately 93% of Tasmanian households are provided with a garbage bin and recycling bin (similar to most of Australia). However, only 15% of Tasmanian households are provided with some type of organics bin (either a garden waste bin only or a combined food organics and garden organics bin). This compares with 42% of households nationwide and 92% of households in South Australia.

Figure 6: Estimated percentages of households receiving kerbside services - Australia overall and Tasmania. (Source: National Waste Report 2018)



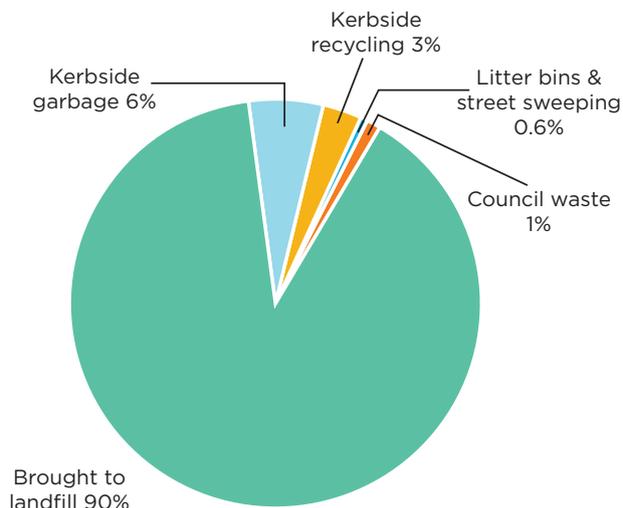
As at July 2018, only 88 out of 537 local governments around Australia provided a FOGO service, including three Tasmanian local governments.

Glenorchy Municipality

Sources of waste

Most of the waste received by the Council is brought directly to the Jackson Street Waste Management Centre by the general public, including residents, ratepayers and businesses of Glenorchy as well as the wider public outside of the municipality. The following graph shows where Glenorchy’s waste comes from and the proportions for each.

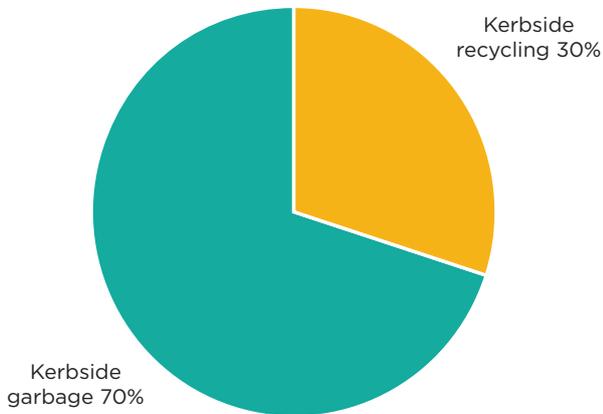
Figure 7: Waste received by the Glenorchy City Council in an average year by source



Kerbside garbage and recycling

Annual tonnages of kerbside garbage and recycling have remained fairly stable over the last five years at around 11,500 tonnes per year. Approximately 70% of this is garbage and 30% is recycling – this has also stayed fairly stable.

Figure 8: Kerbside recycling as a percentage of total kerbside collection, 2017-18

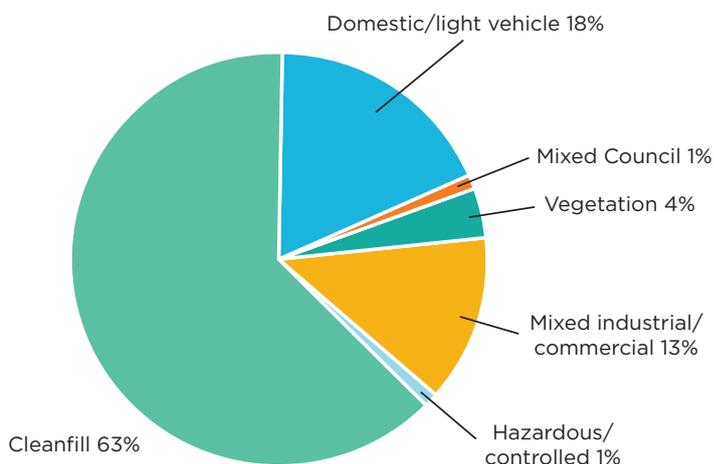


Jackson Street landfill

On average, approximately 130,000 tonnes of waste is disposed of in the Jackson Street landfill each year. This includes the kerbside collection but does not include material received at the tollbooth but diverted for resource recovery (metals, cardboard, glass, etc.).

The following chart shows the composition of this waste.

