

# Barwon South West Regional Litter and Illegal Dumping Plan 2019-2024



Barwon South West  
Waste & Resource  
Recovery Group



## Table of Contents

Introduction .....	2
Background .....	2
Strategic Framework .....	3
Litter and the circular economy .....	4
Our Region .....	4
Litter and illegal dumping in our region .....	6
Case studies of community-led action on litter reduction in our region .....	9
Developing the Litter Plan .....	11
Review of litter and illegal dumping data .....	11
Online surveys .....	12
Data analysis - The Litter Scorecard .....	12
Stakeholder workshops .....	14
Where are we today? .....	15
Where do we want to be? .....	16
Purpose .....	16
Objectives .....	16
Mechanisms of delivery .....	16
Five-year Implementation Plan .....	17
How will we monitor the Litter Plan? .....	20
Monitoring .....	20
Evaluation .....	20
References .....	21
Appendices .....	23

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## Introduction

Litter and illegal dumping pose a significant problem for Barwon South West communities in terms of the impact on the environment, community wellbeing and the associated clean-up costs incurred. While it is difficult to estimate the total cost of litter and illegal dumping across the state, litter management for local governments in Victoria is estimated at over \$78 million per year. This figure does not take into account activities undertaken by other agencies, organisations, community groups and volunteer organisations who spend many millions of dollars and contribute significant hours each year to address the issues associated with litter and illegal dumping.

This **Barwon South West Regional Litter and Illegal Dumping Plan** (the Litter Plan) sets out the framework for reducing litter and illegal dumping in the Barwon South West Region over the next five years. The purpose of the Litter Plan is to identify the priority litter and illegal dumping issues for the region, and outline key regional actions to address these issues.

*The Litter Plan aims to 'identify the priority litter and illegal dumping issues for the region and outline key regional actions that address these issues.'*

### What is litter?

Litter is small or single items that are not disposed of properly. They may have been thrown, blown or left in the wrong place. Common litter items include fast-food packaging, cigarette butts, and plastics such as drink bottles, chip and lolly wrappers.

### What is illegal dumping?

Illegal dumping is items larger than litter items or a collection of items that have been illegally disposed of on public or private land. They may have been dumped, tipped or left in the wrong place. Common illegal dumping items include household furniture, household waste, construction and demolition waste, and a range of industrial waste.



Litter are items that are not disposed of properly

## Background

### Strategic Framework

The Litter Plan was informed by national, state and regional legislation and policies. It aligns with the *Statewide Waste and Resource Recovery Infrastructure Plan 2018* and the *Barwon South West Waste and Resource Recovery Implementation Plan 2017-2026*, as outlined in the following diagram. Development of this Litter Plan was identified in the following state and regional strategies:

#### Victorian Waste Education Strategy August 2016

Develop regional litter plans, supported by Sustainability Victoria, that identify and prioritise litter issues for that region.

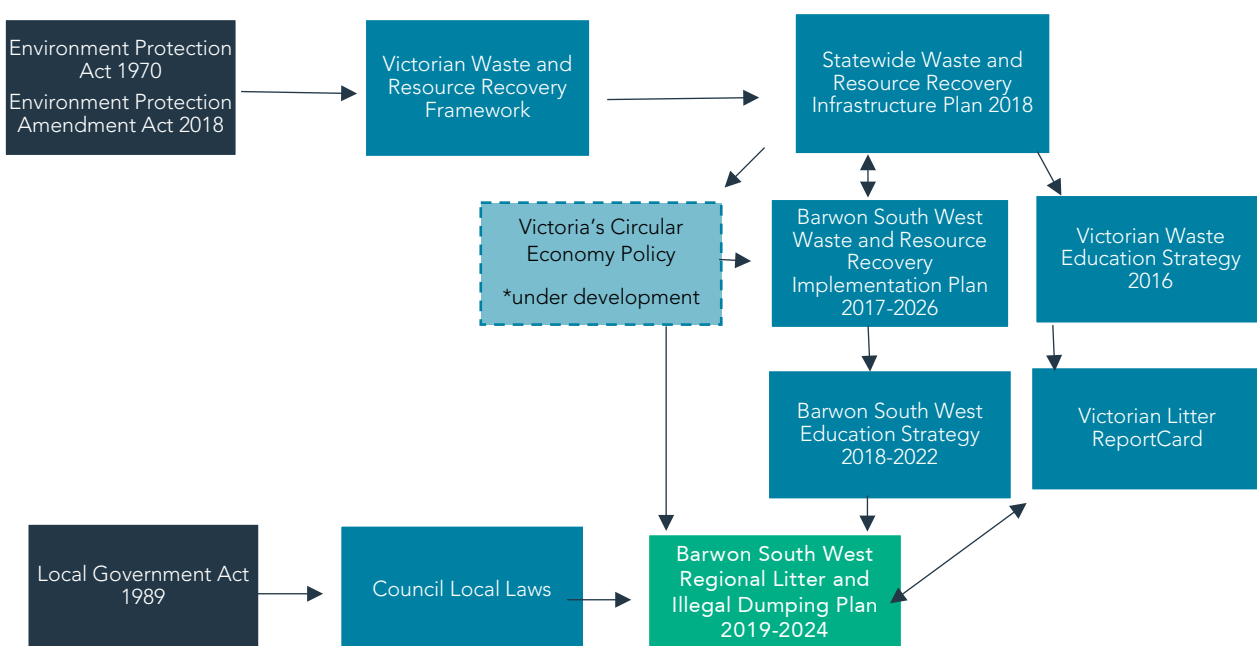
#### Barwon South West Education Strategy 2018-2022

Develop a regional litter and illegal dumping plan that identifies and prioritises litter and illegal dumping issues for the Barwon South West region and draws upon existing research and outcomes from state-wide interventions.

