Final draft

Baw Baw Shire Council Waste Management Plan 2020-2025

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Acknowledgement of traditional custodians

Council acknowledges the traditional custodians of the land that makes up Baw Baw Shire. We pay our respects to their Elders both past and present.

Disclaimer

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Abbreviations and glossary

ARL	Australasian Recycling Label
BAU	business-as-usual
CDS	Container Deposit Scheme
CO_2-e	carbon dioxide equivalent
DELWP	Department of the Environment, Land, Water and Planning
EPA	Environment Protection Authority
EP Act	Environment Protection Act
FOGO	Food Organics and Garden Organics
hh	household
IAP2	International Association for Public Participation
IV	Infrastructure Victoria
kg	kilogram
kt	kilotonne
L	litre
MRF	Materials Recovery Facility
NEPM	National Environment Protection Measure
NGER	National Greenhouse and Energy Reporting
PV	photovoltaic
RRG	Resource Recovery Gippsland
SV	Sustainability Victoria
SWRRIP	State-wide Waste and Resource Recovery Infrastructure Plan

1. Introduction

The *Baw Baw Shire Council Waste Management Plan 2020-2025* provides direction for delivering effective and sustainable waste management for Baw Baw over the next five years (2020–2025).

The Plan has been developed to align with the *Gippsland Waste and Resource Recovery Implementation Plan* 2017 (Gippsland Implementation Plan) as required under the Victorian waste planning framework, as well as other policies, regulations and community views. The plan focuses on key areas that are within the control of Baw Baw Shire Council including kerbside collection services, waste and recycling facilities, public place waste and community education, and identifies opportunities for improvement.

The Plan has been developed to be made available for public review and comment and includes a separate community summary document. The Plan identifies how Baw Baw Shire will manage its key waste services over the next five years, including kerbside collection, street litter collection, transfer stations and hard waste collection in line with the Victorian Government's new *Recycling Victoria* policy and 10-year action plan.

2. Context

This section outlines the context in developing this plan, including an overview of Baw Baw Shire, a review of its waste management policies, and community views on Council's current waste management services.

2.1 Shire overview

Baw Baw Shire is located approximately 100 km east of Melbourne in the heart of West Gippsland. It has an area of 4,027 km^2 bounded by the Great Dividing Range to the north and the Strzelecki Ranges to the south. As the fourth fastest growing regional area in Victoria, Baw Baw's population is experiencing rapid growth. The current residential population of Baw Baw Shire is approximately 53,400, and this is predicted to reach 75,820 by 2036.

Baw Baw Shire's two main urban centres are Warragul and Drouin; other major townships include Longwarry, Trafalgar and Yarragon.

The Shire's main industries include agriculture, manufacturing and construction. Traditional agriculture sectors include dairying, broadacre cropping and pasture. Baw Baw is also known for designing and manufacturing innovative agribusiness.

2.2 Council policies and plans

Baw Baw Shire Council has adopted several plans and strategies that seek to deliver an economically, environmentally and socially sustainable community. The *Baw Baw Shire Council Plan 2017-2021* describes the key services and priorities for Council across a four-year term. Its four key objectives are:

- vibrant communities
- thriving economy
- safe and sustainable environments
- organisation excellence.

The 'safe and sustainable environments' objective focuses on the sustainable management of the environment, including the following initiatives in relation to waste management, recycling and resource recovery:

- protecting and sustainably managing Baw Baw's environment
- work to reduce waste and increase diversion from landfill
- continued implementation of Baw Baw's waste management strategy and action plan.

Baw Baw 2050 outlines community aspirations for the future and identifies six key directions to achieve them:

1. managing growth
2. lifelong learning, education, skills development and knowledge

3. vibrant community living
4. valuing our environment
5. building responsible leadership
6. building prosperity.

As part of 'valuing our environment', Council aims to waste less and recycle more by:

- increasing measures to reduce waste at the source
- increasing householder management of green wastes
- increased recycling of industrial and commercial waste
- greater use of waste (including methane) as a resource
- increased community awareness resulting in reduced bin contamination
- a measurable reduction of waste to landfill.

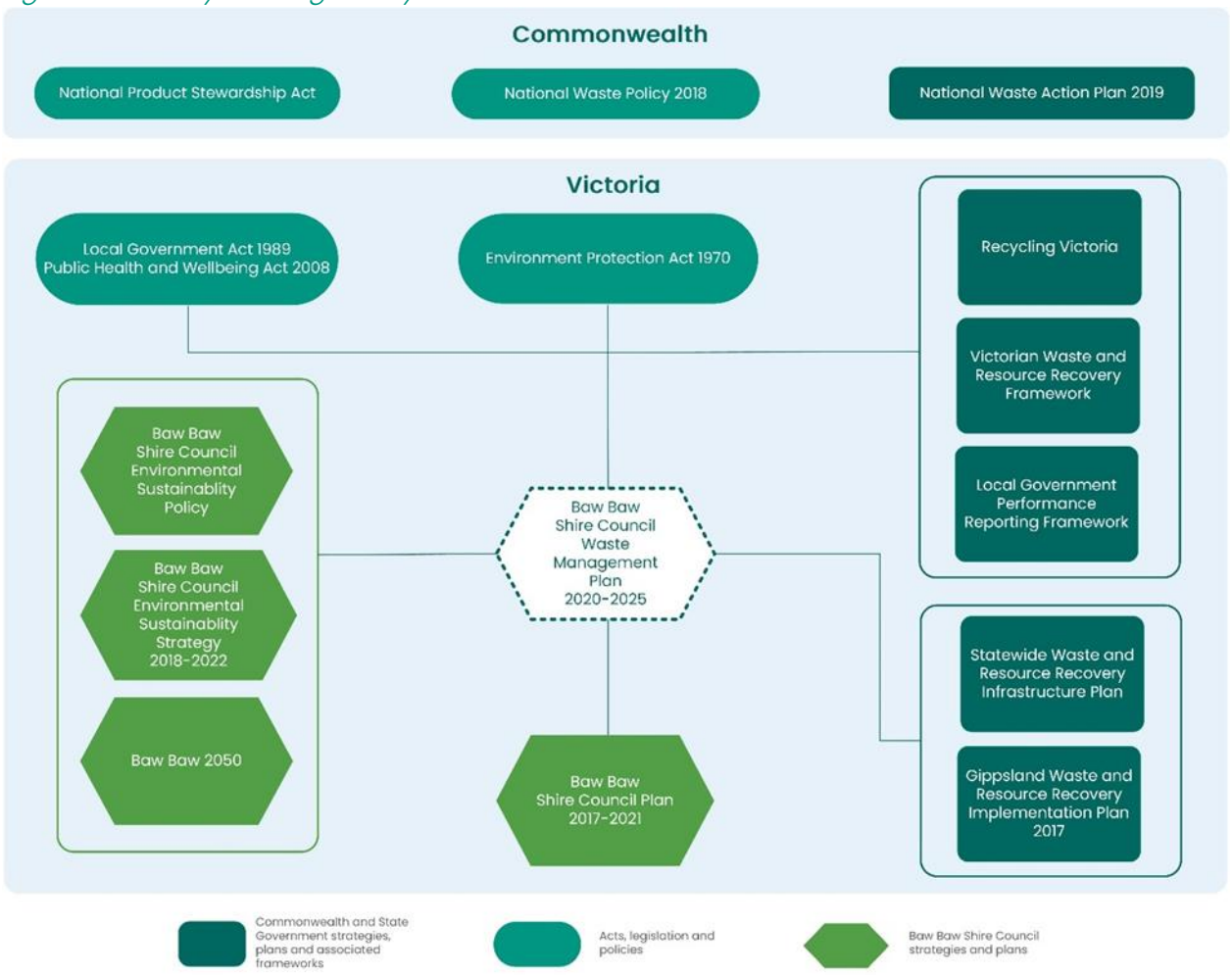
Council's *Environmental Sustainability Policy* builds upon the environmental goals established in *Baw Baw 2050* and the Council Plan. The policy outlines guiding principles for Council to work towards a more sustainable future and includes the vision for Baw Baw "to be one of the most environmentally sustainable shires in Victoria". The policy is supported by the *Baw Baw Shire Council Environmental Sustainability Strategy 2018-2022*, a four-year action plan that sets out key environmental initiatives and commitments that will be implemented by Council. The strategy identifies the three key pillars of natural environment, climate change adaptation and mitigation, and sustainable development to achieve its objectives.

The 'sustainable development' pillar commits Council to ensuring that operations and services are as sustainable as possible, whilst educating, encouraging and assisting the community to adopt more sustainable practices.

2.3 Other policies and regulations

There is a range of other State and Commonwealth Government policies and regulations which contribute to waste management in Baw Baw. An outline of these is shown in Figure 1 and described in the following section.

Figure 1 Policy and regulatory framework



Commonwealth Government

The *National Waste Policy: Less Waste, More Resources 2018* provides the framework for waste management and resource recovery in Australia. The policy incorporates strategies addressing:

- waste minimisation and avoidance
- designing systems and products to maximise value and avoid wastage
- facilitating knowledge-sharing and education initiatives
- product stewardship
- implementing a common approach to waste policy and regulation
- improving access for regional, remote and indigenous communities
- increasing industry capacity
- sustainable procurement by governments
- sustainable procurement by businesses and individuals
- reducing negative impacts of plastics and packaging on the environment
- management of chemicals and hazardous waste
- reducing organic waste

- improving national waste data and reporting
- supporting and maintaining domestic and international markets for recycled materials.

Targets and actions to implement these strategies are defined in *the National Waste Policy Action Plan 2019*, which includes national targets to:

- ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020
- 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 by 2025
- 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 implementation of the export bans will be staggered, with current dates planned as follows:

- unprocessed glass in a whole or broken state - from 1 July 2020
- mixed plastics that are not of a single resin/polymer type - from 1 July 2021
- whole used tyres - from 1 December 2021
- unprocessed single resin/polymer plastics - from 1 July 2022
- mixed and unsorted paper and cardboard - from 1 July 2024.

The Commonwealth Government also has established National Environment Protection Measures (NEPMs) that set the basis for agreed national objectives for protecting or managing particular aspects of the environment. Current waste related NEPMS address used packaging materials and the movement of hazardous waste between states/territories.

National product stewardship arrangements (between government and industry) are in place for certain products, including televisions and computers, end-of-life tyres, packaging, waste oil and mobile phones. Coverage of other products (such as household batteries) is being planned.

Victorian Government

The *Environment Protection Act 1970* (EP Act) is Victoria's principal legislation for environmental protection and includes policies addressing pollution and waste. This will be superseded by new legislation under the *Environment Protection Amendment Act 2018* (the Amendment Act); this was originally intended to apply from 1 July 2020 but has been deferred due to the COVID-19 pandemic. The Environment Protection Authority (EPA) currently expect it to commence on 1 July 2021[1].

[1] Subject to Ministerial proclamation, EPA advise it could be brought forward to earlier in 2021.

The Amendment Act will shift the focus from managing environmental impacts as they occur to preventing waste and pollution. Key changes to be introduced include:

- a general environmental duty, which holds anyone involved in activities with potential risk of harm responsible for removing and reducing environmental and human health risks
- a three-tiered permissions framework (incorporating registration, permit and licence according to the nature of the risk) to replace the current EPA licence
- a new waste classification system that categorises waste based on the risk that it poses.
- increased penalties
- a requirement to make unrestricted environmental information available to all Victorians
- new community rights for those affected by alleged breaches of the environment protection laws.

A major component of the reform will be an overhaul of current subordinate legislative instruments to form regulations, environment reference standards, orders and compliance codes. Some of these have been released in draft form but may be subject to change prior to introduction.

The draft *Environment Protection Regulation* specifies among other things:

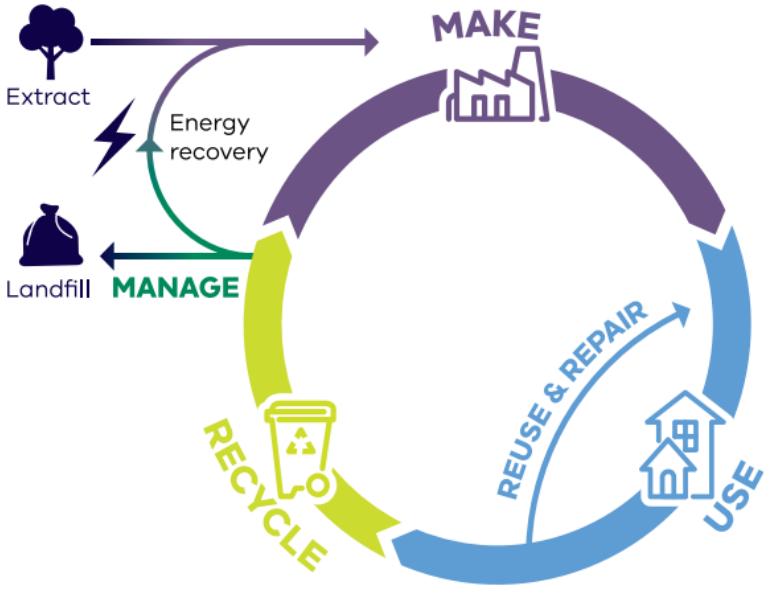
- the activities required to hold a development or operating licence, permit or registration and any exemptions
- activities that are subject to the waste levy
- information relating to litter and unsolicited documents
- requirements relating to industrial waste and priority waste including the 'declaration of use' by the person managing or in control of the industrial or priority waste or the person or premises at which the waste is to be received
- Council reporting requirements on kerbside recycling collection services or other material recovery services (including transfer stations) for each financial year.