Figure 9: Composition of non-recovered waste received at Jackson Street landfill in an average year

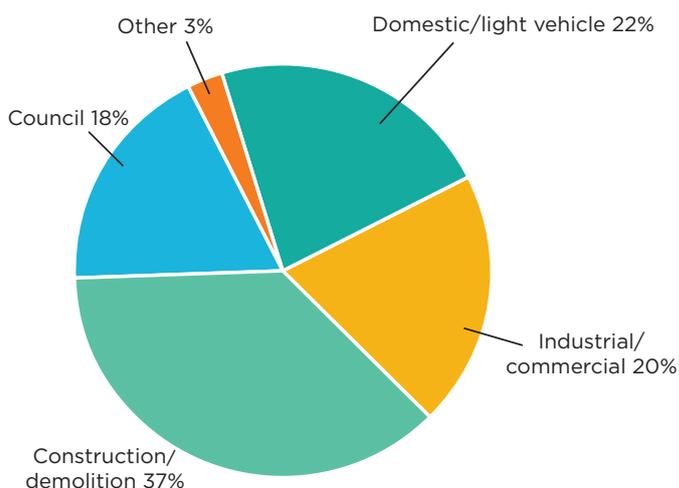


Almost two thirds of the material deposited in the landfill by weight is cleanfill (soil, rubble and similar materials). This is followed by mixed domestic/light vehicle waste (including kerbside garbage and light vehicle/small business waste).

Cleanfill has been used at the landfill for daily cover and has therefore been an essential part of landfill operations. However, cleanfill takes up a substantial amount of landfill space and reducing volumes of this material could extend the life of the landfill significantly.

By sector, the largest quantity of waste by weight comes from construction and demolition.

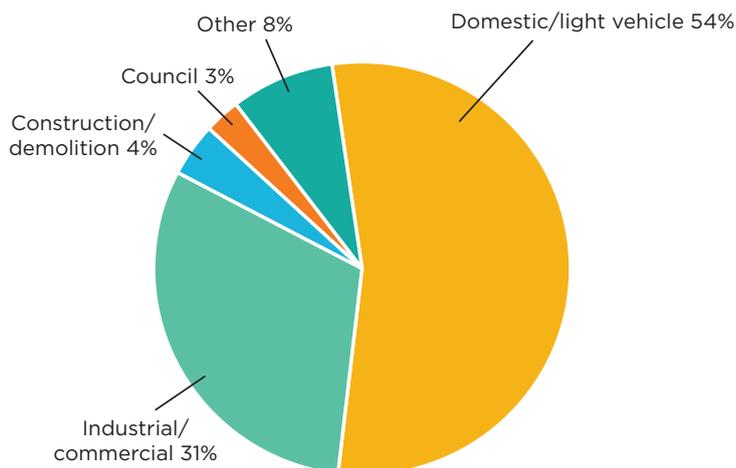
Figure 10: Comparison of tonnages of waste received at Jackson Street landfill by sector



Note that domestic waste includes kerbside garbage and public litter bins.

If cleanfill is excluded, over 50% of waste to landfill is disposed of by domestic and light business users, as shown below.

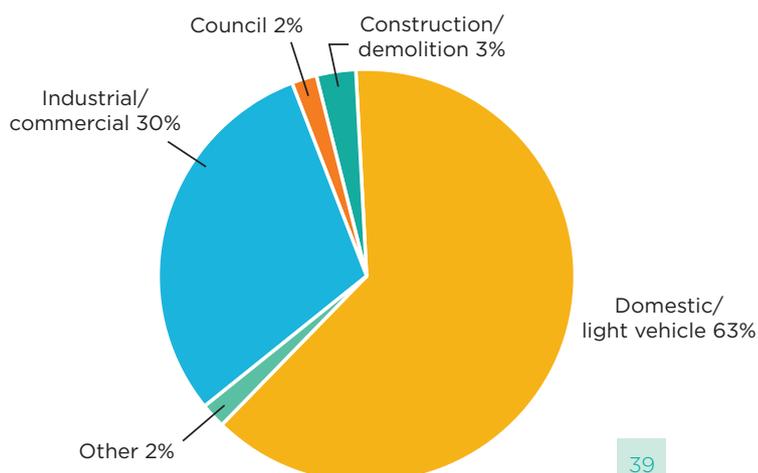
Figure 11: Comparison of average quantities of waste received at Jackson Street landfill by sector, excluding cleanfill



Mixed waste

Mixed waste is all the waste that is received at landfill that has not been separated to remove recyclables. Almost two thirds of this is generated by the domestic/light vehicle sector (including small businesses) and a further 30% from the industrial/commercial sector. Council mixed waste includes rubbish dumped by the general public and collected and disposed of by Council staff, as well as waste from Council activities.

