



Barwon South West
**Waste & Resource
Recovery Group**

www.reduce-recycle.com.au

Education Strategy 2018 - 2022

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Disclaimer

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The Barwon South West Region Waste and Resource Recovery Education Strategy was developed collaboratively with funding and support from all the regions councils:



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1 Introduction

Waste generation is increasing. How we reverse this trend and better manage our growing waste streams is more important than ever.

As consumers of goods we all generate some form of waste. We recover large quantities of materials through recycling, but there are still opportunities to recover more. As our population continues to grow, greater volumes of waste will be generated, placing additional strain on our existing waste and resource recovery systems.

The performance of our waste and resource recovery system relies on everyone understanding the role they play in waste and resource recovery. This requires effective education to provide an understanding of the systems and processes behind waste management and the behaviours that support waste services and infrastructure to function properly.

While we know that across our region we have a history of effective local waste education activities and programs, we also recognise that there are opportunities for improvement. We need to strengthen our regional waste and resource recovery education capabilities and work collaboratively to research, plan and deliver waste education initiatives that seek to engage the community and industry more effectively.

By drawing from experience across the region and broad consultation, we have developed a Waste and Resource Recovery Education Strategy (the Strategy) that provides the framework for regional waste and resource recovery education over the next five years (2018-2022). This includes a five year action plan for implementation of that strategy.

2 This Strategy

2.1 Purpose

The Strategy has been developed collaboratively by the Barwon South West Waste and Resource Recovery Group and the regions nine local governments to facilitate improved waste education across the Barwon South West region.

It marks the start of a new beginning for waste education. This is the first time that the Group and local government have come together to develop a regional strategy for waste education that considers both local and regional priorities.

The Strategy is designed to support the prioritisation and delivery of waste education initiatives across the Barwon South West Region to achieve cost benefits and more effective education, communication and partnership outcomes for all participants. The purpose of the Strategy is to:

Achieve behaviour change that reduces waste generation and increases resource recovery.

2.2 Who is this Strategy for?

The Strategy will guide the waste education activities of the Barwon South West Waste and Resource Recovery Group (the Group) and the region's nine local governments. It is also designed to provide waste education leadership across the region. As such all stakeholders involved in waste education (i.e. community groups, schools, industry groups etc.) are encouraged to read this Strategy.

2.3 How the Strategy is presented

This Strategy is presented in the five sections as outlined in Table 1.

Table 1: Strategy sections

Section	Description
Background	Background about the region and the strategic justification for the Strategy.
Where we are today?	Regional profile, our waste education priorities and opportunities for improvement, and existing waste education programs.
What do we want to achieve?	The Strategy's strategic directions and actions.
How we will get there?	Our approach to education, project delivery and governance structures.
How we will evaluate success?	The process for monitoring and evaluating implementation of the Strategy.

3 Background

3.1 The Barwon South West Waste and Resource Recovery Region

The Barwon South West Waste and Resource Recovery region (Barwon South West region) comprises nine local government areas (LGAs) shown in **Error! Reference source not found.** The region extends from Avalon Airport through to the South Australian border covering more than 27,000 square kilometres. The region includes the south west coast of Victoria and has 800 kilometres of coastline, equating to around 40% of Victoria's coastline.

The Barwon South West region incorporates the following municipalities:

- Borough of Queenscliffe
- City of Greater Geelong
- Colac Otway Shire Council
- Corangamite Shire Council
- Glenelg Shire Council
- Moyne Shire Council
- Southern Grampians Shire Council
- Surf Coast Shire Council
- Warrnambool City Council

Figure 1: Map of the Barwon South West region



3.1.1 Population

The permanent population for the region is approximately 378,000¹ and is forecast to increase to 462,000 by 2030² with the most significant population growth expected in the Greater Geelong and Surf Coast areas. Seasonal population increases are generally observed in coastal towns during summer and the winter tuna fishing season in Apollo Bay, Portland and Port Fairy. Growth in population, both permanent and seasonal needs to be considered in planning for the region's future waste and resource recovery initiatives.

¹ Australian Bureau of Statistics (2014) Census data by local government area

² Department of Environment, Land, Water and Planning (2014) Victoria in the Future – Population and Household Projections

3.1.2 Economy, employment and geography

The Barwon South West region includes iconic tourism destinations such as the Great Ocean Road, Bells Beach, Bellarine Peninsula, Port Campbell National Park (featuring the Twelve Apostles and Loch Ard Gorge) and the Grampians National Park. The region is also home to a vibrant recreational boating and fishing tourism industry.

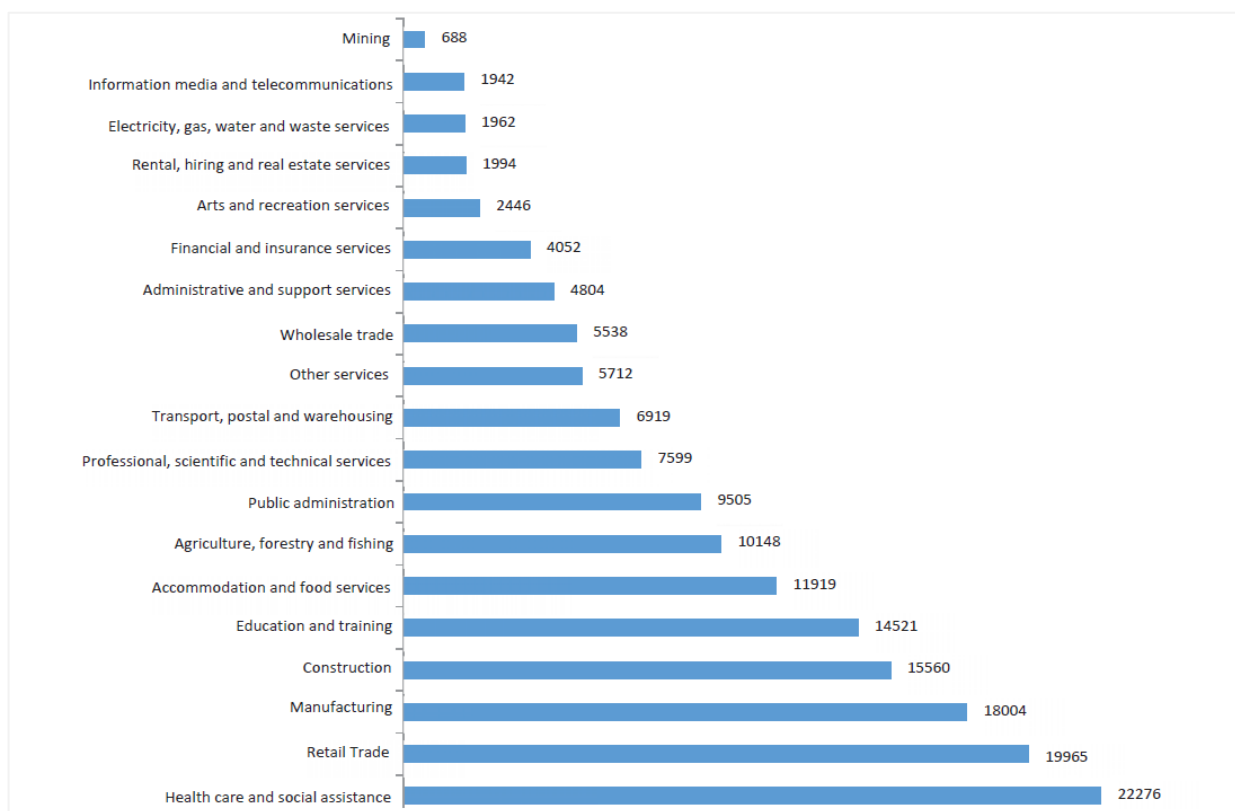
Economic development, employment and industry sectors reflect the region's unique geographical characteristics. The industries that operate across the region influence the type and volumes of wastes generated.

Barwon South West region's economic diversity can be categorised into three main areas:

- inland and rural, largely based on agricultural and timber industries;
- coastal, driven by tourism and amenity lifestyles; and
- Geelong City with a diverse economic and social base around an urban core.

The key industries that provide employment opportunities in the region include healthcare, retail trade, agribusiness (including beef, sheep and dairy farming, forestry, timber and viticulture and broad acre cropping), tourism (accommodation and food services), manufacturing, and education and training. Figure 2 shows the number of full-time employees for each industry.

Figure 2: Industries and full-time employees



The population structure and growth rates, unique geographical characteristics and industry types across the Barwon South West region provide both challenges and opportunities in planning for waste minimisation, resource recovery and associated engagement and education programs.

The Barwon South West Waste and Resource Recovery Education Strategy recognises the diversity across the region and has taken these factors into consideration.

3.2 The Barwon South West Waste and Resource Recovery Group

The Barwon South West Waste and Resource Recovery Group replaced the former Barwon and South West Regional Waste Management Groups and is now one of seven waste and resource recovery groups (WRRGs) in Victoria established under the Environment Protection Act 1970 (EP Act).

The Group is the link between state and local governments, community and industry and is responsible for facilitating an integrated approach to regional planning, and the delivery of waste management and resource recovery services that align with state-wide waste and resource recovery planning.

The functions of the group are outlined in S49(H) of the EP Act and include:

- planning for future infrastructure needs;
- facilitating infrastructure, services and joint procurement;
- working with and advising Sustainability Victoria (SV), councils, businesses and communities; and
- supporting collaborative forums and undertaking projects funded by government.

One of the first requirements of the EP Act was for the Group to prepare a Regional Waste and Resource Recovery Implementation Plan.

3.3 BSW Regional Implementation Plan

The BSW Regional Implementation Plan outlines the waste and resource recovery infrastructure needs of the region for the next 10 years. The needs have been identified through input and feedback of key stakeholders, including local government, industry and the community.

It has been prepared to align strategically with the state infrastructure plan and the six other regional implementation plans, while focussing on the operational requirements for best practice waste management within the Barwon South West region.

The Regional Implementation Plan is intended for use by councils, industry, individuals and community involved in waste and resource recovery to help inform their decision making.

Table 2 summarises key relevant components of the Regional Implementation Plan in relation to waste and resource recovery education.

Table 2: Key relevant components of the Regional Implementation Plan

Component	Key Area: Behaviour Change
Regional Strategic Objectives	1. Achieve behaviour change that reduces waste generation and increases resource recovery.
Priority Actions	1. Facilitate behaviour change to reduce waste generation, improve source separation and recovery rates.
Plan Activities	1.1 Employ an education, research and innovations officer to increase regional capacity to deliver waste and resource recovery initiatives in the region. 1.2 Prepare and deliver a waste and resource recovery education strategy that aligns with the Victorian Waste Education Strategy. 1.3 Support and engage with regional education working groups. 1.4 Support education programs that encourage and lead to improved waste and resource recovery.

3.4 Victorian Waste Education Strategy

The 10-year Victorian Waste Education Strategy released in August 2016 is a key component of delivering the 30-year State-wide Waste and Resource Recovery Infrastructure Plan. As shown in Figure 3, the Victorian Waste Education Strategy is a foundational strategy that supports all other initiatives related to the state infrastructure plan.

Figure 3: Victoria's Waste and Resource Recovery Infrastructure Planning Framework



The Victorian Waste Education Strategy aims to provide a consistent and coordinated approach to waste and resource recovery education. It supports best practice programs so that Victorians:

- are well informed and taking practical action to reduce waste, minimise environmental impact and maximise value; and
- understand the importance of effective waste management and recovery of valuable resources.

The Victorian Waste Education Strategy identifies six strategic directions to guide waste and resource recovery education in Victoria over the strategy's 10-year lifespan. They are:

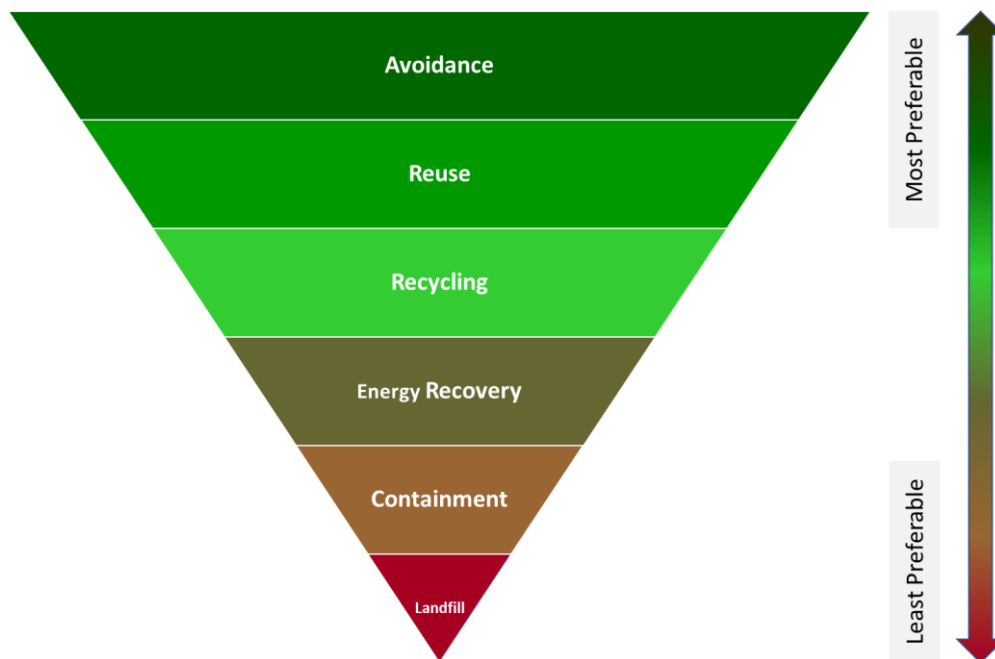
1. Increase the Victorian community and business perception of waste management as an essential service.
2. Increase the community awareness of waste and support and encourage waste avoidance.
3. Improve resource recovery and reduce contamination.
4. Reduce litter and illegal dumping.
5. Support waste and resource recovery education for schools.
6. Strengthen Victoria's waste and resource recovery education capabilities.