The Litter Plan is one of seven being developed across the State funded by Sustainability Victoria. In order to provide a consistent approach, all Litter Plans utilised Sustainability Victoria's Litter Scorecard to determine their region's priority litter and illegal dumping issues. This is the same approach that was utilised to develop Victoria's Litter Report Card 2016, which identified the following top five litter and illegal dumping issues for Victoria:

1. Litter in coastal areas and waterways
2. Illegal dumping of waste
3. Roadside litter
4. Cigarette butt litter
5. Plastic and microplastic litter.

Sustainability Victoria will use the priority issues identified in the regional Litter Plans to inform the development a new Victorian Litter Report Card in 2020.



Strategic Framework for the development of the Barwon South West Regional Litter and Illegal Dumping Plan

## Litter and the circular economy

The Victorian Government is currently developing a Circular Economy Policy to provide a long-term vision for how the state's waste and resource recovery system not only manages an increasing amount of materials but maximises circular flows whilst minimising impacts on the community and the environment.

Current efforts in tackling plastic pollution, litter and illegal dumping will be supported by a circular economy. A significant proportion of packaging material, particularly plastic, escapes into the environment, causing pollution of land, waterways and oceans and subsequently affects human health, ecosystems and wildlife. In a circular economy, promoting reuse, recycling, and phasing out single-use and disposable items reduces the impact of litter on the environment.

The Circular Economy Policy will provide state directives that will assist with the management of litter and illegal dumping at a regional level. The directives will be incorporated and supported through implementation of this Litter Plan, once the Policy is released.

## Our Region

Spanning more than 29,000 square kilometres, the Barwon South West region (the region) encompasses the south west of Victoria, including the natural and built environment from the South Australian border through to Geelong and Queenscliff, and along the south coast through to the Southern Grampians. This includes over 800 kilometres, or approximately 40% of Victoria's coastline. The region consists of nine local government areas, including:

- 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



*Tourism is one of the Barwon South West region's major industries. A rich variety of natural assets and supporting tourism infrastructure across the region attracts large volumes of tourists every year.*

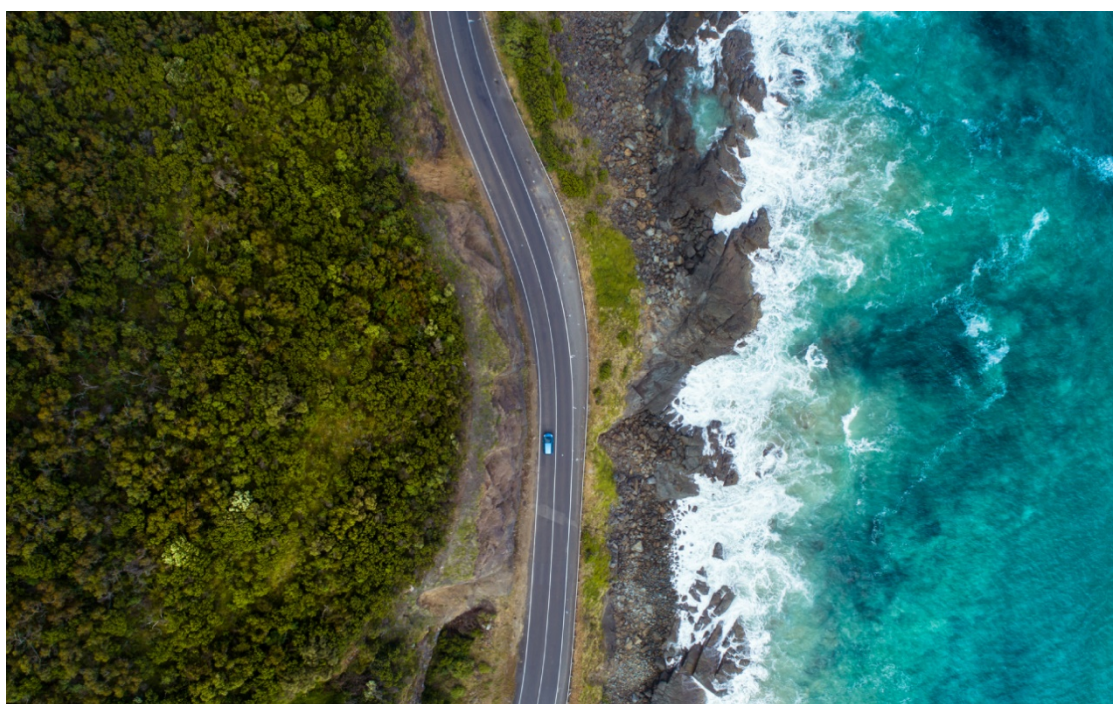
Barwon South West Region Map

The 2018 estimated resident population for the Barwon South West Region was 412,642 people. However, this figure increases dramatically during peak holiday times due to a large visiting population. The region includes key population centres including Colac, Hamilton, Geelong, Portland, Torquay and Warrnambool. Over half of the region's population resides in Geelong and surrounding areas. Significant population growth is forecast in the Greater Geelong and Surf Coast areas. Geelong's population is expected to grow by over 50% in the next 22 years.

Tourism is one of the Barwon South West Region's major industries, especially in coastal areas. A rich variety of natural assets and supporting tourism infrastructure across the region attracts large volumes of tourists every year. In the year ending March 2019, the region attracted 6.1 million overnight and day trippers.

Major destinations include the iconic Great Ocean Road, the Twelve Apostles, the Great Otway National Park, Geelong Waterfront and the Bellarine Peninsula. This level of tourism adds significantly to the volumes of waste produced in key tourist areas and litter hotspots and puts pressure on waste infrastructure and services.

Inland and rural areas of the region are largely sustained by agriculture and forestry industries, whilst the Geelong region has a diverse economic base around the urban environment.