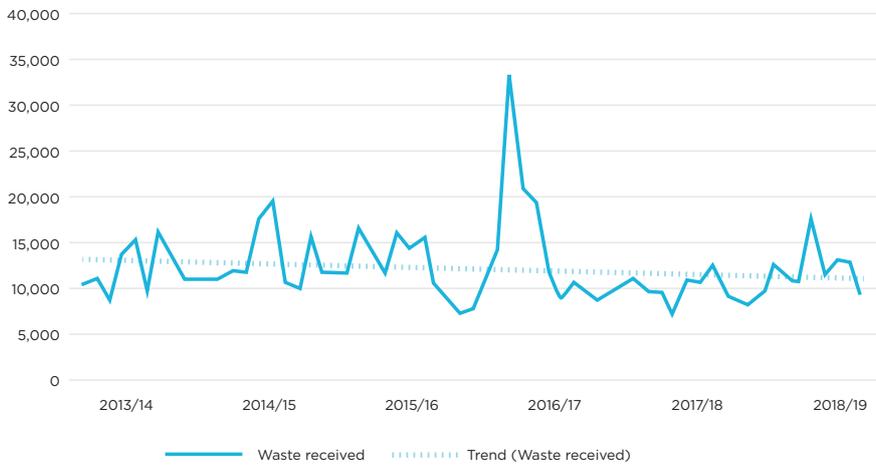
Figure 12: Comparison of mixed waste received at Jackson Street landfill by sector



Five year trends

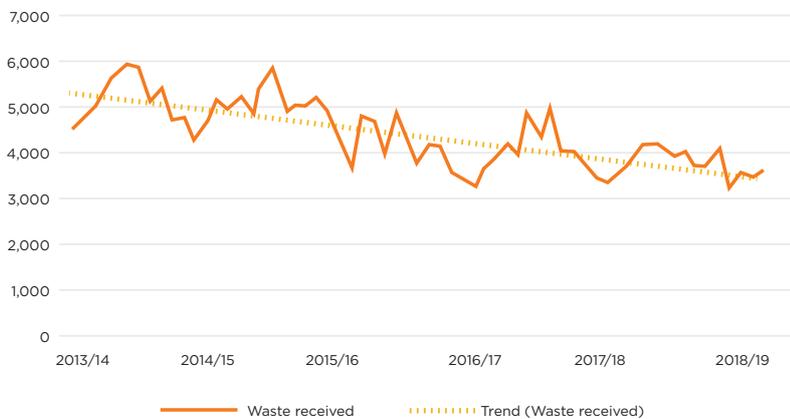
Quantities of waste received at the Jackson Street landfill vary significantly from month to month. However, the overall trend has been a slight reduction in waste received over time.

Figure 13: Tonnes of waste received over 5 years at Jackson Street landfill



Cleanfill disposal is primarily responsible for the degree of fluctuation. Quantities of cleanfill received have increased over the 5 year period. If cleanfill is excluded, the trend towards decreasing amounts of waste received is more apparent.

Figure 14: Tonnes of waste received over 5 years at Jackson Street landfill, excluding cleanfill



These graphs highlight the impact of cleanfill on the total amount of waste received, which is a key consideration in managing landfill space going forward. Future management of this material is also a significant issue for the C&D sector, as cleanfill comprises over 90% of C&D waste. If this material were no longer required for landfill operations, the C&D sector would require some assistance to identify alternative ways to manage this material.

Current risks and challenges

Landfill capacity

The Jackson Street landfill has served the community for over three decades and has almost reached the end of its life. If disposal continues at its current rate, the landfill has less than two year's remaining capacity left. The Council is progressing various options to develop the most appropriate long-term alternative to the landfill, and to ensure adequate transition arrangements are implemented to avoid any break in services to the community.

Waste separation

Proper separation of wastes saves space in the landfill, conserves resources and reduces gas emissions and leachates from the landfill. Over 90% of the mixed waste received by the Council is disposed of by commercial/industrial and residential/small business customers. Increased separation by these sectors would provide significant benefits for the city's waste management.

Areas outside of the Council's control

While waste disposal is seen as a core function of the Council, control of many significant factors affecting sustainable outcomes lies outside of local government (e.g. with State or Australian governments, or other entities).

Waste reduction schemes such as product stewardship (in which those involved in producing and selling products share responsibility with consumers and government for the wastes their products generate) and container deposit schemes could provide significant benefits to the municipality but these require action at state or national levels. In these situations, the Council can advocate on behalf of the community, and collaborate and participate with others as opportunities arise.

Balancing community expectations with waste management imperatives

Our community expects a convenient and cost-effective waste disposal service. It also values the amenity of the urban environment and a healthy natural environment, and understands the need to use resources wisely and to minimise negative effects of waste.

The Council needs to continue to provide convenient, cost effective services but at the same time must incentivise waste separation and promote waste reduction practices across the community. This could include community education to promote responsible purchasing decisions and waste management practices, pricing signals, advocacy and, where feasible, new services and technologies that make it easier for the community to engage in these behaviours.

Rubbish dumping

Dumped rubbish and litter is harmful to our natural and built environment and can create health and safety risks. Illegal dumping may result from a number of causes but these generally boil down to convenience and cost avoidance/profitability.