3.5 The Waste Hierarchy

The waste hierarchy, as shown in Figure 4, is a globally accepted model for prioritising waste management and resource recovery activities, programs and policies. Waste avoidance is the most preferred option, minimising the need to expend resources on transforming waste into a more valuable item. All other options require a progressively greater degree of energy and resource use to extract value from waste. Landfill represents the worst option, with the loss of materials, energy content, and nutrients in the case of biological materials.

This Strategy has been developed in alignment with the principles of the waste hierarchy and seeks to achieve waste avoidance, improved resource recovery and a reduction in materials disposed to landfill.

Figure 4: Waste hierarchy



Definitions:

Avoidance: practices which prevent the generation of waste altogether

Reuse: direct reuse of materials for the same grade of use

Recycling: using valuable components of waste in other processes

Energy Recovery: generating energy from waste

Containment: the long-term repository storage of prescribed industrial wastes

Landfill: disposal to landfill.

4 Where we are today?

4.1 Snapshot of waste and resource recovery in the Barwon South West Region

Table 3 below provides a current snapshot of waste and resource recovery in the Barwon South West region. These measures relate to key service areas where data is readily available.

Table 3: Snapshot of waste and resource recovery in the Barwon South West region

Service area		Unit / Metric / Parameter	Colac Otway	Corangamite	Geelong	Glenelg	Moyne	Queenscliffe	Southern Grampians	Surf Coast	Warrnambool	BSW Region
Landfill												
Number of active landfills (licensed)		Count	1	1	2	1	0	0	1	1	0	7
Number of active landfills (exempt from licensing)		Count	0	0	0	2	1	0	0	0	0	3
Municipal waste to landfill ¹		tpa	5,365	3,544	64,001	3,052 ⁵	3,082	1,032	4,650	9,873	5,901	100,500
Total waste to landfill ²		tpa	-	-	-	-	-	-	-	-	-	258,000
Transfer Station (TS), Resource Recovery Centres (RRCs) and Drop off facilities (DO)		Unit / Metric / Parameter	Colac Otway	Corangamite	Geelong	Glenelg	Moyne	Queenscliffe	Southern Grampians	Surf Coast	Warrnambool	BSW Region
Number of active TS/RRCs		count	3	6	2	6	8	0	8	3	0	36
Number of active DO		count	4	0	0	0	0	0	0	2	0	6
Total waste to landfill (Council operated RRCs only) ¹		tpa	143 ⁶	1,655	16,790	Not available	1,096	N/A	2,167	3,346	0	25,197
Kerbside Collection		Unit / Metric / Parameter	Colac Otway	Corangamite	Geelong	Glenelg	Moyne	Queenscliffe	Southern Grampians	Surf Coast	Warrnambool	BSW Region
Kerbside service summary	Recycling	Service details	Fortnightly service	Fortnightly service	Fortnightly service	Fortnightly service	Fortnightly service	Weekly service	Fortnightly service	Fortnightly service	Fortnightly service	N/A
		Bin size	240L	240L	240L	240L	240L	120L	240L	240L	240L	

Kerbside Collection		Unit / Metric / Parameter	Colac Otway	Corangamite	Geelong	Glenelg	Moyne	Queenscliffe	Southern Grampians	Surf Coast	Warrnambool	BSW Region
Kerbside service summary	Organics	Service details	Universal FOGO Fortnightly	Universal FOGO Fortnightly (Jan-Sept) Weekly (Oct-Dec)	Universal GO Fortnightly	No service	Universal FOGO Fortnightly	Universal GO Fortnightly	Voluntary FOGO Fortnightly Hamilton & Tarrington only	Universal GO Fortnightly (urban areas)	Universal FOGO fortnightly. Currently being rolled out ¹	N/A
		Bin size	240L	240L	240L		240L	240L	240L	240L		
	Residual	Service details	Weekly service	Weekly service	Weekly service	Weekly service	Weekly service	Weekly service	Weekly service	Weekly service	Weekly service	N/A
		Bin size	120L	120L	140L	120L	120L	120L	120L	120L	80L	
Number of tenements/bins ⁴	Recycling	Number	10,058	5,327	105,895	8,161	5,686	2,929	6,100	18,087	15,290	177,533
	Organics	Number	9,843	5,263	105,136	N/A	5,758	2,929	1,037	16,424	N/A	146,390
	Residual	Number	10,058	5,327	112,654	8,271	5,986	2,929	6,100	18,087	15,290	184,702
	Combined	Number	29,959	15,917	323,685	16,432	17,430	8,787	13,237	52,598	30,580	508,625
Waste/resource generation ⁴	Recycling	Kg/hh/annum	103	86	115	86	76	195	99	148	106	Av. 113
	Organics	Kg/hh/annum	250	376	323	N/A	298	219	445	206	N/A	Av. 302
	Residual	Kg/hh/annum	519	355	419	369	332	352 ⁷	407	361	386	Av. 389
	Combined	Kg/hh/annum	872	817	857	455	706	766	951	715	492	Av. 737
Resource Recovery Rate ⁸	Recycling	% by weight	81	71	75	74	78	80	79	82	73	Av. 77
	Organics (Garden)	% by weight	95	99	91	N/A	96	78	35	89	N/A	Av. 83.28
	Organics (Food)	% by weight	0.77	1.95	N/A	N/A	7.42	N/A	0.35	N/A	N/A	Av. 2.62
Contamination rate ⁹	Recycling	% by weight	6.65	14.83	18.80	31.44	12.45	2.70	10.63	6.67	13.34	Av. 16
	Organics	% by weight	0.41	0.45	1.33	N/A	0.34	0	0.93	2.40	N/A	Av. 0.83
Diversion rate ⁹		%	59	66	53	24	64	55	35	54	34	Av. 51.70
Waste Minimisation and Avoidance		Unit / Metric / Parameter	Colac Otway	Corangamite	Geelong	Glenelg	Moyne	Queenscliffe	Southern Grampians	Surf Coast	Warrnambool	BSW Region
Number of Repair Cafes		Count	0	0	2	0	0	0	0	1	0	3
Number of Transition Streets / Towns groups		Count	1	0	15	0	0	1	0	1	0	18
Number of Active ResourceSmart Schools ¹⁰		Count	4/18	1/19	25/102	4/18	4/13	1/3	4/24	7/15	4/17	54/229

¹ Data from the 16/17 BSWWRRG LG survey, includes data from kerbside collections, transfer stations and waste from council operations

² Data from the BSWWRRG Regional Implementation Plan 2017-2026

³ Successful kerbside FOGO service trial in 2018. Trial area now has a permanent FOGO service. The service will be progressively rolled out to the remainder of Warrnambool City Council by 2020. Data presented in this table was collected prior to the introduction of trial FOGO service.

⁴ Data from Sustainability Victoria's Local Government Kerbside 16/17 Survey

⁵ Kerbside tonnages only

⁶ Does not include data from all RRCs

⁷ Includes street litter bin tonnages

⁸ Recovery rate is the percentage of recyclables or organics recovered from the total recyclables or organics collected through the kerbside system, inclusive of recoverable material deposited in residual waste bins. Data from Regional Kerbside Audit 2018.

⁹ Data from Regional Kerbside Audit 2018.

¹⁰ Schools Registered for ResourceSmart Schools program and active as at May 2018

4.2 Current Status of Waste Education and Engagement

4.2.1 Council waste education initiatives within the Barwon South West Region

To date, waste and resource recovery education across the region, has primarily focused on local government waste and resource recovery services. The nine regional local governments all currently deliver waste education to their respective communities. Program delivery focuses on both resource recovery as well as waste avoidance and minimisation. In some instances, waste education is provided through key delivery partners.

Local government's delivery of waste education varies across the region based on the level of available resources.

The most common focus of waste education programs has been provision of general information on waste reduction and recycling and information specifically related to Local Government services, such as how to use the services (e.g. what materials can be collected in kerbside bins) and the operational parameters (e.g. when bins are collected).

The community segments most commonly targeted for education programs are households and schools, although some local governments also target education to commercial businesses.

Table 4 below provides a snapshot of the waste education programs and activities that are currently delivered by the nine local governments in the Barwon South West region.

Table 4: Summary of BSW local government waste education programs and activities

Local Government	Examples of waste education programs and activities
Colac Otway	<ul style="list-style-type: none">• Regular bin inspections with contamination notification and educational material provided to residents with contaminated bins.• Education presentations to community groups and primary schools.• Pop up information session at supermarket targeting organics and recycling.• Kerbside collection calendars and brochures about what goes in each bin.
Corangamite	<ul style="list-style-type: none">• Kerbside collection calendars.• Waste services guide.• What goes in my bin A-Z Waste guide.• Education material about using the FOGO caddy and compostable liners.
Glenelg	<ul style="list-style-type: none">• Kerbside Collection Calendars.• Information on Council's website.• Articles in Council's newsletter.
Moyne	<ul style="list-style-type: none">• Kerbside Collection Calendars.• Waste collection guide.• Competitions to promote resource recovery.• 'Bincentsives', a bin inspection and reward program.• Radio, print media and website content.

Local Government	Examples of waste education programs and activities
Geelong	<ul style="list-style-type: none"> • Recycling and green waste contamination programs. • Discount promotion for recycling mattresses in May and November. • Promotion of lounge suite pickup service. • Close the Loop information for batteries, DVDs, green waste, recycling and e-waste. • Information for first time visitors to Resource Recovery Centres. • New resident's information pack. • Promotion of drop off locations for household batteries, DVDs and CDs. • Promotion of Detox your home services. • Promotion of 'Plastic Free July'. • Ongoing waste education through: <ul style="list-style-type: none"> ○ Social media ○ Monthly 'Rethink your Rubbish' to subscribers ○ Surveys on disposal and recycling behaviour ○ Council's website ○ Online recycling and waste disposal directory ○ Posters and postcards at Customer Service Centres, Community Centres, relevant retail outlets and the Resource Recovery centres ○ Radio and press advertisements ○ Annual kerbside collection calendars ○ Letter box drops to households
Southern Grampians	<ul style="list-style-type: none"> • Kerbside Collection Calendars. • Waste Services Guide mailed out with rates notices. • Paid advertising in print media. • Fridge magnets for organics customers showing acceptable items. • Talks to local school groups and other Great South Coast groups. • Promotion of recycling at Sheepvention.
Surf Coast	<ul style="list-style-type: none"> • Fact sheets, website content, social media, newspaper articles and advertisements and rate payer newsletter. • Kerbside Collection Calendars. • Provide support to Plastic Wise groups in Torquay, Lorne and Winchelsea, and Repair Café Surf Coast. • Plastic Wise Policy and Program. • Plastic Wise businesses and 'remember your reusable bag' campaign.

Local Government	Examples of waste education programs and activities
Queenscliffe	<ul style="list-style-type: none"> • Information through print media, rates newsletters, direct mailouts and Council's website. • A-Z waste & recycling guide. • Green waste bin collection calendar. • Promotion of e-waste drop-off event. • Promotion of kerbside hard waste collection. • Promotion of national Recycling Week drop-off event. • Community partnerships. • Promotion of Council's household battery recycling program with business and schools. • Promotion of Council's toothbrush recycling program with the Queenscliff Kindergarten. • Supporting Boomerang Bags with the Queenscliffe Neighbourhood House.
Warrnambool	<ul style="list-style-type: none"> • Print media, radio advertisements, posters, fridge magnets and Councils website. • Kerbside Collection Calendars. • Recycling directory. • Education and awareness programs delivered in partnership with community groups. • 'Bag a Bargain' local op shop directory. • Utilisation of 'Get it Right on Bin Night' resources.

There are also several collaborative waste education programs currently being undertaken by councils in the region. Some examples of this includes:

Think Recycle

Think Recycle aims to educate the community to increase recycling and reduce contamination. It is a partnership between City of Greater Geelong, Surf Coast, Colac Otway, Golden Plains Shire Council and the Borough of Queenscliffe. A range of resources with consistent messaging and branding were developed as part of the program, including a website, www.thinkrecycle.com.au. The website has interactive pages including an A-Z recycling guide, recycling game, FAQ, articles, calendar and downloadable posters. The website is managed by Geelong City Council.

Let's Go FOGO

Moyne, Southern Grampians and Corangamite Shire Councils all have very low food waste recovery through their Food Organics Garden Organics (FOGO) services. Let's Go FOGO is a partnership project between the three councils. Led by Moyne Shire Council, the project is using Community Based Social Marketing to determine the most effective interventions to increase the food organics recovery rate via the FOGO service.

