

Metropolitan Melbourne Litter Plan 2020-22



METROPOLITAN
WASTE AND
RESOURCE RECOVERY
GROUP



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Executive summary

The *Metropolitan Melbourne Litter Plan (Litter Plan)* provides a vision and roadmap for metropolitan Melbourne and its councils to reduce litter and small scale domestic dumping over the next two years.

It provides guidance on a co-ordinated approach to targeting priority litter issues and identifying solutions for reducing litter and illegal dumping across metropolitan Melbourne.

With a strong focus on prevention and improving management, the *Litter Plan* has three strategic objectives:

1. Councils are connected and supported to prevent and reduce litter and illegal dumping
2. Councils collect data to make evidence-based decisions on prevention and management of litter and illegal dumping
3. Regional consistency to tackle litter and illegal dumping through education, engagement, infrastructure and enforcement

Most metropolitan Melbourne councils recognise litter and illegal dumping as a key focus area and priority for their organisation. As well as core operational responsibilities for litter clean up and public place litter bin collection and maintenance, many councils have delivered a variety of successful prevention and management initiatives to address litter and illegal dumping, including:

- litter compliance and enforcement
- strategic planning for litter prevention
- planning and implementing litter education and communications
- engaging with or co-ordinating volunteer litter clean up groups or partnerships.

Hotspot locations that are often targeted include shopping/retail zones, roadways and residential streets, and recreational parks/gardens. Most problem litter items reported are small scale domestic illegally dumped waste, cigarette butts and single use plastics.

Many councils have also developed and maintained strong partnerships with stakeholders in the government, commercial and not for profit sectors. These include many successful litter related partnerships with not for profits and community based organisations across metropolitan Melbourne.

While councils typically use the three pillars of education/awareness, infrastructure and enforcement to guide interventions, many use different approaches to data collection and information management. This makes benchmarking improvement between councils difficult. Data gaps limit the capacity of councils to measure change and develop robust business cases for litter prevention and management initiatives.

As well as councils, communities place a high value on clean urban and natural spaces. As a result, there are a range of community group initiatives in metropolitan Melbourne tackling litter and illegal dumping. Such initiatives include Port Phillip EcoCentre's extensive [study on microplastics](#) in the Yarra and Maribyrnong rivers, [Peninsula's last straw](#) pledge for businesses to eliminate single use plastic straws and Beach Patrol's strong [network of over 3000 volunteers](#) who clean up litter at their local beach or street.

The *Litter Plan* presents an opportunity for councils to partner with community groups, neighbouring councils, state government and other interested stakeholders to connect and collaborate on actions to take on addressing litter hotspots to support a litter free Melbourne.

1 Introduction

The Victorian Government has made a commitment to reduce litter and illegal dumping by supporting Waste and Resource Recovery Groups (WRRGs) to develop regional litter plans. The plans are an opportunity to take action on local litter issues that are unique to each region.

The *Litter Plan* was developed in consultation and collaboration with council officers in waste education, litter prevention and waste infrastructure services, and key stakeholders such as state government partners and not for profit organisations.

The focus of this *Litter Plan* is on prevention, which is prioritised above management and clean up, to align with the *Metropolitan Waste and Resource Recovery Implementation Plan (Metropolitan Implementation Plan)*.

The *Litter Plan* examines and analyses litter using a range of qualitative and quantitative sources to identify and prioritise problem litter types and geographical hotspots. These will be our region's focus over the next two years to work towards achieving a litter free Melbourne.

1.1 Background

Metropolitan Waste and Resource Recovery Group (MWRRG) is a Victorian Government statutory body responsible for co-ordinating and facilitating the delivery of waste management and resource recovery across metropolitan Melbourne. MWRRG works with the 31 municipalities shown in Figure 1.

The metropolitan Melbourne region occupies approximately 2,080 km² and has a population of almost five million. The geography includes the coastline of Port Phillip Bay and the hinterlands of Dandenong and Macedon ranges.