The *Local Government Act 1989* outlines the roles and responsibilities of Victorian Councils, with additional waste management responsibilities set out in the *Public Health and Wellbeing Act 2008.* These responsibilities include maintaining the municipality in a clean and sanitary condition, planning for and providing community services and infrastructure, ensuring that services are delivered in accordance with best value principles, and striving for continuous improvement in service delivery.

To measure metrics outlined in the Act, the Victorian Government established the *Local Government Performance Reporting Framework* , which provides a framework for consistent local government reporting across the state. Councils are required to measure and report annually on 66 performance measures set out in the framework, which are published online via the *Know Your Council* website (*https://knowyourcouncil.vic.gov.au*).

In February 2020, the Victorian Government released *Recycling Victoria: A new economy*, which outlines a ten-year action plan to establish a circular economy. A circular economy seeks to reduce the environmental impacts of production and consumption and gain more productive use from natural resources. This sees continual reuse and recycling of materials, reducing the need for extraction of virgin materials, and a reduction in the amount of waste disposed of in landfill. The concept is shown in Figure 2 (overleaf).

Figure 2 A circular economy



Source: DELWP 2020a

The plan sets four key targets, to:

- divert 80% of waste from landfill by 2030 (with an interim target of 72% by 2025)
- cut total waste generation by 15% per capita by 2030
- halve the volume of organic materials going to landfill between 2020-2030 (with an interim target of 20% reduction by 2025)
- ensure every household has access to food and organic waste recycling or local composting by 2030.

To achieve these targets, *Recycling Victoria* outlines a number of strategies:

- A new four-bin waste and recycling system will be rolled out in partnership with Councils, with each household getting a bin or access to services for:
  - combined food and garden organics
  - glass recycling
  - plastics, paper, cardboard and metals recycling
  - household waste.

  In line with the above targets, this is expected to be introduced by 2030.
- A container deposit scheme to be introduced by 2023. Similar schemes are in place or planned for all other Australian states/territories and allow for return of a range of glass and plastic beverage containers for a ten-cent refund. The details of the scheme (including the range of eligible containers) are currently being developed by the Victorian Government.
- A staged increase in the EPA landfill levy will be implemented over three years, with current rates at Metropolitan landfills like the one at Hallam Road, Hampton Park that is currently

used by Council of $65.90/tonne rising to $125.90/tonne by 2023[2]. Regional rates will rise from $33.03-$57.76/tonne to $62.95-$110.79/tonne depending on the type of waste.
- Waste will be regulated as an essential service and a new dedicated waste and recycling Act will be established, supported by a new dedicated waste authority.
- Investment in waste to energy will be encouraged (with a cap of one million tonnes to 2040).
- State-wide education and behaviour change programs will be implemented.
- A high risk and hazardous waste management program will be established and supported by a new waste crime prevention inspectorate within EPA.

To deliver the waste and recycling reforms outlined in *Recycling Victoria,* Councils must submit a waste transition plan in accordance with the requirements of the Victorian Government six months prior to the implementation of any of the recycling reforms or service changes.

In 2019, Infrastructure Victoria (IV) was asked by the Victorian Government to provide advice on the infrastructure required to improve recycling and resource recovery. IV's investigation culminated in the April 2020 release of their *Advice on recycling and resource recovery infrastructure* report. IV identified a need for 87 potential new or upgraded facilities, including a number in the Gippsland region.

Sustainability Victoria (SV) is responsible for planning and promoting Victoria's waste and resource recovery system. Their purpose is governed by the *Sustainability Victoria Act 2005*. State-wide infrastructure planning is embedded in the *State-wide Waste and Resource Recovery Infrastructure Plan* (SWRRIP), which provides strategic direction for improving waste and resource recovery infrastructure to achieve long-term goals. The SWRRIP was released in 2018 but is currently under review by SV. The proposed development of a new state waste authority (announced in *Recycling Victoria*) is expected to delay current state and regional waste planning reviews. The Victorian Government's options paper (*Waste and recycling legislation and governance,* DELWP 2020b) outlines the proposed responsibilities of the new waste authority, including the functions of all waste and resource recovery groups. SV is expected to retain responsibility for waste education and industry development.

SV has released a number of other strategic documents including:
- the Victorian Market Development Strategy for Recovered Resources. This Strategy aims to stimulate markets for recovered resources by reducing barriers and supporting the right conditions for material and product markets to grow and mature,
- the Victorian Waste Education Framework which provides a coordinated approach to waste and resource recovery education in Victoria, and
- the Victorian Organics Resource Recovery Strategy which outlines the goals, directions, outcomes and actions for improving the management and recovery of organic waste.

[2] The increase was due to commence 1 July 2020 but has been deferred to 1 July 2021 due to the coronavirus pandemic.

- the Collaborative Procurement Framework outlines a consistent approach to identifying, assessing and planning collaborative procurement of waste and resource recovery infrastructure and services.
- the Infrastructure Facilitation Framework provides a coordinated, consistent and long-term approach to promoting and facilitating waste and resource recovery investment opportunities locally and abroad.

Regional plans

Baw Baw Shire Council is a member of Resource Recovery Gippsland (RRG), one of seven statutory waste and resource recovery groups in Victoria. The role of RRG is to oversee regional waste and resource recovery planning in collaboration with six Gippsland Councils covering Bass Coast, Baw Baw, East Gippsland, Latrobe, South Gippsland and Wellington Shires.

RRG prepared the *Gippsland Waste and Resource Recovery Implementation Plan 2017* (Gippsland Implementation Plan), which provides strategic direction for waste and resource recovery in the Gippsland region over a ten-year period (2017-2027). Its objectives are to:

- maximise the diversion of recoverable materials from landfills
- support increased resource recovery
- achieve quantities for reprocessing
- manage waste and material streams
- maximise economic outcomes, provide cost effective service delivery and reduce community, environment and public health impacts
- facilitate a cost-effective state network of waste and resource recovery infrastructure.

To achieve these objectives, the Gippsland Implementation Plan outlines a number of priority actions. To comply with the EP Act, Council needs to adopt or align strategies in such a way that its waste management functions are consistent with the regional plan. Regional priority action and activities relevant to Baw Baw are provided in Table 1.

Since the release of the Gippsland Implementation Plan in 2017, new national and state waste targets have been set in the *National Waste Policy Action Plan 2019* and *Recycling Victoria*. Compared to regional objectives, current national and state targets appear to focus more on circular economy initiatives, waste avoidance, source separated systems and organics.

Table 1 Priority action and activities involving Council

Priority action	Activity	Timeframe[3]
1. Achieving greater material recovery through development of appropriate, well-sited infrastructure.	Work with each local government authority to determine priority infrastructure for Gippsland.	2017-2018
	Support effective land use planning decisions and appropriate facility locations.	2017
	Assess Gippsland's waste and resource recovery transport efficiency.	2017
2. Driving innovative services and infrastructure provision.	Attract greater private sector investment and social enterprise involvement in the development and operation of resource recovery activity in Gippsland by identifying, progressing and supporting viable initiatives.	2017-2021
	Improve local resource recovery by identifying innovative and viable recycling initiatives to improve the convenience, scope and consistency of recycling.	2017-2019
3. Building greater responsibility and accountability.	In alignment with the Victorian Waste Education Strategy, develop and implement best practice approaches to engender behavioural change as it relates to waste and resource recovery.	2017; ongoing implementation
4. Facilitating continuous improvement and enhanced performance.	Lead improvements in the management of waste facilities.	2017-2021
5. Planning to reduce undesirable impacts.	Identify the key risks to waste management assets arising from unexpected events, natural disasters and emergencies and ensure appropriate contingency measures are in place.	2017; on-going monitoring and execution to 2020
	Support Gippsland Councils and the EPA to identify the region's closed landfills, build on past risk assessments and assist in development of priorities at a regional scale.	2017; on-going monitoring and execution to 2021
6. Improving value of available information to support industry development.	Improve collection of waste data and reporting.	2017-2021
	Develop an understanding of the material composition of waste generated by the construction and business sectors.	2018-2020

2.4 Community views

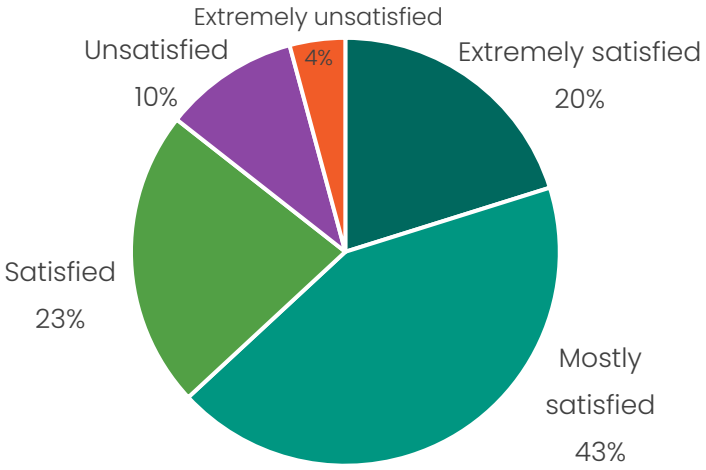
Have Your Say is a public consultation program run by Baw Baw Shire Council that seeks community feedback on major projects and Council initiatives. In November 2019, Council conducted a waste services survey through the *Have Your Say* program that assessed community satisfaction on waste services, facilities, education programs and other waste

[3] While some dates in the Gippsland Implementation Plan have passed, RRG advise all activities are ongoing.

issues. Council received 385 responses from the community over the three weeks of the survey.

Figure 3 shows the community's response to the survey question "*How satisfied are with your kerbside collection of rubbish, recycling, green waste and hard waste?*" The results indicate that 86% of respondents were satisfied, very satisfied or extremely satisfied with their kerbside collection service.

Figure 3 Survey responses – "How satisfied are with your kerbside collection of rubbish, recycling, green waste and hard waste?"



Council currently provides one free annual hard waste collection for all households. The survey asked the question "*Would you prefer Council pick up hard waste from your kerb, or you drop it off to a transfer station yourself?*" The results indicate that most respondents (73%) prefer their hard waste to be collected by Council, although 27% still like to drop it off themselves.

When asked why, those who prefer the Council pick up option mainly referred to transportation issues (e.g. they did not have a large enough vehicle), that the pick-up service was more convenient, or that they were physically incapable of dropping of large items themselves. Of those who preferred the drop-off option, some reasoned that this was more convenient for them, and many expressed dislike for the 'messy' look of large amounts of hard waste piled up at the kerbside.

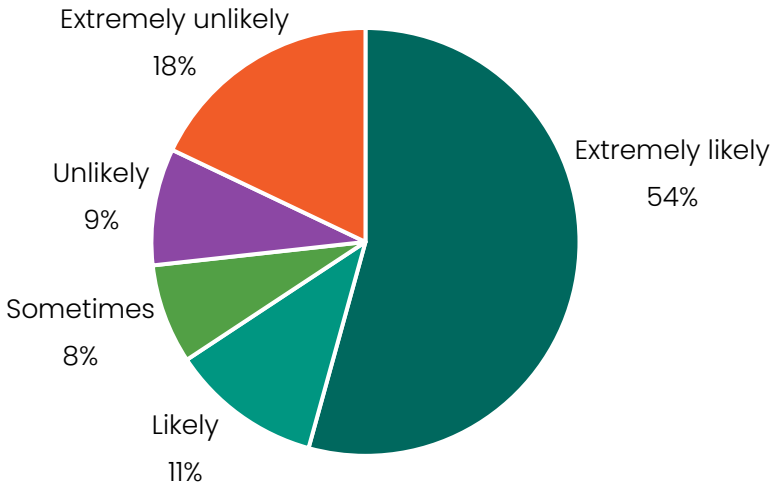
When asked whether they home compost, the majority of respondents (67%) stated that they do. Of those who answered yes, 74% noted that they always home compost, 19% said they sometimes home compost and 7% occasionally home compost.

Figure 4 shows the response to the survey question *"How likely are you to put your food scraps from your kitchen into your green organics bin to reduce the amount of food waste going to*

landfill?" The results indicate that 65% of respondents would be likely or extremely likely to make use of a combined food organics and garden organics (FOGO) bin, compared to 27% who would be unlikely or extremely unlikely to do so.

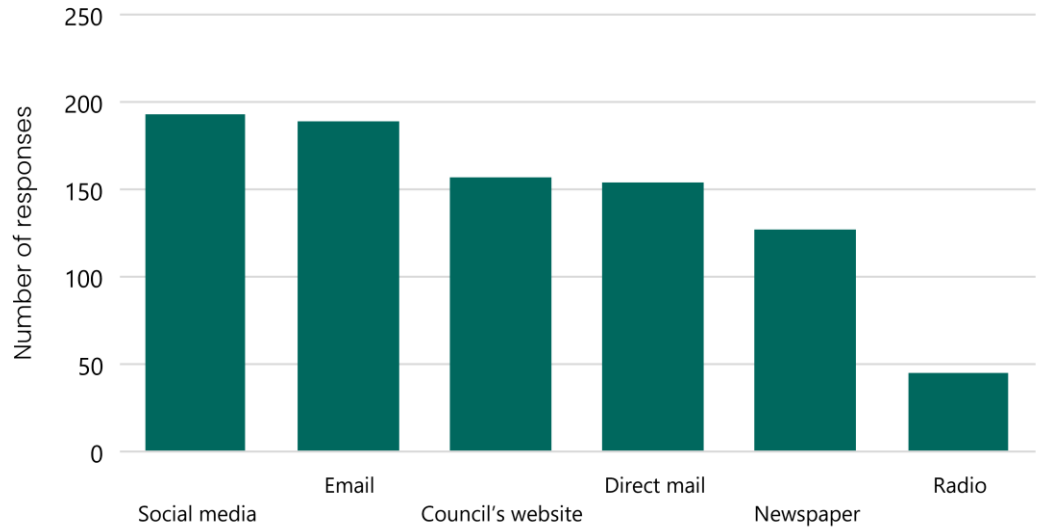
The large majority of respondents who stated they would probably not participate in FOGO noted that this was because they already make use of food scraps at home, although a few respondents believed the FOGO system would be inconvenient for them to use, or thought odour or vermin issues would arise.