Tourism, especially in coastal areas, is one the region's major industries

## Litter and illegal dumping in our region

Litter and illegal dumping can be present in all environments across the region, including towns and urban centres, such as footpaths, carparks, train stations, parks and gardens, roadsides and rest areas, and in natural environments, such as bushland, coastal areas and waterways. The presence of litter and illegally dumped items is one of the most visible indicators of pollution in our environment.

Litter and illegal dumping can have significant environmental, social and economic impacts which affect all sectors of the community. Calculating the true cost of littering and illegal dumping is difficult. A wide range of agencies, organisations, and community groups spend considerable dollars and hours every year on managing litter and illegal dumping in the region. This can include providing education and awareness campaigns to reduce litter and illegal dumping in our community, carrying out compliance and enforcement, providing and maintaining infrastructure, such as bins, or coordinating activities associated with cleaning up litter and illegally dumped items across the landscape.

There are numerous active groups, organisations and agencies that focus on reducing litter and illegal dumping in our region, many of which are supported by the dedicated efforts of community volunteers. Partnerships and collaboration between these groups is integral to achieving targeted and coordinated outcomes, and ultimately reducing litter and illegal dumping across the region.

The following table outlines some of the key groups, organisations and agencies that currently work to reduce litter and illegal dumping in the Barwon South West Region and the activities that they currently undertake.



Providing and maintaining infrastructure is just one way that organisations manage litter

### Did you know?

95% of litter on Victorian beaches comes from suburban streets through the stormwater system.

## Key groups, organisations and agencies working to reduce litter and illegal dumping in our region

Group	Key activities
<b>Sustainability Victoria (SV)</b>	<ul style="list-style-type: none"> <li>Plans and delivers Litter Prevention Programs on behalf of the Victorian Government.</li> <li>Develops the Litter Report Card.</li> <li>Provides funding for the Regional Litter Plans and one key action.</li> <li>Supports the Litter Enforcement Officer Network.</li> <li>Builds litter capability and capacity in stakeholders across Victoria.</li> </ul>
<b>Environment Protection Authority Victoria (EPA)</b>	<ul style="list-style-type: none"> <li>Enforces regulations for litter and illegal dumping.</li> <li>Promotes litter and illegal dumping reporting.</li> <li>Coordinates Officers for the Protection of Local Environment (OPLE) program in partnership with councils.</li> </ul>
<b>Department of Environment, Land, Water and Planning (DELWP)</b>	<ul style="list-style-type: none"> <li>Develops state policies relating to litter and illegal dumping issues.</li> <li>Oversees clean-up of illegal dumping on Crown land.</li> <li>Coordinates statewide data collection in partnership with Sustainability Victoria.</li> </ul>
<b>Parks Victoria</b>	<ul style="list-style-type: none"> <li>Oversees clean-up of litter and illegal dumping on Parks Victoria managed land.</li> <li>Provides waste infrastructure on Parks Victoria managed land.</li> </ul>
<b>Barwon South West Waste and Resource Recovery Group (BSWWRRG)</b>	<ul style="list-style-type: none"> <li>Provides regional coordination for litter prevention programs.</li> <li>Provides education on litter and illegal dumping.</li> <li>Promotes clean-up events and activities.</li> </ul>
<b>Water authorities</b>	<ul style="list-style-type: none"> <li>Provide litter prevention and education activities related to wastewater treatment.</li> </ul>
<b>Catchment Management Authorities (CMAs)</b>	<ul style="list-style-type: none"> <li>Provide clean-up of litter and illegal dumping along waterways managed by the CMA.</li> <li>Conduct litter audits along waterways managed by the CMA.</li> </ul>
<b>Councils</b>	<ul style="list-style-type: none"> <li>Provide education on litter and illegal dumping.</li> <li>Coordinate and support litter clean up events.</li> <li>Support volunteer groups undertaking litter clean-ups and reduction activities.</li> <li>Install and service bin and stormwater infrastructure.</li> <li>Investigate and clean-up illegal dumping and litter on council owned and managed land.</li> <li>Enforce litter and illegal dumping.</li> </ul>
<b>Landcare, Coastcare and other community land management groups</b>	<ul style="list-style-type: none"> <li>Provide clean-up of litter and illegal dumping, including community events.</li> <li>Record and report data from clean-ups.</li> <li>Provide education and awareness raising on litter and illegal dumping.</li> <li>In some cases, they coordinate the development of source reduction plans for litter.</li> </ul>
<b>Committees of management</b>	<ul style="list-style-type: none"> <li>Provide and maintain bin infrastructure.</li> <li>Provide clean-up of litter and illegal dumping.</li> <li>Provide education activities to reduce litter and illegal dumping.</li> </ul>
<b>Beach Patrol</b>	<ul style="list-style-type: none"> <li>Conducts litter clean-up on beaches.</li> <li>Records and reports data from clean-ups.</li> <li>Provides education and awareness raising on litter issues.</li> </ul>

