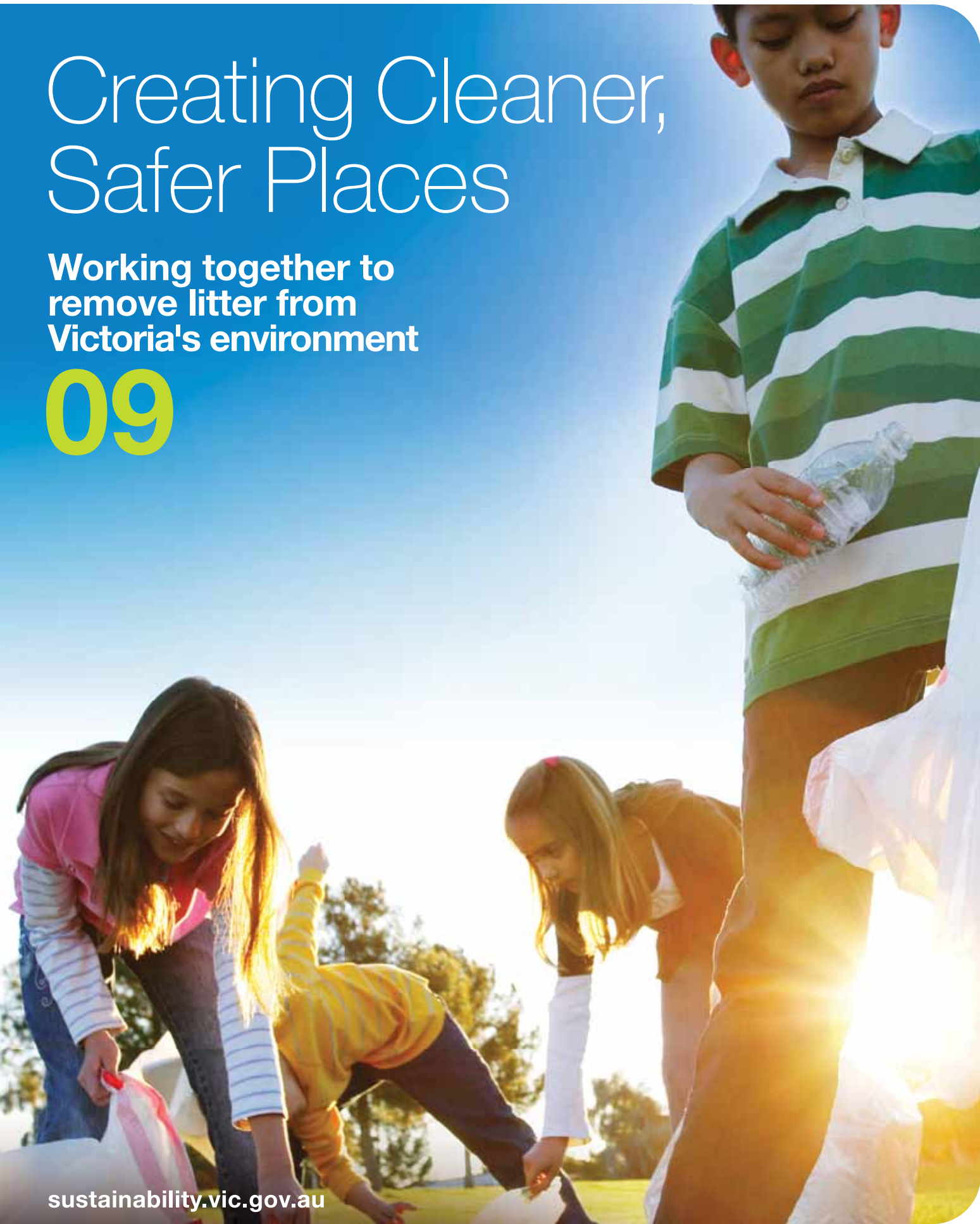


Creating Cleaner, Safer Places

Working together to
remove litter from
Victoria's environment

09



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VICTORIAN LITTER
ACTION ALLIANCE

Sustainability
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Victoria
The Place To Be

The Victorian Litter Action Alliance (VLAA) is the peak body for litter management and prevention in Victoria. It aims to provide a coordinated approach to preventing litter in Victoria across the state and local government, industry and community sectors. There are thirteen members of the Alliance who each play their own part in the fight against litter. These organisations are the Association of Victorian Regional Waste Management Groups, the Butt Littering Trust, City of Melbourne, EPA Victoria, Keep Australia Beautiful Victoria, Melbourne Water, the Municipal Association of Victoria, the Packaging Stewardship Forum, Parks Victoria, Sustainability Victoria, VicRoads, the Victorian Local Governance Association and the Victorian Waste Management Association. For further information about VLAA visit litter.vic.gov.au

Sustainability Victoria is an agency of the Victorian Government which facilitates and promotes the sustainable use of resources. Sustainability Victoria's vision is that Victorians use resources sustainably to support a thriving community and economy. For further information about Sustainability Victoria visit sustainability.vic.gov.au

Minister's foreword

The Victorian Government is committed to creating a cleaner and safer environment for Victorians to enjoy.

We all appreciate living and working in a Victoria that is clean and safe for everyone – those great public and community spaces, from Federation Square and the banks of the Yarra, to our regional cities and towns and our parks and reserves.

Growing Victoria Together: A vision for Victoria to 2010 and beyond is the government's vision for Victoria to become a better place to live and work. It states that by 2010 Victoria will have strengthened its performance towards a 'healthy environment' by pursuing the following two goals:

- protecting the environment for future generations
- efficiently using natural resources.

An important part of this commitment is the government's intention to work with local governments, industry and the Victorian community to prevent and remove litter from our public places.

Acknowledging environmental impacts and wasted resources from littering, in 2005 the government targeted litter as part of its *Sustainability in Action: Towards Zero Waste Strategy* (TZW) – a 10-year plan to improve littering behaviours, by 25% by 2014, compared to 2003 levels.

In 2006, the Victorian Government committed to developing a new Victorian litter strategy in its *Our Environment Our Future Sustainability Action Statement* (Action 10.5) to achieve the TZW target.

This new strategy represents the next step in litter prevention and litter management, and sets the directions for achieving this goal. Its primary focus is on preventing and removing litter from our public places.

The strategy encourages sustainable change across all sectors, supporting Victoria to achieve its commitments. It aims to cultivate a culture within Victoria which does not tolerate littering behaviour or the production of litter from individual, community or business practices. Its aim is to entrench sustainable change across all sectors.

It is an invitation to all Victorians who care about having clean and safe public places in which to live, work and relax, to join with the government to achieve a litter-free Victoria.

Preventing litter means less waste and increased efficiency in the use of our resources, leading to cleaner, safer and thriving communities for all Victorians to enjoy.

I encourage all Victorians to join to take action to remove litter from Victoria's environment.



Gavin Jennings

Minister for Environment and Climate Change
Minister for Innovation



Creating Cleaner, Safer Places

Working together to remove litter from Victoria's environment.

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Introduction

In a flourishing society, people define their sense of wellbeing using a range of indicators. These include the health and happiness of their family, career satisfaction, the extent to which their financial situation enables them to live the life they seek, the sense of community that binds them to the places where they live, work and play, and the environmental quality around them. Each has attractions and challenges.