Figure 4 Survey responses – "How likely are you to put your food scraps from your kitchen into your green organics bin to reduce the amount of food waste going to landfill?"



When asked whether they receive enough information from Council about waste and recycling services, 56% of respondents said yes and 44% said no. As shown in Figure 5, social media and email were identified as the preferred methods of communication, although information provided through Council's website, and well as via non-online sources (i.e. direct mail and newspapers) were also popular. 25% of surveyed residents stated that they were not aware that they could drop off e-waste to transfer stations free of charge.

Figure 5 Survey responses – "How would you like to receive information on our waste and recycling services?"



Respondents were also asked to provide any general feedback or suggestions relating to Council's waste services. Key comments were related to:

- better education, especially surrounding recycling and what to put in the yellow-lidded bin, as well as soft plastics
- better or more frequent green waste collections, particularly in spring and summer
- more support for rural properties, some of which do not receive a kerbside collection service at all
- providing a more flexible service that allows residents to only pay for the bins that they use (e.g. some residents manage organics on-site so do not use their green bin).

3. Current situation

This section reviews the current status of waste management within the Shire, including data on waste and recycling generation, collection services and waste and resource recovery facilities.

3.1 Waste and recycling services

Kerbside collections

Council currently provides a kerbside collection service to all properties in townships and some properties in rural areas. The collection service is a compulsory three bin system for garbage, 10,000 recycling[4] and garden organics, where garbage is collected weekly in 120 L bins, and recycling and garden organics are collected fortnightly in 240 L bins. Additional bins may be requested for an additional fee.

Residents in rural areas outside the designated collection area are encouraged to use transfer stations for garbage disposal and recycling needs. Some property owners who are not on a collection route may also receive a service by taking their bins to a collection point on an adjacent road where the service is provided.

Commercial properties in Baw Baw have an optional waste service for weekly garbage and recycling collections and fortnightly garden waste collections.

Residential kerbside services are summarised in Table 2.

Table 2 Council kerbside collection services 2019-20

Service	Bin size	Collection frequency	Charge (2019-20)
Garbage	120 L	Weekly	$384 per annum
Recycling	240 L	Fortnightly	
Garden waste	240 L	Fortnightly	

The 2019-20 waste management charge of $384 applies to all properties with a kerbside collection service. It is recommended that a review of the declared service areas occur to better delineate the service boundaries.

Council's current kerbside collections contract with Solo Resource Recovery is valid to 30 September 2021 with an option for a further one-year extension and includes:

[4]Certain hard plastics, paper, cardboard, glass and metals are combined in the same bin to make kerbside collections more efficient. After collection, these materials are sorted at a Materials Recycling Facility for recycling.

- collection and disposal of garbage
- collection and processing of recyclables
- collection and disposal of green organics
- collection of street litter
- illegal dumping pick ups
- community education.

Garbage

Households in Baw Baw with kerbside services are provided a 120 L red-lidded bin for garbage. Garbage is collected weekly and is deposited at the Suez landfill in Hampton Park.

Recycling

Kerbside commingled recycling 240 L yellow-lidded[5] bins are collected on a fortnightly basis. Collected recyclables (glass, paper/cardboard, plastic, aluminium) are taken to Polytrade's Materials Recovery Facility (MRF) in Dandenong South, where they are sorted and separated for recycling.

Garden waste

Baw Baw residents can place their garden waste (e.g. grass clippings, weeds, garden prunings, leaves, small logs) into 240 L green-lidded[5] bins. Garden waste is collected fortnightly and taken to PineGro in Morwell, where it is processed into soil improvers and compost. Council also provides periodic free garden waste drop-offs at its transfer stations so householders can prepare for the fire season.

Hard waste

Council offer one free 'at call' hard waste collection per year to residents (commercial properties excluded). Baw Baw Shire residents with a kerbside service can book their annual hard waste collection online or over the phone and are permitted to place up to two cubic metres of hard waste at kerbside for collection. Additional hard waste collections are offered for a fee of $63 ($31 for pensioners) twice a year (2019/20 rates).

Residents have the option to exchange their annual kerbside hard waste collection for a free 'do it yourself' delivery to any Council operated transfer station. This offer is also available to Baw Baw Shire residents without a kerbside service.

Street litter

Street litter bins are provided across Baw Baw's town centres, parks and public hubs and buildings. These bins are serviced regularly with approximately 1,570 serviced per week. The coverage of Council's contracted street litter service is shown in Table 3.

[5] Not all recycling bins are fitted with a yellow lid and not all garden waste bins are fitted with a green lid. New bins with conforming lids are provided with new services or when existing bins are replaced.

Table 3 Street litter bins in Baw Baw at June 2020

Location	No. of garbage bins	No. of garbage services per week	Collection frequency garbage bins	No. of recycling bins	No. of recycling services per week	Collection frequency recycle bins
Buln Buln	1	1	Weekly	0	0	-
Darnum	6	42	Daily	0	0	-
Drouin	80	311	Various; daily in key areas	9	9	Weekly
Erica	13	13	Weekly	0	0	-
Icy Creek	2	2	Weekly	0	0	-
Jindivick	2	2	Weekly	0	0	-
Longwarry	13	30	Biweekly	0	0	-
Neerim Junction	2	4	Biweekly	0	0	-
Neerim South	18	51	Biweekly or triweekly	3	3	Weekly
Noojee	17	34	Biweekly	0	0	-
Rawson	5	5	Weekly	0	0	-
Rokeby	1	3	Triweekly	0	0	-
Thorpdale	8	8	Weekly	0	0	-
Trafalgar	32	188	Various; daily in key areas	8	16	Biweekly
Warragul	116	678	Various; daily in key areas	30	90	Triweekly
Yarragon	23	161	Daily	18	36	Biweekly
Total	**339**	**1,533**	**-**	**68**	**154**	**-**

Illegal dumping

Council incurs a significant cost every year to clean up and dispose of illegal dumping. Approximately $25,000 was spent in the 2019/20 financial year.

To address illegal dumping, Council has installed surveillance cameras at dumping 'hotspots' around the Shire, including locations in Drouin, Longwarry and Nilma, with support from SV.

Council compliance officers monitor and patrol these hotspots and, where necessary, work with the local police to investigate and prosecute.

Baw Baw residents are encouraged to report illegal dumping to Council. Council received 213 illegal dumping reports in 2018-19, leading to the issuing of 26 penalties.

Worm farm and composting

Council encourages residents to recycle kitchen and garden waste by offering a rebate for worm farms and composters. Ratepayers are eligible for a rebate of up to $100 upon the purchase of suitable products.

Other waste and recycling initiatives

Electronic Waste

To support the state-wide ban on electronic waste (e-waste) disposal, all Council transfer stations now accept e-waste for free. E-waste waste is any item with a power cord or battery. E-waste drop-off bins for smaller items are also available at Drouin and Warragul Civic Centres. Local business e-waste initiatives also take place in the Shire, the details of which are available on Council's website.

Syringes and sharps

Syringe disposal bins can be found in public toilet cubicles in Drouin, Warragul, Erica and Darnum. Council also provides a syringe disposal container exchange service, with container units available from Customer Service Centres in Drouin and Warragul.

X-rays

The community can dispose of unwanted x-rays for free at the Drouin and Warragul Customer Service Centres.

Agricultural chemical containers

Under the 'drumMUSTER' program, the community can deposit empty and clean agricultural chemical containers at Trafalgar, Lardner and Neerim South transfer stations.

Motor oil

Baw Baw Shire residents can recycle used motor oil (up to 20 L) free of charge at any Council transfer station.

ChemClear

Council supports the ChemClear Collection program, which offers free collection and disposal of unwanted rural chemicals. Council provides information about this service on their website.

Detox Your Home

Council supports SV's Detox Your Home Program and promotes 'mobile collections' being held within Baw Baw and surrounding areas on Council's website. Although there is no permanent facility in the Shire to drop off household chemical waste, residents are encouraged to use the permanent collection facility at the Morwell transfer station.

3.2 Community engagement

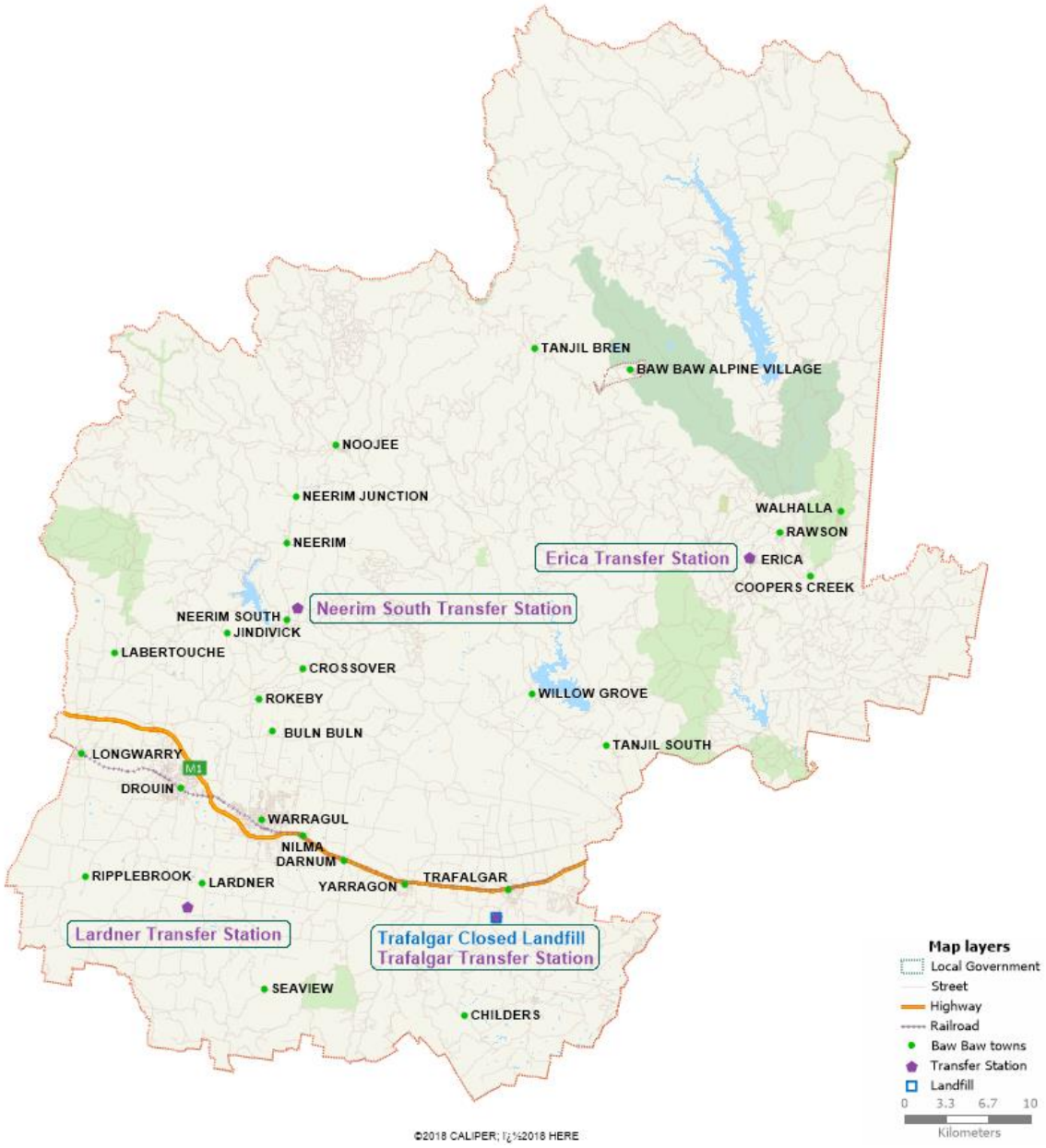
A range of community engagement initiatives have been established that support Council's existing waste services and facilitate a 'waste less and recycle more' philosophy, including:

- annual distribution of the Recycling and Waste Guide to all households
- Council website information with dedicated pages to our waste services
- social media posts on waste minimisation and recycling
- the quarterly 'Our Environment' email newsletter, which includes resource recovery information
- other media communication as required (newspapers/radio)
- ad hoc community presentations (as requested)
- truck visits to kindergartens, childcare centres and schools
- facility tours (as requested)
- the 'Bin Bobbie' inspection program that audits bin contamination levels
- the worm farm and compost bin rebate promotion
- participation in Clean-up Australia Day and support for National Recycling Week activities
- provision of recycling initiatives such as soft plastics (REDcycle) and composting to encourage Council staff recycling.

3.3 Waste and recycling infrastructure

A map showing the location of the Shire's waste facilities is provided in Figure 6.