Group	Key activities
Surf Riders Foundation	<ul style="list-style-type: none"> <li>• Raises awareness about marine plastics pollution and advocates for a reduction in single use plastics.</li> <li>• Coordinates beach litter clean-ups.</li> </ul>
Plastic Wise, War on Waste and Sustainability Groups	<ul style="list-style-type: none"> <li>• Educate and coordinate activities to reduce single use plastics.</li> </ul>
Resource Smart Schools (RSS) Program	<ul style="list-style-type: none"> <li>• Educates staff and students about the impacts of litter and how to reduce litter.</li> <li>• Supports schools to undertake litter audits, clean-ups and other activities that reduce litter.</li> </ul>
Schools	<ul style="list-style-type: none"> <li>• Participate in litter prevention and clean-up activities.</li> <li>• Educate students and the wider community about the impact of litter and how to reduce it.</li> </ul>
Universities and other educational institutes	<ul style="list-style-type: none"> <li>• Conduct research on litter and illegal dumping.</li> </ul>
Keep Australia Beautiful (KAB)	<ul style="list-style-type: none"> <li>• Manages the national Tidy Town and Sustainable Cities Awards.</li> <li>• Raises awareness about litter and illegal dumping issues.</li> <li>• Provides grant funding for activities that prevent litter and illegal dumping.</li> <li>• Undertakes research on litter and illegal dumping behaviours.</li> </ul>
Keep Victoria Beautiful (KVB)	<ul style="list-style-type: none"> <li>• Delivers various litter and illegal dumping reduction programs in Victoria including: <ul style="list-style-type: none"> <li>◦ Adopt-a-Highway program to reduce litter on arterial roads; and</li> <li>◦ Stationeers program to beautify railway stations.</li> </ul> </li> <li>• Runs the Tidy Town and Sustainable Cities Awards for Victoria.</li> <li>• Supports land managers to undertake litter and illegal dumping prevention activities.</li> <li>• Undertakes research on litter and illegal dumping behaviours.</li> <li>• Coordinates the Litter Enforcement Officers Network.</li> </ul>
Clean Up Australia	<ul style="list-style-type: none"> <li>• Coordinates Clean Up Australia Day.</li> <li>• Raises awareness about litter and illegal dumping issues.</li> </ul>
Tangaroa Blue	<ul style="list-style-type: none"> <li>• Coordinates the Australian Marine Debris Initiative (AMDI) database.</li> <li>• Supports communities to reduce marine debris, including running workshops to assist communities to develop source reduction plans for litter.</li> <li>• Provides education on reducing litter in marine environments.</li> <li>• Advocates to and collaborates with governments to reduce marine debris.</li> </ul>
Zoos Victoria	<ul style="list-style-type: none"> <li>• Coordinates programs that reduce the impact of litter on wildlife including the 'Seal the Loop' program and 'When Balloons Fly, Seabirds Die' Campaign.</li> </ul>
Sea Shepherd	<ul style="list-style-type: none"> <li>• Delivers a Marine Debris campaign which includes beach clean-ups and data recording as well as education and awareness raising activities.</li> </ul>
Clubs (sporting, leisure and community)	<ul style="list-style-type: none"> <li>• Provide waste services at events.</li> <li>• Provide clean-up of litter following events.</li> </ul>
Opportunity/Charity shops	<ul style="list-style-type: none"> <li>• Remove illegal dumping left at charity shops and bins.</li> </ul>

## Case studies of community-led action on litter reduction in our region

The following section showcases some of the community-led initiatives to reduce litter that are currently occurring in the region.

### **Bellarine Catchment Network Landcare and Coastcare – Caring for our Bays program**

The Caring for Our Bays program is a pioneering program that seeks to raise the profile and appreciation of Corio Bay and the Bellarine shoreline. The program aims to reduce litter and other pollutants from entering into waterways through community education about litter and its impact, litter clean-ups and data collection. Their 'Be A Local 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.



The 'Be A Local Hero' campaign uses local species to raise awareness about litter impacts

### **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 AMDI database.

### **Good Will Nurdle Hunting**

Good Will Nurdle Hunting is a community initiative that formed following the discovery of a large quantity of small plastic pellets (nurdles) on Warrnambool beaches. An investigation found that the nurdles originated from the nearby wastewater treatment plant and an EPA clean-up order was issued. Good Will Nurdle Hunting raises the profile of nurdles in the region and coordinates clean-up activities with the community.

## Clean Oceans Collective

Developed in response to the 2017 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.

## 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. Surf Coast branch has been operating since 1994 and actively participates in providing school group talks and beach clean-ups.



Good Will Nurdle Hunting coordinate nurdle clean-up activities on Warrnambool beaches

### Did you know?

Litter harms marine life by polluting their habitat, being mistaken for food, and trapping or injuring them.

## Developing the Litter Plan

Environmental Evolution were engaged to undertake research and prepare the Litter Plan, in consultation with the Barwon South West Waste and Resource Recovery Group (BSWWRRG), councils, State Government agencies, community groups, land managers, not-for-profit organisations, and the wider community.

The production of the Litter Plan involved:

- a review of current, available litter and illegal dumping data;
- two online surveys to understand litter and illegal dumping issues and activities in the region;
- analysis of data and information from the online surveys using Sustainability Victoria's Litter Scorecard to identify the top five litter and illegal dumping issues for the region; and
- two workshops, held in Geelong and Warrnambool with interested stakeholders, to confirm the top five litter and illegal dumping issues for the region and identify key actions to address these issues.

### Review of litter and illegal dumping data

Regional data from the Australian Marine Debris Initiative database, Litterstopper and Victorian Local Government Annual Survey was utilised to develop the Litter Plan. There was no regional data available in Sustainability Victoria's DumpInData. Litterarti data was not able to be accessed for the development of the Plan, and at the time of writing, the LitterWatch portal was under development.



Development of the plan included a review of litter and illegal dumping data for the region

## Online surveys

As part of the development of the Litter Plan, groups and organisations involved in the management of litter and illegal dumping, as well as the wider community, were invited to participate in two online surveys. In total, 135 responses were received on the community survey, and there were 32 responses to the survey from groups and organisations.

Survey results indicated a strong level of concern regarding littering and illegal dumping. When asked to identify the aspects of littering and illegal dumping that concerned people most, the impacts to the environment and community pride were among the top five issues.

The following section provides a snapshot of the survey results for litter and illegal dumping.