In turn, litter is seen by many people as an indicator of the health for a range of areas affecting their lives, including their sense of the communities in which they live and work. It can also be an indicator for the quality of their drinking water and their perception of the economic and social prosperity of towns and cities.

Increasingly, communities seek clean environments which invite people to establish their homes and businesses and take the time to relax in safety.

Whether it is food packaging, plastic bags, cigarette butts, dog poo or syringes, litter is one of the most visible signs of pollution and is a waste of resources. Its impact on people's sense of health and safety is significant, as it is on the ecosystems in which we live.

Since the mid 1980s, the prevalence of litter has received increasing attention in Victoria and nationally because of its environmental impact, its association with other anti-social behaviour, and because most litter represents a loss to recycling and reuse in a society that aims to reduce its overall waste and environmental impact.

Highly littered areas are equated internationally with poorly maintained infrastructure, like broken windows and graffiti, and can be linked directly to an increase in other anti-social behaviour, including crime. In acting to prevent littering behaviour and improve overall litter management, the potential benefits extend well beyond the resource implications of litter and its immediate visual impact.

This is particularly true of community places. Lifestyle changes resulting in the consumption of many items away from home, the phased banning of smoking indoors and changes in construction all represent new challenges to litter control. Some changes have increased the time people spend in public places, adding further to the potential for waste and litter. These places include train stations, tram stops, parks and sporting grounds, beaches, rivers, forests, shopping centres and roadsides.

With opportunities for shared benefits comes shared responsibility for maintaining the quality of those places, including preventing and removing litter, which impacts on them visually, environmentally, socially and economically.

Changing litter behaviours

Cleaner environments raise community expectations for them to be even cleaner. This puts more pressure on local governments and others to continually improve the cleanliness of our environment¹.

Surveys show that most people consider littering an important environmental issue, but some still litter². More than 80% believe litterers should be pursued and fined³. The community expects governments to take a lead role in preventing litter.

The strategic directions outlined in this document build on the broad range of current litter management practices and programs. They include new and expanded actions to fill identified gaps to move towards meeting the TZW target.

As illustrated below, the three key inter-related elements of this strategy are:

- education
- infrastructure
- enforcement.

To change behaviour, all three elements must be in place and be complementary. They need to be adaptable to local conditions and to include incentives, communication and evaluation. These elements characterise Victoria's approach to litter prevention.

Objectives

The objectives of the strategy are to prevent litter and improve litter management practices to meet the TZW littering behaviour target and achieve clean and safe public places.

The objectives will be achieved by government, industry and community sectors working together to meet their shared responsibility to achieve a litter-free Victoria.

This strategy represents the next step in litter prevention and litter management, and sets the directions to support Victoria in achieving its commitments.



Background

The Victorian context

Litter is a complex public policy issue that requires a range of responses from different agencies and levels of government, together with the private and community sectors. No single body is responsible for litter prevention. In Victoria, more than a dozen bodies are significant players.

The Victorian approach to litter prevention and reduction involves a complementary set of approaches. These include:

- information and education programs provided by a number of government and non-government agencies
- close liaison and cooperation between key organisations involved in litter issues
- enforcement provisions in the *Environment Protection Act 1970*.

Victorian's strategic approach to litter management has been built around the areas of 'people, products, places and players', dealing with the need for improved education, product design, infrastructure and data collection.

This earlier approach sets directions and priorities for state and local government and other land managers.

Another feature of Victoria's approach was the establishment of a peak body, the Victorian Litter Action Alliance (VLAA), to bring together the key organisations responsible for, or involved in, litter management and prevention efforts across the state. Established in 2000, VLAA coordinates litter reduction activities incorporating the government and non-government sectors. Its approach identifies gaps in the state's litter reduction activities, minimises overlap, and maximises information sharing between member organisations.

These organisations are the Association of Victorian Regional Waste Management Groups, the Butt Littering Trust, City of Melbourne, EPA Victoria, Keep Australia Beautiful Victoria, Melbourne Water, the Municipal Association of Victoria, the Packaging Stewardship Forum, Parks Victoria, Sustainability Victoria, VicRoads, the Victorian Local Governance Association and the Victorian Waste Management Association.

In addition to VLAA, a number of other groups address litter-related matters of common concern. These partnerships are both same-sector and across-sector and sometimes arise from the need to focus on a single issue. They include the Litter Environment Action Developers (LEADers) group which comprises a representative group of councils working in partnership with Melbourne Water, EPA Victoria and the Metropolitan Waste Management Group. The LEADers group focuses on identifying key strengths and weaknesses of litter programs then generating joint initiatives in response to these.

Another partnership group is the council and agency-based Council Litter Environment Action Network (CLEAN) which facilitates networking and engagement, and explores litter issues through the Metropolitan Waste Management Group. Each meeting focuses on an issue or an item (e.g. cigarette butts), includes guest presenters and provides the opportunity for everyone involved to report on their current litter activities.

While the actions of the past 10 years have reduced littering, a number of developments necessitate a new litter strategy for Victoria. These include:

- the development of the National Packaging Covenant (NPC), with the covenant having an increased focus on litter, plus a greater overall awareness of the importance of product stewardship;
- an increased understanding of, and emphasis on, the social dimensions of littering and its relationship to other forms of anti-social behaviour;
- lifestyle changes resulting in increased 'away from home' consumption of food and drink that impacts on littering;
- a broadening of what society considers to be litter. For example, as late as 1993, cigarette butts (currently the most littered item by number) were not seen as meriting inclusion in litter counts;
- increased community awareness of the negative impact of litter in public places on individuals, families, communities, businesses and the environment; and
- greater community intolerance of littering, as evidenced by dramatic growth in the use of EPA Victoria's Litter Report Line (increased from about 1,600 fines issued as the result of reports in 1995-96 to more than 18,000 issued in 2007-08).

National action

Since the Victorian Government's commitment, litter prevention and management has been considered from a national perspective by the Environment Protection and Heritage Council (EPHC) of commonwealth and state ministers.

A national litter action plan was initially proposed, but more recently the EPHC agreed to support the development of a national waste policy and released the Draft National Waste Policy Framework for public comment. Additionally, the EPHC is considering the merits of a container deposit system.

While it is important that the Victorian Government's work on the prevention and management of litter in the state sits within the broader national waste management policy and programmatic frameworks, it is critical that action is also taken to prevent and remove litter from our public places.

The Victorian Government has therefore chosen to act now and continue to work closely with our commonwealth, state and territory partners to inform national decisions and establish a foundation for Victoria's role in any future national action.



What is litter?

According to the *Environment Protection Act 1970*, litter includes:

'any solid or liquid domestic or commercial waste, refuse, debris or rubbish and, without limiting the generality of the above, includes any waste glass, metal, plastic, paper, fabric, wood, food, soil, sand, concrete or rocks, abandoned vehicles, abandoned vehicle parts and garden remnants and clippings, but does not include any gases, dust or smoke or any waste that is produced or emitted during, or as a result of, any of the normal operations of the mining, building or manufacturing industry or any primary industry.'

The act covers both private and public land.

Littering is inappropriately 'depositing' waste, which, according to the Environment Protection Act is "the act of parting with the possession of the litter".

Littering occurs across a broad spectrum. It can occur directly through deliberate acts, such as when individuals and businesses load vehicles, drive to locations and dump waste knowing that it is illegal. It can also occur indirectly, such as when items 'escape' the boundary of a private site like a building or manufacturing site, and become litter.