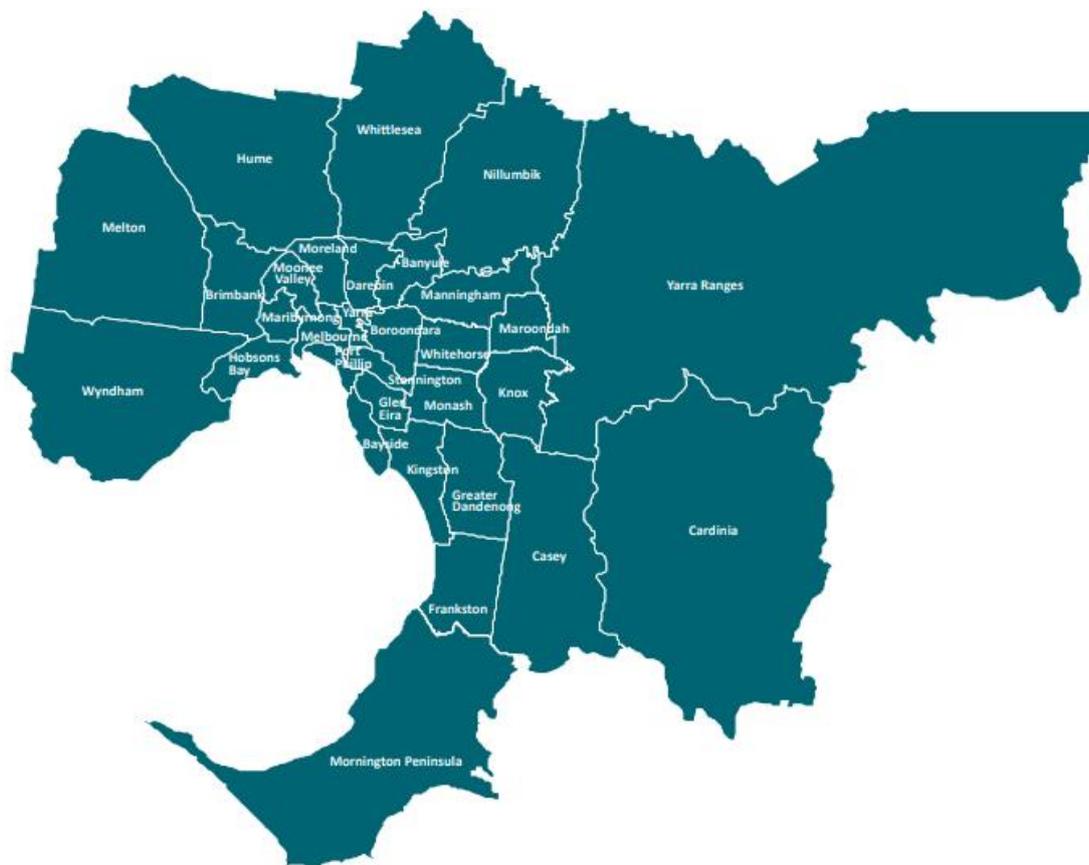


Figure 1: Metropolitan Melbourne councils

1.2 Developing the *Litter Plan*

To develop the *Litter Plan*, we undertook the following activities:

- A review of plans, policies and partnerships relevant to litter management in Melbourne and across Victoria.
- Early consultation with the Litter Plan Reference Group (the Reference Group) including stakeholder mapping, partnerships, barriers to change and key priorities. The Reference Group consisted of stakeholders from a variety of different metropolitan Melbourne councils, state government agencies and not for profit initiatives.
- Data collection from councils including current organisational commitments, management operations and infrastructure, education/awareness initiatives, deterrence, priority litter items and hotspots. This was delivered through an online litter survey of councils undertaken by MWRRG in 2019/20, with a response rate of 26 out of 31 (referred to as the *Litter Plan Survey*).
- Further consultation and review of the draft *Litter Plan* with the Reference Group

1.3 Defining ‘litter’ and ‘illegal dumping’

The scope of the *Litter Plan* is to incorporate litter and small scale illegal dumping (refer to Figure 2).

Litter is defined by the *Environment Protection Amendment Act 2018* (EP Act) as the unlawful depositing of waste that does not exceed 50 litres.

Small scale illegal dumping is defined as unlawful deposit of waste volumes that do not exceed 1000 litres, which is largely attributable to individuals or households. For example, dumping on the kerbside, parks, charity shops and beaches. This does not include illegal activities undertaken by business and industry to

evade waste disposal costs, such as dumping, stockpiling or illegal landfilling within industrial estates, vacant land or bushland.

Under the current *Environment Protection Act 1970*, litter and small scale illegal dumping is deemed the responsibility of local government (as shown in Figure 2).