Short-term solutions are requested from time to time by members of the community. These include free access to the landfill now and then, special kerbside collections of large items or large volumes of waste or other similar services. However these options do not provide a viable long-term solution to illegal disposal of waste and may be counter-productive in view of the necessity for society to reduce waste.

Council has a role to play in educating and assisting the community, encouraging reporting of dumping incidents and collaborating on joint initiatives as well as advocating for broader solutions, such as greater product stewardship.

Opportunities

Council is committed to continuous improvement in its waste management practices and to promoting sustainable waste management within and beyond its community. A key component of this is identifying and taking advantage of opportunities as they present themselves or encouraging and facilitating others to do so. Key opportunities include the following:

- **Collaboration with others**

Sharing of information, ideas and resources can improve effectiveness for all and reduce costs.

- **Data systems and management**

Quality data that is readily available facilitates good decision-making.

- **Adopting new behaviours and attitudes**

The limited life of the Jackson Street landfill is a timely reminder that our current waste practices are not sustainable over the long-term. With the need to develop an alternative long-term solution comes the opportunity to review our practices and the way we value resources, and to increase awareness of the economic, social and environmental costs of dealing with waste.

The Council believes that Glenorchy can be a leader in waste recovery. Changes to the way the community views waste and innovation are keys to greater progress.

- **Supporting and assisting local businesses that provide reuse/recycling services**

Small businesses and non-profit organisations supplying reuse/recycling services in the municipality help reduce waste while providing employment for our people. More jobs are created from recycling than from landfill. The Council can assist these organisations by promoting their activities in the community and connecting them to customers and each other.

- **New technologies**

New technologies can provide significant advances and opportunities in waste management. It is important that the Council continues to keep itself abreast of developments of potential benefit.





Glenorchy City Council

Waste Management Strategy

**2019
Progress
Report**

The 2013 strategy document included actions to assist the Council to meet its objectives by 2023. These have been reviewed to gauge progress and ensure relevance and effectiveness. This report outlines progress since 2013.

Table 3: Progress against 2013 strategy actions

ACTION	STATUS	PROGRESS REPORT
Infrastructure and Governance		
<i>Strategy: Provide sustainable and lasting infrastructure for future waste management needs</i>		
Enter in to a short-term commercial arrangement with a regional authority.	On track/ partially complete	<p>The Council is a member of the Southern Tasmanian Councils Authority, a regional organisation that works cooperatively to address regional issues. The Council has previously also joined Waste Strategy South, a regional committee focusing on waste, but withdrew to focus on Glenorchy's waste management challenges.</p> <p>The Council has made significant progress on planning for its infrastructure requirements over the short and medium terms, including developing projects to address landfill capacity and optimisation, and the introduction of a third bin for FOGO.</p> <p>There are potentially significant benefits from working collaboratively on waste issues going forward and the Council intends to increase its participation with regional groups.</p> <p>These actions are replaced by actions 9 and 21 in the 2019 action plan.</p>
Decide on a long-term method for the management of waste in the regional authority.		
Work with surrounding councils and regional authority to develop a regional waste management plan.		
Monitor gas collections and emissions profile at the Jackson Street landfill.	Complete/ ongoing	<p>Landfills can produce gases (such as methane) for many years, even after they are closed. These gases can be harmful to the environment and to human health. Capturing gases for conversion to energy reduces emissions and provides a further benefit for society. Ongoing independent monitoring of gas emissions is undertaken at the Jackson Street landfill and the closed Chapel Street landfill. The results of this monitoring are reported to the Environmental Protection Authority.</p> <p>The Council has partnered with Sustainable Energy Infrastructure to enable collection of gas for conversion into electricity on site. In the most recent 12 month reporting period, over 54,000 tonnes of CO₂ was removed (equivalent to removing almost 16,000 cars from the road over the same period). The conversion of gas produced almost 9,000MWh of electricity – enough to meet the needs of over 1,500 average Tasmanian homes.</p> <p>This action is carried over to the 2019 Action plan – action 15.</p>