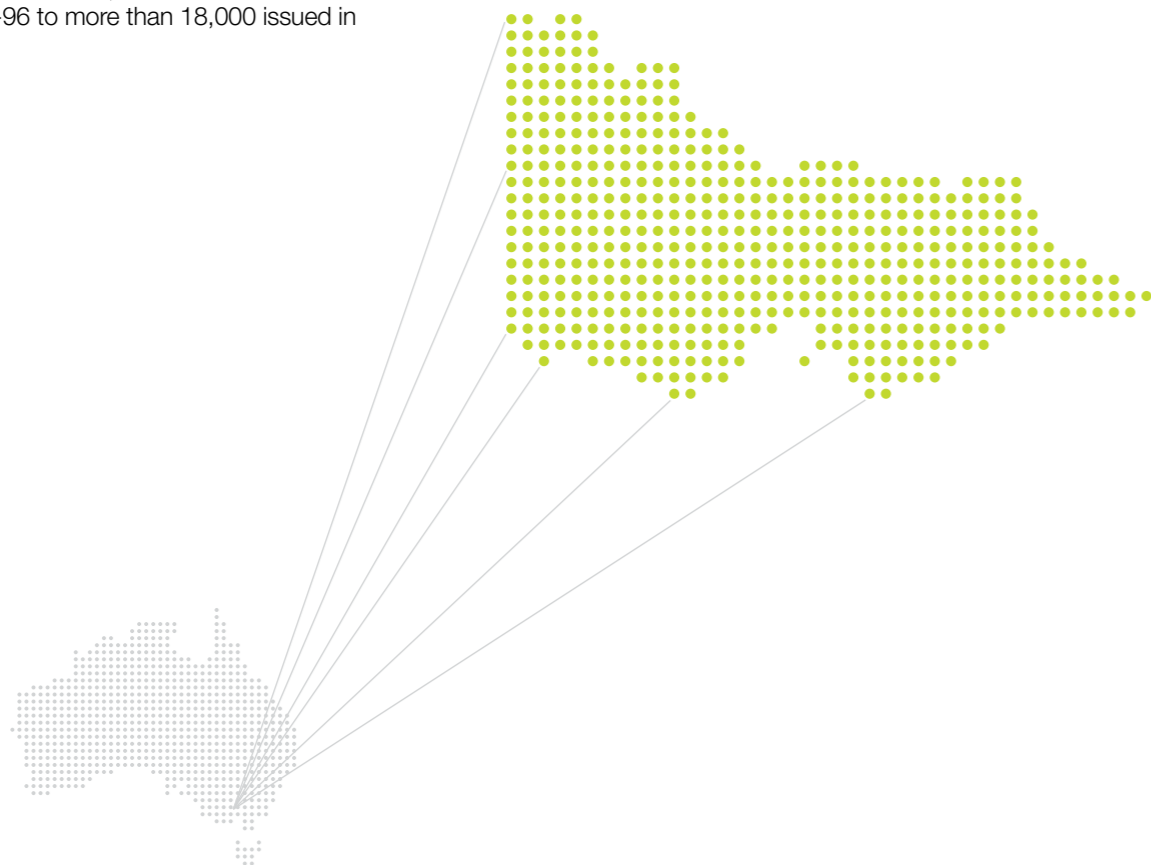
What do we know about litter?

The amount of litter at any given time is affected by a range of variables including variations in rainfall and wind, as well as the use of public spaces like streets, parks, roads and beaches. These, in turn, are all influenced by temperature and the time of the year. Street cleaning and street bin emptying regimes and the number of litter traps installed also affect the amount of litter.

Data and research on litter can either be behavioural: it tries to answer the question 'why do people litter and what would stop them?'; or it can be based on analysing the amount of litter in the environment: 'how much litter is out there?' This strategy assumes we need both to effectively prevent and, where necessary, manage litter.

Keep Australia Beautiful's National Litter Index (NLI) is Australia's national annual quantitative measure of litter. It measures what litter is found where, and in what numbers and volumes. In the last few years, NLI results have been encouraging, indicating a decreasing trend in the amount of litter in Victoria.

In recent years, our understanding of littering has expanded beyond measuring the amount of litter to include analysis of littering behaviour, assessment of the context and facilities of a location, people's attitudes and perceptions, and actions comparing bin use with littering. The Victorian Government is at the forefront of developing a measurement tool, the Victorian Litter Report (VLR), which encompasses these interrelated factors. Previously undertaken every two years, the VLR will now be carried out annually, adding detail to what we know from the NLI litter counts to help better understand why people litter and what would help stop them.



Who litters and why?

In 1997, Melbourne-based social psychologists, Community Change, in partnership with the Beverage Industry Environment Council, began the Littering Behaviour Studies project. This long-term project evaluates techniques to maximise environmentally desirable behaviours, such as the use of bins and the sorting of items for recycling.

The most recent littering behaviour study⁴ found that littering behaviour is part of a complex phenomenon and there is no stereotypical litterer. People's litter disposal actions tend to vary with the items they are using and the context in which they use them. Some people litter only in certain places, while others only litter certain types of items.

When asked why they litter, the most common reasons people give are:

- no bin nearby
- too lazy
- no ashtray nearby
- it's a habit, or
- don't know.

Solutions to litter need to address the complexity of littering behaviour. There is no 'one size fits all' approach.

What do people litter?

The 2007 VLR showed that cigarette butts were the most commonly littered item, comprising more than half of the items identified in litter counts undertaken in Victoria. Butts were followed by beverage containers (including pieces), paper, organics and confectionery wrappers.

A number of key aspects of litter are either not currently measured, are only measured to a limited degree or are difficult to measure accurately. Priorities identified by local government and regional waste management groups include illegal dumping, building sites and roadside litter.

What are the costs of litter?

The costs of managing and cleaning up litter for all stakeholders are often difficult to determine.

Local government bears the main costs associated with litter. Victorian councils alone spend an estimated \$72 million annually on providing litter management and clean up services⁵ in Victoria, with approximately 95% allocated to litter management and 5% to litter prevention. A proportion of this litter management expenditure includes⁶ sweeping streets and providing a street litter bin service. Actions to better manage and prevent litter – particularly illegally dumped material – could result in cost savings and other benefits for local councils.

Other organisations which carry litter costs include VicRoads, Parks Victoria, Melbourne Water, Department of Sustainability and Environment, and public transport franchisees operating tram and train networks.

However, the cost of litter is more than financial. There are environmental costs of degraded environments, and injured wildlife and aquatic creatures. Large amounts of litter include beverage containers, plastics, paper and various illegally dumped materials that are often recyclable. All this represents lost resources and opportunities for greenhouse gas abatement through recycling.

Litter also has broader impacts on liveability, like reduced community safety and neighbourhood ownership, which are difficult to measure in dollars. The presence of litter can make people feel unsafe in their communities and feel more at risk of being mugged or encountering other anti-social behaviour.

Litter can also reduce the use of public places like parks and beaches because people don't want to spend their time near rubbish. Littered areas attract more litter because it looks like no one cares or takes responsibility for them.

Preventing litter and managing litter removal from our public places therefore has the potential to provide a range of consequential benefits to Victorian communities and local and state governments, as well as obvious visual improvements.