4.2.2 Community led waste education within the Barwon South West Region

The 2017 ABC TV documentary series, War on Waste and the 2018 China Sword Policy in combination with increased media attention on waste and recycling industry practises, has led to heightened community awareness of waste and recycling. As a result, the number of community led waste and recycling initiatives and activities across the region has steadily grown.

Education that is led by community groups will form an essential component of a coordinated regional waste and resource recovery education program.

Below are some examples of the community led waste education initiatives that are currently being delivered in the Barwon South West region.

Bellarine Catchment Network Landcare and Coastcare Caring for our Bays program

The Caring for Our Bays program is a pioneering program that aims to raise the profile and appreciation of Corio Bay and the Bellarine shoreline of Port Phillip Bay. The program raises awareness of litter and its impact on the environment and reduces the amount of litter, and other pollutants (e.g. sediments and nutrients) that enter the waterways. The, 'Be A Hero' campaign uses a simple instructional message combined with pictures of animals to promote the environmental values that exist within the bay and how these animals can be impacted by litter.

Pick Up Sticks

Pick Up Sticks, is a Warrnambool based community initiative aiming to put an end to plastics being found on beaches and in the marine environment. The initiative gets its name from the high concentration of plastic cotton bud sticks found on Shelley Beach.

Volunteers work to raise community awareness, collect plastics and other solid pollutants from the environment and catalogue and record the quantity and types of materials collected in the Australian Marine Debris Initiative (AMDl) database.



Figure 5 Be a Hero campaign poster

Good Will Nurdle Hunting

Good Will Nurdle Hunting is a community initiative that formed following the discovery by Pick Up Sticks Volunteers of a large quantity of nurdles in the environment, in November 2017. Thousands of small plastic pellets (nurdles) were found washed up on a local beach. Investigation led to the identification of a nurdle spill through the nearby waste water treatment plant. An EPA clean-up order was issued, and an emergency response enacted. At the time of writing, nurdles continue to be washed up and collected daily. Good Will Nurdle Hunting has raised the profile of nurdles in the region and continues to engage the community in clean-up activities.

Clean Oceans Collective

Developed in response to the November 2107 nurdle spill incident, the Clean Oceans Collective comprises state government agencies and community representatives. Plastic debris is collected along south west coast beaches, from Warrnambool to Yambuk for analysis. The data is recorded in the Australian Marine Debris Database and will be used to develop source reduction plans.

War On Waste groups

The ABC TV series, 'War on Waste' shone a light on the amount of material that we consume and throw away. In addition to highlighting the scale of the issue, the series also offered individuals, businesses and communities, practical actions they could take to solve the problems.

'War on Waste' prompted a huge public and business response, which included the formation of independent 'War on Waste' Facebook groups that popped up across the country, with communities eager to do more to change their current waste status quo.

These groups keep the 'War on Waste' momentum going by providing a space for people to continue to ask questions, share ideas, and provide advice on how to reduce waste. At the time of writing this strategy there were seven active 'War on Waste' Facebook groups in the Barwon South West region, supporting their local community to be more waste conscious.

Freecycle Initiative

The Freecycle initiative is a grassroots non-profit movement of people who give and receive stuff for free in their own towns and local community via an online exchange platform. The concept helps to reduce waste to landfill by supporting the community to reuse items that still have value rather than throwing them away. Freecycle operates in more than 110 countries, where there are thousands of local groups representing millions of members. At the time of writing, there was one local Freecycle group active in the Barwon South West region, centred around Geelong.

Plastic Free Alliance

The Plastic Free Alliance is a collective of local South West Victorian environmental groups that are working collaboratively to raise awareness and change people's attitudes towards using disposable plastics, such as plastic bags, plastic straws and plastic water bottles.

The alliance includes environmental groups, such as Fishcare South West and Friends of the Merri Marine Sanctuary and has a focus on raising awareness about the impact of single use plastics on the marine environment.

Geelong Sustainability Group

Geelong Sustainability works on the One Planet Living Principle. They help to raise awareness of the importance of living a more sustainable lifestyle. They are a dynamic and passionate community group focused on sharing information, building community resilience, advocating for the environment and supporting effective action on a range of sustainability issues including waste and resource recovery.

Geelong Sustainability facilitate effective waste management by raising the profile of waste and resource recovery and promoting programs, activities and events. In June 2018, Geelong Sustainability partnered with the National Celtic Festival to provide a wash-up station for reusable crockery, reducing the number of disposable cups, plates and bowls being sent to landfill. They also ran a waste and recycling educational game and engaged festival goers in conversations about which materials to recycle.

Geelong Sustainability also advocate on a range of waste management issues and promote waste and resource recovery services, helping to connect people with waste management options at the highest possible level on the waste hierarchy.

Facebook Buy Swap Sell Groups

Buy Swap Sell Groups on Facebook provide a free and easy way for people to exchange, buy, sell or donate unwanted items. Buy Swap Sell groups are generally either geographically based or they have a theme such as, clothing, books, renovation materials etc. There are buy swap sell groups operating in all local government areas across the region, often with more than one in each major centre. They generally have very high memberships numbers and attract high volumes of traffic, representing an opportunity to connect with large numbers of willing second-hand buyers and sellers.

Surfrider Foundation Australia

Surfrider Foundation Australia is a registered not for profit sea-roots organisation dedicated to the protection of Australia's waves and beaches through Conservation, Activism, Research and Education C.A.R.E. The Surfrider Foundation Surf Coast branch, is the regions only Surfrider group. It has been operating since 1994 and actively participates in providing school group talks and beach clean-ups.

Food Swaps and Co-ops

Food swaps and food co-ops are beginning to spread across the region as locals move away from overpackaged supermarket offerings in preference for unpackaged and minimally packaged, locally grown produce. There are currently multiple food swaps and co-ops operating across the region.

Community Gardens

Community gardens provide a hub for the transfer of gardening skills and knowledge that contribute to a reduction in food waste and food packaging. There are a number of active community gardens across the region.

Transition Streets & Transition Towns

Transition Streets and Transition Towns encourages people to work together to share skills and resources that reduce their collective carbon footprint. The community driven Transition Streets program grew out of the original Transition Towns concept founded in Totnes, UK in 2006. Transition Streets & Towns provide people with practical activities to reduce waste and consumption, reduce reliance on fossil fuel transport, conserve water and energy and increase local food production. At the time of writing, Transition Streets is spreading across the region. Eighteen Transition streets or towns have been identified in the Geelong, Borough of Queenscliff, Surf Coast and Colac Otway Shire areas. The status of the groups is yet to be determined, with the majority being affiliated with Transition Streets Geelong.

Towards Zero Waste Geelong

Towards Zero Waste Geelong is a local community initiative that aims to help people make positive lifestyle changes, especially those that reduce waste and support the zero-waste movement.

The initiative found it legs after the ABC aired the highly popular TV series 'War on Waste'. The group have distributed Responsible Cafes flyers around Geelong West, asking cafes to offer an incentive for people who bring their own cup rather than using a disposable coffee cup.

Towards Zero Waste Geelong now offers Towards Zero Waste Living workshops for the community to learn about how to transition towards zero waste. To support continued conversations and maintain momentum, the initiative also operates as an active Facebook group (Towards Zero Waste Geelong) that provides a space for the community to ask questions about transitioning towards zero waste.

Repair Cafés

The Repair Café concept aims to raise awareness of the value of resources and encourages people to repair goods, giving them a new lease on life instead of disposing of them and replacing them with new items.

Repair Cafés are free local meeting places that are all about repairing things together and learning new skills from people who have practical knowledge. Repair Cafés provide tools and materials to help individuals make repairs to items such as, clothing, furniture, electrical appliances, bicycles, crockery and toys. Repair Cafés are supported by experienced volunteers, with repair skills in all kinds of fields. At the time of writing, there were over 1,500 Repair Cafés worldwide, with 13 operating in Victoria and three registered groups located in the Barwon South West region and another 2 preparing to launch and a third in early stages of development.

Boomerang Bags

Boomerang Bags is a grassroots, community driven movement focused on tackling plastic pollution at its source, by making re-useable 'boomerang bags' as a means to provide a sustainable alternative to plastic bags. The initial concept of Boomerang Bags was that bags were made and placed in retail outlets so that if people forgot their own shopping bags, they could borrow one and return it when they made their next shopping trip, hence the 'boomerang' in the name. The movement has evolved, with bags now being made to give away as a plastic bag alternative that can be used and reused or passed on to others.

The initiative creates a platform to start conversations, make friends, up-cycle materials and work towards shifting society's throw away mindset to a more sustainable one that focuses on reducing waste and reusing common items. At the time of writing this Strategy there were 12 groups within the Barwon South West region registered on the Boomerang Bags website and a Sewing Station pop-up shop project about to launch in Warrnambool. These groups are increasing in prevalence with the upcoming Victorian ban on single use plastic bags.

4.2.3 Other Education Providers

Examples of other waste education in the region includes:

ResourceSmart Schools

ResourceSmart Schools is an award-winning Victorian Government program that assists schools to embed sustainability in everything they do, encouraging real-life sustainability learning and help schools save money. The program is currently delivered across the Barwon South West region by The Farmer's Place on behalf of Sustainability Victoria. Facilitators assist schools to work through 5 modules. The core module benchmarks the current performance and is followed by modules that aim to:

- Reduce waste generation and improve recycling recovery rates
- Improve efficiencies in water and energy use
- Increase biodiversity

Water Authorities

Barwon Water and Wannon Water provide reticulated potable water and sewerage services across the region. Opportunities exist to work collaboratively with the water authorities on a range of community development projects that contribute to waste reduction, particularly around bottled water and litter. Both water authorities engage schools and community groups in education programs and provide an opportunity to introduce more schools to the ResourceSmart School program.

The water authorities provide advice to event organisers and portable refill stations to events, assisting with reduction of single use water bottles and encouraging the use of reusable bottles.

The Water authorities are key partners in the development of marine debris source reduction plans. Wannon Water is funding Tangaroa Blue to deliver community training for the south west area of the region, in marine debris data collection. This citizen science project will lead to the development of source reduction plans and contribute valuable data to the Barwon South West regional litter and illegal dumping plan.

The 'Choose Tap' App assists people to locate public taps where they can refill water bottles in preference to purchasing single use water bottles. Barwon Water and Wannon Water contribute data to the App and promote its use to the community.

Kids Teaching Kids

Kids Teaching Kids is an education model that uses local environment and sustainability issues as a theme and focus for learning. The Kids Teaching Kids learning model empowers students to be the change they wish to see in the world while building resilience, fostering high self-esteem and facilitating genuine community connections.

Anyone can host a Kids Teaching Kids event, including schools, environmental organisations, councils and community groups. Wannon Water organises an annual Kids Teaching Kids conference aimed at students in years 3-9. In the Barwon area of the region, Kids Teaching Kids has been promoted by individual schools and organisations.

Appendix D outlines examples of waste education programs from other regions and jurisdictions.

5 What do we want to achieve?

5.1 Strategic Framework

The strategic framework of this Strategy consists of:

Strategic Directions

- Key areas of focus where a coordinated regional approach to waste and resource recovery education and communications will lead to the desired outcomes and provide benefits to the community.

Goals

- Specific statements on what is to be achieved and the overarching observable and measurable results that will be sought within the strategy's 5-year delivery timeframe.

Outcomes

- The ultimate results and tangible changes that will be sought within the strategy's 5-year delivery timeframe.

Table 5 outlines the six strategic directions that will support waste and resource recovery education of the next five years, including the desired goals and outcomes.

For each of the strategic directions, supporting initiatives are prioritised and further detailed in a separate 5 Year Action Plan (Appendix A). These will be expanded on further in Annual Action Plans.

Table 5 Waste and Resource Recovery Education Strategy framework

Purpose:		To achieve behaviour change that reduces waste generation and increases resource recovery.			
Strategic Directions					
1. Increase community and businesses perception of waste management as an essential service.	2. Increase community and business awareness of waste and support and encourage waste avoidance.	3. Improve resource recovery and reduce contamination.	4.Reduce litter and illegal dumping.	5. Increase correct disposal of problem wastes.	6. Strengthen regional capacity to deliver education and behaviour change.
Goals					
Raise community and business awareness of waste and recycling systems and processes. Raise awareness of the important role the community and business play in the functionality and efficiency of the waste and recycling system. Increase the value the community and business place on waste and recycling services.	Increase community and business awareness of their role in waste generation. Engage the community and business in waste reduction. Reduce waste generation across the region.	Increase resource recovery and reduce contamination of materials collected for recycling.	Gather data to inform best practice litter and illegal dumping abatement. Develop a regional litter and illegal dumping plan. Community litter and illegal dumping initiatives are supported. Reduced litter and illegal dumping.	Increased participation in correct disposal of problem wastes.	Work collaboratively with stakeholders and delivery partners. Effective and efficient program delivery.
Outcomes					
The community and business sectors have an increased awareness of how the waste and recycling system works. The community and business sector recognise the importance of their role in the waste and recycling system.	Increased community and business awareness of waste avoidance and minimisation behaviours. Increased community and business participation in waste avoidance and minimisation behaviours. Reduction in community and business waste generation.	Increase in the number of community members and businesses who are practicing preferred recycling behaviours. Reduction in recyclables sent directly to landfill. Increase in resource recovery rates. Decrease in contamination rates.	Greater understanding of the litter and illegal dumping issues across the region. An informed litter and illegal dumping plan. Community engaged in litter and illegal dumping abatement and clean-up projects.	Increased awareness of stewardship programs and resource recovery services. Increased recovery rate for problem wastes. Decrease in rate of problem wastes disposed to landfill.	Coordinated and consistent regional waste education programs. Delivery partners empowered to deliver effective waste education programs. Increase in the number of schools actively participating in recycling and waste education programs and initiatives.