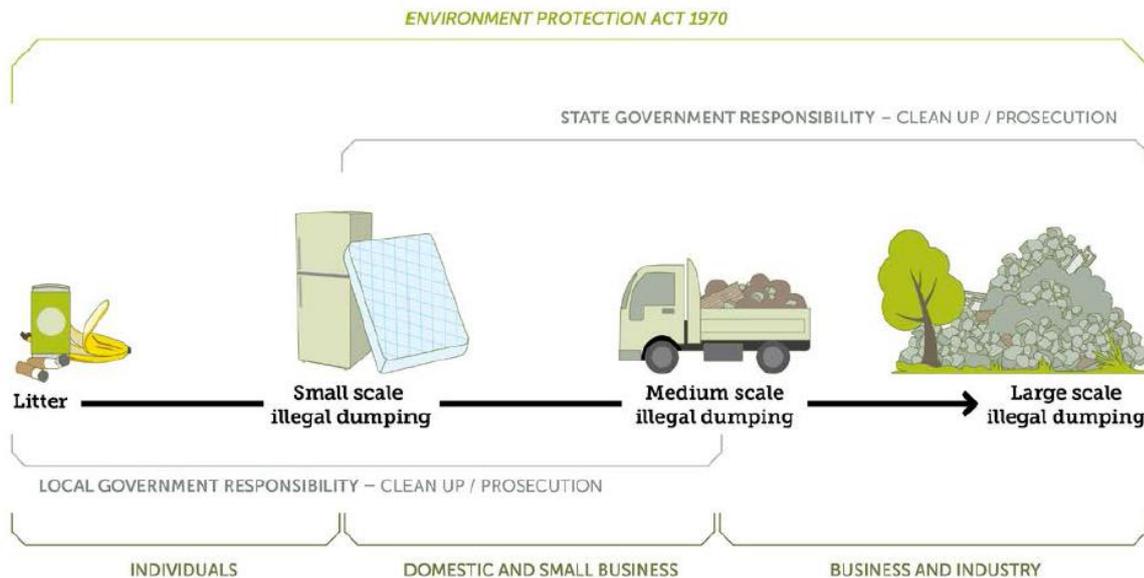


Figure 2: Litter and illegal dumping definitions and responsibilities¹

1.4 Policy context

The *Litter Plan* is developed to support key actions in the:

- [Recycling Victoria: A new economy 2020](#) which includes support for councils to tackle litter and illegal dumping, and action on plastic pollution, including funding opportunities.
- [Port Phillip Bay Environmental Management Plan 2017-27](#) which establish a baseline estimate of the volume of litter entering the bay and supports councils and community clean up activities.
- [Victorian waste education strategy 2016](#) which encourages local planning for litter prevention, including developing regional litter plans.
- [Metropolitan Implementation Plan](#) which supports the implementation of best practice litter prevention and illegal dumping programs.

¹ Environment Protection Authority Victoria, 2014. *Victoria Litter Enforcement Toolkit*. <https://www.epa.vic.gov.au/about-epa/publications/1142-2>. Note: from 2021 this toolkit will be updated to *2020 Litter and Waste Enforcement Toolkit*.

2 Where are we today?

This section of the Litter Plan presents evidence on the issues faced by councils in metropolitan Melbourne. Understanding this context, informs the strategic direction of the Litter Plan, and provides actions proposed in Section 4.

2.1 Council activities

While there are many stakeholders that need to be engaged in litter prevention and management, the target audience and direct actions in this *Litter Plan* are for the 31 metropolitan Melbourne councils and MWRRG.

2.1.1 Organisational commitments to litter prevention and management

Councils' actions on litter and illegal dumping vary across the region—from business as usual activities like maintaining street litter bins and street sweeping to developing new projects that tackle local litter issues.

In Figure 3 shows that the *Litter Plan Survey* respondents reported litter and clean spaces to be a very important issue to the council and community with an average rating of 75 of 100.

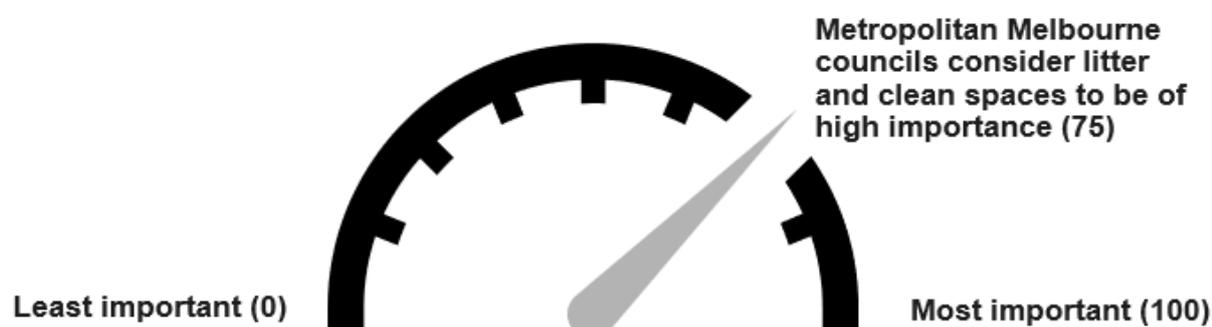


Figure 3: The importance of litter and clean spaces to metropolitan Melbourne councils