Figure 6 Baw Baw Shire waste facilities



Transfer stations

There are four transfer stations operated by Council, as shown in Table 4. Waste and recycling materials that can be disposed of at the transfer stations are:

- General household waste
- Green organics
- Electronic Waste
- Tyres and car bodies

- Hard waste
- Paper and cardboard
- Empty gas bottles
- Automotive oils and batteries
- Silage wrap
- Mattresses
- Recyclables – metal, glass, plastic, aluminium

Table 4 Transfer stations in Baw Baw

Transfer station	Location	Opening hours
Erica	Mathiesons Road, Erica	12pm - 4pm (Mon, Wed and Sun)
Lardner	Simpson Road, Lardner	10am - 4pm (every day)
Neerim South	Neerim East Road, Neerim South	10am - 4pm (Fri and Sun)
Trafalgar	Giles Road, Trafalgar	10am - 4pm (Sat, Sun and Mon)

Building, renovation and commercial waste including concrete, bricks and tiles are not accepted at Council operated transfer stations. Other prohibited wastes that are not accepted include asbestos, contaminated soils, farm chemicals and household chemicals, although Council has implemented initiatives for the management and disposal of some of these materials (see Section 3.1).

The adequacy of infrastructure in place at the transfer stations was assessed by RRG in the Gippsland Implementation Plan. Although all transfer stations were built to approved specifications, the RRG assessment shows that not all best practice standards are currently met, and some transfer stations may need re-locating. RRG also suggest that the future vision of the transfer stations is for source separation infrastructure and mechanical compaction of bins.

Lardner Transfer Station is Council's only transfer station open seven days per week and receives by far the greatest patronage with 16,889 customers in 2019-20 (an average of 1,407 per month). There was also 1,479 customers that utilised Lardner's second-hand shop during this period. Council's second most patronaged transfer station is Trafalgar with 5,696 customers during 2019-20 (an average of 475 per month) and 228 customers utilised its second-hand shop. Neerim South Transfer Station received 3,214 customers during 2019-20 (an average of 268 per month) whilst Erica Transfer Station received 1,134 customers (an average of 95 per month). Erica's second-hand shop received 81 customers during the period whilst Neerim South Transfer Station does not operate a second-hand shop.

Trafalgar closed landfill

Trafalgar landfill was a licensed landfill operated by Council that closed in November 2011. The landfill site consisted of an unlined single cell landfill and a co-located transfer station (still operational). The landfill was licensed to accept putrescible waste, solid inert waste, asbestos, low level contaminated soil, and shredded tyres.

The closed landfill is located in a small, narrow valley that generally slopes downwards to the north. The site exists within and is surrounded by land that is planned as Farming Zone. The landfill is approximately 2 kilometres from the town centre of Trafalgar.

The Trafalgar closed landfill is located primarily on freehold land within Council's ownership, adjacent to the Uralla Reserve owned by Trust for Nature. Council assists with the management of Uralla Reserve in association with Trust for Nature and a local Uralla Reserve Friends of Group. Trafalgar transfer station is also operated from this site in addition to the operation of a Native Vegetation Offset Scheme by Council on the vegetation portion of the property. This offset site is subject to a section 69 on-title Landowner Agreement with DELWP under the *Conservation, Forests and Lands Act 1987* to manage the vegetation to set standards under the Agreement.

Council is responsible for the aftercare of the landfill in accordance with the EPA Post-Closure Pollution Abatement Notice (PC PAN) 90007302 for the landfill issued on 21 December 2016. The site requires aftercare for another 24 years in accordance with EPA requirements. An environmental auditor conducts environmental audits of the aftercare management plan in accordance with section 53V of the Environment Protection Act 1970 at the frequency specified in the verified monitoring program. The objective of the audit is to identify and, where possible, quantify the risk of any possible harm or detriment to a segment of the environment caused by the aftercare management of the closed Trafalgar landfill. The audit process includes a review of the site risk assessment and reverification of the monitoring program.

Annual landfill projected management cost based on remaining 24 years operation is $531,533. The total aftercare management cost from 2020-2045 estimated to be $12.75 million. There are a number of ongoing management challenges associated with the EPA compliances. The ongoing EPA audits continuing to refine and raise the bar in terms of the aftercare approach and sophistication. The aftercare of the Trafalgar landfill is a significant liability for Council and heavily influences Council's overall borrowing capacity.

A range of rehabilitation and aftercare measures have been undertaken on the landfill since its closure to ensure any potential environmental risks are prevented or minimised. Listed below are major rehabilitation efforts carried out at the landfill:

- final capping of the landfill was completed in 2016 using best practice design[6]

[6] The installed cap was a Type 2 Landfill BPEM cap described in EPA's *Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills* (Landfill BPEM).

- the site has been equipped with a leachate collection system, with treated wastewater irrigated onsite
- a landfill gas extraction system has been installed
- groundwater boreholes and monitoring wells have been installed
- interception drains have been established that direct stormwater away from landfill.

The *Former Trafalgar Landfill Aftercare Management Plan* (GHD 2019) sets out a post-closure management program for the Trafalgar closed landfill. The plan has been prepared in accordance to the EPA's *Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills* (Landfill BPEM), which describes best practice operations for active and closed landfills.

Table 5 summarises Council's aftercare responsibilities at Trafalgar closed landfill.

Table 5 Environmental aftercare program for Trafalgar closed landfill

Component	Activity	Frequency
Cap maintenance	Site walkover and inspection of cap conditions	Quarterly
Leachate	Site walkover and inspection of leachate management infrastructure	Quarterly
Landfill gas	Site walkover and inspection of visible sections of landfill gas extraction wells and manifolds	Quarterly
	Landfill gas management infrastructure inspection and monitoring of operating conditions	Monthly
Surface water	Site walkover and inspection leachate infrastructure	Quarterly

The landfill is also subject to a risk based environmental monitoring program, which is set out in the *Closed Trafalgar Landfill Environmental Monitoring Program* (Nolan Consulting 2018). The program was developed based on guidance from EPA's *Closed Landfill Guidelines*, and sampling methods are to be conducted in accordance to EPA sampling guidelines. Council is responsible for implementing and undertaking the monitoring program and must ensure all responsible officers have adequate training and skills to perform the tasks. The program and its results are verified biennially by an environmental auditor appointed in accordance with the EP Act.

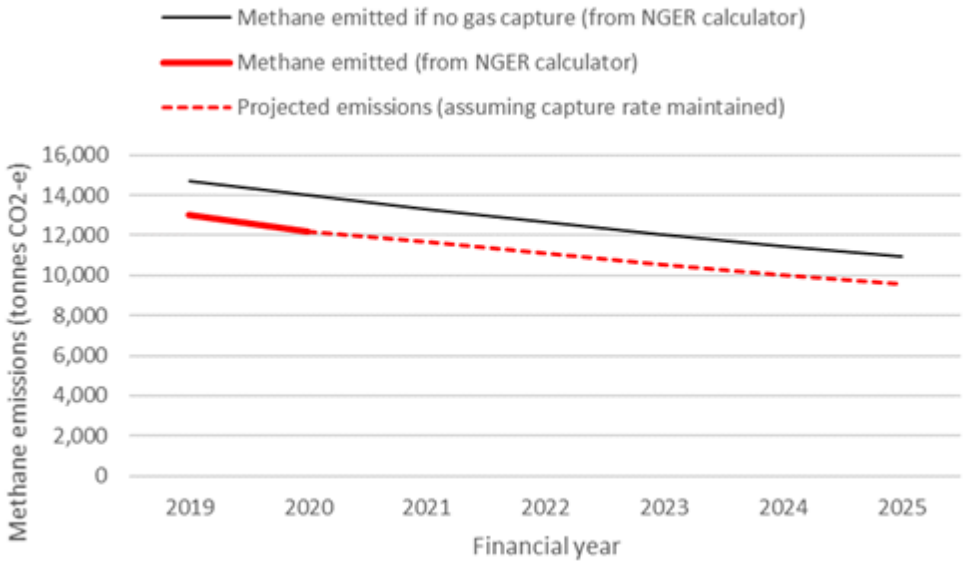
Trafalgar closed landfill's monitoring program includes:

- sampling and analysis of key parameters (e.g. level, quality) of
- groundwater
- surface water
- leachate
- landfill gas
- assessment of monitoring data against trigger levels

- location and design of monitoring and sampling points
- maintenance of monitoring structures (e.g. monitoring bores, gauge boards)
- inspection and survey of the northern bund wall by a qualified geotechnical engineer
- quarterly and annual reporting requirements.

Greenhouse gas emissions from the former landfill were estimated using the National Greenhouse and Energy Reporting (Measurement) Determination system (NGER). The NGER solid waste calculator 2019-20 was populated with the waste deposited at the landfill from 1964 to 2013. Based on emissions estimates from the NGER calculator, the gas capture rate was low, at about 12% in 2018-19 and 13% in 2019-20. Methane generation is declining and will continue to do so as the waste decays. Emissions were about 13.0 kt of carbon dioxide equivalent (CO_2-e) in 2018-19 and about 12.2 kt CO_2-e in 2019 -20. If the current gas capture rate continues over the forthcoming years, emissions will decline to about 9.6 kt CO_2-e by 2024-25 (refer Figure 7).

Figure 7 Projected Trafalgar closed landfill methane emissions



3.4 Waste and resources generated

Current situation

In 2019-20, approximately 22,000 tonnes of waste were collected in Baw Baw through Council's kerbside service, including about:

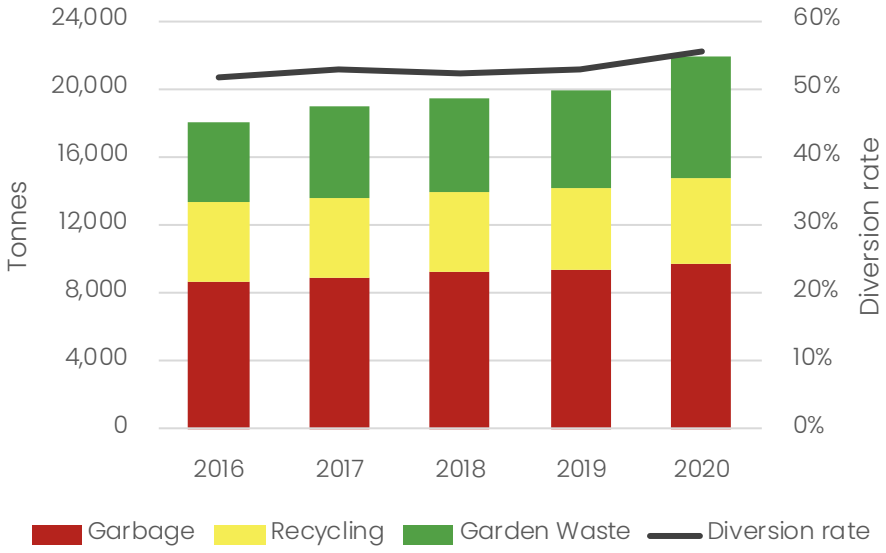
- 9,900 tonnes of garbage
- 5,100 tonnes of recycling
- 7,100 tonnes of green waste

Based on these figures, each Baw Baw household on average generated in 2019-20:

- 439 kg of garbage (or 8.4 kg per week)
- 229 kg of recycling (or 4.4 kg per week)
- 321 kg of green waste (or 6.2 kg per week).

Figure 8 shows the quantity of garbage, recycling and garden waste generated in Baw Baw over the last five years. Overall waste and material generation has been steadily increasing over time in proportion to population. Baw Baw diverted about 56% of household waste from landfills in 2019-20, a slight increase compared to the previous few years.

Figure 8 Waste and material generation 2016-2020



Predicated population growth impacts

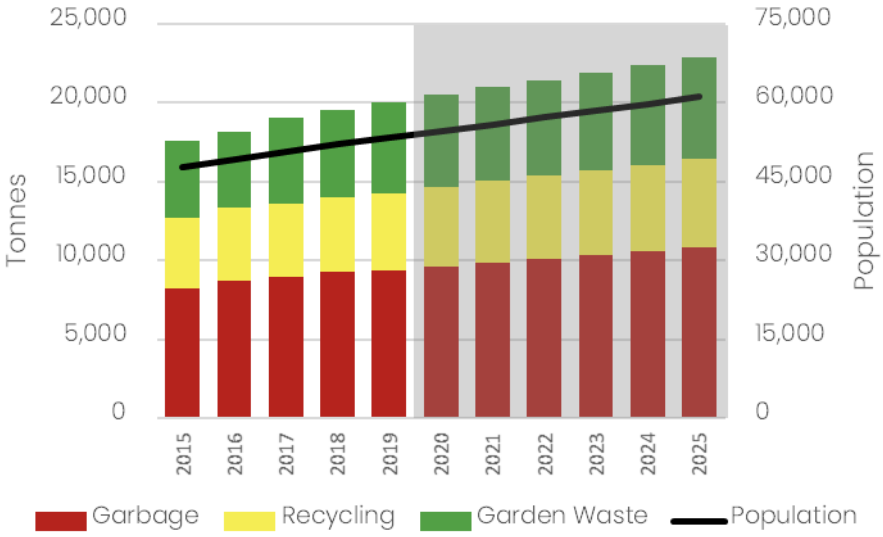
Baw Baw is the fourth fastest growing regional area in Victoria and its population is predicted to reach about 75,800 by 2036 – an almost 40% increase compared to the current population of about 53,400. To account for Baw Baw's growing population in future waste strategies, future waste quantities generated under a 'business-as-usual' (BAU) scenario have been modelled.

Figure 9 shows waste generation in Baw Baw from 2015-25, including projected quantities for the next five years. Key assumptions made in the modelling are that:

- future waste generation is based on population growth
- the average waste generation rates over the most recent three years for which data is available are representative of generation rates over the projected period.

Under the BAU scenario, the total waste generated is estimated to increase from about 22,000 tonnes (2019-20) to 23,400 tonnes (2024-25).