5.1.1 Strategic Direction 1: Increase the community's and businesses perception of waste management as an essential service

As consumers we all contribute to waste generation. How this waste is managed and minimised is crucial. Like energy, water, sewerage, public transport and other services we use on a regular basis, waste management is also an essential service.

It is important that we manage waste appropriately to protect public health and the environment while supporting the development of a circular economy.

The rate of waste generation in Australia has been steadily increasing. In the period 1996-2015 our population rose by 28% but waste generation increased by 170%³. These figures demonstrate that the amount of waste generated per person has significantly increased over the past 20 years.

The compounding effect of this puts additional strain on our resource recovery systems.

Our Goals:

- Raise community and business awareness of waste and recycling systems and processes.
- Raise awareness of the important role the community and business play in the functionality and efficiency of the waste and recycling system.

Increase the value the community and business place on waste and recycling services.

Table 6 lists the initiatives under this strategic direction.

Table 6 Supporting initiatives for strategic direction 1: Increase the community's and businesses perception of waste management as an essential service

Initiatives		Details
1.1	Gather baseline data on community waste and resource recovery behaviours, knowledge, attitudes and perceptions.	Detailed community consultation and surveys to understand current attitudes and perceptions of waste and resource recovery, gauge the level of knowledge and awareness of key issues, identify barriers to preferred behaviours and determine suitable approaches for communication.
1.2	Raise community awareness of regional waste and resource recovery opportunities and challenges.	A targeted program to increase people's awareness of the volumes, challenges and opportunities for waste generated in the Barwon South West region. The program would highlight the limitations of existing waste and resource recovery infrastructure and services and how community actions can impact upon their efficiency.
1.3	Raise community awareness of what happens to waste, co-mingled recyclables and organics once collected and the benefits of an efficient waste and resource recovery system.	An education program that clearly demonstrates to the community what happens to key waste streams in the Barwon South West region. This could include facility and site tours designed to provide the community with a behind-the-scenes look at what is involved in managing a variety of waste streams.
1.4	Raise the community's and businesses awareness of their role in waste management.	Communication materials that clearly outline the roles and responsibilities of individuals and organisations in waste management across the entire supply chain from point of generation through to recovery and final disposal.
1.5	Monitor waste generation, recycling and organics recovery rates, and provide feedback to the community following audits.	Provide the community with feedback on generation trends for waste, comingled recycling and organics recovery.

³ <https://blog.mraconsulting.com.au/2016/04/20/state-of-waste-2016-current-and-future-australian-trends/>

5.1.2 Strategic Direction 2: Increase community and business awareness of waste and support and encourage waste avoidance.

Waste avoidance and minimisation is the most favourable outcome on the waste hierarchy. It is the only action that can reduce overall waste generation and conserve raw materials.

Achieving waste avoidance and minimisation requires a high degree of involvement and participation on behalf of individuals, households and businesses. Aligning values and benefits with waste avoidance and minimisation can often require sacrifices, such as foregoing a newer version of a product or expending more personal time and energy in maintaining existing possessions.

The focus of this strategic direction is to actively engage the community and business in waste avoidance and minimisation.

Our Goals:

- Increase community and business awareness of their role in waste generation.
- Engage the community and business in waste reduction.
- Reduce waste generation across the region.

Table 7 lists the initiatives under this strategic direction.

Table 7 Supporting initiatives for strategic direction 2: Increase community and business awareness of waste and support and encourage waste avoidance

Initiatives		Details
2.1	Deliver initiatives that increase residential waste avoidance and minimisation behaviours, focusing on core waste streams.	Use Community Based Social Marketing to engage households in avoiding and minimising core waste streams.
2.2	Support community participation in events, campaigns, activities and challenges that deliver waste avoidance and minimisation.	In recent years, awareness of environmental issues has increased. This has led to the emergence of campaigns that aim to get people to rally around a common cause, such as avoiding single use plastics. An example being ' Plastic Free July '. These campaigns provide educators with an opportunity to engage the community in waste avoidance and minimisation. They should be promoted broadly to encourage active participation.
2.3	Support local businesses to avoid and minimise single use packaging.	Work with local businesses to encourage avoidance and minimisation of single use packaging. Engage them in selection of alternative packaging options and encourage use of reusable, recyclable and compostable packaging.
2.4	Work with business & industry to reduce waste generation.	Support businesses to undertake waste auditing and implement audit findings. Business and industry may reduce waste through a variety of methods including but not limited to; improved design and packaging, maximising the use of inputs to minimise production chain waste, and altering product or portion sizes.
2.5	Engage the community in actively avoiding and reducing consumption of packaging.	Raise community awareness of overpackaging and packaging materials. Encourage preferential purchasing of items that have no packaging or if packaging is unavoidable, encourage purchase of minimal packaging that can be reused, recycled or composted.

5.1.3 Strategic Direction 3: Improve resource recovery and reduce contamination

The focus of this strategic direction is to enable the whole community and visitors to the region to recycle right on every occasion.

The kerbside collection service is an important component of the regional waste management system. The Regional Kerbside Waste Audit 2018 was commissioned by Barwon South West Waste and Resource Recovery Group. The audit sampled bins from 1,230 households across the nine member local government areas.

The Audit results showed that there is significant opportunity to increase recovery rates of co-mingled recyclables and organics from landfill bins. On average, households are sending 1.3kg of co-mingled recyclables and 4.2kg of organics to landfill per week.

There is also opportunity to reduce contamination rates in co-mingled recyclables and Organics kerbside bins. On average, recycle bins contain 22.8% or 1.2kg of contamination per week. Organic kerbside bins contain 1.2% or 0.1kg of contamination per week. This indicates that there is still confusion around what can and cannot be recycled through the kerbside system and how materials should be presented for collection.

Transfer stations, resource recovery centres and mobile collection services accept a wider range of materials than kerbside collections. Engaging the community in correctly pre-sorting and presenting materials for recycling can lead to increased resource recovery rates and lower contamination rates.

A significant number of domestic and international visitors are drawn to the region each year by eco-tourism along the Great Ocean Road and by festivals and events. Recognising that waste and recycling systems vary greatly across Victoria, Australia and internationally, it is important to engage visitors in correct recycling and waste management practises for our region and support event organisers to plan for effective resource recovery and waste management at events.

Our Goal:

- Increase resource recovery and reduce contamination of materials for recycling.

Table 8 lists the initiatives under this strategic direction.

Table 8 Supporting initiatives for strategic direction 3: Improve resource recovery and reduce contamination

Initiatives		Details
3.1	Deliver initiatives that increase resource recovery and decrease major contaminants at resources recovery centres and transfer stations.	Drive-through transfer stations and resource recovery centres require specific waste and recycling behaviours. Residents should be made aware of the methods and practices that can save them money at the site gate both before arriving at the facility (e.g. source separation) and then at the facility (e.g. areas for dropping of different types of recyclables).
3.2	Develop and make easily accessible, a regional A to Z waste and recycling directory.	An A to Z directory can provide residents with a comprehensive go-to guide of recycling options for a range of common materials and products.
3.3	Deliver interventions that increase source separation rates.	Engage the community in source separation of materials, contributing to a reduction in contamination rates and increased recovery rates.
3.4	Deliver interventions that increase kerbside resource recovery rates for co-mingled recyclables and food organics.	Use Community Based Social Marketing to increase recovery rates for kerbside co-mingled recyclables and food organics.

Table 9 Supporting initiatives for strategic direction 3: Improve resource recovery and reduce contamination

Initiatives		Details
3.5	Engage with industry and business to encourage increased resource recovery.	This will focus on engaging with the larger employment sectors in the region and industry and business organisations in the region, such as Future Proofing Geelong. It could include providing access to waste audit tools and educational resources and promoting the triple bottom line benefits of improved waste management. It may also include supporting the trialling of new technologies.
3.6	Establish regional agreement on a core set of materials accepted in comingled kerbside recycling.	An in depth understanding of what each council in the region accepts for recycling in household kerbside comingled recycling and organics collections services at a given point in time, which can then be used to inform the development of consistent regional communications and messaging.
3.7	Deliver targeted interventions to reduce contamination rates of kerbside comingled recyclable and FOGO bins.	Research to establish where contamination 'hotspots' exist across the nine local governments and if there are commonalities between councils. Include working with stakeholders (e.g. collection contractor) to gather data from conducting checks on recycling bins prior to them being emptied, carrying out detailed compositional waste audits and undertaking sampling and testing of input/output materials at MRFs.
3.8	Support the introduction of new FOGO services	Develop a suite of regionally branded and ground-truthed materials to assist local government with achieving behaviour change through the introduction of FOGO services.
3.9	Encourage use of home composting systems	Residents can be encouraged to manage food and organic waste by feeding it to animals and or using composting techniques, particularly where FOGO services are not available. Home composting includes but is not limited to hot and cold compost heaps, worm farms and bokashi bins.
3.10	Develop waste and resource recovery education targeted at tourists and visitors to the region.	Work with tourism operators and travel agencies to develop education and communications targeted to tourists and visitors to the region. This initiative focuses telling the story of our natural environment and how the tourist can help keep it beautiful by practicing preferred waste management behaviours (e.g. using re-usable bags and cups). As part of this initiative educational material will need to be translated into a range of languages.
3.11	Provide event organisers with information and guidance on how to minimise event waste generation and maximise resource recovery.	Develop or utilise existing resources that provide event organisers and site managers with guidance on how to prevent and manage event waste effectively. Include ready-to-use tools and resources particularly for planning, example words for contracts and service agreements, simple language and messaging, and an easy to follow step-by-step process for developing waste minimisation programs for events.

5.1.4 Strategic Direction 4: Reduce Litter and Illegal Dumping

Littering and illegal dumping can have a detrimental effect on the environment and negatively impact community well-being and amenity. Litter dropped in public places can make its way into waterways through the stormwater system, and eventually pollute land and marine environments, negatively impacting on aquatic species and ecosystems.

The presence of litter and illegally dumped waste increases the likelihood of socially unacceptable behaviour and sends a message to the wider community that an area is uncared for. If litter and dumped waste is not removed or cleaned up it can also create an environment that encourages further littering and illegal dumping activity.

The focus of this strategic direction is to support community groups that are actively working on litter and illegal dumping issues across the region, gather data and develop a regional litter and illegal dumping plan that will direct further action.

Table 10 lists the initiatives under this strategic direction.

Our Goals:

- Gather data to inform best practice litter and illegal dumping abatement.
- Develop a regional litter and illegal dumping plan.
- Community litter and illegal dumping initiatives are supported.

Figure 6: VLAA Litter Prevention Framework

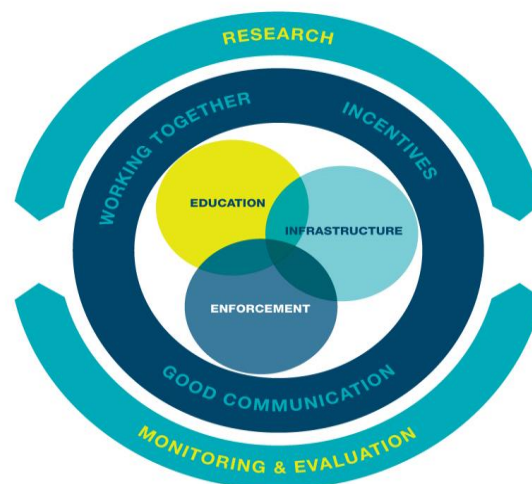


Table 10 Supporting initiatives for strategic direction 4: Reduce Litter and Illegal Dumping

Initiatives		Details
4.1	Gather data to inform regional litter and illegal dumping plan	In order to develop an effective education project that aims to prevent littering and illegal dumping, research must first be performed to establish an in-depth understanding of littering and illegal dumping behaviours. Therefore, the focus of this initiative is to conduct comprehensive social research into littering and illegal dumping behaviours including how they differ and the scale at which materials are littered and dumped within the Barwon South West region.
4.2	Develop a regional litter and illegal dumping plan	A litter plan that identifies and prioritises litter and illegal dumping issues for the Barwon South West region and draws upon existing research and outcome from state-wide interventions.
4.3	Identify and promote existing litter prevention programs.	A desktop analysis to identify existing litter and illegal dumping prevention programs and their resources. Actively promote those that are relevant to the region.
4.4	Work with stakeholders, community litter abatement and clean-up groups to minimise littering and illegal dumping.	Support community litter abatement and clean-up projects such as Caring for Our Bays, Clean Oceans Collective and Clean Up Australia Day.

5.1.5 Strategic Direction 5: Increase correct disposal of problem wastes

Some common materials and products, termed 'problem wastes', fall outside the range of materials that have well established recycling behaviours and recognised methods.

Problem wastes have an additional element of complexity compared to common recyclables or wastes, such as being hazardous or bulky.