What we have learnt

Preventing littering rather than simply managing littered items requires a broad approach aimed at addressing littering behaviour. Since Victoria's first Litter Reduction Strategy in 1995, there has been a range of litter prevention and reduction programs implemented in Victoria. Analysis of programs and issues has identified both successes and areas that require further improvement.

Current Victorian litter prevention framework

The current litter prevention and reduction framework builds Victoria's long-standing approach and involves a complementary set of approaches including:

- the identification and dissemination of best practice in litter prevention and management
- information and education programs focused on achieving behavioural change to prevent litter provided by government and non-government agencies
- close liaison and cooperation between key organisations involved in litter issues
- establishing regional litter education and enforcement officer networks
- capacity building of land managers, particularly local governments, to implement best practice litter prevention programs
- measurement of litter and littering behaviour to monitor the performance of programs
- the principle of shared responsibility enshrined in the Environment Protection Act
- enforcement provisions in the Environment Protection Act.

In Victoria there is an increased focus on working towards a litter-free state by stopping litter at the source through building the skills of local government and other land managers to implement best practice litter prevention programs. This is led by VLAA and its Litter Champion Program which began in 2002. The NPC also places greater requirements on manufacturers and brand owners to take responsibility.

Litter management includes cleaning up litter, such as sweeping streets, emptying litter traps and cleaning up dumped rubbish, as well as emptying street litter bins. It also involves providing appropriate infrastructure and servicing regimes which are audited regularly to measure performance.

In contrast, preventing litter focuses on changing littering behaviour and avoiding systems failures which result in litter. Preventing litter means significant amounts of money and other resources are not wasted on continually cleaning up litter. It also means resources are appropriately recycled or disposed of to landfill, and our environment is cleaner and healthier.

In addition to government initiatives, a wide range of community and business activities aim to prevent, reuse and clean up litter, including community-based initiatives undertaken at roadsides, beaches and train stations.

Case study

Dandenong's Dob in a Dumper

One of the major issues facing the City of Greater Dandenong is the illegal dumping of hard rubbish, particularly in its isolated rural areas and at multi-unit dwelling sites. To address the problem, the council launched a new initiative, Dob in a Dumper. The initiative aimed to change community behaviour and perceptions and reduce illegally dumped rubbish. The council investigated and quarantined illegally dumped rubbish with high visibility barricade tape or stickers stating that the 'dumped rubbish is under investigation'.

During the project, council found that 75% of marked material was removed within 72 hours. The community has embraced the program by reporting dumping and the council saved around \$200,000 in cleaning up dumped rubbish. The program showed that increased call outs do not mean increased disposal costs. This system of education and warnings shows that fines don't have to be issued for it to be effective, and highlights the important role of each element in the process. It also shows the value of enlisting the community to share responsibility for the local environment.

Best practice

Best practice litter prevention programs combine solid research with the right mix of education, infrastructure, enforcement, communications, incentives, community participation and evaluation.

Victoria's behavioural change approach to litter prevention and reduction is most effective when best practice principles are followed. For example, this could be when statewide program delivery is consistent, ongoing, and involves simple solutions that are part of everyday business across governments, industry and the community. This approach requires long-term capacity building and strong ongoing enforcement.

One of the key elements of a litter prevention program is to provide the right tools to make it as easy as possible for people to put their waste in the bin or to carry it to the next available bin, even if that is at home. These 'tools' are often infrastructure: the right bins for the right location, servicing regimes appropriate to the job and regular auditing to measure performance.

Victoria has achieved a clean environment in numerous areas and many people do the right thing and do not litter. Based on the principle of shared responsibility by governments, industry and the community, this success has been achieved through the foundations of the 1995 strategy and continued adoption of best practice.

Various actions have been taken to promote best practice litter prevention:

- creation of the VLAA Litter Champion to develop and promote best practice resources
- development of VLAA best practice litter prevention kits on cigarette butts, building sites, dog poo, illegal dumping, evaluation and a campaign toolkit
- a one-stop-shop litter website (www.litter.vic.gov.au)
- capacity-building workshops based on the VLAA kits and other litter issues
- development of other programs based on the best practice model, including a range of programs targeting different types of illegal dumping
- the creation of a litter enforcement program designed to build the capacity of litter enforcement officers.

Councils are central to litter management and have achieved results by adopting best practice kerbside waste and recycling collection systems, improved public bin infrastructure, placement and servicing, the installation of litter traps, and the provision of regular litter prevention programs. Councils also provide a range of services to clean up roadside litter and illegal dumping.

This strategy also recognises the achievements of industry, particularly through the NPC and Packaging Stewardship Forum, and its role in helping to recover litter and reduce packaging waste. It also recognises the role and achievements of community action which help show individuals that littering is socially unacceptable.

Consultation process

To help the Victorian Government develop this strategy, a number of issues were identified in the 2007 Litter Strategy Issues Paper and an accompanying Litter Strategy Background Paper.

Comment was sought from local government, manufacturers and other industries including their representative bodies, government departments and agencies, community and environmental groups and individuals about how to develop and implement a new litter strategy to better prevent and manage litter in Victoria.

Common to the submissions was a call for a centralised litter prevention and management program to prevent and remove litter from Victoria's public places. There was also an acknowledgement that the prevention and management of litter was a shared responsibility between government, community and industry, and that stakeholders must share the costs of future action.

Case study

Don't be a Tosser – Bin your Butts in Bayside

A combination of new infrastructure, education and enforcement was undertaken to promote correct cigarette butt disposal in Melbourne's Bayside area.

How much litter was reduced?

Litter counts were used to establish whether cigarette butt litter had reduced over the campaign period and in the following months. The mid-campaign litter counts found similar levels of cigarette butt litter reduction at the two locations, with Black Rock recording a reduction of 79% and Hampton East recording a reduction of 65% compared to pre-campaign counts.

The post-campaign counts found a continued reduction in cigarette butt litter. The final post-campaign count found cigarette butt litter at Black Rock remained 73% lower than the pre-campaign levels. The levels of cigarette butt litter at Hampton East also remained lower, at 46% below those recorded pre-campaign.



New infrastructure, education and enforcement was undertaken to promote correct cigarette butt disposal in Melbourne's Bayside area.

Challenges and emerging issues

A range of challenges and emerging issues were outlined in the Litter Strategy Issues Paper and Litter Strategy Background Paper to encourage discussion, ideas and solutions during the public consultation process. Comments were invited on these issues to inform the strategy's development.

Challenges identified included:

- the increased consumption of food and drinks in public places
- the ban on smoking indoors creating the potential for increased butt litter in the public realm
- complex littering behaviours where people respond differently to different items and locations
- littering at public transport stops, stations and interchanges
- increases in illegal dumping and roadside litter
- building practices which result in litter and stormwater pollution.

Submissions identified a number of key areas which require strengthening to better prevent and manage litter. These were:

- the need for adequate and reliable data
- better coordination of local and state government programs
- integrated litter prevention strategies in key state government initiatives
- improved waste and recycling infrastructure
- improved design and composition of products and packaging to reduce packaging and litter, as well as increase the recovery of recyclable packaging.

Many of the suggested actions are either already being undertaken or are being considered which indicates that current approaches are predominantly on track, and that what is needed is some form of expansion together with closer, more explicit, targeting of our public places.