The majority of metropolitan Melbourne councils report undertaking the following activities:

- public place bin collection and maintenance
- litter clean up and collection (e.g. parks, streets, beaches, stormwater system, waterways etc.)
- planning and implementing litter education and communications
- public bin infrastructure planning and placement
- littering compliance and enforcement
- engaging with or co-ordinating volunteer litter clean up groups or other partnerships.

Only some councils report they undertake:

- programs addressing litter hotspots
- programs addressing priority litter types.

2.1.2 Council departments involved in litter prevention and management

Most councils report involvement in both public place bin collection and maintenance, and litter clean up and collection. Many councils undertake public bin infrastructure planning and placement. Fewer councils report they are involved in:

- planning and implementing litter education and communications
- littering compliance and enforcement
- engaging with or co-ordinating volunteer litter clean up groups or partnerships
- strategic planning for litter prevention.

The proportion of metropolitan Melbourne councils that undertake these activities is shown in Figure 4.

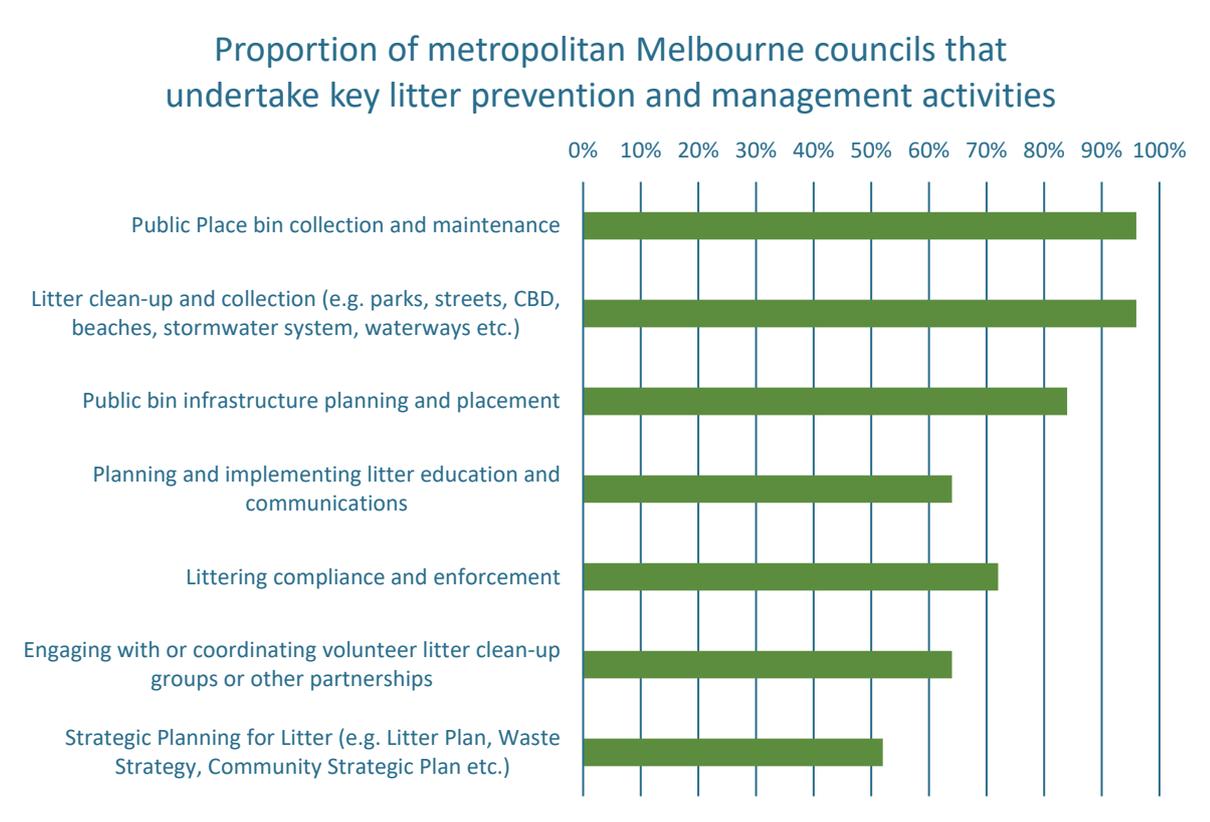


Figure 4: Litter prevention and management activities reported by metropolitan Melbourne councils