ACTION	STATUS	PROGRESS REPORT
Infrastructure and Governance		
<i>Strategy: Provide sustainable and lasting infrastructure for future waste management needs</i>		
Review pricing structure at landfill to drive further resource recovery and provide a price signal to the commercial and industrial (C&I) and construction and demolition (C&D) waste sectors.	Complete/ ongoing	<p>The Council reviewed pricing at the landfill in January 2019. The modest increases adopted have led to encouraging reductions in waste from these sectors.</p> <p>A substantial proportion of C&D waste is comprised of cleanfill which is used for daily cover at the landfill. The Council is investigating alternative technologies to reduce cover material, which could significantly increase valuable landfill space.</p> <p>The Council will continue to review pricing along with using other measures (e.g. restrictions on types or volumes of waste received). At the same time, the Council will work with the C&I and C&D sectors to adopt better separation practices and to identify alternative ways to manage materials rather than taking them to landfill.</p> <p>This action is replaced in the 2019 action plan by actions 1, 3 and 12.</p>
Plan to build a new transfer station facility at the Derwent Park Waste Transfer Station site or Jackson Street Waste Management Centre once a deal has been struck with a regional facility.	On track/ partially complete	<p>The Council has commenced a project to develop long-term alternative arrangements once the existing landfill is no longer available. A new transfer station is under consideration as part of this project.</p> <p>This action is carried over as action 21 in the 2019 action plan.</p>
Review landfill operations to ensure that excess cover is not being used (and therefore decreasing the lifespan of the landfill).	On track/ partially complete	<p>This work has commenced with the Council developing a landfill optimisation plan which will include multiple mechanisms to ensure cover used is only what is needed.-</p> <p>This action is replaced by action 12 in the 2019 action plan.</p>
Kerbside Waste Services		
<i>Strategy: Provide the community with an acceptable waste management service that works to divert materials from landfill</i>		
Undertake a fully compliant kerbside domestic bin audit to determine a more accurate understanding of waste streams.	On track/ partially complete	<p>The Council's last audit was undertaken in 2015. These audits provide valuable information on waste composition, community engagement and waste separation, to help us focus our efforts to best effect, and will continue to be undertaken.</p> <p>This action is carried over to the 2019 action plan as action 22.</p>

ACTION	STATUS	PROGRESS REPORT
<p>Retain 140L fortnightly garbage service.</p> <p>Continue process to upgrade all 140L recycling bins to 240L recycling bins as they are maintained.</p>	Complete/ongoing	<p>The strategy considered several options for sizes of kerbside bins and frequency of collection (fortnightly or weekly). Analysis showed that retaining the 140L waste bin on a fortnightly collection schedule is the best option to balance user convenience, cost-effectiveness and improved waste management outcomes.</p> <p>One of the best ways to reduce waste is to separate what can be recycled or reused. To assist the community to do this, the Council upgraded the standard recycling bin to 240L and is planning to introduce a third bin to separate food and garden waste. In this way, a substantial part of what would have been disposed of into landfill can be recovered.</p> <p>The Council recognises that some households with special circumstances may wish to have larger bins. It will develop criteria for assessing requests for upgrade for an additional fee.</p> <p>Provision of a fortnightly kerbside collection and development of bin upgrade criteria are included in the 2019 action plan as actions 17 and 18. Upgrade of recycling bins is not carried over as this work is complete.</p>
<p>Price commercial recycling service so that it is cheaper than garbage to encourage businesses to recycle.</p>	Complete/ongoing	<p>Commercial recycling prices have been reviewed to encourage recycling and will continue to be reviewed from time to time. However, the number of businesses receiving this service is small and the Council intends to focus on the sector more broadly to improve greater separation of waste and better disposal practices sector-wide.</p> <p>This action is superseded by actions 1 to 5.</p>
<p>Investigate options for a third kerbside bin for domestic food organics and garden organics.</p> <p>Investigate suitable composting systems for collected food organics and garden organics.</p>	On track/partially complete	<p>Community consultation has indicated a high level of support for the proposal to introduce a third kerbside bin dedicated to FOGO. In particular, there was strong support for reducing waste to landfill, as well as converting FOGO into useful compost for gardening and agriculture.</p> <p>A business case for introducing a FOGO is under development at time of writing. The Council will then develop a plan to provide FOGO bins to Glenorchy residents.</p>
<p>Introduce a third kerbside bin for domestic food organics and garden organics.</p>	Not started	<p>This work will continue as actions 19 and 20 in the 2019 action plan.</p>

ACTION	STATUS	PROGRESS REPORT
Commercial and Industrial Waste		
<i>Strategy: Assist the Commercial and Industrial sector to decrease waste generation and increase diversion</i>		
Review landfill prices to create a price signal to the C&I sector and promote further resource recovery.	Complete/ ongoing	As above.
Provide education to the C&I sector to help them to divert waste materials.	On track/ partially complete	In 2015 the Council established a new service to develop and implement an education campaign. The initial focus of the campaign has been on schools and community groups.
Provide free waste audits to premises to assist them with increased diversion.	Not started	<p>Educating children not only builds understanding and responsible behaviour, it also helps spread the message to households generally.</p> <p>Working with the wider public and the C&I sector are now a priority as these produce high volumes of mixed waste and have not made significant progress in separating waste. This will include education, assistance and incentives.</p> <p>The Council has made a free waste audit service available but there has not been high demand for this service. The Council will focus instead on education and providing information for businesses interested in conducting an audit of their wastes.</p> <p>These actions are superseded by actions 1 to 5.</p>
Reduce the cost of the kerbside commercial collection service.	Complete/ ongoing	Note this action refers to kerbside recycling – this is covered above.
Promote local companies who offer recycling to the C&I sector.	Not started	<p>Promotion of local companies offering recycling to all sectors of the community is beneficial to both suppliers and potential customers. The Council is committed to supporting local businesses and providing opportunities for individuals and companies to source useful products and materials locally, all the while keeping resources out of landfill.</p> <p>The Council will promote and assist reuse and recycling businesses and other organisations in the area, including maintaining information on Council's website. Council will continue to support a "tip shop" at the Jackson Street Waste Management Centre.</p> <p>This action is carried over into the 2019 action plan as action 5.</p>