Feedback also made it clear that litter was no longer seen as merely a visual issue. Its environmental, social and economic impacts were also recognised and considered central to framing future action.



The way forward

Creating cleaner, safer places for all Victorians to share is the focal point for this strategy. These places have a major impact on our sense of security and well-being. How our public, shared places are cared for is a key indicator of social and economic prosperity.

This strategy builds on current action to create cleaner and safer public places in Victoria including:

- train stations
- tram stops
- parks and sporting grounds
- forests
- rivers
- beaches
- streets and roadsides
- shopping centres.

The strategy acknowledges that behavioural change shouldn't be constrained by particular locations or groups of people and places. It therefore focuses on building sustainable communities where litter isn't tolerated. It also targets particular littering activities which may not always occur in public spaces but nevertheless have a social, environmental and economic cost, such as building site littering and illegal dumping.

Removing litter through shared community, business and government action will meet community expectations, reduce waste and ensure Victorians use resources more efficiently.

Key areas for action outlined in this strategy are:

- 1 A coordinated statewide approach
- 2 Improved litter prevention and management
- 3 Behavioural change
- 4 Improved measurement and reporting.

Proposed action in these areas is based on the principle of shared responsibility and a focus on shared places, recognising:

- leadership (framework, programs and resources) by the Victorian Government to coordinate the development of solutions to reduce and prevent litter at the local level
- the expenditure and achievements of local governments and their central role in litter management
- the role of industry, particularly brand owners, in helping to recover litter and reduce packaging waste
- the role and achievements of the community to help show individuals that littering is socially unacceptable
- information and education programs focused on changing behaviour to prevent litter
- a range of support, resources and skills development for local governments and other land managers to implement best practice litter prevention programs.

Sustainability Victoria, VLAA and other stakeholders will continue to work together to develop the Victorian Litter Action Plan, which aims to maximise litter outcomes by coordinated, joint action and reduced duplication of projects.

Shared responsibility to achieve shared outcomes

Victoria's Environment Protection Act enshrines the principle of shared responsibility; that protection of the environment is a responsibility shared by all levels of government, industry, business, communities and the people of Victoria.

As with any law, all individuals, government agencies and businesses have a legal responsibility to comply with the Act and any applicable local laws. This includes a responsibility to clean and remove waste from the land under their control and to ensure that litter does not result from business operations or individual actions.

However, shared responsibility for litter prevention and management also recognises that the involvement, support and cooperation of a range of stakeholders across the sectors is critical to the success of this strategy. Outcomes achievable through partnerships and joint action will surpass any that can be achieved by individuals and single agencies.

The state government is responsible for the statutory framework on litter, including regulation and penalties, data collection and policy. A range of government bodies are involved, including Sustainability Victoria, EPA Victoria and the Department of Sustainability and Environment.

Local governments are required to promote the social, economic and environmental viability and sustainability of municipal districts'. They ensure resources are used effectively and services are provided in accordance with the 'best value principles' to meet the needs of their local communities, and to improve the overall quality of life of people in those communities. Maintaining clean communities and providing efficient waste collection services are part of these responsibilities and are often a top priority for residents.

The CLEAN network was established in 2008 to promote information sharing between councils and to avoid duplication. The group also produces tools and materials such as the 'little litter rater' which is a simple way to identify the impact of litter and compare littered sites between councils.

In addition to the responsibilities of manufacturers and brand owners under their NPC Action Plans, specific in-house policies on litter reduction should be important parts of corporate policy.

The formation of VLAA in 2000 is an example of what can be achieved by people and organisations with a shared responsibility. VLAA identifies and disseminates best practice in litter, principally through its Litter Champion Program. This Australian first strengthens the ability of stakeholders, particularly local governments, to prevent and eliminate litter.

However, litter is not a primary focus for many who ultimately manage it. It is therefore important to raise the profile of litter so its prevention becomes core business for organisations.

An integrated strategy

Achieving cleaner, safer public places requires complementary action across all areas outlined previously.

Collective action by communities, businesses and governments will have the greatest impact.

A recent example is the joining of Sustainability Victoria with Keep Australia Beautiful Victoria (KABV). This creates an opportunity to engage a wider range of regional and metropolitan communities to prevent and remove litter under the iconic Keep Australia Beautiful (KAB) name.

The first action area, **a coordinated statewide approach**, provides the umbrella for future action on the prevention, management and removal of litter.

The second and third action areas, **improved litter prevention and management** and **behavioural change**, provide the opportunity for coordinated, targeted action for each of the public places identified as priorities in this strategy.

The fourth action area, **improved measurement and reporting**, supports the overall strategy and provides the critical information we need to inform, evaluate and monitor all future actions under this strategy.

A summary of the major actions that form the core of Victoria's *Creating Cleaner, Safer Places Strategy* is outlined below.

Economic modelling

Many of these actions reflect the gaps and opportunities identified in the Litter Strategy Issues and Background papers and by stakeholders in their feedback. Sustainability Victoria engaged a consultant to conduct a cost-benefit analysis as well as an assessment of the social and environmental impacts of 11 of these initiatives.

These initiatives were modelled on the assumption that all litter management and prevention programs in Victoria would continue, including funding streams. They aim to build on and strengthen these successful programs, with new programs filling identified gaps.

Modelling results indicated that the implementation of the 11 initiatives had the potential to produce an additional 20% reduction in litter and littering behaviour by the year 2014, with significant economic, social and environmental benefits.

1 A coordinated statewide approach

Victoria's statewide approach builds on the shared responsibility and action already reflected in the composition and actions of VLAA. This approach focuses on litter prevention and management in our public places.

It aims to:

- build on the foundation of litter initiatives already in place as a result of existing government, industry and community action
- elevate government's, industry's and the community's understanding of the consequences of littering through improved communication, promotion and recognition
- change behaviour through greater emphasis on information, education and the provision of core litter reduction infrastructure
- reinforce Victoria's zero tolerance of littering through the continued enforcement of litter regulations and penalties, supported by key systems critical to the identification of littering and Victorian's capacity to take action to reduce and prevent it.

Under the KABV banner, the Victorian Government through Sustainability Victoria will continue to take a leadership role in the coordination of local government, community and industry action to prevent and reduce litter.

Sustainability Victoria (through KABV), VLAA and other partners will:

- develop an action plan that integrates the activities across all sectors to prevent and manage litter in Victoria
- place increased emphasis on reducing duplication of activities across agencies
- expand joint action in key areas to address current gaps and opportunities.

Whole-of-government approach

Victoria would benefit from adopting a whole-of-government approach to litter, embedding the visual, environmental, social, and economic impacts across government programs which focus on environmental protection and improvement, tourism, neighbourhood renewal, community safety, and community strengthening. This would enable a more coordinated approach to the prevention and management of litter across Victoria so litter is factored into the planning of appropriate new policy and initiatives.

While VLAA coordinates the activities of organisations directly involved in litter activities, it doesn't include other government programs indirectly affected by litter. Consequently, this strategy will aim to increase awareness in state government departments of the potential littering consequences associated with the policies and programs for which they are responsible.

The strategy also includes specific statewide initiatives to support key partners taking action on litter, particularly establishing:

- a central reporting system for the public to report littering and illegal dumping
- an illegal dumping database for authorities to capture information about illegally dumped materials
- a regional illegal dumping (RID) squad for councils.