Problem wastes may be generated as a result of a natural disaster or they may be regular items that are no longer needed such as: computers and other e-waste, chemicals, paint, mattresses, batteries and silage wrap.

E-waste is a waste stream that is growing up to three times faster than general municipal waste in Australia. Many e-waste items, such as computers, televisions, and mobile phones, contain precious metals. E-waste may also contain hazardous materials that can lead to environmental issues when sent to landfill.

The Victorian State Government has announced an e-waste to landfill ban commencing 1 July 2019. In preparation for this, Sustainability Victoria has prepared an education campaign and commenced the roll out. As a region, we will work with

Sustainability Victoria to deliver the e-waste to landfill ban education program.

A variety of programs exist to collect specific problem materials, such as Detox Your Home for household chemicals and DrumMuster for agricultural chemical drums.

Some retailers provide collection points for materials such as batteries, printer cartridges and some e-waste.

In addition to these programs and services, there are private waste collection services for specific materials.

We will identify the programs and services available across the region and implement initiatives to increase community participation in recycling of non-kerbside recyclables.

Our Goal:

- Increased participation in correct disposal of problem wastes.

Table 11 lists the initiatives under this strategic direction.

Table 11 Supporting initiatives for strategic direction 5: Increase correct disposal of problem wastes

Initiatives		Details
5.1	Develop and deliver regional key messages on the correct disposal of problem materials.	Develop and deliver regional key messages on the correct disposal of problem materials (i.e. batteries, household chemicals, silage wrap).
5.2	Deliver interventions to increase community participation in the correct disposal of non-kerbside recyclables and problem waste streams.	Identify and promote opportunities for the community to participate in non-kerbside recycling programs and product stewardship schemes such as Detox Your Home, Plasback, DrumMuster, MobileMuster, PaintBack, Cartridges for Planet Ark, Terracycle etc.
5.3	In partnership with key stakeholders (e.g. emergency organisations, government), develop educational materials on best practice waste management in relation to emergencies.	Emergencies such as natural disasters can lead to large volumes of waste being generated. Ineffective waste management has the potential to significantly delay recovery efforts, present a considerable risk to human health and the environment and increase the costs of recovery. This initiative focuses on providing education to support the community on how to manage waste effectively following an emergency. This includes educating emergency workers to avoid and minimise waste during recovery efforts.
5.4	Support Sustainability Victoria's education program on the e-waste to landfill ban.	The focus of this initiative is to work with Sustainability Victoria to engage with the community and business to encourage the recycling of e-waste.

5.1.6 Strategic Direction 6: Strengthen regional capacity to deliver education and behaviour change

There are a range of others, including community groups, government agencies and private businesses, who develop and deliver waste and recycling education and behaviour change initiatives.

We are committed to developing strong, collaborative partnerships with our delivery partners and working together to design and deliver effective waste and resource recovery programs and initiatives.

We will provide forums to communicate, share learnings, resources and opportunities for professional development.

We will seek public recognition for the waste and resource recovery education and behaviour change achievements from our region by nominating programs, projects and

individuals, organisations and businesses for public awards.

We support school-based education programs that empower children to actively reduce waste and increase resource recovery, such as Kids Teaching Kids and ResourceSmart Schools.

Our Goals:

- Work collaborate with stakeholders and delivery partners
- Effective and efficient program delivery

Table 11 lists the initiatives under this strategic direction.

Table 12 Supporting initiatives for strategic direction 6: Strengthen regional capacity to deliver education and behaviour change

Initiatives		Details
6.1	Establish a BSWRRG Education Working Group	Membership of the BSWRRG Education Working Group is open to the nine BSW region local governments. The group will guide the implementation, monitoring and evaluation of the Strategy and the accompanying Annual Action Plan. They will contribute to the development of an Annual Action Plan, project plans and activities.
6.2	Establish a regional waste and resource recovery education forum.	There are many sectors of the community actively engaged in education and behaviour change activities across the region. A regional Waste and Resource Recovery Education Forum provides an opportunity for all stakeholders involved in waste and resource recovery education to network, share learnings and resources, showcase their projects and develop partnerships.
6.3	Develop a recognisable regional brand for waste & resource recovery.	Use Community Based Social Marketing to develop a recognisable regional brand. Develop and deliver branded regional messages to communicate best practise waste and recycling practices.
6.4	Support opportunities to share regional knowledge.	Develop and support opportunities to share research findings, projects and activities from across the region. Encourage peer-to-peer learning through conferences, events and training.
6.5	Establish a knowledge hub of waste and resource recovery education projects and resources.	A central project knowledge hub (i.e. website) used to record key project information, tools, resources and information. Managed and coordinated by the Regional Waste Education Officer with project specific information provided by individual project leads. This should include promotion of 'good news stories' where council, community and business successes can be promoted.
6.6	Assess recycling and waste management education and behaviour change programs from other regions and jurisdictions for regional application.	Assess the suitability of existing recycling and waste management education and behaviour change programs such as, <i>Love Food Hate Waste</i> , for application across the Barwon South West region.

Initiatives		Details
6.7	Investigate the feasibility of a mobile recycling and waste management learning centre.	Investigate the feasibility of a mobile learning centre that key delivery partners could use to provide waste and resource recovery education to target audiences such as school groups, and at community events.
6.8	Support the delivery and expansion of school-based recycling and waste education programs and initiatives such as ResourceSmart Schools and Kids Teaching Kids	Provide schools with access to waste and recycling educational information, tools and resources.
6.9	Support and encourage participation in community led projects across the region such as citizen science projects	Identify local volunteer, community and social groups who have an interest in sustainability and waste management. Work with and support these groups to provide guidance on impactful citizen science projects in the region and provide networking and marketing assistance where possible.
6.10	Recognise achievement by nominating waste and resource recovery programs, projects individuals, organisations and businesses for awards such as the Premier's Sustainability Awards.	There are numerous national and state awards for sustainability programs and projects, some of which focus on waste and resource recovery and education. Achievement of these awards will provide encouragement for all involved and attracts industry attention, which will assist in achieving best practice.
6.11	Engage with and promote community groups, charities and not-for-profits who deliver waste avoidance and minimisation programs and services.	This initiative focuses on identifying stakeholders and events across the region and more broadly that encourage the community to actively participate in waste avoidance and minimisation activities or behaviours. Examples include repair cafes and, <u>Boomerang Bags</u> , Share your Spare and Transition Streets

6 How we will get there?

This section outlines our approach to achieving effective behaviour change and project delivery.

6.1 Guiding Principles

We have seven guiding principles to underpin our approach, as shown below in Table 13.

Table 13 Seven guiding principles

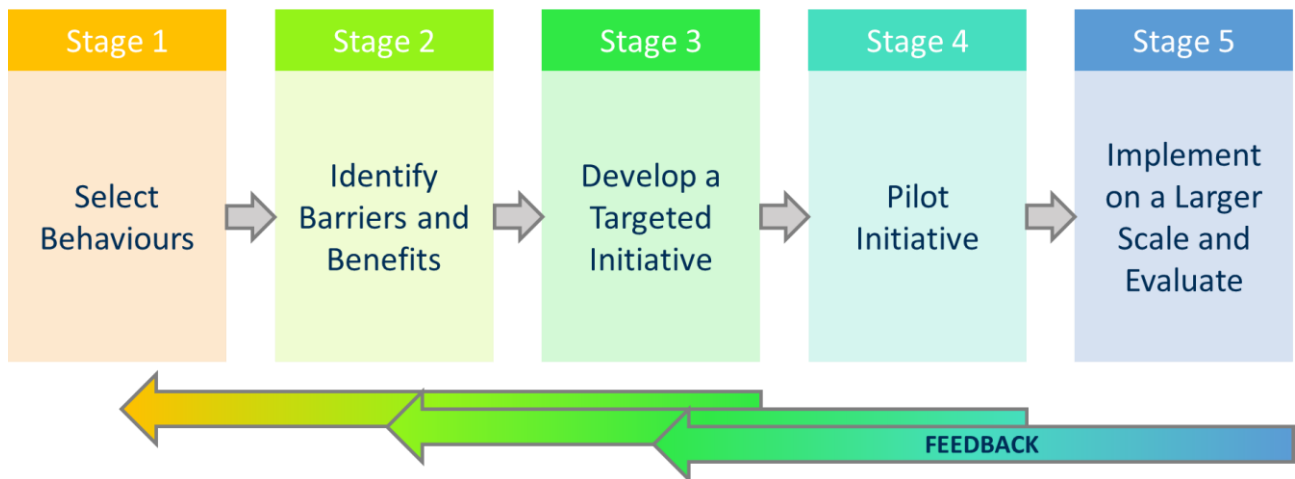
Guiding Principle	Description
Environmental justice	Environmental justice is based on the concepts of equity and participation. Environmental benefits and impacts should be distributed proportionately and affected communities should be able to participate in decision making. This principle underpins all other principles and will be incorporated into how we design and deliver projects. See 6.1. 3 below, VAGO's Better Practice Guide Public Participation in Government Decision Making 2015, for further detail on how we will approach public participation in decision making.
Form Partnerships	Bring together diverse skills and resources from a variety of organisation for more effective project and program delivery. Adopt an open and inclusive process of collaboration with stakeholders to find solutions for issues/problems.
Be transparent	Be open about decision making, share what is happening and provide progress updates. Communicate to stakeholders on our successes and failures.
Lead by example	Demonstrate the behaviours we seek to achieve in our community.
Research and innovate	Ensure all projects are evidenced based. Use research to understand the behaviour change process and drive innovation. Pilot and test new ways of working. Evaluate and learn from what does and does not work. See 6.1.1 below for further information on how we will use Community Based Social Marketing (CBSM).
Support and facilitate others	Support and facilitate others to continuously improve. Recognise and build on the achievements of partners. Share what has worked well and what has not.
Consistent and accessible	Use consistent, plain language tailored to suit the local context.

6.1.1 Community Based Social Marketing

Community Based Social Marketing (CBSM) seeks to identify what the community needs in order to make voluntary behaviour changes that lead to more sustainable outcomes.

McKenzie-Mohr's practical five stage CBSM development process shown in Figure 7, offers a risk adverse approach for investment in behaviour change.

Figure 7: McKenzie-Mohr's five stage CBSM development process



CBSM requires greater initial effort in the development of regional initiatives but is likely to result in more effective behaviour change. It involves identifying the problem behaviours and preferred behaviours, barriers and benefits to the preferred behaviours, selecting interventions to drive the preferred behaviours and then piloting the selected interventions prior to implementing at a larger scale.

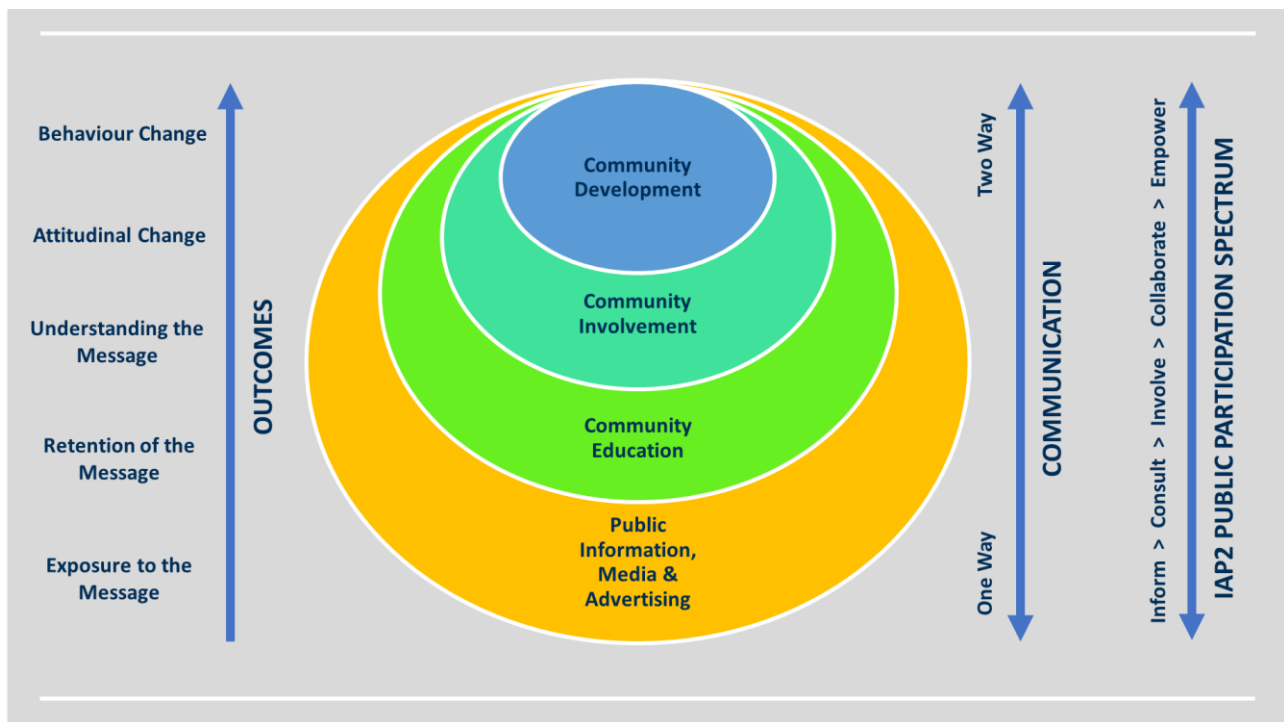
Each stage has a number of investigation steps that need to be completed before continuing on to the next stage of development. Through continuous feedback loops this staged approach ensures that initiatives implemented at stage five are well researched, based on a thorough understanding of community needs and barriers to change and have already been demonstrated as successful with a smaller targeted audience.