The *Litter Plan Survey* results found litter management sat within different departments and divisions, which makes oversight of litter and illegal dumping issues more challenging. It also found the following:

- Departments are infrastructure focused, with fewer councils reporting involvement from communications, education and regulatory divisions on litter prevention and management.
- Most councils do not have teams dedicated to litter, rather litter is incorporated in broader divisions of ‘environment’, ‘infrastructure’ or ‘sustainability’.

2.2 Information management and measuring change

Councils reported using a variety of different approaches to measuring litter and illegal dumping, which makes it difficult to strategically target hotspots and specific materials. There are several barriers for councils obtaining consistent data. One has been that data collection is not always included in waste collections contracts. Councils report that the ideal data collection platform should be linked with their customer relationship management (CRM) system.

A key action from the *Port Phillip Bay Environmental Management Plan 2017-27* is to establish baseline estimate of the volume of litter entering the bay. The baseline will be captured through Department of Environment, Land, Water and Planning (DELWP)’s litter data collection tool, [LitterWatch](#). The tool is available to councils and community groups.

2.2.1 Tonnages managed

Figure 5 shows that in 2016-17 metropolitan Melbourne councils collected around 50,000 tonnes of litter from litter bins, traps, illegal dumping and roadside litter. When litter bins are excluded from this calculation, uncontained litter sources e.g. illegal dumping and roadside litter accounted for over half of the tonnages collected.

However, this data is not necessarily reflective of quantities of litter and illegal dumping generated. Measuring litter and illegal dumping does not always tell the full picture as it does not include litter and illegal dumping removed by community volunteer clean up groups and/or residents who add to or remove dumped items.

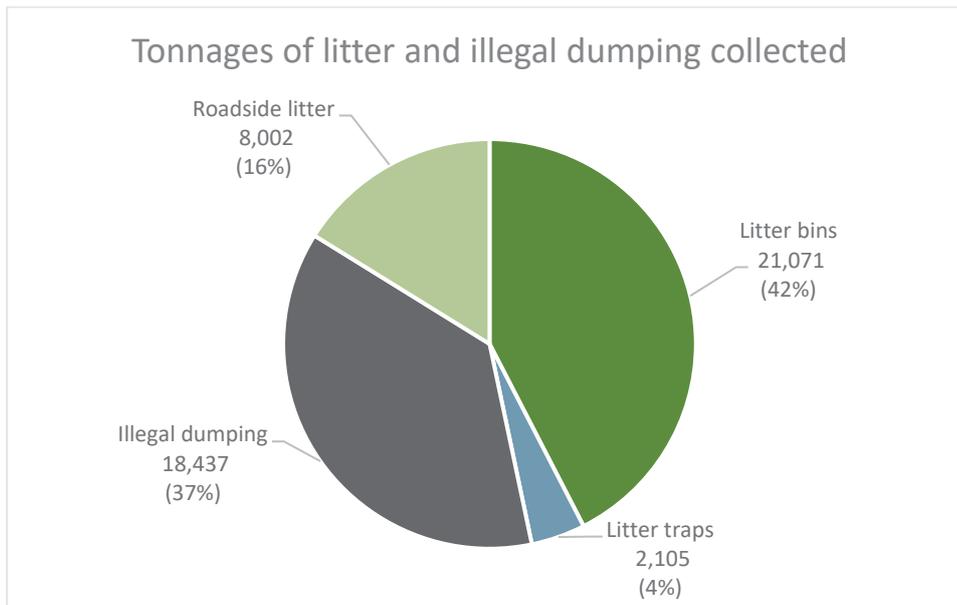


Figure 5 Tonnages of litter and illegal dumping collected, 2016-2017 Victorian Local Government Annual Waste Survey, Sustainability Victoria

2.2.2 Cost of litter and illegal dumping

The cost of litter prevention and management is significant for councils, and the actual costs are often underestimated as councils are unable to retrieve financial data across departments or to separate littering costs from other waste management, education, or stormwater management costs. In 2016-17 litter, illegal dumping and street sweeping services cost metropolitan Melbourne councils an estimated \$80 million, Figure 6. In 2018, MWRRG surveyed councils and found that illegal dumping costs councils collectively at least \$11 million, with some outer councils spending at least \$2 million per year on disposal.