Case study

Lower Yarra Litter Strategy

The Lower Yarra Litter Strategy (LYLS) is a local government and Victorian Government partnership program to prevent litter on a regional scale. The program focuses on the lower Yarra River and was initiated in November 2005 by Sustainability Victoria and Melbourne Water, in partnership with the Cities of Boroondara, Melbourne, Stonnington and Yarra.

The LYLS delivers a best practice approach to litter, including improving infrastructure, educational activities and enforcement. The first phase of the strategy enabled the identification and benchmarking of areas of high litter generation, known as litter hotspots, in the lower Yarra. Measurable objectives have been set, allowing partners to work towards common and shared goals.

Flagship projects undertaken by each council focus on litter hotspots. These projects include:

- Chapel Street (City of Stonnington) – trader engagement around newly installed rain-gardens and an incentives program to address butt litter hotspots
- Chinatown laneways (City of Melbourne) – improved trader behaviour and knowledge on waste management within the inner city laneways, and improved general amenity of laneways in Chinatown
- Green Star Business Program (City of Yarra) – traders engaged to improve practices and waste management in the Arts Precinct (bounded by Brunswick Street, Johnston Street, Gertrude Street and Smith Street)
- Cigarette butt litter audits (City of Yarra and City of Stonnington) – identifying and addressing cigarette butt litter hotspots on Chapel Street and in the Arts Precinct.

Public reporting system

Current key methods to report littering incidents include the EPA’s reporting line and individual council initiatives, such as Greater Dandenong’s ‘Dob in a dumper’. Nonetheless, it may still be unclear to people where to report incidents. Building on existing reporting systems, a central reporting system would provide a statewide, publicly-accessible litter hotline (phone and/or web-based) for reporting littering or illegal dumping incidents.

Illegal dumping database

Dealing with illegally dumped material is a major litter priority, but there is minimal data available on this issue. It is not measured against TZW targets because the VLR doesn’t capture illegal dumping which tends to occur in isolated areas like roadsides, bush, waterways, industrial areas and car parks.

An information database will provide a place for authorities like local councils, Parks Victoria and DSE to place ongoing investigation information to better quantify problems and costs. Such a database will help determine some of the root causes and/or main perpetrators of dumping. This, in turn, will help create strategies to deal with this issue.

Regional illegal dumping squad

New South Wales has a regional illegal dumping (RID) squad which pools council resources and is very effective in reducing the localised incidence of illegal dumping and catching perpetrators.

This model could be piloted in Victoria to provide participating councils greater coverage through access to pooled resources, particularly because illegal dumping is often dependent on local factors. Some local councils experience an increase in dumping when tenants vacate and students leave at the end of term, while others get more dumping in dry weather because trucks can access secluded locations. Because these events tend to happen at different times, additional resources will mean councils can target the most likely events at any given time.

2 Improved litter prevention and management

A wide range of actions are currently being taken to manage and prevent litter, particularly by local governments. Many of these initiatives focus on the provision of bins and other infrastructure, best practice guidelines and specific strategies to prevent and reduce litter in public places like sporting venues, riversides and train stations. All these actions have the potential and scope to be applied to a range of public places.

This strategy aims to extend these initiatives across local government boundaries and various public places to maximise the outcomes they achieve, while allowing for appropriate local customisation. Just as with a coordinated statewide approach, there is opportunity to learn from what others are already doing or investigating, and to share resources to avoid duplication.

An important part of this is the need for best practice guidelines to ensure consistency in practices and contracts, as identified in the 1995 strategy. While some of this has been achieved, further benefits could be gained by developing guidelines for street sweeping/cleaning and street bin placement and servicing. These standards would provide clear guidelines for councils and industry on best practice and performance measurement for these areas.

Local government litter prevention activity is best supported by statewide communications and resource materials, such as guidelines to achieve consistency and reduce duplication. The development of communications campaigns on specific litter priorities, and in a range of community languages, will be investigated. These will also include tips or simple steps for individuals to help them better ensure that their personal behaviour does not unintentionally cause litter.

Specific statewide initiatives to improve the prevention and management of litter will include:

- developing and adopting street sweeping guidelines
- examining ways to increase local government litter enforcement and education
- building capacity for local governments to use street bin management guidelines
- bins for rubbish and recycling at railway stations and major tram stops.

Street sweeping guidelines

Street sweeping makes up about 75% of local government litter management costs. Few councils conduct litter audits before sweeping to determine the necessary frequency of street sweeping. Those that do have made savings. Some councils separate organic matter and recycle it, resulting in both landfill and greenhouse gas savings. Developing council guidelines for street sweeping along with appropriate training should improve street sweeping efficiencies and thus reduce costs.

Build council capacity to use street bin management guidelines

The Packaging Stewardship Forum has developed a bin placement, management and servicing kit which includes guidelines on placement, appropriate bins types and planning service schedules which account for seasonal fluctuations. The forum provides training for local government and councils which have implemented the guidelines and have reported cost savings. Sharing knowledge with local government about best practice would result in greater efficiencies, cost savings and better public use of bins.

Bins for rubbish and recyclables at railway stations and major tram stops

Litter in and around railway stations is a significant problem, and the lack of recycling bins at train stations has been a source of complaints by commuters.

In partnership with Sustainability Victoria, the Department of Transport, mX newspaper and the Packaging Stewardship Forum, Connex expanded its recycling to all ‘premium’ (74) and ‘host’ (28) stations – about 50% of all stations and 70 to 80% of patronage. This followed a trial which showed that between 70 and 90% of litter at stations was recyclable.

Council litter enforcement and education

Work will be undertaken with local government to identify opportunities to increase litter enforcement activity they undertake. Litter enforcement and education officers could use the education-warning-fine approach to educate local businesses, workers and residents on their responsibilities and the potential penalties for creating litter. This would improve current initiatives, including those of the EPA which provides a Litter Enforcement Toolkit used by DSE, Parks Victoria officers and more than 85% of councils. There are also a number of council education and enforcement officer networks throughout Victoria for councils to share information and knowledge and work together on projects targeting litter.

Statewide action to reduce litter from Victoria’s environment

Litter actions	Description	Places
Victoria Litter Action Plan.	This plan will integrate the current and proposed actions of governments, industry and the community to prevent and manage litter in our public places. It will aim to maximise outcomes by coordinated, joint action and reduced duplication.	The plan will cover the range of public places across metropolitan and regional Victoria.
Whole-of-government approach.	This approach aims to ensure that stakeholder roles are clear, duplication of work is avoided, and litter is considered in the planning of, where appropriate, new government policy and initiatives.	The approach will be implemented across a range of government departments in partnership with land owners.
Investigate establishing a central public reporting system for the public to report littering and illegal dumping.	This central reporting system could draw together existing systems and provide a central point for reporting littering.	This system will cover all forms of littering in parks, forests, streets and roadsides, rivers and beaches.
Investigate establishing an illegal dumping database for authorities to compile information about illegally dumped materials.	This database could help better quantify the extent of the problem and associated management costs, and assist in new strategies to prevent illegal dumping.	This database will include all forms of illegal dumping in parks, forests, streets and roadsides, rivers, beaches and other public places.
Work with local governments to establish a regional illegal dumping squad for councils.	The aim of this initiative is to partner with regional local governments to trial an illegal dumping squad, supported through statewide enforcement provisions.	The primary focus of this initiative is on places where most illegal dumping occurs.