6.1.2 Changing how we deliver waste education

Whilst recognising the value of information material, the Strategy endeavours to move beyond public information, media and advertising (e.g. brochures and annual recycling calendars) toward the implementation of community development programs which identify and selectively engage the most appropriate audience.

This will involve a greater emphasis on two-way communication and public participation that empowers the community to act. Figure 8 below shows how waste education based around two-way communication (e.g. community development) can lead to higher order outcomes, such as attitudinal change and behaviour change.

Figure 8: Communication and community engagement model



6.1.3 VAGO's Better Practice Guide Public Participation in Government Decision Making 2015

The Victorian Auditor General Office (VAGO) developed a better practice guide for public participation in government decision making. The purpose of this guide is to:

- Provide a high-level framework for agencies across the public sector to use when deciding how best to involve the public in government decision-making and implementation; and
- Clearly set out the principles and elements that VAGO will use to audit the efficiency and effectiveness of public participation exercises.

The report sets out the principles for public participation and defines the essential elements for public participation including:

1. Clearly defining the decision required, and the scope of the public participation exercise
2. Understand who is affected and how they should be included
3. Identify the resources, skills and time required for effective public participation
4. Document the public participation and management approach
5. Implement the public participation plan and monitor its progress
6. Evaluate the public participation exercise and apply continuous improvement

We will use these principles and elements in designing public engagement programs.

6.2 Implementation

Due to the dynamic nature of the waste and resource recovery industry, there may be a need to reassess and re-prioritise actions or include new actions to address emerging issues. This will be achieved through the annual Action Plan process.

On an annual basis, the BSW Education Working Group will select actions from the 5-year Action Plan (Appendix A), for implementation, considering any need to address current or emerging issues. The selected actions will be developed into projects, identifying the partners, timelines, target audiences and resources required.

The level of project planning required will depend on the project size. At a minimum, all project plans will include project objectives, monitoring and evaluation outcomes, budget and timelines. Larger projects may also include risk assessment and more detailed project planning. A project plan on a page template is included in Appendix B.

A project manager will be selected to lead each project through the standard phases of project delivery shown in Figure 9. In partnership with local government and other key stakeholders, the Barwon South West Waste and Resource Recovery Group Education Officer, will play a key role in implementing the Strategy.



Figure 9: Project delivery stages

6.3 Governance

6.3.1 Governance structure

The governance structure for this Strategy, shown in Figure 10, includes a number of key governing bodies, with differing roles and responsibilities.

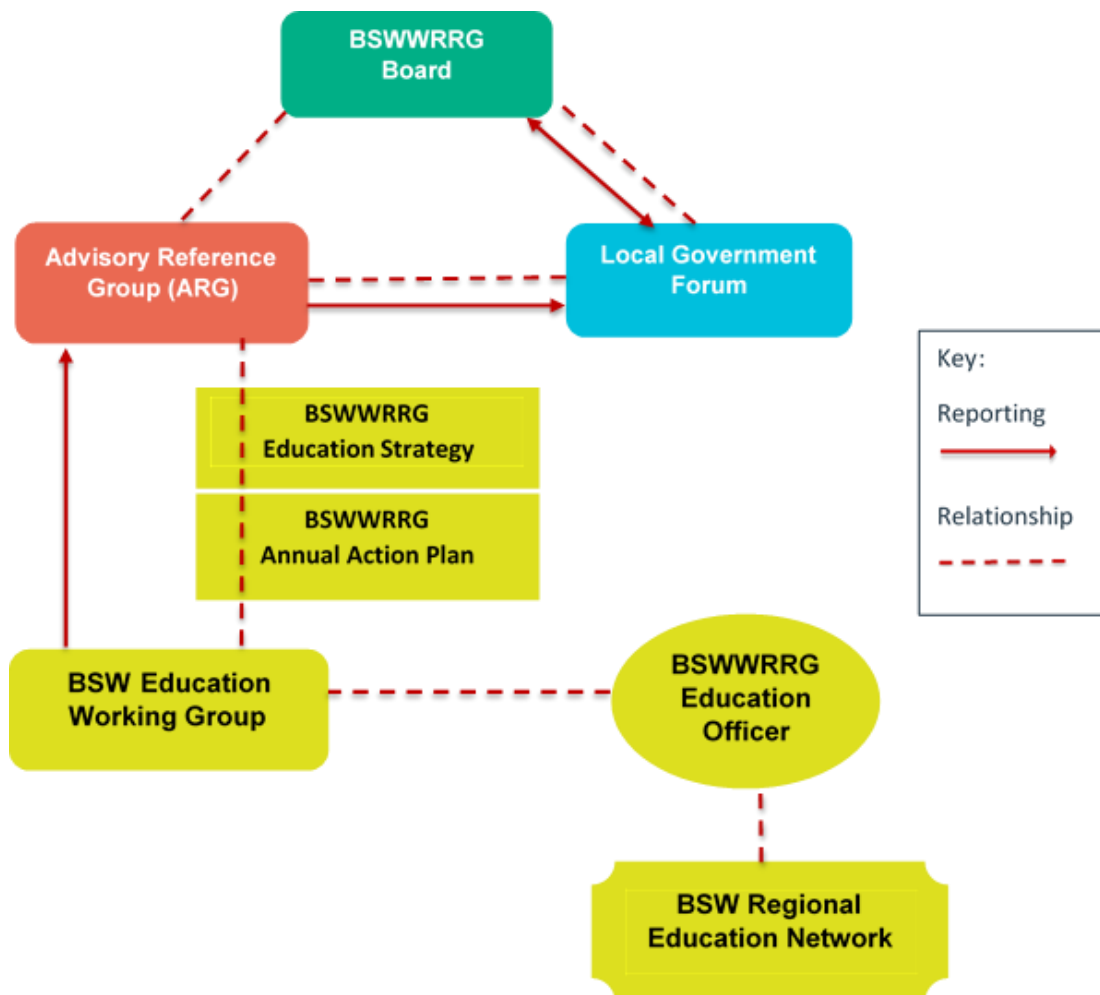


Figure 10: Education Strategy governance structure

The BSW Education Working Group will be established to oversee the implementation of the Strategy and the accompanying Annual Action Plan and include representatives from the Group and the nine Barwon South West region local governments.

The primary function of the BSW Education Working Group is to take responsibility for the core planning and management activities associated with Strategy implementation, including coordinating the annual action plan process, developing the Annual Action Plan and supporting budget, defining and realising benefits, and monitoring risks, quality and timeliness.

6.3.2 Roles and Responsibilities

The most important aspect of the governance is to have clearly assigned roles and responsibilities to ensure transparency in decision making across all aspects of the Strategy delivery. Table 14 outlines the roles and responsibilities for each of the supporting governance arrangements.

Table 14 Roles and responsibilities of supporting governance arrangements

Function	Roles and Responsibilities
BSWWRRG Board	<ul style="list-style-type: none">• Accountability for Waste and Resource Recovery Education Strategy as aligned to the BSWWRRG business plan.
BSW Local Government Forum (LGF)	<ul style="list-style-type: none">• Endorsement of the Waste and Resource Recovery Education Strategy.• Approval of Local Government Program expenditure and endorsement of the annual action plan.
BSW Advisory Reference Group (ARG)	<ul style="list-style-type: none">• Review and approve the Waste and Resource Recovery Education Strategy.• Endorse the Annual Action Plans including recommended expenditure as part of the Local Government Program to LGF.
BSW Education Working Group (to be established)	<ul style="list-style-type: none">• Guide the implementation, monitoring and evaluation of the Waste and Resource Recovery Education Strategy and the accompanying Annual Action Plan.• Develop and implement Annual Action Plan.• Develop project plans for agreed projects and activities in-line with the Annual Action Plan.• Share and discuss ideas relating to waste and resource recovery issues.
BSWWRRG Education Officer	<ul style="list-style-type: none">• Secretariat to BSW Education Working Group.• Secretariat to BSW Regional Education Network.• Coordination of: resourcing, delivery, monitoring and evaluation, for the Waste and Resource Recovery Education Strategy and the Annual Action Plan.• Reporting on Waste and Resource Recovery Education Strategy and Annual Action Plan.
BSW Regional Education Network (to be established)	<ul style="list-style-type: none">• Inter-agency collaboration and coordination on education and behaviour change initiatives.

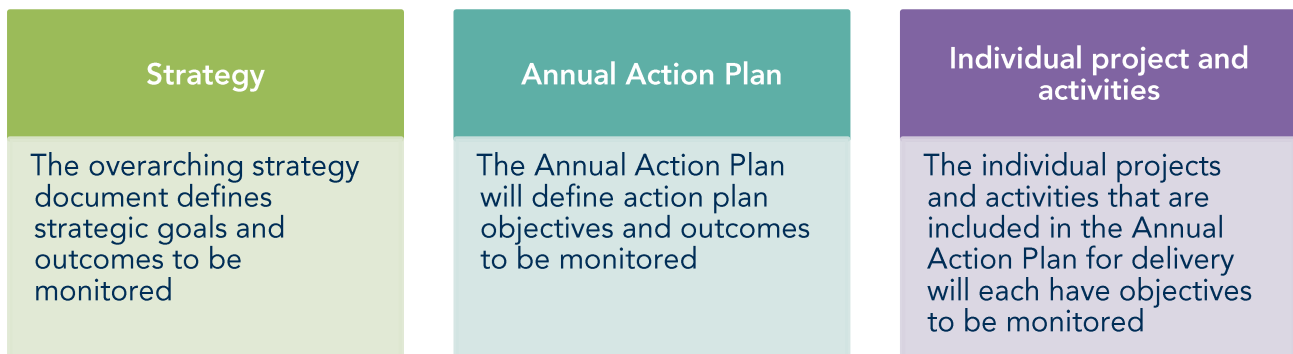
7 How we will evaluate success?

Monitoring and evaluation is integral to measuring the overall success of the Strategy and ensuring that projects and activities are delivered in an efficient and effective manner whilst meeting the Strategy objectives.

This section outlines how we plan to monitor the Strategy's implementation and evaluate its success.

7.1 Monitoring and Evaluation Hierarchy

In the context of the Strategy and its associated components, there are three levels of monitoring and evaluation required to provide oversight at suitable levels of detail for the agreed governance framework outlined in section 7. These are:



7.1.1 Strategy Evaluation

Evaluating the success of the Strategy will be undertaken by the BSW Education Working Group. At the end of each year of implementation, a simple progress report will be produced. A full Strategy evaluation will be conducted in 2022.

7.1.1.1 Strategy KPIs

Table 15 outlines the Strategy KPIs. It is acknowledged that waste education and community engagement is one of many factors that can have an impact on the KPIs listed, therefore they are intended to be reported on at a high level only. More specific monitoring and evaluation will be conducted at the individual project and activity level to provide greater confidence that our investment in education has directly resulted in positive change and the achievement of outcomes and benefits.

Table 15 Education Strategy KPIs

Service Area		Description	Unit / Metric	BSW Region Baseline	BSW Region Target	Monitoring Method, source of evidence
Landfill						
Municipal waste to landfill per tenement		Municipal waste sent to landfills located in the Barwon South West Region	Kg/per tenement/per annum	544	<490	BSWWRRG LG Survey
Total Waste to landfill per capita		Total waste sent to landfills located in the Barwon South West Region	Kg/per capita/per annum	683	<650	Landfill weighbridge data
Household Kerbside Collection						
Waste / Resource Generation	Recycling		Kg/hh/annum	113	>113	SV Annual Kerbside Survey
	Organics		Kg/hh/annum	302	>302	SV Annual Kerbside Survey
	Residual		Kg/hh/annum	389	<410	SV Annual Kerbside Surveys
Resource Recovery Rate	Recycling	Proportion of total generated recyclables captured in the commingled recycling stream and collected for sorting	% by weight	Av. 75.71	≥ 90%	Compositional waste audits
	Organics (Garden Organics)	Proportion of total generated all organics captured in the organics waste stream for processing	% by weight	Av. 90.49	≥ 95%	Compositional waste audits
	Organics (Food)	Proportion of total generated food organics captured in the organics waste stream for processing	% by weight	Av. 2.35	≥ 10%	Compositional waste audits
Contamination rate	Recycling	Proportion of material placed in commingled recycling bins that is contamination	% by weight	Av. 21.79	≤ 10.0%	Compositional waste audits
	Organics (GO/FOGO)	Proportion of material placed in organics bins that is contamination	% by weight	Av. 0.84	≤ 1.5%	Compositional waste audits
Diversion rate		Proportion of total materials generated by households that is diverted from landfill for sorting or reprocessing	% by weight	51.30	≥ 60%	SV Annual Kerbside Survey/ Compositional waste audits
Waste Minimisation and Avoidance						
Repair Cafes		Number of active Repair Cafes	Count	3	>3	List of registered Repair Cafes
Transition Streets / Transition Towns		Number of Transition groups	Count	12	>12	List of Transition groups
ResourceSmart Schools		Number of ResourceSmart Schools	Count	54	>54	

7.1.1.2 Evaluation of broad education outcomes

To evaluate whether the Strategy has been successful we have identified the following broad education outcomes under our strategic directions and developed evaluation questions for each one.