## Survey responses regarding concerns about littering & illegal dumping

	Litter	Illegal Dumping
What concerns people most about littering & illegal dumping?	<ol style="list-style-type: none"><li>1. Is hazardous to waterways</li><li>2. Is hazardous to the environment</li><li>3. Is hazardous to our oceans</li><li>4. Is hazardous to wildlife</li><li>5. Makes it look like our community doesn't care</li></ol>	<ol style="list-style-type: none"><li>1. Is hazardous to the environment</li><li>2. Attracts further illegal dumping</li><li>3. Is hazardous to wildlife</li><li>4. Makes it look like our community doesn't care</li><li>5. Is expensive to clean up</li></ol>
What are the main types of litter and illegal dumping that concern people?	<ol style="list-style-type: none"><li>1. Fast food containers</li><li>2. Plastic bags</li><li>3. Packaging</li><li>4. Cigarette butts &amp; packets</li><li>5. Junk food items (e.g. lollies, chip packets, ice cream wrappers)</li></ol>	<ol style="list-style-type: none"><li>1. General household waste</li><li>2. Household furniture</li><li>3. Mattresses</li><li>4. Building / demolition waste</li><li>5. Tyres</li></ol>
Where are the main areas where litter and illegal dumping is a concern to people?	<ol style="list-style-type: none"><li>1. Coastal areas / beaches</li><li>2. Waterways- rivers, creeks</li><li>3. Bushland</li><li>4. Roadside rest areas</li><li>5. Parks and gardens</li></ol>	<ol style="list-style-type: none"><li>1. Bushland</li><li>2. Roadside rest areas</li><li>3. Dirt roads</li><li>4. Charity / op shops</li><li>5. Waterways- rivers, creeks</li></ol>

### Did you know?

Young people are more likely to litter when they are in a group and older people are more likely to litter when they are alone.

## Data analysis - The Litter Scorecard

Sustainability Victoria's Litter Scorecard was used to analyse the data and survey responses and to identify the priority litter and illegal dumping issues for the region. The Litter Scorecard is a multi-criteria analysis tool that groups issues into four key categories: Inadequate infrastructure; Problem litter; Geography and concentration; and Sources of litter.

All data and information collected was analysed using the Scorecard, and themed according to these categories. Each issue was rated for health and safety, environmental, social, and economic impacts. Issues were ranked through this process and the priority litter and illegal dumping issues for the region were identified.

### The Litter Scorecard categories

**Inadequate infrastructure** – the need for more bins, improved bin design, placement, and collection and other prevention infrastructure.

**Problem litter** – the types and amounts of litter.

**Geography and concentration** – the areas identified where litter is either concentrated as hot spots or is a more widespread problem.

**Sources of litter** – the human behaviour, business practices or other activities that result in litter.

## Barwon South West Region Litter Scorecard results

The top five litter and illegal dumping issues for the region, as determined by the Scorecard, are shown below. Please see Appendix 1 for the full multi-criteria analysis results. These top five issues for the region were used to inform the development of the Litter Plan's strategic directions.

- |   |                             |
|---|-----------------------------|
| 1. Litter in coastal areas and waterways                  | Geography and concentration |
| 2. Illegal dumping in bushland                            | Geography and concentration |
| 3. Illegal dumping of household items and household waste | Problem litter              |
| 4. Plastics pieces (hard) and microplastics               | Problem litter              |
| 5. Cigarette butts  | Problem litter              |



Litter in coastal areas and waterways is the region's top issue

## Stakeholder workshops

To test whether the top five issues identified through the Litter Scorecard were representative of the region, stakeholder workshops were run in Geelong and Warrnambool. Feedback from stakeholders indicated the top five issues were generally representative, although roadsides, which were ranked seventh through the scorecard analysis, were also considered a priority issue particularly in rural areas. This feedback was reflected in the development of the Litter Plan strategic directions.

Stakeholders were also asked to identify their current and possible actions that address the top five issues. These actions were grouped under a number of delivery mechanisms and were used to inform the development of the five-year implementation plan.

## Limitations in plan development

### Data analysis

There were a number of limitations in the data used to develop the Litter Plan. These included:

- data availability;
- current data capture methods;
  - no standardised method for capturing data so datasets cannot be compared;
  - no single database for all data;
  - lack of data capture by some groups and organisations;
- data gaps across the region; and
- lack of some baseline data.

### Tight timeframes

The tight timeframes for the development of the Litter Plan reduced the ability to engage thoroughly with, and include, all key organisations and community groups. A comprehensive review of the Litter Plan will be conducted after 12-months in order to evaluate performance and identify and address any gaps and limitations.

### Did you know?

People are more likely to litter in areas that are already littered.

## Where are we today?

This information is provided by councils in the Barwon South West Region.

Across the Barwon South West region, we have:

**4310t**

Estimated tonnes of litter and illegally dumped rubbish collected across the Region in 2017.



**\$3,325,520**

Total estimated cost of litter and illegal dumping in 2017 for the Region.



**3218**

Public litter bins



**461**

Public recycling bins



**189**

Cigarette butt bins

Number of litter traps:

**164**

Side litter traps

**34**

In-line litter traps



Number of Resource Recovery Centres:

**36**

Council run

**4**

Privately run



Local government areas with hard waste collection:

**2**

City of Geelong (by appointment) & Borough of Queenscliffe



Number of landfills:

**4**

Council run

**1**

Privately run

\*Estimates are calculated based on best available data as at 2019.

## Where do we want to be?

The Litter Plan identifies a clear purpose and seven objectives for the Barwon South West Region. This is supported by a five-year implementation plan and monitoring and evaluation actions.

### Purpose

Reduce litter and illegal dumping in the Barwon South West Region.