Figure 9 Waste and material generation 2015-2025



Note: projected values are in the shaded area

3.5 Council performance

Key achievements

Council has achieved a number of waste and recycling improvements over the last decade, many of which address targets set out in the *Baw Baw Shire Council Waste Management Plan 2010-20*. These include:

- the closure and rehabilitation of Trafalgar landfill
- expansion of kerbside recycling services to more outlying townships
- improved waste education, including utilisation of local media and school education
- increased the frequency of garden waste collection to fortnightly to cater for seasonal disposal and fire clean-up activities
- established the new 'at call' hard waste collection service
- introduced public place recycling bins to better address street litter
- installed e-waste sheds at Lardner, Neerim South and Trafalgar transfer stations.

Current performance

Two key performance indicators that can be used to benchmark Baw Baw's progress on waste and recycling are:

- the rate of waste diverted from landfill
- the quantity of residual waste per household.

The *Baw Baw Shire Council Waste Management Plan 2010-20* set targets for these measures, which are shown in Table 6 compared to current and past performance levels.

Table 6 Waste management performance indicators

Performance indicator	2020 target	2018-19 actual	2008-09 actual
Diversion of waste from landfill (%)	64%	56%	46%
Garbage per household (kg/hh/year)	254	439	450

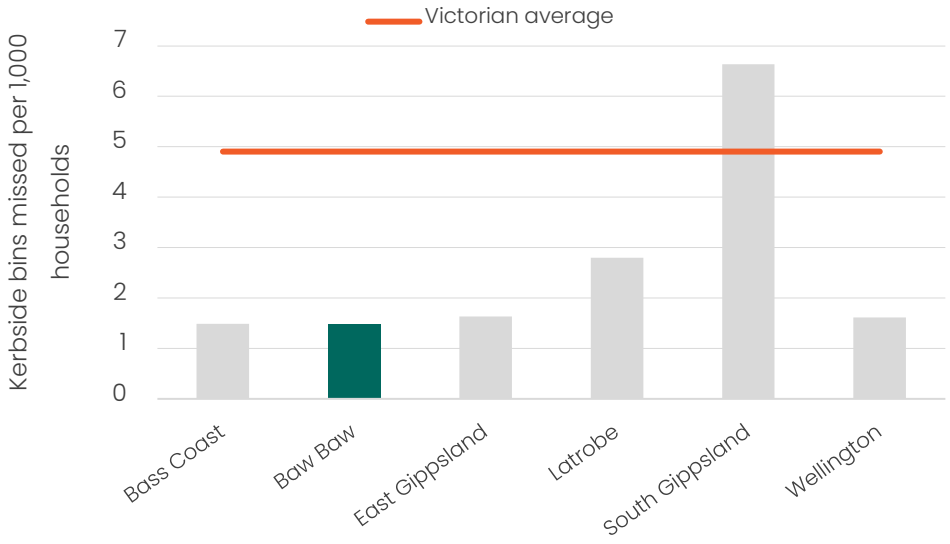
Table 6 shows that, although progress had been made for both measures, there is room for improvement as the 2020 targets are unlikely to be achieved.

Performance comparison

Council's kerbside waste service performance has been benchmarked against other member councils in the Gippsland region, as well as a state-wide average, using 2018-19 data from 'Know Your Council'.

The number of bin collections missed per 10,000 households for Gippsland Councils is shown in Figure 100. Baw Baw performed well in this measure, with the least number of missed bins in the region.

Figure 100 Council comparison – number of bins missed per 10,000 households



Comparison of kerbside garbage collection costs per bin for each Council is shown in Figure 111. Baw Baw pays high garbage collection costs compared to other Councils in Gippsland, second only to South Gippsland. Baw Baw's high garbage collection costs may possibly be attributed to the additional costs of transporting garbage to landfills outside of the Shire now that there are no operating landfills within the municipality. The cost of garbage collection per bin in Baw Baw is about 14% higher than the state average.

Figure 111 Council comparison – cost of garbage collection per bin

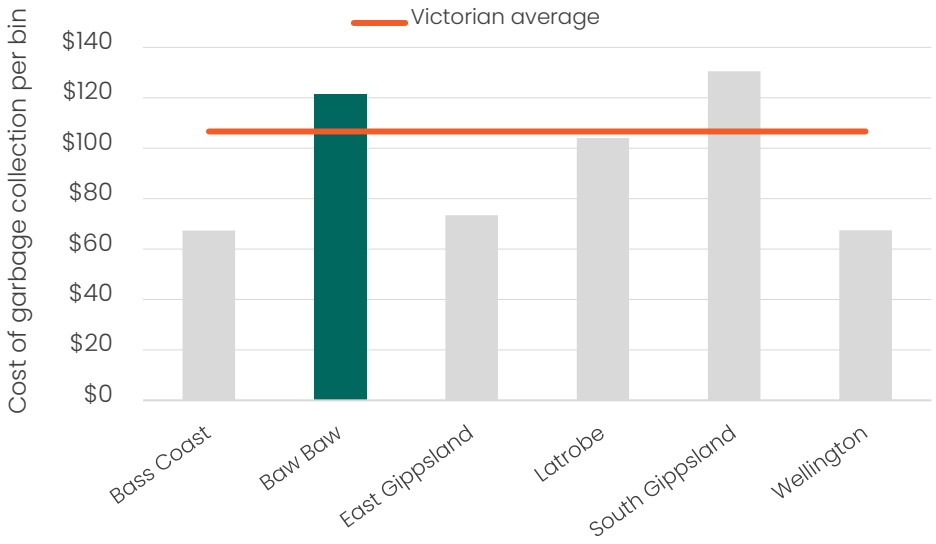
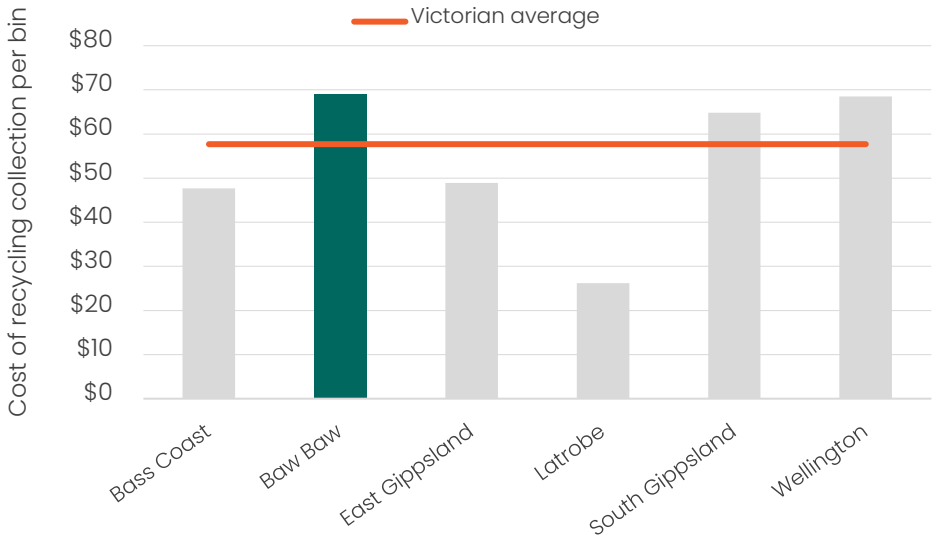


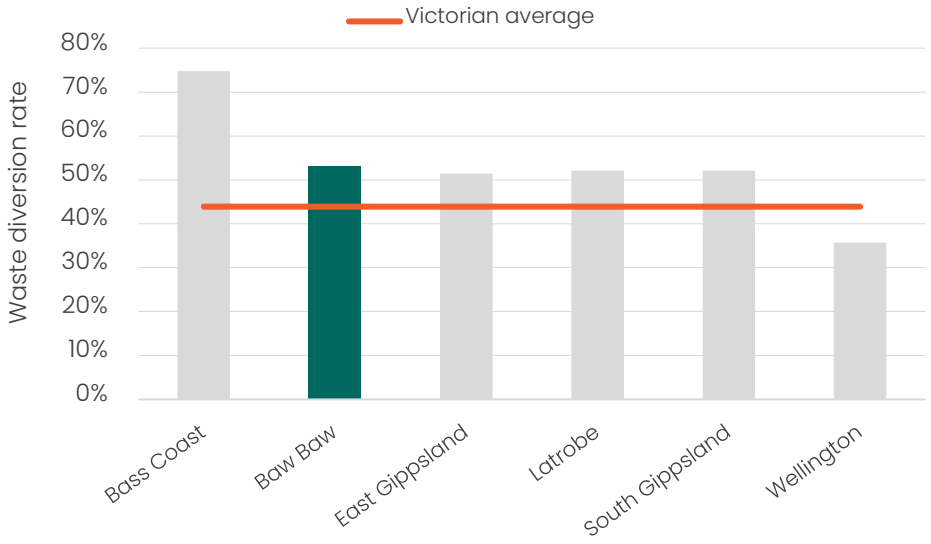
Figure 122 compares the cost of recycling collection per bin in Councils across Gippsland. Baw Baw's recycling collection costs are about 20% higher than the state average and are the highest in Gippsland. Baw Baw's high recycling costs may be attributed to high transportation costs, as well as increased MRF gate fees as a result of waste import bans imposed by China and other Asian nations.

Figure 122 Council comparison – cost of recycling collection per bin



The diversion of waste from landfill for each Council is shown in Figure 133. In 2018-19, Baw Baw achieved a diversion rate of 53%, which was the second highest in Gippsland and about 10% higher than the state average. Baw Baw has consistently maintained a diversion rate of slightly over 50% over the last four years.

Figure 133 Council comparison – waste diversion rate



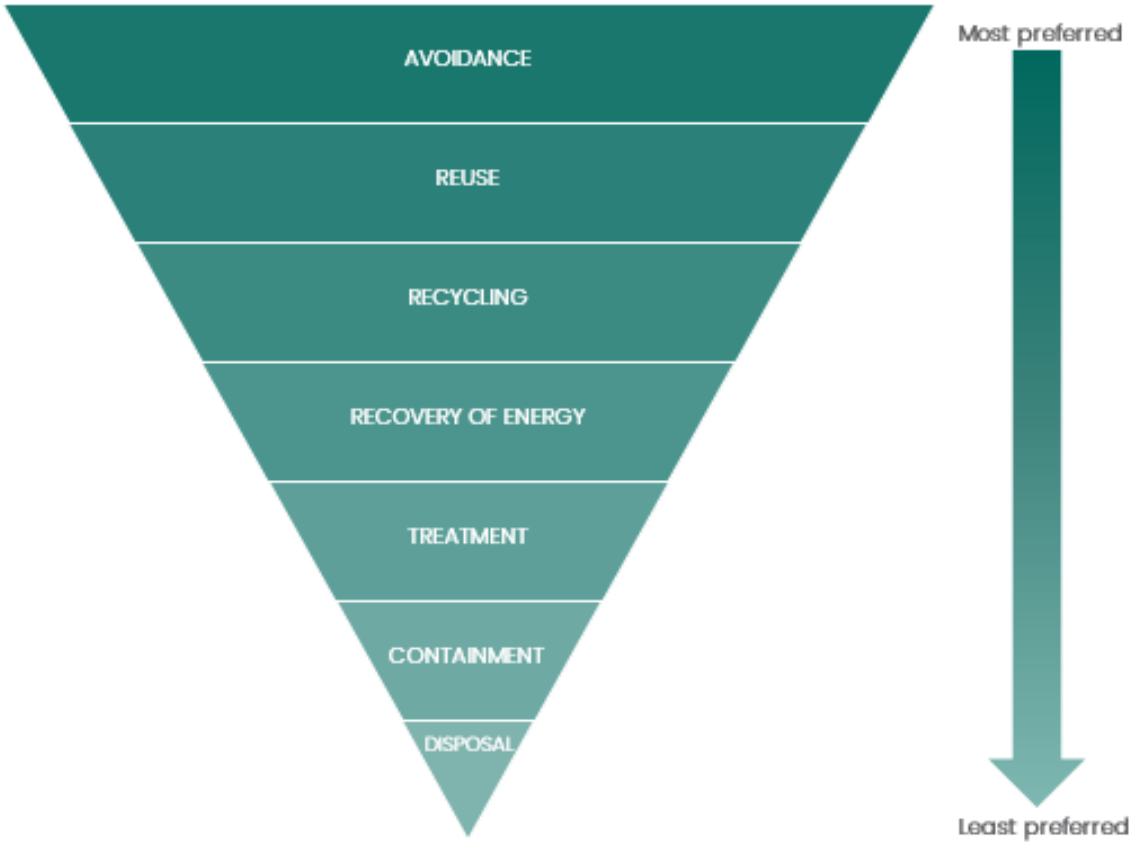
4. Challenges and opportunities

The waste industry is in a state of transition. Recent state and federal policies focus heavily on wasting less and recycling more, and the ambitious targets embedded in these policies (as well as industry and market dynamics) bring with them a number of challenges. The challenges that will impact Baw Baw's future waste planning are discussed below, as well as potential opportunities to address them.

4.1 Waste avoidance and minimisation

Waste management practices are increasingly being adapted to facilitate a circular economy to avoid waste through good design and effective material recovery systems. The principles of a circular economy are articulated in the EP Act's waste management hierarchy (Figure 144), which establishes an order of preference for waste management practices.

Figure 144 The waste management hierarchy



Waste avoidance and minimisation are placed at the top of the waste management hierarchy. These priorities focus on reducing the amount of material that enters the solid waste management system and can be supported by practices that encourage mindful consumption and more efficient use of materials.