ACTION	STATUS	PROGRESS REPORT
Construction and Demolition Waste		
<i>Strategy: Assist the Construction and Demolition sector to decrease waste generation and increase diversion</i>		
Review landfill prices to create a price signal to the C&D sector and promote further resource recovery.	Complete/ ongoing	As for the C&I sector above.
Make it mandatory to provide a waste minimisation and resource recovery plan with applications for planning permits.	Not started	While this requirement would give the Council the opportunity to ensure that developments have adequate methods in place to manage C&D waste, Tasmania's planning rules do not provide the flexibility for the Council to implement this option. This action has not been carried over into the 2019 action plan as it cannot be completed.
Promote those companies who offer recycling for building materials to the C&D sector.	Not started	As for C&I waste above.
Design an education program for the building industry to teach them to source separate on site.	Not started	As for C&I waste above.
Ensure that all C&D materials generated from Council operations, such as roadworks, are managed appropriately and recycled where possible.	On track/ partially complete	The Council separates wastes and recyclables across many of its operations but there is scope to increase separation and recycling of materials from Council works. The Council is developing new procedures to divert reusable works materials from landfill. This action is superseded by action 6 in the 2019 action plan.
Provide free waste audits to the C&D sector to assist them with increased diversion.	Not started	As for C&I waste above.
Waste Education		
<i>Strategy: Ensure that the community is informed and has the right tools to make appropriate waste management choices</i>		
Consider a \$2 per tonne landfill levy to cover an education program to reduce tonnes to landfill.	Complete/ ongoing	A levy was included in landfill pricing and an education program has been developed and is ongoing. This action is not carried over into the 2019 action plan as it has been completed.
Provide an education program with any roll out of a new kerbside service.	Not started	No new kerbside service has been introduced since 2013 so no action has been required. However, an education program will be provided with the rollout of the new FOGO service to assist households to transition to the new system with confidence. This action continues as action 20.

ACTION	STATUS	PROGRESS REPORT
Update the website annually with the latest waste management information.	Complete/ ongoing	<p>The website is updated regularly (not just annually). Council will continue to regularly update waste information, ensuring that changes to services or charges are publicised in advance and the website is updated with immediate effect.</p> <p>This action is superseded by actions 2 and 24.</p>
Provide community with annual waste and recycling calendar.	Complete/ ongoing	<p>The Council has continued to provide a very useful guide/ calendar to all households annually and to new ratepayers as they arrive in the municipality. The guide is also available from the Council Chambers.</p> <p>As well as bin collection dates, the guide provides details of the range of services provided by the Council as well as up-to-date information on what can be recycled (such as soft plastics) and tips on bin placement, how to dispose of various wastes (such as asbestos) and other topics.</p> <p>The Council will continue to provide essential and useful waste information in a form that is easily accessible to residents and ratepayers. This is covered by action 24.</p>
Continue to provide home compost bins to the community at a reduced price and complement with composting education.	On track/ partially complete	<p>Compost bins have been provided to schools. This service will continue but, with the introduction of a FOGO collection, provision of compost bins to the wider community will no longer be needed.</p> <p>This action has not been carried over into the 2019 action plan.</p>
Provide schools education on resource recovery.	Complete/ ongoing	<p>The Council has delivered waste education presentations to over 6,000 students since the schools education campaign was established at the beginning of 2016. Children learn about the impacts of both waste and the choices they make in their daily lives. The Council will continue to educate children to make choices that will benefit them in the future.</p> <p>This action is carried over as action 1.</p>
Assist community organisations to provide recycling at events.	Complete/ ongoing	<p>The Council provides guidelines and information to assist community organisations to provide recycling at events, and assesses event applications to ensure adequate facilities are provided. This helps reduce litter and over-reliance on public litter bins. The Council also provides sustainable waste management presentations to community groups on request.</p> <p>This action is carried over to the 2019 action plan as actions 1 and 28.</p>