### Objectives

1. Reduce plastics and microplastics in coastal areas and waterways
2. Reduce cigarette butts in urban environments and coastal areas and waterways
3. Reduce litter on highways and arterial roads
4. Reduce illegal dumping of household waste and furniture in bushland areas
5. Reduce illegal dumping in urban and peri-urban areas
6. Build and strengthen capacity and partnerships of community and agencies to reduce litter and illegal dumping
7. Support consistent and targeted data capture to improve litter and illegal dumping knowledge.

### Mechanisms of delivery

The following mechanisms will be utilised to deliver the Litter Plan's objectives:

#### Education and Awareness

Comprehensive education and awareness campaigns that focus on behaviour change principles.

#### Appropriate Infrastructure and Services

Appropriate infrastructure and services to both meet the needs of the community and facilitate responsible disposal practices.

#### Enforcement and Regulation

Effective enforcement and regulation of litter and illegal dumping laws.

#### Clean-up Activities

Coordinated approach to the removal of litter and illegally dumped items through on-ground actions, including collection of data.

#### Partnerships and Capacity Building

Strong partnerships and increased capacity of our communities, groups and organisations.

#### Improving Knowledge

Improved and coordinated data collection processes to build and share our knowledge.



## Five-year Implementation Plan

This Five-year Implementation Plan sets out regional actions and interventions required to support the Plan's seven objectives. It includes some simple, low-cost actions that can be implemented within current programs, as well as other activities that will be reliant on securing external grant funding. Development of these regional actions was informed by consultation with stakeholders and the community. BSWWRRG and other stakeholders will seek external funding opportunities to deliver actions identified in this Litter Plan.

Priority	Delivery timeframe*
High	High priority <2 years
Medium	Medium priority 2-3 years
Low	Low priority 4-5 years
Ongoing	Ongoing

\*Subject to funding and resourcing availability

### 1. Education and awareness

Priority level		Action	Who?	Objectives addressed
High	1.1	Develop targeted campaigns that provide positive and consistent messaging, focusing on the reduction of: <ul style="list-style-type: none"> <li>Plastic and microplastics in coastal areas and waterways;</li> <li>Cigarette butts in urban environment, coastal areas and waterways;</li> <li>Litter on highways and arterial roads;</li> <li>Illegal dumping of household waste and furniture in bushland; and</li> <li>Illegal dumping in urban and peri-urban areas.</li> </ul>	BSWWRRG, councils, land managers, community groups, Keep Victoria Beautiful.	1, 2, 3, 4 5,
High	1.2	Develop a campaign that raises awareness about the impacts and penalties of illegal dumping and littering across the region (i.e. Love where you live).	BSWWRRG, councils, land managers, community groups, EPA.	1, 2, 3, 4, 5
High	1.3	Educate schools about the impacts of litter and reducing litter in the environment, including participating in litter reduction activities (i.e. clean-ups, data collection).	ResourceSmart Schools Program Coordinator, schools, councils, community groups, land managers.	1, 2, 3
Medium	1.4	Provide information to the community and visitors about disposal options for household waste and problem materials, particularly free disposal options.	Councils, Visitor Information Centres, BSWWRRG.	4, 5
Ongoing	1.5	Promote participation in litter clean-up programs, such as: Clean up Australia Day, Tidy Towns, Sustainable Cities, Beach Patrol, Take 3 for the Sea, Adopt a Highway, Stationeers and other community and individual activities.	BSWWRRG, Keep Victoria Beautiful, Clean Up Australia Day, councils, community groups, land managers.	1, 2, 3,
Ongoing	1.6	Promote litter prevention campaigns that align to the Litter Plan's objectives, such as (but not limited to): <ul style="list-style-type: none"> <li>Operation Clean Sweep;</li> <li>'When Balloons Fly' campaign; and</li> <li>The Last Straw.</li> </ul>	BSWWRRG, community groups, councils, land managers, Tangaroa Blue, Zoos Victoria.	1

## 2. Appropriate Infrastructure and Services

Priority level		Action	Who?	Objectives addressed
High	2.1	Review current bin infrastructure in hot spot litter areas to ensure they meet community needs. This review may consider, bin: <ul style="list-style-type: none"> <li>• Number;</li> <li>• Type;</li> <li>• Location;</li> <li>• Condition;</li> <li>• Design; and</li> <li>• Service frequency, especially during peak period.</li> </ul> Investigate the installation of smart bin technology (i.e. sensors and compacting bins) to monitor bin capacity and servicing adequacy.	<b>Councils, land managers.</b>	1, 2, 3
High	2.2	Provide cigarette butt bins in hot spot areas, including 'voting bins' where appropriate and encourage business owners to install cigarette butt bins in hot spot areas for their customers/staff.	<b>Councils, land managers, community groups, Keep Victoria Beautiful.</b>	2
Medium	2.3	Review current gross pollutant trap infrastructure, identify requirements and install and maintain gross pollutant traps in key stormwater outlets for optimal litter reduction.	<b>Councils, land managers.</b>	1, 2
Medium	2.4	Install and service 'Seal the Loop' fishing tackle bins at key fishing areas and fish cleaning stations.	<b>Councils, land managers, Zoos Victoria.</b>	1
Low	2.5	Consider the provision of bin latches on kerbside bins in areas with identified issues, such as windy conditions, or where wildlife is interfering with bins.	<b>Councils.</b>	1, 3
Low	2.6	Investigate the provision of hard waste collection services for household items and furniture, if feasible and if it aligns with council's strategic priorities.	<b>Councils</b> (City of Greater Geelong and Borough of Queenscliffe currently provide a service).	4, 5
Low	2.7	Investigate the provision of 'waste disposal passes' to residents to provide a limited number of free disposals at resource recovery centres.	<b>Councils.</b>	4, 5