Council could further advocate for waste minimisation by undertaking initiatives with local community groups, including:

- supporting reuse and repair initiatives (e.g. buy/sell/swap services, 'how to' repair workshops, men's shed, etc.)
- encouraging participation in national and local environmental events such as Clean-Up Australia day, National Recycling Week and Women Against Waste, as well as potential adoption of new ones (e.g. Plastic Free July, Buy Nothing New Month)
- working with local business groups on waste minimisation initiatives (e.g. local retail programs for alternatives to disposable plastic bags, food waste recovery systems from cafes and restaurants).

There is also an advocacy role for Council in lobbying and engaging with other organisations (e.g. RRG, SV, Municipal Association of Victoria, local Chambers of Commerce and other business groups) on initiatives aimed at waste avoidance, such as product stewardship programs and behavioural change initiatives focused on reducing material consumption.

SV's *Love Food Hate Waste* campaign offers a range of resources to help households reduce food waste across different stages of planning, shopping, cooking and storage. Increasing public awareness on the campaign through Council communication platforms (e.g. Council's website, social media) could help minimise food wastage and deliver environmental and financial benefits to Council and residents.

It is important for Council to demonstrate leadership to the community by continuing to improve on internal waste minimisation efforts such as:

- incorporating green purchasing into Council procurement policies (including preferential purchase of products with recycled content)
- minimising or eliminating the use of single use plastic at Council events and offices
- continued internal promotion of recycling initiatives such as soft plastics
- ensuring food waste is recovered from Council's staff kitchens and more generally from Council facilities.

4.2 Community engagement

Promoting community education and awareness can encourage good waste behaviours to improve diversion and contamination rates. Approximately half of respondents in the *Have Your Say* survey stated that they did not receive enough information from Council about waste and recycling services. Council has responded to this by introducing the *Our Environment* email newsletter and increasing its social media presence, although further opportunities exist.

Comments from the community survey suggest that some residents are confused on:

- how to properly recycle (e.g. what actually belongs in the yellow-lidded bin and how clean these materials need to be)
- what happens to garbage, recycling and green organics after collection

- e-waste
- soft plastics.

Information on all these topics is available through various Council resources, including Council's website and the annually distributed *Recycling and Waste Guide*. This suggests that some residents may not be aware that such tools are available to them. This could be addressed through reminder notices online, in newspapers or via direct mail. Council could also consider expanding their existing education resources to include more detailed information on proper recycling behaviours and recovery and reprocessing procedures.

As many surveyed residents noted that they like to receive information from Council via non-online resources (i.e. newspapers and direct mail), it is important for Council to remain active across these platforms to cater to the wider Baw Baw community.

SV's *Victorian Waste Education Strategy* provides guidance for state-wide waste education, and Council should continue to align their practices with this strategy to ensure the delivery of effective and consistent information. Council should also continue to work collaboratively with RRG and its members to capitalise on shared educational resources tailored to Gippsland.

With the release of the *Recycling Victoria* policy, SV launched the *Know Your Recycling* campaign to support good recycling behaviours in the midst of changing recycling systems. The campaign should be promoted as new waste services are introduced in Baw Baw (e.g. FOGO, glass-only bins) to ensure the community continues to recycle properly. Council should also ensure their own community education campaigns are continually updated to address topical waste issues, including those introduced by new legislative reforms.

The Australasian Recycling Label (ARL) is a labelling scheme developed by the Australian Packaging Covenant Organisation and Planet Ark that instructs consumers on how to correctly recycle product packaging. Since its launch in 2018, the initiative has been adopted by over 270 organisations across Australia and New Zealand. The promotion of the ARL on the Baw Baw Shire Council website and other Council resources could help to reduce the community's confusion on recycling issues. Council could also consider endorsing the scheme's 'if in doubt, leave it out' rule for recycling[7], which could help to minimise contamination.

Council could consider adopting a contamination policy to establish and help enforce preferred recycling behaviours in the community. This could be implemented with the help of the recycling collection contractor. Households with high contamination rates could be identified and targeted for education, with fines handed out to repeat offenders. This would require additional resourcing within Council's Environmental Health team.

[7] 'If in doubt, leave it out' has been endorsed by some Victorian Councils, including Casey City Council.

Educating children on waste and recycling at a young age can foster positive, lifelong behaviours. Through SV's *ResourceSmart Schools* program, schools have the opportunity to integrate waste and sustainability modules in their curriculum. The program supported around 85 schools across Gippsland in 2018-19, including Drouin Secondary College and Warragul Regional College. Council should continue to endorse this program, as well as other environmental initiatives targeted at schools and children (e.g. truck visits and facility tours).

Some other Victorian Councils (e.g. Hobsons Bay) have introduced a mobile phone 'app' to guide users on how to recycle properly. Council could consider developing a similar tool or other technology to support Baw Baw's recycling habits, however it may be able to direct residents where to source this information on Council's website or in its waste booklet.

In developing an approach to community engagement on waste and recycling issues, Council should ensure it is consistent with the International Association of Public Participation's *Quality Assurance Standard for Community and Stakeholder Engagement* (IAP2 2015). This incorporates core values to inform, consult, involve, collaborate and empower community stakeholders.

4.3 Collection and recovery

Joint procurement

Gippswide Kerbside is a collaborative procurement opportunity coordinated by RRG that looks to procure shared regional waste services across Gippsland. While the project is still under development, Baw Baw Shire Council has joined other Gippsland Councils in signing a memorandum of understanding with RRG to formalise and interest in the project. It is currently expected that Council will need to make a further decision about the joint procurement project around May 2021.

Gippswide Kerbside is expected to encompass kerbside collections (garbage, recycling and organics), garbage disposal and recycling and organics processing. There may be opportunities for Council to selectively opt-in to different services. There may also be an opportunity to expand services to properties in Baw Baw that do not currently have a kerbside service.

Greater material volumes can be acquired through joint procurements, which opens avenues for alternative waste technologies (AWTs) that divert residual waste from landfill. Even if the project proceeds without AWTs, RRG would still need to nominate a landfill capable of accepting 100,000 tonnes of waste per annum (e.g. one of the Melbourne's large metropolitan landfills). This would resolve Council's issue of finding an alternative to the current site (Hallam landfill) which is expected to reach capacity by 2024.

The cost of transporting residual waste to Hallam landfill for disposal is significant; Baw Baw's recycling collection costs are also higher than the state average. Participation in *Gippswide*

Kerbside could be financially beneficial for Baw Baw due to reduced kerbside costs arising from opportunities for economies of scale. RRG has prepared a business case study[8] for the project which states that "if all Councils tendered all kerbside services (i.e. collection and processing), the likely savings will be in the order of $1.145 million per annum". This equates to potential savings for Baw Baw of $181,000 per year.

However, the timing of the joint procurement process is critical, as many of Council's waste management contracts are set to expire in the next year or two[9]. If *Gippswide Kerbside* is delayed beyond September 2021, an extension of Council's current contracts may be required. If it is delayed further, potential options for Council could be to:

- negotiate with the relevant contractors for a further contract extension
- tender for short to medium term waste management contracts for recycling processing, organics processing, and residual waste disposal, with the option to participate in *Gippswide Kerbside* upon contract end. However, a short to medium term contract is not realistic for high capital investment services such as the kerbside collection contract
- tender for long term waste management contracts, with the expectation to not participate in *Gippswide Kerbside* in the near future
- explore other joint procurement opportunities with neighbouring Councils (e.g. Cardinia).

The main consideration for assessing these options is how *Gippswide Kerbside* progresses over time, as well as whether the procurement approach will allow for staged participation or opt-out opportunities. It is understood that some of Gippsland's Councils have waste management contracts with significant time remaining[10], which suggests that RRG may include staged participation within the tender specification. If so, this opens up options for 'temporary' contracts if *Gippswide Kerbside* is delayed. If not, and the project does not progress significantly in the short term, Council could explore other long-term contractual arrangements, including potential alternative joint procurement opportunities.

A key determinant will be the participation of other Gippsland Councils. As the order of cost savings is generally linked to the scale of the contract, the greatest financial benefits are likely to be achieved if the majority of Councils and/or those with the largest populations commit to the process. Benefits to Baw Baw (e.g. transport cost savings from combined collection routes) would be maximised if neighbouring Councils (such as Latrobe and South Gippsland) participated.

As Baw Baw is the most westerly Council in the Gippsland region, the Shire's neighbours also include Councils in the Metropolitan region (e.g. Cardinia, Yarra Ranges). There may be potential for Baw Baw to establish a joint tender for selected services with either or both

[8] *https://www.localgovernment.vic.gov.au/__data/assets/pdf_file/0029/123869/Gippsland-Resource-Recovery-Collaborative-Business-Case-PDF,-2.89MB.pdf*

[9] Kerbside collections, green waste processing and garbage disposal contracts all expire in 2021, although have an option for a further one-year extension.

[10] East Gippsland and Bass Coast have contracts ending in 2025 and 2027 respectively (RRG 2018).

Cardinia and Yarra Ranges; however this would be subject to the intentions of these Councils within the collaborative framework developed by the Metropolitan Waste and Resource Recovery Group.

Hard waste

About three quarters of respondents to the *Have Your Say* survey stated they would prefer their hard waste to be picked up at kerbside by Council rather than dropping off the hard waste at a transfer station. Council's hard waste arrangement caters for the wider community by accommodating both of these options. Several surveyed residents requested that Council provide more free collections per year; Council could consider the costs and benefits of doing this. We note, however, that Baw Baw is one of the very few rural Councils which offer a kerbside hard waste service; Baw Baw households are well serviced in comparison to other regional Victorian communities.

Other initiatives

Street litter

RRG note in the Gippsland Implementation Plan that instances of littering in Gippsland are more frequent in comparison to other regions. With such a high population growth rate and a significant number of tourist and day visitors, Baw Baw may be particularly susceptible to littering. Council provides a number of public place bins across Baw Baw to minimise street litter. About 200 tonnes of waste is collected via public place bins in Baw Baw every year.

It is expected that more public place bins will be required across the municipality over the coming years, as Baw Baw's population increases and the local tourist industry grows. To prepare for this, Council could consider reviewing the distribution of bins and collection frequency to better meet future community demands. This could be conducted using SV's *Local Litter Measurement Toolkit* and accompanying *Litter Hotspots Rating Tool*, which would identify high usage areas where additional or larger bins should be brought in, as well as under-utilised bins that could be relocated. If undertaken, the review would ideally be completed before the expiration of Council's current kerbside service contract, with the findings included in the scope of the following tender. The review could also identify key areas for public place recycling bins.

Some Victorian Councils, particularly in the metropolitan area, have implemented alternative bin systems in high traffic areas. Solar powered compactor bins are 'smart' bins that automatically compact waste, effectively increasing bin capacity by about four times. Although they are relatively expensive, the capital costs of these bins could potentially be offset by savings associated with less required bin collections. However, operating costs can be high in rural areas due to high travel distances and maintenance costs. Council could investigate the feasibility and cost-effectiveness of introducing these bins, and potentially trial them in key tourist areas.

Illegal dumping

More aggressive controls on littering are increasingly being adopted across Victoria[11]. Council has recently taken up a more proactive stance on illegal dumping by installing surveillance cameras at key dumping hotspots around Baw Baw. To build on this initiative, Council could consider conducting further reviews to identify other dumping hotspots. This could also be conducted using SV's *Local Litter Measurement Toolkit* and accompanying *Litter Hotspots Rating Tool*. Cameras in 'quiet' hotspots could be relocated to newly identified areas.

Baw Baw residents play an important role in minimising illegal dumping, and Council should continue to encourage reporting behaviours within the community. This could be included – potentially with a 'hotline' phone number or direct e-mail address – in key education materials (e.g. the Waste and Recycling Guide) to ensure the wider community is aware of how to report on the crime.

Farm waste

Baw Baw's farms largely exist in rural areas outside of kerbside collection zones, meaning a limited amount of information on farm waste is captured by Council. Common farm wastes include agricultural chemicals and chemical containers, dead stock, scrap metals, silage wrap, twine, tyres and waste oil. Farmers can drop-off many of these items to Council transfer stations for free, including through the ChemClear collection program.

Some farmers manage their waste on-site (e.g. by burning or burying waste) rather than travelling to the nearest transfer station, however this can pose environmental and public health risks, and may be illegal. It also can affect farm activities through potential contamination of soil and waterways, harm to stock health, pasture and crops, and degradation of agricultural land. There is a role for Council in raising awareness of the negative impacts and discouraging on-farm waste disposal through community education programs and potentially subsidised targeted waste management initiatives.

4.4 Waste and recycling facilities

Transfer stations

The Gippsland Implementation Plan includes a regional assessment of the needs and opportunities for waste facilities across Gippsland, including Baw Baw's transfer stations (discussed in Section 3.3). The assessment has identified opportunities for Council to upgrade all four transfer stations to best practice as part of a transfer station infrastructure strategy, and to focus on source separation infrastructure and mechanical compaction of bins.

Council has recently constructed e-waste sheds at the transfer stations. A number of further upgrades (e.g. extension of hard stand areas, establishing additional storage areas) would be required at each transfer station to meet best practice standards. Further separation of

[11] New EPA legislation will introduce new 'volume-based' and 'dangerous' litter offences in 2021.

recyclables and compaction of waste loads prior to transport to landfill could also deliver transport cost savings. However before investing in infrastructure upgrades it is important to consider the long-term viability of the facilities.

Three of Baw Baw's transfer stations were originally established in conjunction with (now closed) landfills, meaning they were not necessarily positioned to optimise community access, and their aging infrastructure may no longer be delivering operational efficiency. There is also some anecdotal evidence to suggest that the opening hours of each facility are not being fully utilised. Current patterns of community use of the facilities may not reflect those when the facilities were first developed.