ACTION	STATUS	PROGRESS REPORT
Work with the SWSA and STCA regional waste group to participate and support regional waste education campaigns.	On track/ partially complete	<p>No arrangement has been made for the Council to participate in a regional campaign to date due to its shift in focus and withdrawal from Waste Strategy South. Instead, as discussed above, a Council waste education campaign was developed and implemented.</p> <p>With significant progress made on local waste management issues, the Council is now well placed for regional cooperation, which may include joint education campaigns. In the meantime, the Council will continue to implement and develop its waste education campaign for Glenorchy.</p> <p>This action is replaced by actions 1, 9 and 10.</p>
Data Collection		
<i>Strategy: Maintain sound data collection practices that provide accurate data to base waste management decisions around</i>		
Undertake three yearly domestic waste bin audits including composition and bin fullness.	Complete/ ongoing	As above.
Work with Council's kerbside collection contractors to obtain sound data on contamination rates of recyclables and total materials recovered.	Complete/ ongoing	<p>The Council receives data on numbers of bins and volumes of waste collected in the municipality and rates of contamination of recycling across the Southern Region more generally. The Council also undertakes kerbside audits from time to time to determine contamination rates by suburb.</p> <p>This information is useful for targeting education programs and ensuring an effective collection service.</p> <p>The Council will continue to collect information from its contractors but this is not carried forward as an action as it is covered under contractual arrangements.</p> <p>Undertaking kerbside audits will continue as set out in action 22.</p>
Undertake a landfill audit at the Jackson Street landfill to obtain more detailed information on the types of C&I and C&D materials entering the facility.	Complete/ ongoing	Data collected at the tollbooth provides a breakdown of waste types brought to landfill by these sectors. This has provided valuable information to help develop targeted education and to extend the life of the landfill. No new action point has been developed as tollbooth data is collected as a standard process.
Litter and Illegal Dumping		
<i>Strategy: Reduce illegal dumping and litter in the region</i>		
Set up an internal reporting database for incidents of illegal dumping.	Complete/ ongoing	<p>The Council has established and continues to maintain a database of illegal dumping incidents. Council is also working with other agencies to develop better integrated methods of managing rubbish dumping.</p> <p>This action is not carried over to the 2019 action plan as it has been completed.</p>

ACTION	STATUS	PROGRESS REPORT
Undertake an investigation into illegal dumping in the municipality to determine whether or not it is an issue.	Not started	<p>The Council does not intend to undertake any investigatory work as it has sufficient information on the locations and impacts of litter and dumping for planning purposes. Instead, the Council will focus on developing a preventive project to address “at risk” households or sites – for instance, households that are having difficulty disposing of their waste correctly or accumulating waste on site. The Council will also promote the reporting of dumping and work with other government agencies to reduce litter in the municipality.</p> <p>These actions are replaced by actions 25 to 27.</p>
Undertake a litter survey in the region to determine whether or not litter is an issue.		
Once the extent of the problem has been identified, implement targeted illegal dumping and litter programs.		
Investigate grant opportunities to fund illegal dumping and litter programs.	Complete	<p>The Council has not identified any grant opportunities to date but has collaborated with other agencies to respond to littering and dumping issues, including regular litter removal by community service workers. The Council will continue to collaborate with others where appropriate opportunities arise.</p> <p>This action is replaced by action 26.</p>
Internal Council Operations		
<i>Strategy: Ensure that all policy and planning decisions lead by example</i>		
Ensure all Council activities (including events) follow the objectives outlined in this strategy.	On track/ partially complete	<p>All event proposals for both Council and non-Council events are reviewed by the Waste Services team to ensure waste generated at the event will be managed appropriately.</p> <p>This action is replaced in the 2019 action plan by actions 6, 7, 8 and 28, which are more specific, are easier to assign responsibility to and to measure progress against.</p>
Ensure Council implements an internal sustainable purchasing policy and recycling program.	On track/ partially complete	<p>The Council has implemented an internal recycling program, including providing receptacles, advice and information to staff on recycling a wide range of materials. The Council provides recycling receptacles for mobile phones and batteries, soft plastics (wrappers, plastic bags, etc), fluorescent tubes and pens/pencils as well as the usual paper/ cardboard, aluminium cans, glass, etc.</p>
Investigate the provision of recycling at all Council facilities.	Complete/ ongoing	<p>The Council will develop an internal sustainable purchasing policy for adoption in 2019.</p> <p>These actions continue in the 2019 action plan – actions 7 and 8.</p>
Undertake a five year review of this strategy and strategic actions.	Complete/ ongoing	<p>This document satisfies this requirement. The Council intends to continue reviewing the strategy regularly.</p>

Other activities

As well as the actions above, the Council has undertaken many other activities to manage waste responsibly and efficiently in Glenorchy. Key activities are summarised below.

Participation in national and regional initiatives

The Council has implemented, promoted and participated in a range of sustainability projects which have been recognised state and nationwide.

In 2015, the Council received three national accolades in the Keep Australia Beautiful (KAB) National Sustainable Cities awards. These included receiving the Young Legends National Award for work with young people and schools and high commendations for environmental sustainability, heritage and culture. In the same year Glenorchy was named Tasmania's sustainable city in the KAB Tasmania Awards.