## 3. Enforcement and Regulation

Priority level		Action	Who?	Objectives addressed
High	3.1	Encourage the reporting of litterers to the EPA.	<b>EPA, BSWWRRG, councils.</b>	1, 2, 3
High	3.2	Provide surveillance at illegal dumping hot spots, such as surveillance cameras and patrolling, where appropriate and feasible.	<b>Councils, land managers.</b>	4,5
Medium	3.3	Publicise littering and illegal dumping enforcement activities and outcomes.	<b>EPA, BSWWRRG, councils.</b>	1, 2, 3, 4, 5
Medium	3.4	Investigate the formation of local litter and illegal dumping taskforce(s) where required.	<b>Councils, EPA.</b>	1, 2, 3, 4, 5, 6
Medium	3.5	Participate in the Litter Enforcement Officers Network (LEON).	<b>Keep Victoria Beautiful, councils.</b>	6, 7

## 4. Clean-up Activities

Priority level		Action	Who?	Objectives addressed
Ongoing	4.1	Coordinate and deliver litter clean-up programs, such as: Clean up Australia Day, Take 3 for the Sea, Beach Patrol, Adopt a Highway, and other community and individually led litter clean-up activities.	<b>Land managers,</b> Keep Victoria Beautiful, councils, community groups	1, 2, 3
Ongoing	4.2	Support community groups to undertake litter removal activities.	<b>Land managers, councils,</b> BSWWRRG (through Can Do communities program)	1, 2, 3
Ongoing	4.3	Remove illegally dumped items, following investigation, to discourage further illegal dumping.	<b>Land managers,</b> councils.	4, 5

## 5. Partnerships and Capacity Building

Priority level		Action	Who?	Objectives addressed
High	5.1	Provide training to councils on using DumpInData to record illegal dumping.	<b>Sustainability Victoria,</b> BSWWRRG, councils	6, 7
High	5.2	Partner with key business, such as fast food outlets, to raise customer awareness about reducing litter and to reduce litter at the source (i.e. removing straws).	<b>Caring for Our Bays</b> (existing program)	1, 3, 6
High	5.3	Partner with water authorities to reduce plastics in wastewater treatment.	<b>Wannon Water, Barwon Water,</b> community groups.	1, 6
Medium	5.4	Recognise volunteer efforts through promotion of activities and award nominations.	<b>BSWWRRG,</b> Keep Victoria Beautiful, Sustainability Victoria, councils, community groups.	6
Medium	5.5	Provide free or discounted disposal fees for community clean-ups.	<b>Councils.</b>	4, 5
Medium	5.6	Provide support to local charity and opportunity shops with removal of illegally dumped rubbish and other items (i.e. free disposal).	<b>Councils, DELWP.</b>	5
Medium	5.7	Advocate to the Victorian Government for a ban on single use plastics, including plastic cotton buds.	Councils, community groups.	1, 2, 6
Medium	5.8	Advocate to the Victorian Government for the introduction of a Container Deposit Scheme in Victoria.	Councils, community groups.	1, 2

### Did you know?

Litter can cause flooding by blocking the stormwater system.

## 6. Improving Knowledge

Priority level		Action	Who?	Objectives addressed
High	6.1	Provide training and support to groups undertaking litter clean-ups to record their data in the Australian Marine Database Initiative (AMDI).	<b>Tangaroa Blue</b> , land managers, community groups, BSWWRRG, CMAs.	7
High	6.2	Work with state government to develop a consistent approach to recording litter and support groups and individuals to record litter using this agreed approach.	<b>Sustainability Victoria</b> , DELWP, BSWWRRG.	6, 7
Ongoing	6.3	Collect data from illegal dumping in DumpIn data to identify hotspots and common dumped items.	<b>Councils</b> , Sustainability Victoria, land managers, community groups.	7
Ongoing	6.4	Collect data from litter clean ups to identify hotspots and common litter items.	<b>Community groups</b> , Tangaroa Blue, councils, land managers.	7
Medium	6.5	Partner with tertiary education facilities, and others, to improve our knowledge of littering and illegal dumping behaviour, impacts and potential solutions.	<b>BSWWRRG</b> , community groups.	6, 7
Low	6.7	Undertake litter audits in hotspot areas, especially along roadsides and waterways to develop a baseline of data.	<b>Land managers</b> , community groups, councils.	7

## How will we monitor the Litter Plan?

The limitations in available data that impacted the development of this Plan also influence the level of monitoring and evaluation that will occur. Due to a lack of baseline data, monitoring and evaluation of the Litter Plan will be limited and rely on a simple approach. Monitoring and evaluation of existing actions and projects will rely on available data, while monitoring and evaluation of newly funded projects will be project specific, and may include pre and post project data collection to measure the success and changes relating to that specific project.

### Monitoring

The purpose of monitoring is to determine progress towards achieving the Litter Plan objectives by the collection and collation of data. BSWWRRG is responsible for monitoring key outcomes from actions within the Litter Plan. The intention is to identify any improvement in areas where data is currently being collected (e.g. plastics in marine environments) and identify where baseline data does not exist (i.e. roadside litter). Available data will be reviewed annually.

### Evaluation

Evaluation of monitoring data will be used to further inform the implementation of the Litter Plan. A comprehensive review of the Litter Plan will be conducted after 12-months of its implementation, in order to evaluate performance and identify and address any gaps and limitations.

## Monitoring and evaluation actions list

Action	Who?
Establish an informal Monitoring and Evaluation Stakeholder Group to assist with monitoring and evaluation of the Litter Plan implementation.	BSWWRRG
Identify gaps in baseline data and facilitate data collection.	BSWWRRG
Establish baseline data to be collected for funded projects.	BSWWRRG
Collect new baseline data.	Identified stakeholders
Annually collect data for the Barwon South West region on the following:	
o Number of litter and illegal dumping education activities;	All stakeholders
o Number of community clean-up events and activities;	All stakeholders
o Litter counts;	Community groups, councils, land managers
o Number of call outs regarding litter and illegal dumping; and	EPA, councils, land managers
o Number of litter and illegal dumping infringements issued.	EPA, councils, land managers
Annually review litter and illegal dumping data.	BSWWRRG
Review the Litter Plan, after 12-months, to evaluate performance and identify and address any gaps and limitations.	BSWWRRG



Beach Patrol 3280 – 3284 raising awareness about ocean pollution

### Did you know?

The total cost of litter and street sweeping maintenance for local governments in Victoria is over \$78 million.