It would be prudent for Council to develop a holistic strategy for transfer stations in the Shire, either at a Council level or potentially in conjunction with RRG on a regional basis. The strategy should consider (among other things):

- the enhanced role that transfer stations now play in resource recovery, the expanding range of materials recovered over time and the infrastructure necessary to deliver this
- current use of the existing facilities (e.g. by conducting a traffic survey at each facility) and potential for any changes to operating hours
- potential for operational efficiencies and cost savings through changes to management practices and plant/equipment used on site
- upgrades necessary for each facility to meet best practice requirements
- optimum locations for the transfer station network to meet community needs now and in the future
- potential for expansion or rationalisation to meet future needs
- cost benefit analysis of different infrastructure options.

The new EPA legislation which is due to be implemented in 2021 will require all transfer stations to be regulated by the EPA; depending on the scale and scope of operations this could be via licence, permit or registration. It is likely EPA regulation will further emphasise the importance of transfer stations meeting best practice, adding to the infrastructure investment required of Council. Council will need to apply for EPA approval of continued operations of each transfer station within three to six months of the new legislation taking effect.

Trafalgar closed landfill

The closed Trafalgar landfill has been rehabilitated and a landfill gas and leachate extraction system has been installed. As an unlined landfill, it has encountered some issues with leachate but Council has dealt with these through revised collection and monitoring systems. Aftercare and environmental monitoring plans are in place in accordance with current EPA regulations.

A new landfill compliance code is expected to be released by the EPA in parallel with new 2021 regulations. While the detail of these is not yet known, current industry information suggests the compliance code will reflect existing regulatory requirements. Nevertheless it would be

prudent of Council to monitor landfill compliance code requirements to be informed of any changes that may affect future management and monitoring of the Trafalgar landfill.

There are a number of after-use options for the rehabilitated landfill. Key considerations include the site size, location and topography; surrounding land uses; community needs; and the financial implications of different options.

One potential after-use option is the establishment of a small-scale solar energy park. Council has investigated a business case for a 1 MW solar farm at the site, which demonstrates a project at that scale would not likely be viable at present. However, a smaller 70 kW system could be feasible to meet the site energy demand for the installed landfill gas and leachate treatment systems. As the facility is proposed to service on-site needs only, it would not need to be connected to the electricity grid and would avoid grid connection issues and costs.

Council may also opt to make no further use of the closed landfill, and simply continue to conduct monitoring and aftercare measures as required. This is a low cost and low risk option, although it does not offer the potential benefits of other options (e.g. electricity generation, cost savings).

4.5 Industry trends

Recycling markets

The recycling industry in Victoria has experienced significant volatility in the last two years. This has primarily been led by import restrictions imposed by China (and followed by some other Asian nations) on recovered materials to Asian markets, and the flow-on effects on Australian commodity prices and the financial viability of local recyclers. This resulted in a slump in markets for some materials, significant material stockpiling by many local recyclers, temporary diversion of some recyclables to landfill, and the collapse of a major Victorian recycling company.

In recognition of these issues, and to support local processing and local markets for recovered material, the Victorian and Commonwealth Governments have initiated a range of policy and regulatory responses (refer Section 2.3). This has included enhanced EPA oversight, export bans, infrastructure studies, funding for local recyclers, and support for purchasing of products with recycled content.

As a result, Baw Baw is likely to see a number of changes in waste management and recycling (some of which have been incorporated in *Recycling Victoria* and other recent policies) including:

- increased emphasis on accurate, timely data capture and reporting for planning purposes
- increased pressure to reduce contamination in kerbside recycling (including potential financial incentives/disincentives in contract arrangements with service providers)

- additional economic and employment opportunities for sorting and recycling facilities in regional areas
- more engagement with EPA on the operating activities of waste and recycling facilities (including Council transfer stations)
- increased focus on developing local markets for materials, including local government procurement of products with recycled content
- increased levies and service costs for both waste and recycling
- increased funding for resource recovery initiatives
- increased intervention by both Victorian and Commonwealth Governments on waste and recycling issues.

Waste generated from natural disasters

Baw Baw is susceptible to a range of localised natural disasters, including seismic activity such as earthquakes and landslips, bushfires, and severe storms involving wind, hail and flood. It also experiences, along with the global community, more irregular events such as the current coronavirus pandemic. The incidence of some of these emergencies and natural disasters is likely to increase in future as a result of climate change.

While each disaster will give rise to different outcomes, there are some key themes providing direction for future management.

- Waste and recycling services need to continue to be provided throughout the emergency and will likely need ramping up after the event to deal with a large 'pulse' of waste.
- The loss of homes and businesses can be a highly emotive issue for the community; some sensitivity therefore needs to be applied to the clean-up after the event. This is particularly the case if there is loss of life involved. Deaths from some events may involve uncertainty around the number or location of victims; this can impact on the speed and scope of recovery operations. Other potential issues affecting the rate of clean-up may include scattered asbestos-containing material, live power lines, raw sewage, contaminated sites and dangerous structures. However there are psychological advantages to clearing waste from streets and public places as soon as possible so that the community can focus on recovery efforts. It is also important to involve the community in the process in order to build community resilience.
- The amount of waste material generated can be overwhelming and may equate to a decade or more of 'normal' waste generation. Occupants may need to dispose of the entire contents of homes, buildings and factories, and in some cases the structure as well. This could equate to more than the current landfill airspace available or severely limit capacity for the future. It is critical that every effort is made to ensure only material which cannot be diverted is sent to landfill.
- The type of waste generated may range from benign to hazardous and may be mixed. The separation of hazardous from non-hazardous materials needs to be clearly communicated to the community through fact sheets, local news, community updates and customer service responses. There may also be waste types which are difficult to manage and/or presented in large quantities which will need individual attention (e.g. large

quantities of mattresses need to be shredded before disposal). Opportunity still remains to request the community to sort their waste into selected waste streams.

- Downstream flooding events can see a wide dispersal of material from upstream locations. Accessing and transporting large and small items from a variety of locations requires a variety of approaches.
- Some waste facilities may be unusable when they are needed the most or unsuitable to peak disaster requirements, e.g. from being directly affected, by lack of access, not designed for the number or configuration of vehicles requiring access, or not suitable for 24 hour operation necessary to deal with large volumes of waste. Alternative sites need to be identified that are available should the need arise. This does not necessarily need extensive infrastructure; a vacant site with good access which allows flexibility in stockpiling and processing different waste streams may be suitable.

Council should ensure appropriate measures are in place in disaster planning approaches (e.g. Council's Municipal Emergency Management Plan, Municipal Pandemic Influenza Plan, Waste Management Business Continuity Plan, Landfill Management Business Continuity Plan, etc.), and that these are regularly updated to address lessons learnt from each event.

Alternative waste technologies

There is increasing interest in establishing alternative waste technologies (AWTs) such as mechanical biological treatment and energy from waste facilities. The role of energy from waste facilities in particular have been embedded in the Victorian Government's *Recycling Victoria* circular economy policy (up to a maximum of one million tonnes). AWTs capable of treating municipal solid waste generally require large throughput volumes (over 100,000 tonnes/year) to offset the large capital outlay required and are therefore more suited to a regional role in waste management.

The first large energy from waste facility in the Gippsland region is planned for development by Opal Australian Paper at its Maryvale mill. The facility has received works approval from the EPA and is currently exploring options for supply of the planned throughput of 600,000 tonnes/year. Once construction commences, it is likely to be operational in around five years. Due to its size, the facility has the potential to change the existing pathways of waste in metropolitan Melbourne and eastern Victoria. It could potentially offer a disposal point for the waste that Baw Baw currently sends to Hallam landfill, reducing current transport costs by around two thirds, although the gate fee and overall cost in relation to avoided landfill levy is currently not known. However there are a number of financial, technical, feedstock and other issues to be addressed prior to the facility coming on-line. Council should monitor progress of the planned development to identify relevant opportunities for Baw Baw.

Container deposit scheme

The Victorian Government has committed to introduce a container deposit scheme (CDS) by 2023, and the scheme framework is currently under development by DELWP. A CDS is in place or in the planning stage in all other Australian states; Victoria is the last state to introduce a

scheme and it is understood the Victorian CDS will reflect some differences in approach (e.g. inclusion of wine and spirit bottles as eligible beverage containers). However it is likely there will be a future push towards harmonisation of the different state schemes into a national approach, and it is uncertain what changes may be agreed to deliver consensus among the jurisdictions.

Based on the experience of schemes in other states, Council could expect to see various outcomes and opportunities:

- Reverse vending machines have proven popular and successful. They can be located at a number of different venues (e.g. car parks, sporting grounds) and offer 24-hour access to users.
- There is a role for charities and local community organisations to be engaged in collections and operation of container refund points. Council may also wish to nominate to operate a container refund point (e.g. at one or more transfer stations).
- There is likely to be a reduction in beverage containers appearing in litter streams.
- Lower yields may be seen in kerbside recycling bins as residents divert containers to refund collection points.
- Council may need to negotiate with recyclers to agree on a share of the deposit refund on containers collected in kerbside services.

4.6 Funding opportunities

There are several funding opportunities available to Council, either solely or in conjunction with RRG, that could support future waste and resource recovery initiatives and infrastructure. Many of these are Victorian Government grants born out of circular economy policy planning. The 2021 increase to landfill levies is also expected to see increased funds made available for resource recovery initiatives.

The Victorian Government has budgeted $129 million to support kerbside recycling reforms set out in the circular economy policy. Some of this funding may help Baw Baw transition to FOGO collections, source-separated glass services and Victoria's CDS.

Through the Support Victorian Communities and Councils program, the Victorian Government has budgeted $14.6 million to support local projects that support circular initiatives. Councils will be able to apply for funding to identify and implement local opportunities that waste less and recycle and reuse more. Local community groups, social enterprises and other not-for-profits will also be eligible for funding. The Victorian Government also looks to provide support and investment to prevent litter and illegal dumping. Although it has yet to launch, Baw Baw could consider applying for grants through this program as they become available for projects such as:

- expansion of illegal dumping surveillance cameras
- provision of more public place recycling bins
- installation of solar powered compaction bins

- supporting the local reuse economy.

The Victorian Government is offering investment in projects that reduce packaging waste to landfill as part of an industry and infrastructure development package through SV's Investment Support Grants. At the time of writing, applications are open and will remain so until March 2021, unless funding is fully subscribed beforehand. Grants up to $50,000 are available and a 1:1 contribution would be required from Council. Council could apply to establish source separation infrastructure at one of their larger transfer stations. This would align with RRG's future vision for the Shire, and could improve yields of recovered packaging materials from Baw Baw's commingled recycling stream.

The Recycling Victoria Infrastructure Fund incentivises new recycling infrastructure, targeting priority materials, such as paper and cardboard, plastic, glass and hazardous solvent waste. $49.5 million will be granted to assist businesses to improve the quality of materials recovered and increase the capacity and capability of Victoria's resource recovery sector. Expressions of interest for the current round of funding closed in May 2020, however it is possible further rounds may open in future.

Other grant programs and funding opportunities that may be relevant include the following:

- The Clean Energy Regulator's Emissions Reduction Fund incentivises organisations to reduce their greenhouse gas emissions. Through the fund, participants can earn one Australian carbon credit unit (ACCU) for each tonne of carbon dioxide equivalent stored or avoided by a project, and ACCUs can be sold to generate income. Council could explore the potential for applying for the fund for landfill gas capture at the closed Trafalgar landfill or alternative treatment of organic waste. Note there are annual reporting and costs involved which may make the fund less attractive to Council; the costs and benefits of participation would need to be further assessed.
- Regional Development Victoria provides funding for a range of projects which have potential to stimulate economic activity in regional Victoria. The Regional Infrastructure Fund is currently closed but may re-open. Previous rounds have been capped at $500,000 per project. The $40 million Latrobe Valley Economic Development Program supports growth, diversity and resilience across different sectors in the region.
- The Commonwealth Government has provided funding for large waste infrastructure in regional areas of Australia (including Opal Australian Paper's proposed energy from waste facility) on a case-by-case basis. If a significant opportunity was identified in Baw Baw that aligned with the Commonwealth's waste policies a case might be made for funding support.

4.7 Performance and monitoring

Council currently monitors the performance of its waste management services through a range of performance indicators, including those stipulated within the Local Government Performance Reporting Framework. Community views are also measured periodically through

Council's *Have Your Say* survey. Expanding waste data collection, analysis and reporting can enhance Council's understanding of the waste stream, identify performance gaps and inform future waste management strategies. Potential areas for improvement include:

- enhanced data collection at transfer stations to better capture the type and amount of materials dropped off and those leaving the facility to be recycled or disposed (this could be included as a requirement in future contract arrangements)
- regular reports on recycling contamination levels from Council's service provider (this could also be included in contract arrangements)
- information on usage of public place waste and recycling bins (including quantity presented, contamination level, collection frequencies, etc.) to help identify service needs
- enhanced reporting of illegal dumping incidents, locations and waste types to provide insight into sources and hotspots, as well as development of an appropriate behaviour change and enforcement response
- recording waste diversion performance from Council operations.

Council should regularly monitor and review actions undertaken in accordance with the *Baw Baw Shire Council Waste Management Plan 2020-25*. This allows Council to identify any unexpected issues that may arise and amend the plan accordingly.

5. Outcomes

Baw Baw Shire Council provides important and effective waste and resource recovery services to the Baw Baw community, including waste education programs, worm farm and composting opportunities, kerbside collection services, waste and recycling infrastructure, litter and illegal dumping clean-ups. Community surveys show a generally high level of community satisfaction with the services provided.

In 2018-19 around 20,000 tonnes of waste and recyclables were managed by Council. The amount of waste and recyclables generated is likely to grow in future due to population growth in the Shire. Around 53% of household waste is diverted from landfill to recycling; this diversion rate has remained about the same for the past five years and is not expected to meet Council's 2020 target of 64%.