The actual cost of litter and illegal dumping may be more than \$80 million. It is unclear in Figure 6 whether this amount only represents disposal costs or it also includes staff resources, vehicle, and plant costs to conduct these services.

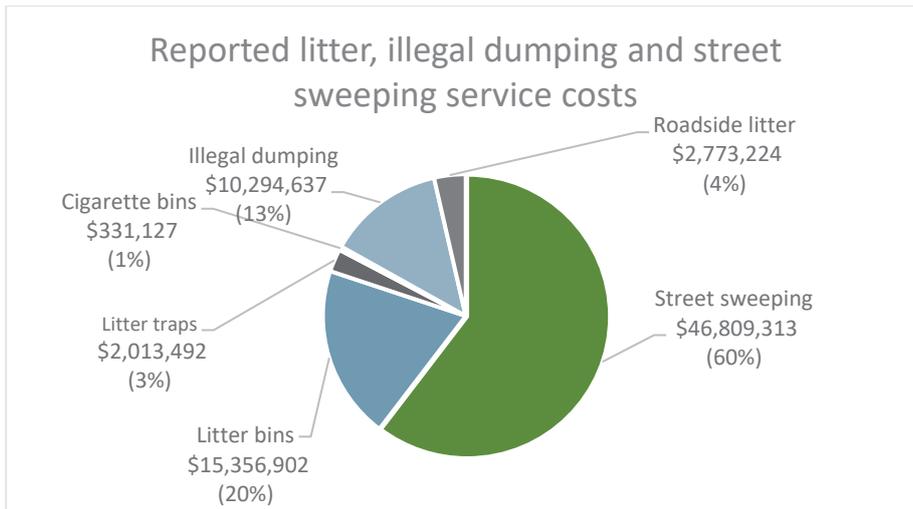


Figure 6 Reported litter, illegal dumping and street sweeping service costs, 2016-2017 Victorian Local Government Annual Waste Survey, Sustainability Victoria

2.3 Education and awareness

Education and awareness is a key component in delivering effective litter prevention. Few councils have a position responsible for litter prevention or engage communications teams in their litter prevention activities. There is a greater focus on litter clean up and servicing bin infrastructure than preventative measures through community education and awareness or stakeholder engagement.

2.4 Infrastructure

Infrastructure is one of the three key pillars of effective litter programs, and this includes public waste and recycling bins, cigarette butt bins, signage as well as litter traps such as gross pollutant traps and booms. It is the observation of the councils surveyed that people are more likely to litter when bins are not available nearby, clearly visible, or accessible by a direct route. Similarly, overflowing bins, and the general cleanliness of locations were also considered a factor influencing littering behaviour.

Most councils reported being proactive in reviewing their public place waste and recycling bin placement, design and servicing. Meanwhile fewer councils reported to reviewing their stormwater assets in the last three years. This was due to many being unsure on whether it was their responsibility or another department. This is a concern because stormwater assets are often inadequately serviced or maintained, even when management is outsourced. This means that traps are often bypassed, and a substantial proportion of litter may flow directly to outlets and into local waterways.

2.5 Deterrence and enforcement

In 2018/19, EPA Victoria's report litter program received around 20,000 reports from the community for littering from vehicles. EPA Victoria's remit is for littering from vehicles only.

According to the Local Government Survey for 2016-2017, a total of 1,759 fines were issued by councils for illegal dumping in metropolitan Melbourne. However, the survey is not inclusive of data on fines for littered items.

The few councils that have capacity to resource deterrence and enforcement undertake these activities:

- signage and closed circuit television (CCTV) cameras management at hotspots
- patrols
- fencing

- investigation tape
- letter box drops.

2.6 Priority issues

The *Litter Plan Survey* identified problem litter types and littering hotspots in metropolitan Melbourne.

2.6.1 Problem litter types

The *Litter Plan Survey* found the top ranked problem litter types/items (in order of priority) for metropolitan Melbourne are:

1. illegal dumping
2. cigarette butts
3. beverage containers
4. single use plastics and items
5. other plastics (greater than 5mm, not including beverage and food containers).