## References

- Barwon South West Waste and Resource Recovery Group, [Barwon South West Waste and Resource Recovery Implementation Plan 2017-2026](#)
- Barwon South West Waste and Resource Recovery Group, [Barwon South West Education Strategy 2018-2022](#)
- Beach Patrol, [Litterstopper](#)
- Sustainability Victoria, [Dumpln Data](#)
- Sustainability Victoria, [Victorian Waste Education Strategy 2016](#)
- Sustainability Victoria, [Victoria's Litter Report Card 2016](#)
- Sustainability Victoria, [Victorian Local Government Annual Waste Services Report](#)
- Sustainability Victoria, [Statewide Waste and Resource Recovery Infrastructure Plan 2018](#)
- Tangaroa Blue, [Australian Marine Debris Initiative](#)

## Appendices

### Appendix 1 Multi criteria analysis criteria scores for all identified litter and illegal dumping issues

Category	Litter or illegal dumping issue	Issue	Environmental Impacts	Social Impacts	Financial Impacts	OHS Impacts	Raw Score	Final score	Rank
Geography and concentration	Litter and Illegal dumping	Coastal areas and waterways.	5	4	2	1	12	385.2	1
	Litter and Illegal dumping	Bushland.	4	3	2	1	10	321	2
	Litter	Roadsides and rest areas.	3	3	2	1	9	288.9	7
	Litter	Parks and gardens.	3	3	1	1	8	256.8	14
	Illegal dumping	Roadsides and rest areas.	2	3	2	1	8	256.8	15
	Litter	Residential streets.	1	3	2	1	7	224.7	24
	Litter	Major highways.	1	2	3	1	7	224.7	25
	Litter	Around shops and shopping centres.	1	2	2	1	6	192.6	32
	Illegal dumping	Carparks.	1	2	2	1	6	192.6	33
	Illegal dumping	Secondary roads.	1	2	2	1	6	192.6	34
	Illegal dumping	Vacant land in towns/cities.	1	2	2	1	6	192.6	35
	Litter	Carparks.	1	2	1	1	5	160.5	39
	Litter	Secondary roads.	1	1	2	1	5	160.5	40
	Illegal dumping	Low traffic areas.	1	1	2	1	5	160.5	41
	Illegal dumping	Dirt roads.	1	1	2	1	5	160.5	42
	Illegal dumping	Charity/Opportunity shops.	1	1	2	1	5	160.5	43
Insufficient Infrastructure	Illegal dumping	No facility nearby.	2	2	4	4	12	214.8	26
	Illegal dumping	Cost of disposal.	2	3	4	2	11	196.9	29
	Illegal dumping	No service available to collect from source.	2	3	3	3	11	196.9	30
	Illegal dumping	No way to transport.	2	2	3	3	10	179	36
	Litter	Gross pollutant trap infrastructure is inadequate.	4	1	3	1	9	161.1	38
	Litter	Servicing of gross pollutant trap infrastructure is inadequate.	3	1	2	1	7	125.3	44
	Litter	Bin infrastructure is inadequate.	2	2	1	1	6	107.4	45
	Litter	Servicing of bins is inadequate.	2	2	1	1	6	107.4	46
	Illegal dumping	Service not available at time of disposal.	2	1	1	1	5	89.5	47
Problem Litter	Illegal dumping	Illegal dumping household items and waste.	3	2	3	2	10	304	3
	Litter	Plastics pieces (hard) and microplastics.	4	3	2	1	10	304	4

Category	Litter or illegal dumping issue	Issue	Environmental Impacts	Social Impacts	Financial Impacts	OHS Impacts	Raw Score	Final score	Rank
	Litter	Cigarette butts.	4	3	2	1	10	304	5
	Illegal dumping	Building / Demolition waste.	3	2	3	2	10	304	6
	Litter	Plastic bags.	4	2	2	1	9	273.6	8
	Litter	Rope & net scraps.	4	2	2	1	9	273.6	9
	Litter	Drink containers.	3	2	3	1	9	273.6	10
	Litter	Plastic pieces (soft).	3	3	2	1	9	273.6	11
	Illegal dumping	Garden waste.	3	3	2	1	9	273.6	12
	Illegal dumping	Tyres.	3	2	3	1	9	273.6	13
	Litter	Fast food containers.	3	2	2	1	8	243.2	16
	Litter	Packaging.	3	2	2	1	8	243.2	17
	Litter	Junk food items (lollies, chip packets, ice cream wrappers).	3	2	2	1	8	243.2	18
	Illegal dumping	General Household waste.	2	2	2	2	8	243.2	19
	Illegal dumping	Household furniture.	2	2	3	1	8	243.2	20
	Illegal dumping	Mattresses.	2	2	3	1	8	243.2	21
	Litter	Sanitary (tissues, nappies, condoms, cotton buds).	3	1	2	1	7	212.8	27
	Illegal dumping	Items abandoned when people move house.	2	2	2	1	7	212.8	28
Sources of litter	Litter	Human behaviour.	5	2	4	1	12	235.2	22
	Litter	Poor business practices that lead to litter.	5	2	4	1	12	235.2	23
	Illegal dumping	Human behaviour.	3	2	4	1	10	196	31
	Illegal dumping	Business practices resulting in illegal dumping.	3	2	3	1	9	176.4	37