In 2017, the Council received awards for its Asbestos Awareness campaigns, Garage Sale Trail, and Mobile-Muster work, and received nine state awards including Litter Prevention and Waste Management at the KAB awards ceremony held in Burnie.

The Council also received multiple awards over other years for its achievements and contributions to waste reduction and sustainable management.

Schools art competition

In 2017, the Council introduced an annual art competition for schools in Glenorchy to explore an issue or theme relating to waste. In 2018, the theme was "What does a litter free world look like?" Artworks are displayed at the Moonah Arts Centre and the winning artwork is displayed on the Council's litter truck. The winning school receives a "friendship seat" made of recycled soft plastic. This initiative encourages children to explore waste issues in a creative way and celebrates their work.

The competition received very positive feedback and the Council intends to continue and expand this initiative over the next five years.

Soft plastics recycling

A soft plastics recycling scheme has been operating since 2013, but many in the community have not been aware of it as it is not a Council service and not part of kerbside collection. Under this scheme, soft plastics can be deposited at participating supermarkets for recycling into durable and low maintenance products (e.g. decking/fencing materials, park benches and bollards). Soft plastics are particularly harmful in the environment and the Council considers the recycling scheme an important innovation. The Council provides information on these services as well as supplying receptacles around its premises for soft plastics.

Improved kerbside contract arrangements

In March 2018, the Council entered into a new domestic waste collection contract for both refuse and recycling, resulting in several key improvements, particularly in the way we report and track bin collections. The Council's kerbside bin contractor now provides live tracking information about current truck movements and bins. This helps Council provide better customer service and respond to queries.

Litter traps to protect the marine environment

The Council maintains two litter traps at Humphreys Rivulet and Barossa Creek that collect rubbish carried downstream. As a result, over two and a half tonnes of litter on average is prevented from being discharged into the marine environment each year. The Council was awarded the 2016 KAB Litter Prevention, Waste Management and Resource Recovery Prize for the traps.

ACRONYMS, ABBREVIATIONS AND DEFINITIONS

C&I	Commercial and Industrial. C&I waste is produced by institutions and businesses and includes waste from schools, restaurants, offices, retail and wholesale businesses, and industries including manufacturing.
C&D	Construction and Demolition. C&D waste is produced by building and demolition activities, including road and rail construction and maintenance and excavation of land associated with construction activities (but not waste from Council activities which is classified separately).
Cleanfill	Material that when buried will have no adverse effect on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of contaminants.
Controlled waste	Waste that poses a threat or risk to public health, safety or to the environment or waste that a jurisdiction regulates as requiring particularly high levels of control (including asbestos).
Core waste	Waste from households, local government activities and the C&I and C&D sectors. It does not include waste from primary production or ash (which is mostly generated by coal-fired power stations).
EPA	Environmental Protection Authority.
FOGO	Food Organics and Garden Organics. (Organic wastes are derived from material that was once living, excluding petroleum-based materials.)
KAB	Keep Australia Beautiful.
Leachate	A liquid that has percolated through and/or been generated by decomposition of waste and that has extracted from it dissolved and/or suspended materials.
Methane	An explosive, odourless and colourless gas produced in a landfill by decomposition of putrescible waste.
MSW	Municipal Solid Waste - waste all produced primarily by households and Council operations, including kerbside and litter bin collections, domestic waste taken directly to landfill.
Product stewardship	The process of taking responsibility for the life cycle impacts, flows and fates of products or materials. This may involve business, governments and consumers sharing responsibility.
Putrescible waste	Waste containing organic matter that is liable to rapid degradation by micro-organisms (putrefaction). Examples are materials containing food, offal and animals.
Recovery/ resource recovery	The extraction of useful materials or energy from solid waste, for instance through reuse, reprocessing, recycling or energy recovery.
Resource recovery rate	The proportion of generated waste that is processed for recycling or used for energy recovery.
Recycling	Converting materials that may otherwise have been disposed of into new materials. In Glenorchy, <i>kerbside recycling</i> relates to paper/cardboard, certain plastics, glass and steel/aluminium.
Recycling rate	The proportion of generated waste that is processed for recycling.

ACRONYMS, ABBREVIATIONS AND DEFINITIONS

Reuse	Using a waste product again for the same or a different purpose without further manufacture, e.g. use of second-hand boxes for packing goods or for storage of household goods. In other words, it repurposes the object itself not the materials it is made of.
Separation	Sorting of waste into common material types or categories for separate collection according to how they can be recovered or disposed of.
STCA	Southern Tasmanian Councils Authority.
SWSA	Southern Waste Strategy Authority.
Transfer station	A depot for the reception and aggregation of waste streams prior to their transportation to another depot or location for further sorting, resource recovery or disposal.
Waste audit	A physical analysis of a facility's waste stream. It can identify quantities and types of waste a facility generates and how much of each category is recovered for recycling or discarded.
Waste Stream	A flow of a specific waste type from generation to disposal.

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