Operating from within Sustainability Victoria, KABV will team with key partners in delivering this statewide approach include VLAA, EPA Victoria, Parks Victoria, Department of Transport, VicRoads, local governments, regional waste management groups, Melbourne Water and rail and tram operators.

Improved litter prevention and management

Litter actions	Description	Places
Street sweeping guidelines for councils.	Guidelines and training for councils should improve street sweeping efficiencies and reduce costs.	Statewide – streets and roadsides.
Build local government capacity in street bin management guidelines.	Extending this training to more councils will result in greater efficiencies and cost savings.	Statewide – streets and roadsides.
Increase the number of local government litter enforcement and education officers, and continue to use existing networks.	KABV will work with local governments and waste management groups to identify opportunities to increase litter enforcement activity undertaken by councils. This will help EPA Victoria's full-time Litter Enforcement Program officer and provide training to improve the litter enforcement capabilities of staff in local governments. Existing council education and enforcement officer networks will also continue to be a successful way for councils to share information and knowledge, and work together on litter.	Statewide – this initiative will strengthen action.
Install bins for recyclables and better bins for rubbish at railway stations and major tram stops.	KABV will work with train and tram operators to encourage the extension of this initiative to major tram stops and V/Line stations.	Metropolitan and major regions; train stations and major tram stops.
Regional and rural illegal dumping, litter and public place recycling projects.	The Sustainability Victoria Regional TZW Support Program (2008-11) funds regional and rural Victoria to implement a range of projects targeting illegal dumping, public place recycling improvements and litter prevention and management.	Rural and regional Victoria parks and sporting grounds, rivers, train stations, streets and roadsides.

Operating from within Sustainability Victoria, KABV will team with key partners in delivering this statewide approach: DSE, VLAA, local governments, Municipal Association of Victoria, Victorian Local Governance Association, the Packaging Stewardship Forum, EPA Victoria, VicRoads, train and tram operators, land managers, Parks Victoria and metropolitan and regional waste management groups.

Case study

Mildura's Cover and Secure Your Load project

Launched in 2005, this project was part of a larger campaign to address concerns about litter in Mildura's fragile riverine environment. More than 74,000 vehicles enter the local landfill each year, and litter falling from trailers and utilities was identified by authorities as an increasing problem.

Mildura Rural City Council and the Mildura Regional Waste Management Group identified a need to address this issue through community education. The campaign involved promotion via local media, an information brochure, giveaways of re-useable bags and trailer tarps, and a partnership project with trailer hire companies.

The results

Since the campaign launch, more people were observed entering the landfill with covered, well-secured trailers. Fewer unsecured trailers were also seen in the region overall. Brochures distributed to businesses and residents were positively accepted and residents are more aware that items blowing out of trailers do constitute littering.

The valuable lesson from this project is that ongoing integrated education plays a major part in the implementation of behavioural change within a community.



Integrated education plays a major part in the implementation of behavioural change within a community.

3 Behavioural change

Providing information, education and demonstrations of changed behaviour, and the benefits associated with that change, are critical to preventing littering.

This strategy focuses on four key actions to strengthen litter prevention through behaviour change:

- promoting the effects of littering on individuals, the community, business, the economy and the environment to people throughout Victoria
- encouraging people to feel good about doing the right thing through public recognition
- providing local government and other landowners with best practice litter prevention resources to help encourage behavioural change among people living or travelling through their municipalities or public land
- supporting community and industry involvement in programs which demonstrate the effect governments, communities and industry can have by joining together to take action to prevent and manage litter.

Awareness campaign

Advertising is demonstrated to be extremely effective in influencing people’s behaviour in relation to littering. The national ‘Do the Right Thing’ campaign and the more recent ‘Don’t be a tosser’ campaign in Victoria are excellent examples of effectively raising awareness of littering and encouraging people to take action to address it. The ‘Don’t be a tosser’ campaign targeted cigarette butt litter after the smoking ban in pubs and clubs. It was very successful in reducing butt litter in surrounding areas.

Building on successful previous campaigns, the government with key partners will work together to increase awareness of the impacts of littering and its potential role in supporting statewide and local action. State campaigns support local actions and represent economies of scale and consistency of messaging. An advertising campaign may use various media such as television, radio, outdoor and print, supported by an extensive local activity program.

Awards and recognition

KABV has been working with Victorian communities for 40 years to reduce and prevent littering. It hosts three well-recognised sets of awards: Tidy Towns, Sustainable Communities and Clean Beaches.

These awards recognise individuals, communities and businesses taking action to clean up our public places. They recognise people who have contributed to making Victoria a more liveable state, with cleaner and safer amenities and services. They celebrate people doing the right thing.

With KABV now operating within Sustainability Victoria, its awards and programs live on. KABV will be the point of integration for action under this new strategy: *Creating Cleaner, Safer Places – Working together to remove litter from Victoria’s environment.*

Through Sustainability Victoria, KABV’s awards will be promoted widely across the state and the overall winners will then be judged at the national KAB awards.

Educational litter materials for the ResourceSmart Schools – Waste program

The ResourceSmart Schools – Waste program and education modules address litter reduction. This work is being expanded and 90 schools will participate annually in the 2009-12 program, creating valuable learning opportunities for students.

Litter prevention kits

VLAA’s litter prevention kits address various litter issues. They have achieved good take-up rates by local government and other groups. Kits include information on how to run a local program, and communications tools such as stickers and signage. Their distribution is supported by skills-based training to ensure broad implementation and cost savings.

The development of further kits, such as one for roadside litter, would employ successful elements of existing roadside programs combined into a single strategic program to be trialled in Victoria. An NPC-funded trial of roadside litter was completed as this strategy was finalised. Results will inform any future action, including capacity building for councils to use the kits.

Demonstration programs

KABV manages three major programs which demonstrate the effect governments, communities and industry can have by partnering with each other to take action to prevent and manage litter. These programs are:

- Clean Site
- Stationeers – Right on Track
- Adopt a Roadside.

Clean Site is a statewide education program aimed at builders and tradespeople in the residential construction industry. The Stationeers – Right on Track program is designed to foster community support and participation by improving the appearance and the surrounds of railway stations. Managed by KABV for VicRoads, Adopt a Roadside provides an opportunity for individuals, organisations, community groups and businesses to help clean up sections of roadside within regional Victoria’s arterial road network. These programs have the potential to expand into communities throughout Victoria.