Table 16 Outcomes and example key evaluation question for the Strategy

Outcome	Key evaluation questions	Example evidence sources
SD1: Increase the community's perception of waste management as an essential service		
<p>The community and business sectors have an increased awareness of how the waste and recycling system works.</p> <p>The community and business sector recognise the importance of their role in the waste and recycling system.</p>	<p>How much has behaviour changed?</p> <p>Has there been an increase in community participation and involvement in waste and resource recovery?</p> <p>Does the community understand the role they play in ensuring that waste management operates effectively and efficiently?</p>	<ul style="list-style-type: none"> • Monitoring and evaluation of individual project and activities. • Key service statistics (e.g. contamination).
SD2: Increase community and business awareness of waste and support and encourage waste avoidance		
<p>Increased community and business awareness of waste avoidance and minimisation behaviours.</p> <p>Increased community and business participation in waste avoidance and minimisation behaviours.</p> <p>Reduction in community and business waste generation.</p>	<p>Has there been an increase in the number of businesses providing reuse options to help minimise the use of single use and disposal forms of packaging?</p> <p>Are individuals and organisations practicing waste avoidance and minimisation behaviours?</p> <p>Has there been an increase in waste avoidance behaviours, such as use of re-usable option, e.g. KeepCups?</p> <p>Has there been a reduction in household waste generation coupled with an increase in capture rates?</p>	<ul style="list-style-type: none"> • Registrations to online movement such as Responsible Cafes. • Key service statistics (e.g. contamination). • Monitoring and evaluation of individual project and activities.

Outcome	Key evaluation questions	Example evidence sources
SD3: Improve resource recovery and reduce contamination		
<p>Increase in the number of community members and businesses who are practicing preferred recycling behaviours.</p> <p>Reduction in recyclables sent directly to landfill.</p> <p>Increase in resource recovery rates.</p> <p>Decrease in contamination rates.</p>	<p>Has there been any increase in awareness of preferred waste and recycling behaviours?</p> <p>Has there been an increased awareness of why contamination is an issue?</p> <p>Are individuals and organisations practicing preferred waste management behaviours?</p> <p>Have targeted behaviours changed?</p> <p>How much have targeted behaviours changed?</p> <p>Is the community sustaining the new behaviour/s?</p> <p>Has source separation increased at TSs and RRCs?</p> <p>Has there been a reduction in overall contamination?</p> <ul style="list-style-type: none"> • Has contamination in kerbside recycling and organics collection reduced? • Has the number of bins that are found to be grossly contaminated reduced? <p>Has there been a reduction in occurrence of major/problematic contaminants (e.g. recyclables in plastic bags)?</p> <p>Have capture rates for core materials and common household items and key waste streams (food organics) increased?</p> <p>Is there an increase in the levels of resource recovery in household recycling and organics bins?</p>	<ul style="list-style-type: none"> • Key service statistics (e.g. contamination). • Monitoring and evaluation of individual project and activities. • Compositional waste audits and bin inspections.

Outcome	Key evaluation questions	Example evidence sources
SD4: Reduce litter and illegal dumping		
<p>Greater understanding of the litter and illegal dumping issues across the region.</p> <p>An informed litter and illegal dumping plan.</p> <p>Community engaged in litter and illegal dumping abatement and clean-up projects.</p>	<p>Is there a greater understanding of the litter and illegal dumping issue across the region?</p> <p>Has there been a litter and illegal dumping plan developed?</p> <p>Has there been an increase in community participation in litter and illegal dumping clean-up projects?</p> <p>Has there been a reduction in the amount of litter that is recorded at specific litter hotspots across the region?</p> <p>Has there been a reduction in the number of specific key litter items (e.g. cigarette butts) found at key litter locations across the region?</p>	<ul style="list-style-type: none"> • Litter counts. • EPA litter reports. • Evaluation reports and data from projects and activities. • Litter and illegal dumping reports (e.g. using DumpInData tool).
SD5: Increase correct disposal of problem wastes		
<p>Increased awareness of stewardship programs and resource recovery services.</p> <p>Increased recovery rate for problem wastes.</p> <p>Decrease in rate of problem wastes disposed to landfill.</p>	<p>Has there been an increase in the use of product stewardship schemes?</p> <p>Has there been an increase in the recovery rate of problem wastes?</p> <p>Has there been a decrease in the rate of problem wastes disposed to landfill ?</p>	<ul style="list-style-type: none"> • Participation rates for product stewardship schemes. • Volumes of materials collect through product stewardship schemes. • Key service statistics.
SD6: Strengthen regional capacity to deliver education and behaviour change		
<p>Coordinated and consistent regional waste education programs.</p> <p>Delivery partners empowered to deliver effective waste education programs.</p> <p>Increase in the number of schools actively participating in recycling and waste education programs and initiatives.</p>	<p>Have effective education programs and initiatives been delivered that have achieved significant outcomes and benefits?</p> <p>Have opportunities been created to share information and resources and learn from each other?</p> <p>Have key stakeholders been appropriately involved at all stages and empowered through the process?</p> <p>Have partnerships and collaborative projects been delivered?</p> <p>Has there been an increase in the number of schools participating in recycling and waste education programs and initiatives?</p>	<ul style="list-style-type: none"> • Monitoring and evaluation of individual project and activities. • BSW Regional Education Network Stakeholder Survey. • Number of active ResourceSmart Schools registered with Sustainability Victoria. • Kids Teaching Kids registrations.

7.1.1.3 BSW Regional Education Network Stakeholder Survey

The BSWWRRG will coordinate a BSW Regional Education Network Stakeholder Survey to capture feedback from key delivery partners in relation to key aspects of waste education delivery. This will be delivered in the first year of the Strategy and repeated at the completion of the Strategy.

The information and feedback from this survey will be used to evaluate the effectiveness of the Strategy's programs, in particular whether we have supported key delivery partners in their waste education efforts and whether we have realised the best value from available resources by mobilising others in order to leverage additional value.

7.1.2 Annual Action Plan

The BSW Education Working Group will be responsible for monitoring the implementation of the Annual Action Plan. This monitoring and evaluation will be primarily focused on measuring whether projects and activities identified in the action plan were implemented on time, within budget and to the acceptable level of quality. This will be undertaken annually.

7.1.3 Individual Projects and Activities

This section relates to monitoring and evaluating the success of individual projects and activities delivered under the annual action plan. Monitoring and evaluation of projects and activities will be undertaken by the project delivery team.

During the project planning stage, it is important to set the measures for evaluating the success of the project and consider how monitoring will be undertaken, including what monitoring data is required, the form of measurement and when the monitoring needs to occur.

Measures to evaluate project success may include objectives, KPIs, targets or outcomes.

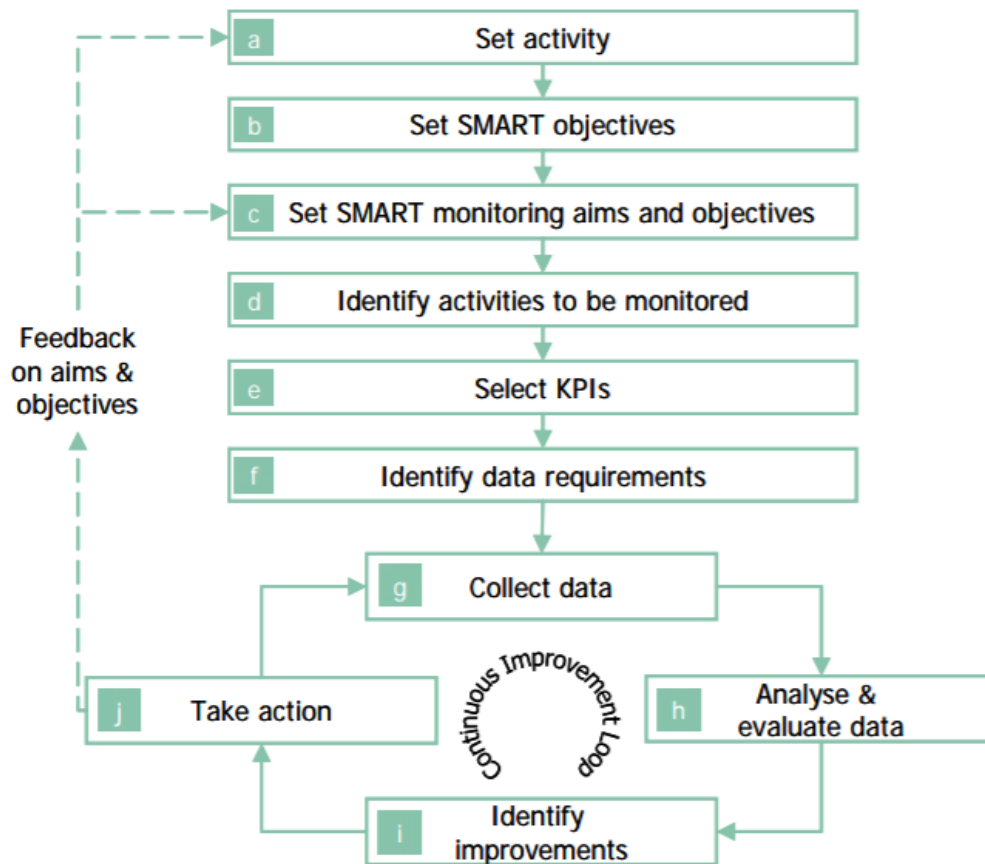
Project objectives provide clarity around what the project or activity is trying to achieve and the outcomes desired. Project objectives should be 'SMART': Specific, Measurable, Attainable, Relevant and Time-bound.

KPIs are quantifiable measures that sum up the critical success factors and provide the framework for measuring achievements. As such, they are typically presented as units of measurement (e.g. number, percentage, tonnage). KPIs will enable us to monitor the success or failures of our project and activities that we deliver by converting the data we collect into something usable and meaningful.

The project planning phase should also determine whether baseline data is required. This is important because if a project or activity is aiming to effect change then monitoring needs to occur both before and after implementation to ensure that the change or impact is able to be measured.

In undertaking monitoring for the project and activities that we plan to deliver, we will follow the continuous improvement loop of monitoring as shown in Figure 11.

Figure 11: The continuous improvement loop of monitoring⁴



⁴ Sourced – WRAP UK Monitoring and evaluation guidance – A Good Practice Guide to Monitoring and Evaluation: Chapter 2, planning monitoring and evaluating the results

Appendix A Five Year Action Plan

The implementation plan is detailed below. Indicative costs are provided where:

Budget Level	Description
Low	Low <=\$5,000 for once off expense or per annum for ongoing actions
Medium	Medium >\$5,000 and < \$10,000 for once off expense or per annum for ongoing actions
High	High >=\$10,000 for once off expense or per annum for ongoing actions

No.	Initiative	Priority	Year 1	Year 2	Year 3	Year 4	Year 5	Budget
SD1: Increase the community's perception of waste management as an essential service								
1.1	Gather baseline data on community waste and resource recovery behaviours, knowledge, attitudes and perceptions.	High						High
1.2	Raise community awareness of regional waste and resource recovery opportunities and challenges.	Low						Low
1.3	Raise community awareness of what happens to waste, co-mingled recyclables and organics once collected and the benefits of an efficient waste and resource recovery system.	Low						Medium
1.4	Raise the community's and businesses awareness of their role in waste management.	Medium						Medium
1.5	Monitor waste generation, recycling and organics recovery rates, and provide feedback to the community following audits.	Medium						Low

No.	Initiative	Priority	Year 1	Year 2	Year 3	Year 4	Year 5	Budget
SD2: Increase community and business awareness of waste and support and encourage waste avoidance								
2.1	Deliver initiatives that increase residential waste avoidance and minimisation behaviours, focusing on core waste streams.	High						High
2.2	Support community participation in events, campaigns, activities and challenges that deliver waste avoidance and minimisation.	Medium						Low
2.3	Support local businesses to avoid and minimise single use packaging.	Low						Medium
2.4	Work with business & industry to reduce waste generation.	Medium						Low
2.5	Engage the community in actively avoiding and reducing consumption of packaging.	Low						Medium

No.	Initiative	Priority	Year 1	Year 2	Year 3	Year 4	Year 5	Budget
SD3: Improve resource recovery and reduce contamination								
3.1	Deliver initiatives that increase resource recovery and decrease major contaminants at resources recovery centres and transfer stations.	Medium						Medium
3.2	Develop and make easily accessible, a regional A to Z waste and recycling directory.	Medium						Low
3.3	Deliver interventions that increase source separation rates.	Low						High
3.4	Deliver interventions that increase kerbside resource recovery rates for co-mingled recyclables and food organics.	High						High
3.5	Engage with industry and business to encourage increased resource recovery.	Medium						Low
3.6	Establish regional agreement on a core set of materials accepted in comingled kerbside recycling.	Medium						Low
3.7	Deliver targeted interventions to reduce contamination rates of kerbside comingled recyclable and FOGO bins.	High						Medium
3.8	Support the introduction of new FOGO services.	Medium						Medium
3.9	Encourage use of home composting systems.	Medium						Low
3.10	Develop waste and resource recovery education targeted at tourists and visitors to the region.	Medium						Medium
3.11	Provide event organisers with information and guidance on how to minimise event waste generation and maximise resource recovery.	Medium						Low