Priority litter types were influenced by geography, with coastal councils having a greater interest in microplastics than non-coastal councils.

2.6.2 Littering hotspots

A 'hotspot' is defined as a priority area for council where litter and illegal activities are observed and managed over an extended period. The councils identified the following areas as priority hotspots:

1. roadways and local streets
2. shopping centres and retail streets
3. parks/gardens
4. waterways and beaches.

3 Where do we want to be?

This section brings together the causal factors and current situation as evidenced in Sections 1 and 2 to set out the priorities, vision and guiding principles of the *Litter Plan* over the next two years.

Through the *Litter Plan* we will provide councils and stakeholders greater opportunities to access and grow a strong community of practice of litter and illegal dumping prevention professionals, improving our understanding of the true costs of litter, and regional consistency on education and engagement, enforcement and infrastructure that address our region's litter priorities.

3.1 Regional priorities

Through consultation and using the SV Litter Score Card in the Appendix, we have identified and prioritised key actions to respond to these litter issues in metropolitan Melbourne:

1. illegal dumping in roadways and streets
2. cigarette butts in retail areas and roadways
3. single use plastics and items in retail areas
4. beverage containers in urban streets, parks and waterways
5. improving data.

3.2 Vision

This *Litter Plan* sets an ambitious vision for metropolitan Melbourne to achieve:

A litter free Melbourne where people dispose of their waste responsibly.

3.3 Guiding principles

This *Litter Plan* is underpinned by three key guiding principles:

Principle 1: Connection and support

The *Litter Plan* is based on the understanding that litter prevention and management is a shared responsibility. Creating networking and knowledge sharing opportunities to support councils, state government and not for profit organisations can help lead to partnerships, shared solutions, and a strong community of practice of litter and illegal dumping prevention professionals.

Principle 2: Evidence based decisions

The *Litter Plan* recognises the design of litter prevention approaches should incorporate data collection using a consistent methodology to measure progress and contribute to evidence based decision making.

Principle 3: Regional consistency

The *Litter Plan* recognises that litter prevention is supported by guidance and consistency across metropolitan Melbourne councils through collaboration in educational messages, waste services, waste infrastructure and enforcement measures to achieve correct disposal behaviour.

4 How will we get there?

This section of the *Litter Plan* provides a framework for achieving the objectives. It provides an overview of the key pillars of effective litter prevention, a framework for prioritising regional projects and a description of recommended headline actions.

4.1 Key pillars of effective litter prevention

The *Litter Plan* recognises that approaches at the local and regional level should be integrated across the key pillars of effective litter and illegal dumping prevention: education, infrastructure, and enforcement. These approaches should be underpinned by both research and monitoring and evaluation, and supported by working together, incentives and effective communication. This approach is based upon the best practice model developed by Victorian Litter Action Alliance (VLAA), as illustrated in Figure 13.



Figure 7 The key pillars of best practice litter prevention, VLAA 2017

4.2 Regional action plan

The details of the action plan are in tables under the headings of objectives.

Objective 1 - Councils are connected and supported to prevent and reduce litter and illegal dumping

Action	Year	Projects	Outcome
1. MWRRG provides an online community of practice to connect and support litter and illegal dumping professionals.	2020-21	1. Councils join CLEAN Yammer to connect and share practices.	<i>Councils have an online space to connect and share information and practices.</i>
2. MWRRG facilitates opportunities for councils and organisations to connect and find collaborative solutions to tackle litter issues.	2020-22	1. Councils attend CLEAN meetings to discuss priority issues, exchange intel and make new connections.	<i>Councils connect and collaborate to solve litter issues.</i>
		2. Council local laws officers attend the Litter Enforcement Officer Network to discuss enforcement approaches and litter and illegal dumping management strategies.	<i>Local laws officers are connected through a dedicated enforcement network.</i>
3. MWRRG encourages councils to partner with community groups to apply for Recycling Victoria grants	2020-22	1. Councils investigate partnering with community groups on SV litter and illegal dumping grant applications.	<i>Community projects are delivered with the support of councils.</i>

programs.		2. Councils share litter and illegal dumping grant project learning through CLEAN.	<i>Project learning is shared with a community of practice.</i>
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Objective 2 - Councils collect data to make evidence-based decisions on prevention and management of litter and illegal dumping