Waste management has experienced a number of recent industry and market disruptions, and new Victorian Government policies and EPA legislation are expected to impose further challenges to business-as-usual. The *Baw Baw Shire Council Waste Management Plan 2020-2025* has been developed to meet future waste and recycling challenges, provide a framework for achieving significant progress in avoiding and minimising waste, and help deliver on Baw Baw's vision for a sustainable future.

A range of actions have been proposed to address current and future waste and recycling challenges (refer following sections). Council should meet ongoing commitments and initiate actions outlined through the life of this waste management plan subject to considering all other funding requirements.

Council transition to new services

In February 2020, the Victorian Government released Recycling Victoria: a new economy, a circular economy policy and a 10-year action plan to improve recycling infrastructure and services.

Three key service changes are required by the Recycling Victoria Policy:

1. The provision of food organics and garden organics (FOGO) kerbside collection services by 2030.
2. The provision of separate recovery systems for glass (currently included in the kerbside comingled recycling service) by 2027.
3. Upgrading kerbside bin lids to ensure they are consistent with colours specified in Recycling Victoria.

To deliver the first kerbside service reform, Council's FOGO service provision will include a weekly food and garden organics collection service, fortnightly garbage and fortnightly

recycling, as was recommended in the Baw Baw Shire Food and Garden Organics Business Case prepared by the Gippsland Waste and Resource Recovery Group in October 2018. This Plan aims to implement a FOGO service in Baw Baw Shire in 2022-23 following the expiry of Council's current kerbside and green organics processing contracts.

The introduction of a glass recovery service will occur following the state-wide introduction of a container deposit scheme by the Victorian Government by 2022-23 This will enable Council to examine the impact of a container deposit scheme on glass recycling in Baw Baw Shire and to make an informed decision on what type of service to provide. This Plan aims to implement a glass service in Baw Baw Shire around 2025-26.38

1. Food organics and garden organics

There has been renewed focus on the recovery of organics in recent years, and Councils across Victoria are increasingly adopting recycling services that include food waste. This is supported by the Victorian Government in *Recycling Victoria,* which outlines the requirement for every Victorian household to have access to a FOGO system or local composting by 2030.

There is an opportunity to expand Council's current garden organics service to include food and garden organics; this has already been explored on behalf of Council by RRG in a business case study (RRG 2018a).

Studies conducted by RRG estimate that, on average, each Gippsland household disposes around 172 kg of food into their garbage bin each year. RRG's business case study estimates that, based on 2017-18 figures, organics recovery in Baw Baw would increase by about 57% as a result of a FOGO service, which in turn would decrease garbage by about 36%. This would increase overall diversion rates to about 70%.

The preferred kerbside service identified by the business case study is a weekly FOGO collection service, including the provision of a kitchen caddy and compostable liners, coupled with fortnightly garbage and recycling. The business case study reports there will be an additional cost of FOGO over the current service, however the additional cost may be partly offset by less costly treatment options than landfill. Potential savings would be enhanced over time as landfill costs increase.

The business case study found this model provided the ability to achieve the greatest improvement at the most affordable cost, improves diversion rates and further reduces reliance on landfill.

This service change is likely to maximise diversion of waste from landfill, increasing the environmental benefits such as:

- reducing greenhouse gas emissions from food organics decomposing in landfills
- reducing the risk of groundwater contamination from landfills.
- the generation of compost products for domestic and commercial use.

The assessment in the business case indicates the average household (around 2.5 occupants) will easily adjust to this new service. However, solutions to some of the challenges that may be faced by larger families or those with additional medical needs, includes the option to up-size their bins. The business case also recommends the provision of kitchen caddies and compostable bags with the rollout of the new service, which will be considered by Council.

The results of the *Have Your Say* survey suggest that the Baw Baw community is largely supportive of FOGO, with almost three quarters of surveyed residents stating that they would participate in the system. Many of those who stated they would not participate in FOGO reasoned that this was because they already manage food organics at home, which further demonstrates the community's awareness on organic waste issues.

For Baw Baw Shire residents without a kerbside service, Council will continue to support composting at the source via its existing compost bin rebate program scheme and should consider providing alternative FOGO drop off locations, such as at our transfer stations.

2. Glass collection

Broken glass is among the biggest contaminants in the recycling stream. To address this, the Victorian Government has announced that all Victorians must have access to a dedicated glass recycling service by 2027. This can be either a glass-only bin included in kerbside collection services, or by establishing local glass drop-off locations. Glass will no longer be accepted in commingled recycling after the introduction of a dedicated glass service.

Council could include a fourth, glass-only bin in the scope of their next kerbside collections contract. Key considerations are:

- bin size and collection frequency
- space requirements for four bins
- community views
- financial implications
- glass processing options
- potential adjustments to other services (e.g. with glass removed, garbage collections could be decreased to a fortnightly schedule)
- whether or not *Gippswide Kerbside* is expected to include glass collection and processing
- the impact of Victoria's forthcoming CDS.

The majority of Victorian Councils that have introduced a four-bin system (i.e. Hobsons Bay, Macedon Ranges and Moyne) collect their purple lidded bins on a monthly basis, although Yarra City Council do so fortnightly. Collected glass is generally recycled back into glass containers or crushed and used in civil engineering applications.

A range of factors influence the financial component of the glass service, including:

- service costs (collection, transport, processing)
- cost savings associated with avoided landfill fees
- potentially reduced processing costs for commingled recycling (i.e. MRFs may charge less to process glass-free recyclables)
- potential capital costs of purchasing and rolling out a fourth bin
- potential capital costs of infrastructure for glass drop-off services (e.g. upgrades to existing transfer stations, establishing dedicated drop-off stations).

The Victoria Government's forthcoming CDS will influence glass collections by diverting glass from kerbside. This could potentially reduce the collection costs of a dedicated glass service (e.g. by warranting the use of smaller bins or less frequent collections), but could also impact revenue from the sale of kerbside recyclables. The impact of a CDS on potential glass-only services should be assessed once further details about the service are known.

When considering service design, Council should take into account the experience of others. For example, Moyne Shire Council engaged community groups to hand deliver their new glass-only bins. Each delivered bin came with a $5 reward, effectively creating a fundraising stream for each group. To keep contamination rates down, Moyne Shire Council have also implemented a bin sticker system that identifies and educates households that are misusing glass bins.

In their *Advice on recycling and resource recovery infrastructure* report (2020), Infrastructure Victoria nominated Morwell (in Latrobe City) as a candidate location for a new glass recovery facility. If established, this facility could accept source-separated glass collected by Councils across Gippsland.

3. Upgrading kerbside bin lids

All garbage bins in Baw Baw Currently have red lids, as required by Recycling Victoria. However, it is estimated that 10,000 comingled recycling bins will need to be changed to yellow, and 15,000 garden organics bins will require lid to be changed to light green. The Victorian Government has committed to providing funding support for the delivery of the *Recycling Victoria* waste reforms and may provide support to Council for the rollout of new bin lids, commencing in 2021.

Action plan

Council will undertake the following actions in implementing the *Baw Baw Shire Council Waste Management Plan 2020-2025*.

1. Waste avoidance and minimisation

Ongoing commitments

- Support and promote Commonwealth and Victorian Government programs including *National Recycling Week, Clean Up Australia Day, Detox your home, Love Food Hate Waste* and other relevant programs
- Minimise waste in Council operations and events, and work with community groups to ensure local events are sustainable
- Support local community-led initiatives such as buy-swap-sell markets and 'how to' repair workshops
- Continue to advocate on waste avoidance issues such as product stewardship and behavioural change programs
- Increase community awareness and understanding of existing waste and recycling services.

Actions

No.	Action	Timeline	What success looks like
1.1	Review and strengthen Council's procurement policy, preferencing products with recycled content	2021-22	Annual policy review conducted
1.2	Develop a community awareness program to help farm businesses correctly manage farm waste	2021-22	Awareness program developed for release to the farming community

2. Community education and engagement

Ongoing commitments

- Increase community awareness of services and recycling outcomes
- Partner with Sustainability Victoria, RRG and other Councils on waste education
- Identify opportunities and participate in regional and state education programs (e.g. *Know Your Recycling*) as they become available
- Support *ResourceSmart Schools* to deliver waste education in schools
- Investigate new platforms for community engagement.

Actions

No.	Action	Timeline	What success looks like
2.1	Identify Council's resourcing requirements to implement the Victorian Government's reform targets	2020-21	Resourcing requirements identified for delivery of waste education campaigns
2.2	Develop and implement a FOGO education campaign	2021-22	FOGO service education campaign developed and implemented
2.3	Develop and implement a glass education campaign (timeline dependent on introduction of the CDS)	2024-25	Glass service education campaign development and implemented
2.4	Investigate if a contamination policy is required following the introduction of the Victorian Government's recycling reforms	2023-2024	Confirmation if a contamination policy is required

3. Collection and recovery

Ongoing commitments

- Explore opportunities for collaborative procurement with other Councils
- Consider increasing the availability of public place waste and recycling bins across the municipality
- Continue to investigate new opportunities for alternative bin technologies and waste systems.

Actions

No.	Action	Timeline	What success looks like
3.1	Review the results of the tendering process for *Gippswide Kerbside* collaborative procurement waste service contracts	2020-21 2021-22	Review of the *Gippswide Kerbside* collaborative procurement tenders completed and considered by Council for decision
3.2	Submit waste transition plan to DELWP six months prior to implementing any waste service reforms	2021-22	Final transition plan submitted to DELWP on time
3.3	Continue the 'at call' hard waste collection service and investigate the costs and benefits of increasing the free hard waste collections for each household	2021-22	Investigation into cost and benefits of increasing the free hard waste collections for each household completed
3.4	Investigate new opportunities to dispose of Council's residual waste to landfill	2021-22	Review of landfill opportunities completed
3.5	Investigate alternative organic processing facilities that accept FOGO	2021-22	Review of FOGO processing facilities completed

3.6	Introduce a weekly FOGO service with conforming bin lid colour in association with fortnightly garbage and recycling service intervals	2022-23	FOGO service successfully introduced
3.7	Review the need to develop an illegal dumping surveillance plan	2022-23	Review conducted and results actioned if required
3.8	Implement a glass service (including conforming bin lid colour) following review of the impact of the State Government's Container Deposit Scheme	2025-26	Glass service successfully implemented with preferred service and frequencies
3.9	Review the declared garbage service areas to better delineate the service boundaries	2021-22	Review undertake of declared garbage service areas

4. Waste and recycling facilities

Ongoing commitments

- Continue environmental monitoring and aftercare of the Trafalgar closed landfill in accordance with EPA requirements

Actions

No.	Action	Timeline	What success looks like
4.1	Ensure Trafalgar closed landfill meets new EPA regulatory requirements	Ongoing	EPA compliance requirements met
4.2	Ensure transfer stations meet new EPA regulatory requirements	2021-22	EPA compliance requirements met
4.3	Investigate the development of a transfer station strategy in consultation with Resource Recovery Gippsland	2023-24	Investigation conducted and findings considered

5. Industry trends

Ongoing commitments

- Explore options to reduce recycling contamination
- Consider local processing and market opportunities for recovered materials
- Monitor the development and implementation of the Victorian CDS and explore local opportunities for Council and the community
- Monitor the development of energy from waste facilities and consider opportunities for disposal of the residual waste stream.

Actions

No.	Action	Timeline	What success looks like
5.1	Ensure appropriate emergency waste measures are included in Council's emergency planning responses	Annually	Develop and maintain a waste business continuity plan

6.Funding opportunities

Ongoing commitments

- Monitor future funding opportunities from Regional Development Victoria and the Commonwealth Government
- Explore the potential for applying for SV's Investment Support Grants for packaging

Actions

No.	Action	Timeline	What success looks like
6.1	Proactively seek funding opportunities using Council's grant management system	Annually	Grant management system utilised to apply for relevant grants
6.2	Assess the costs and benefits of participation in the Commonwealth Government's Emissions Reduction Fund	2021-22	Review of Fund conducted for consideration54

7. Performance and monitoring

Ongoing commitments

- Continue to measure performance of kerbside services through regional and local waste and recycling audits
- Explore the potential to improve data capture on public place waste and recycling bins and illegal dumping incidents
- Collect waste data from Council services, operations and facilities to track waste reduction and diversion achievements
- Achieve compliance with ongoing and new EPA requirements.

Actions

No.	Action	Timeline	What success looks like
7.1	Undertake a Waste Management Plan mid-term review	2022-23	Mid-term review completed
7.2	In all future waste service contracts incorporate the requirement for regular reporting on contamination	2022 onwards	Future contracts specify reporting of contamination levels and type

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Appendix A: National and state waste management targets

Topic	National Waste Policy Action Plan 2019	Recycling Victoria
Waste avoidance and minimisation	Reduce total waste generated in Australia by 10% per person by 2030.	15% reduction in total waste generation per capita between 2020 and 2030.
	Phase out problematic and unnecessary plastics by 2025.	
Resource recovery	80% average recovery rate from all waste streams by 2030.	Divert 80% of waste from landfill by 2030, with an interim target of 72% by 2025.
	Significantly increase the use of recycled content by governments and industry.	
Organics	Halve the amount of organic waste sent to landfill by 2030.	Cut the volume of organic material going to landfill by 50% between 2020 and 2030, with an interim target of 20% reduction by 2025.
		100% of households have access to a separate food and organics recovery service or local composting by 2030.
Exports	Ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020.	

Topic	National Waste Policy Action Plan 2019	Recycling Victoria
Information and data	Make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions.	