No.	Initiative	Priority	Year 1	Year 2	Year 3	Year 4	Year 5	Budget
SD4: Reduce litter and illegal dumping								
4.1	Gather data to inform regional litter and illegal dumping plan.	High						Medium
4.2	Develop a regional litter and illegal dumping plan.	High						Low
4.3	Identify and promote existing litter prevention programs.	Low						Low
4.4	Work with stakeholders, community litter abatement and clean-up groups to minimise littering and illegal dumping.	Medium						Low

No.	Initiative	Priority	Year 1	Year 2	Year 3	Year 4	Year 5	Budget
SD5: Increase correct disposal of problem wastes								
5.1	Develop and deliver regional key messages on the correct disposal of problem materials.	Medium						Medium
5.2	Deliver interventions to increase community participation in the correct disposal of non-kerbside recyclables and problem waste streams.	Medium						Medium
5.3	In partnership with key stakeholders (e.g. emergency organisations, government), develop educational materials on best practice waste management in relation to emergencies.	Low						Medium
5.4	Support Sustainability Victoria's education program on the e-waste to landfill ban.	High						Medium

No.	Initiative	Priority	Year 1	Year 2	Year 3	Year 4	Year 5	Budget
SD6: Strengthen regional capacity to deliver education and behaviour change								
6.1	Establish a BSWWRG Education Working Group	High						Low
6.2	Establish a regional waste and resource recovery education forum.	High						Low
6.3	Develop a recognisable regional brand for waste & resource recovery.	High						Medium
6.4	Support opportunities to share regional knowledge.	Medium						Low
6.5	Establish a knowledge hub of waste and resource recovery education projects and resources.	Low						Medium
6.6	Assess recycling and waste management education and behaviour change programs from other regions and jurisdictions for regional application.	Low						Low
6.7	Investigate the feasibility of a mobile recycling and waste management learning centre.	Low						Low
6.8	Support the delivery and expansion of school-based recycling and waste education programs and initiatives such as ResourceSmart Schools and Kids Teaching Kids	Medium						Medium
6.9	Support and encourage participation in community led projects across the region such as citizen science projects.	Medium						Low
6.10	Recognise achievement by nominating waste and resource recovery programs, projects individuals, organisations and businesses for awards such as the Premier's Sustainability Awards.	Low						Low
6.11	Engage with and promote community groups, charities and not-for-profits who delivery waste avoidance and minimisation programs and services.	Medium						Low

Appendix B Project on a page template

Project/Activity on a Page														
Strategic Direction:	SD1	<input type="checkbox"/>	SD2	<input type="checkbox"/>	SD3	<input type="checkbox"/>	SD4	<input type="checkbox"/>	SD5	<input type="checkbox"/>	SD6	<input type="checkbox"/>	SD7	<input type="checkbox"/>
Initiative:														
Title:														
Description:														
Problem statement:														
Objective/s:														
Target audience/s:														
Communication method/s:														
Project Logic														
Situation →	Inputs →	Activities →	Outputs →	Outcomes →	Impacts									
Current situation Desired outcome	What we invest	What we do	What we produce and deliver	What happens because of the outputs from our projects and activities: Change in learning, change in action, change in condition										
				Immediate:					Long-term:					
				Short-term:										
				Medium-term:										
← Assess need, monitor, evaluate, and learn →														
External Factors and Assumptions														
External Factors							Assumptions: Facts or conditions assumed to be true.							
Project Governance														
Project manager							Project sponsor							

Appendix C Example Monitoring and Evaluation Plan

Strategic Direction:		SD4: Improve resource recovery and reduce contamination in household kerbside collection services				
Initiative:		Develop information for new residents on what, when and how to recycle at home.				
Project / Activity	Title					
	Description					
Objectives	Objective Type		Related KPI	Target	Monitoring Method	
Project / Activity Objectives	Input objective					
	Outcome objective					
	Impact objective					
Monitoring Objectives	Input objective					
	Outcome objective					
	Impact objective					

Appendix D Waste education programs and communication campaigns from other regions and jurisdictions

In developing a new approach to regional waste and resource recovery education, which will include programs that aim to go beyond local government boundaries and reach as many people as possible, there is the opportunity to learn from those that are leading the charge. Across Victoria and in other jurisdictions there are regional groups, organisations and partnerships that are all delivering effective waste education in their respective communities.

Some focus purely on one waste management issue, such as food waste, whereas others focus on waste management more generally. Despite this they all have things in common that help to make them successful. For example, they all use a range of methods to reinforce the overall approach and message, they all focus on encouraging and assisting waste minimisation, rather than simply communicating information, and they all aim to involve people and organisations from across different parts of the community.

The following examples of large-scale waste education programs and communication campaigns represent good practice and are considered valid reference points to draw from and inform our approach to waste and resource recovery education, including how we best implement projects and activities over the life of the Strategy.

Love Food Hate Waste (Victoria)

Love Food Hate Waste (LFHW) is a Victorian Government food waste education campaign delivered by Sustainability Victoria. The campaign focuses on raising awareness of the large amounts of food waste generated by Victorian households and provides information and advice to help households reduce food waste and save money.

The campaign is modelled on the LFHW campaign operating in the United Kingdom and the LFHW campaign delivered by the Environment Protection Authority in New South Wales. In Victoria the LFHW campaign provides useful reference and communication material that local government and others can utilise to promote and encourage food waste avoidance behaviours in their local community.

LFHW focuses on four overarching household food related behaviour areas where everyday decisions and actions could either lead to or prevent food from being wasted. These areas are planning, shopping, cooking and storage. The campaign has a dedicated consumer facing website containing a range of ideas, tips and hints to help individuals, communities and organisations reduce food waste as well as free education materials, templates, and resources to support local government to run their own LFHW events or campaigns in their local community.

Can Do Communities

Can Do Communities is a leading waste education initiative established by the Grampians Central West Waste and Resource Recovery Group (GCWWRRG) to support local communities to work together and undertake activities that are important to them and help to improve waste and resource recovery outcomes in their local community.

The initiative recognises that different communities want to be able to focus on a variety of different activities, some that are small and some that are large, some which focus on waste and others that don't. Examples include starting a Boomerang Bag sewing club to reduce plastic bag use or starting a community garden and learning how to compost to avoid food waste being sent to landfill. Can Do Communities is all about providing support to local community groups to help these activities get off the ground.

The GCWWRRG has prepared a prospectus of activities to assist local communities in their efforts to focus on waste and resource recovery activities that are important to them. The prospectus includes eight activities that the community can get involved in, most of which are also relevant to the Barwon South West region. In this regard, Can-Do Communities is an example of an effective community engagement program that could be replicated in the Barwon South West region.

Back to Earth (Victoria)

Back to Earth is an innovative waste education program developed by the Metropolitan Waste and Resource Recovery Group (MWRRG) to raise awareness on the importance of the correct usage of council provided household kerbside organics collection services. The Back to Earth Initiative runs in partnership with 19 metropolitan councils in Melbourne's north, west and south east, and four regional councils in northern Victoria, to support the successful operation of new organics processing facilities.

The initiative focuses on providing households with clear information on what happens to organics material once collected from the kerbside, helping households to connect their actions with outcomes. It works on the principle of shared values where the community is more likely to practice preferred behaviours if they can see how their actions (e.g. contaminating their bin) can also impact on the things that they value (e.g. quality of food production). By demonstrating how the contents of kerbside organics bins can become a useful product that nourishes gardens and farms, the community can appreciate how they are part of something that benefits the entire community.

East Waste (South Australia) – Which Bin and Why Waste It campaigns

East Waste is a regional waste management authority that is a subsidiary of the Adelaide Hills Council, City of Burnside, Campbelltown City Council, City of Norwood Payneham & St Peters, City of Mitcham, the Corporation of the Town of Walkerville and the City of Prospect. East Waste's primary purpose is to provide effective waste collection services for its member councils, which includes providing education to support service delivery and performance.

The East Waste, Which Bin campaign is an innovative waste education program that focuses primarily on household kerbside collection. It provides local government and the community with well researched and developed education and communication materials and is supported by an active marketing and communications campaign to raise awareness of key issues such as contamination and resource loss. In addition to the Which Bin Campaign, East Waste also run the Why Waste It campaign, where the central question of 'Why waste it?' aims to raise awareness on the importance of avoiding waste and increasing resource recovery.

Why Waste It is based on the waste hierarchy principles of – Avoid, Reduce, Re-Use, Recycle and Compost by highlighting these as alternative options to sending waste to landfill. Both the Which Bin and Why Waste It campaigns are supported by a dedicated consumer facing website (Figure 12) that contains a range of user-friendly resources and communication materials that can be used by local government to educate their community on the importance of waste avoidance and minimisation and correct usage of kerbside collection services.

Figure 12: Which Bin campaign website and example factsheet



Halve Waste (Victoria/New South Wales)

Halve Waste is an initiative of Albury City Council, City of Wodonga, Federation Council and the Shires of Towong, Greater Hume and Indigo. The Halve Waste campaign gets its name from its goal, which is to halve the amount of waste going into landfill at Albury Waste Management Centre by 2020 based on

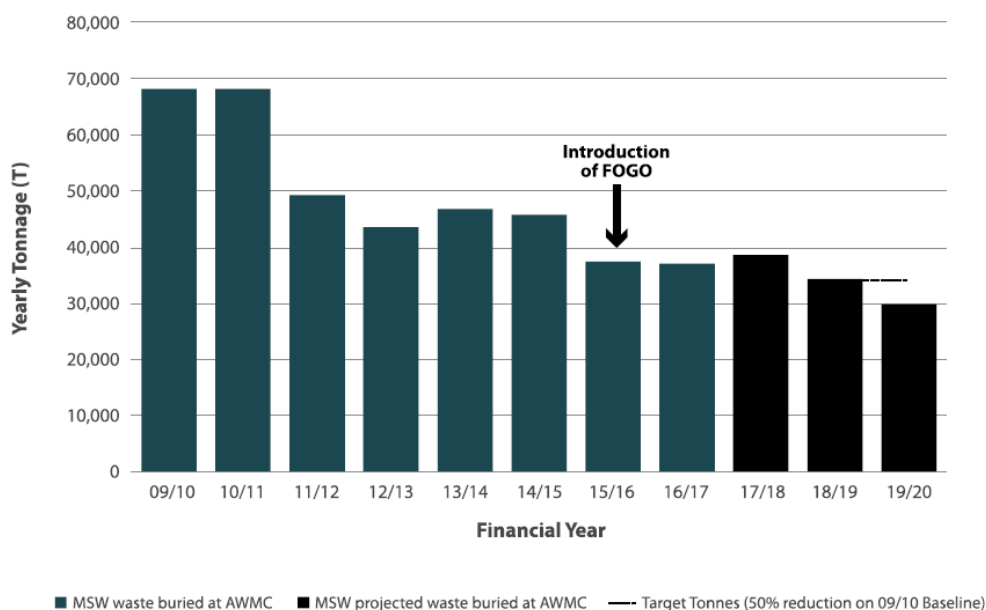
2009/10 baseline. Essentially, by using just two simple words the community is able to clearly understand what the campaign is all about.

Supporting this goal, the overarching objective of the Halve Waste campaign is to reduce waste generation across the region by implementing active recycling projects and engaging, educating and informing the community on best practice waste management. Thus, Halve Waste comprises of a range of innovative waste education projects, community engagement activities and communications that are targeted to key community segments, primarily households, businesses, and schools. For example, businesses and schools located within the participating local government areas are offered free waste assessments to help reduce waste and identify potential financial savings.

Halve Waste provides a comprehensive range of information resources and uses a range of communication methods to effectively engage with the community. This includes using large advertising billboards, running ads in the local newspapers, on radio and TV, mailing out leaflets, being active on social media, running events and competitions and most importantly providing a user-friendly campaign website that is regularly updated to include new information and useful guides.

This multipronged approach to communication has been successful in informing the general community about the campaign and why halving waste to landfill is important. In doing so it has led to some fantastic results, in particular, the amount of municipal solid waste that is sent to landfill every year has reduced significantly since the campaign started in 2010 (Figure 13). Given its success the participating councils highly value the Halve Waste campaign, demonstrating their commitment to furthering the objectives of this regional coordinated approach to waste education through ongoing funding.

Figure 13: Reduction in municipal solid waste sent to landfill



Rethink Waste (Tasmania)

Rethink Waste is a Tasmanian state-wide initiative involving the three regional waste management groups – the Cradle Coast Waste Management Group, the Northern Tasmanian Waste Management Group and Waste Strategy South. The Rethink Waste program enables the community of Tasmania to access reliable, up-to-date information and resources on waste and resource recovery at both a state and individual local government level via a user-friendly public website. All three groups use the waste management hierarchy to guide their strategies and activities.

Figure 14: Rethink Waste Tasmania website⁵



⁵ Rethink Waste Tasmania website: <http://rethinkwaste.com.au/>

reduce.
recycle.

www.reduce-recycle.com.au