Behavioural change

Litter actions	Description	Places
Advertising campaign	In consultation with a range of partners, the government will examine the potential of a targeted advertising campaign to further increase awareness of the impacts of littering and its potential role in supporting statewide and local action, particularly targeting illegal dumping.	It is envisaged such a campaign will target littering in all Victorian public areas, with a particular focus on the growing area of illegal dumping.
KABV’s Tidy Towns, Sustainable Communities and Clean Beaches awards	These awards are held and promoted annually to recognise and celebrate sustainability and environmental initiatives (including those addressing litter) in rural and regional Victoria, metropolitan Melbourne, and bay and coastal communities.	These awards showcase action by Victorian communities in relation to all our public places.
Provision of educational litter materials as part of ResourceSmart Schools	Through the ResourceSmart Schools Waste Program, a greater emphasis will be placed on litter and its impacts.	Victorian schools – with strong messages about the impact of littering in our public places.
Litter prevention kits (for roadside litter in particular)	The Roadside Litter Prevention and Resource Recovery Kit aims to influence the behaviour of road users and prevent litter and increase resource recovery from roadsides. This kit has the potential to be rolled-out across Victoria and nationally.	Statewide – roadsides.
Adopt a Roadside	This program provides an opportunity for individuals, organisations and businesses to help maintain sections of roadside within Victoria’s road network.	Statewide – roadsides.
Clean Site	KABV’s Clean Site is an education program for builders and tradespeople which aims to manage environmental impacts from residential construction, including litter, washings and sediment and waste management of recyclable materials.	Statewide – building sites, waterways.
Stationeers	Since 1994, KABV’s Stationeers – Right on Track program has fostered community support and participation to improve the appearance and surrounds of railway stations by removing litter, establishing and improving landscapes, discouraging vandalism and generally encouraging public awareness of the broader value of the station.	Regional and metropolitan train stations.

Operating within Sustainability Victoria, KABV will work with VicRoads, VLAA, local governments, regional waste management groups, schools and other agencies to expand these actions.

4 Improved measurement and reporting

Despite the actions taken to deal with litter, gaps remain in the measurement and reporting of littering. Adequate and reliable data is critical to guide program and resourcing decisions regarding future litter reduction and prevention. It is also important to ensure that data obtained from a range of stakeholders is shared with others.

More comprehensive data on littering behaviour, litter counts, branded litter and the cost and quantities of litter through the VLR and KAB's NLI, will provide a clearer picture of litter in Victoria, as well as performance measurement over time.

Accurate data is also needed to quantify the extent of the illegal dumping problem in Victoria and provide an evidence base for program development. The litter section of Sustainability Victoria's Local Government Data Collection reports provide reliable information on infrastructure, costs and volumes of litter from 95% of councils on street sweeping and litter bins and traps. However, only a quarter are able to provide information on illegal dumping and roadside litter, which have been identified as major priorities. More comprehensive reporting is needed in these areas.

Sound measurement, providing benchmarks and performance monitoring will inform the longer term economic business case for future investment in litter prevention.

A range of litter assessment tools will be used to provide more comprehensive data and existing networks (like those of local government litter and enforcement officers) will be supported to develop templates and other tools for taking local action to prevent and manage litter.

The future

In partnership with VLAA and other key stakeholders, Sustainability Victoria will develop an action plan in 2009-10. This plan will integrate the current and proposed government, industry and community action to prevent and manage litter in our public places. It will aim to maximise outcomes by coordinated joint action and reduced duplication.

This strategy, *Creating Cleaner, Safer Places – working together to remove litter from Victoria's environment*, forms an integral part of the Victorian Government's overall commitment to delivering on TZW by 2014.

Like so much Victoria must do to improve its social, economic and environmental outlook, this strategy can only be delivered by drawing on the skills and actions of all Victorians.

It is an invitation to all Victorians who care about having clean and safe public places in which to live, work and relax, to join with the government to achieve a litter-free Victoria.

Improved measurement and reporting

Litter actions	Description	Places
Annual VLR	Sustainability Victoria will report annually on progress against the TZW litter target to provide a clear picture of progress towards the littering behaviour target and other measures.	Assessments will be conducted at more than 200 locations throughout Victoria, including public places.
VLR local tool	Sustainability Victoria will make the VLR methodology available to local governments and other organisations to enable them to independently undertake litter measurement. This template tool will enable these land and product managers to undertake assessments beyond those conducted as part of the VLR.	This tool will be available Statewide.
Data collection and training	Sustainability Victoria will encourage development and uptake of best practices and tools to measure and monitor local program performance from an infrastructure, education and enforcement perspective.	This will be undertaken Statewide.
KAB's NLI	Sustainability Victoria will continue to support the conduct of KAB's NLI (a national litter count).	These litter counts are conducted at a range of sites in Victoria, including public places.
Local Government Data Collection Survey	This survey is undertaken annually. Work is also underway to improve regional data collection and reporting with funding from the Sustainability Fund.	Statewide.
Litter strategy template	The Metropolitan Waste Management Group's (MWMG) SMART litter group has produced a litter strategy template used by a number of councils for their 2009-10 budgets. Through this strategy, KABV will work with the MWMG to roll it out to other councils.	This tool has the potential to assist local governments across Victoria to address littering within their municipalities.

Operating within Sustainability Victoria, KABV will deliver on these actions with VLAA, local government, the Municipal Association of Victoria, the Packaging Stewardship Forum, EPA Victoria, VicRoads, the Department of Transport and regional waste management groups.



This strategy can only be delivered by drawing on the skills and actions of all Victorians.

Abbreviations

CLEAN	Council Litter Environment Action Network
DSE	Department of Sustainability and Environment
EPA Victoria	Environment Protection Authority Victoria
EPHC	Environment Protection and Heritage Council
KAB	Keep Australia Beautiful
KABV	Keep Australia Beautiful Victoria
MWMG	Metropolitan Waste Management Group
NLI	National Litter Index
NPC	National Packaging Covenant
RWMG	Regional Waste Management Group
TZW	Sustainability in Action: Towards Zero Waste Strategy
VLAA	Victorian Litter Action Alliance
VLAA Survey 2004	Victorian Litter Action Alliance Litter Prevention and Capacity Building Survey 2004
VLAA Survey 2006	Victorian Litter Action Alliance Litter Prevention and Capacity Building Survey 2006
VLR	Victorian Litter Report

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- ¹ Sustainability Victoria 2007, Victorian Litter Report 2007, Community Change, Melbourne.
- ² Community Change 2001, Measuring Environmentally Desirable Behaviour in Australia: Littering Behaviour Study III, A Beverage Industry Environment Council report. Pymont, Sydney.
- ³ Sustainability Victoria 2005, Litter Campaign Market Research, report prepared by Open Mind Research Group; EPA Victoria 2006, Litter Report Line Advertising: Metropolitan & Regional Campaign Evaluation, report prepared by Quantum Market Research; Gippsland Regional Waste Management Group 2006, Community Attitudes and Behaviours for Sustainable Waste Disposal in the Gippsland Region, reported prepared by IPSOS Consultants; New South Wales Environmental Protection Authority 2002, 'Don't be a tosser' Campaign Evaluation.
- ⁴ Beverage Industry Environment Council 2004. Littering Behaviour Studies VII – National Benchmark, Sydney.
- ⁵ Local governments reported a total expenditure of \$58,406,675 in 2004–05 for litter maintenance (street litter and butt bins and litter traps), street sweeping services and cleaning up bill posters, illegally dumped rubbish and roadside litter. Not all local governments were able to provide data on all clean up services: 25% provided illegal dumping costs and 20% provided roadside litter costs totalling around \$4.5 million. This figure was extrapolated to estimate the costs of these two activities for the whole state, resulting in a figure of \$18 million. When added to the other reported expenditure (\$53,963,634 excluding the reported costs for these two activities) the total expenditure by local government was almost \$72 million.
- ⁶ Sustainability Victoria 2006, Analysis of Litter Prevention and Management in Victoria, report prepared by Hyder Consulting, unpublished.
- ⁷ Local Government Act 1989, http://www.austlii.edu.au/au/legis/vic/consol_act/lga1989182/

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