Action	Year	Projects	Outcome
1. MWRRG promotes the use of DELWP's LitterWatch to councils to increase awareness and uptake of the app to help establish a baseline estimate of litter entering the bay.	2020-22	1. Councils investigate using LitterWatch as a tool for recording estimates of litter entering Port Phillip Bay waterways.	<i>Number of councils using LitterWatch.</i>

Objective 3 - Regional consistency to tackle litter and illegal dumping through education, engagement, infrastructure and enforcement

Action	Year	Projects	Outcome
1. MWRRG provides councils with access to resources to promote consistency across the region in tackling litter and illegal dumping.	2020-22	1. MWRRG launches and promotes <i>Illegal dumping prevention kit</i> to support councils in tackling illegal dumping.	<i>Consistency in educating residents on legal disposal options.</i>
		2. Councils use <i>Illegal dumping prevention kit</i> resources to support a regional message on legal disposal options.	<i>Consistency in responding to illegal dumping.</i>
2. MWRRG promotes EPA's resources to encourage council uptake and consistency in enforcement approaches.	2020-22	1. Councils use EPA's <i>2020 Litter and Waste Enforcement Toolkit</i> to support their enforcement work in investigating and responding to litter and illegal dumping incidents.	<i>Consistency in litter enforcement approaches</i>

		2. Councils promote EPA's <i>Report Litter Line</i> to encourage community reporting action.	<i>Increase in community members reporting litterers.</i>
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5 How will success be measured?

We will monitor and review progress on a yearly basis.

Objective	Project	Annual key performance indicators
1	Councils join CLEAN Yammer to connect and share practices.	Online Yammer forum established Number of CLEAN members signed up to online forum Number of conversations on CLEAN Yammer
	Councils attend CLEAN meetings to discuss priority issues, exchange intel and make new connections.	Number of CLEAN meetings held Number of participants Number of councils represented at CLEAN meetings
	Support Litter Enforcement Officer Network through MWRRG participation and/or joint network meetings.	Number of councils represented at LEON Number of LEON meetings with MWRRG representation and participation
	Councils investigate partnering with community groups on SV litter and illegal dumping grant applications.	Number of councils applying and/or as partners in Recycling Victoria community grants projects
	Councils share litter and illegal dumping grant project learning through CLEAN.	Number of Recycling Victoria grant project presentations at CLEAN.
2	Support DELWP in encouraging councils to use LitterWatch for capturing and reporting on litter.	Number of councils using LitterWatch reported by DELWP
3	MWRRG launches and promotes <i>Illegal dumping prevention kit</i> to support councils in tackling illegal dumping.	<i>Illegal dumping prevention kit</i> is launched
	Councils use <i>Illegal dumping prevention kit</i> resources to support a regional message on legal disposal options.	Number of councils using <i>Illegal dumping prevention kit</i> resources and types of resources used
	Councils use EPA's <i>2020 Litter and Waste Enforcement Toolkit</i> to support their enforcement work in investigating and responding to litter and illegal dumping incidents.	Number of councils using the <i>2020 Litter and Waste Enforcement Toolkit</i> reported by councils

	Councils promote EPA's <i>Report Litter</i> to encourage community reporting action.	Number of councils promoting EPA's <i>Report Litter</i> Number of public reports by council area to <i>Report Litter</i> reported by EPA
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Appendix

Litter Scorecard

The SV Victorian Litter Score Card methodology is a prescribed list of categories and issues and is assessed against environmental, social, financial, and occupational health and safety (OHS) impacts. This methodology was used in the *Litter Plan Survey* to determine a preliminary set of regional priorities and issues. Issues with a higher raw score indicate greater priorities and concerns from councils.

Issue	Theme	Environmental impacts	Social impacts	Financial impacts	OHS impacts	Raw score
Problem litter	Plastic and micro plastics	4	1	1	1	7
	Cigarette butts	4	3	2	2	11
	Illegal dumping	2	4	5	3	14
	Non-specific	3	3	2	2	10
Geography and concentration of litter	Coastal areas and waterways	2	2	1	1	6
	Roadways	2	3	3	2	10
	Retail areas	2	3	3	2	10
	Parks	2	2	3	3	10
Sources of litter	Human behaviour	2	4	2	1	9
	Business practices leading to litter	2	3	2	1	8
Inadequate infrastructure	Lack of bins	2	4	3	1	10
	Inappropriate for application	2	4	3	1	10
Evidence and data/knowledge gaps	Evidence and data issues/knowledge gaps	3	3	3	2	11
Insufficient resources	Insufficient resources	3	3	3	2	11