

# Recycling and resource recovery advice: Legislative and regulatory review

Current settings, barriers and opportunities

# Table of contents

<b>1. Introduction and summary</b> .....	<b>4</b>
1.1 What impact do the legislative and regulatory settings have, and where can this be improved? .....	4
<b>Overview of settings</b> .....	<b>6</b>
<b>2. Australian, Victorian and local governments: Division of roles and responsibilities</b> .....	<b>7</b>
2.1 What is the Australian Government's role? .....	7
2.2 What is the State Government's role? .....	8
2.3 What is local government's role? .....	9
<b>3. Australian Government's Acts and subordinate documents</b> .....	<b>12</b>
3.1 Product stewardship .....	12
3.1.1 Product Stewardship Act 2011.....	12
3.1.2 National Environment Protection Council Act 1994.....	13
3.2 Food Standards Australia New Zealand Act 1991 (Cth) .....	15
3.3 National Greenhouse and Energy Reporting Act 2007 (Cth) .....	16
3.4 Environment Protection and Biodiversity Conservation Act 1999 (Cth) .....	16
<b>4. Victorian Acts and subordinate documents</b> .....	<b>17</b>
4.1 Environment Protection Act.....	17
Case Study: Waste-related bans in Victoria.....	18
4.1.1 Landfill Levy .....	19
4.2 Climate Change Act 2017 .....	20
4.3 Planning and Environment Act 1987.....	21
4.4 Occupational Health and Safety.....	23
4.5 Agriculture.....	23
4.6 Construction and engineering .....	24
<b>5. Annexure</b> .....	<b>26</b>
5.1 Overview of legislative and regulatory settings that may impact initiatives .....	26
<b>About us</b> .....	<b>29</b>

## Defined terms and acronyms used in this report

Term	Meaning
APCO	Australian Packaging Covenant Organisation
C&D	Construction and Demolition
C&I	Commercial and Industrial
CDS	Container Deposit Scheme
EPA	Environmental Protection Authority
EP Act(s)	Environment Protection Acts, collectively the <i>Environment Protection Act 1970</i> and the <i>Environment Protection Act 2017</i>
EPR	Extended Producer Responsibility
FOGO	Food Organics and Garden Organics
Landfill Levy	Municipal and Industrial Landfill Levy
MRF	Materials Recovery Facility
MWRRG	Metropolitan Waste and Resource Recovery Group
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measures
OHS	Occupational Health and Safety
RISP	Recycling Industry Strategic Plan
SV	Sustainability Victoria
SWRRIP	Statewide Waste and Resource Recovery Infrastructure Plan
VAGO	Victorian Auditor General
WMP	Waste Management Policy
WRRG	Waste and Resource Recovery Group

# 1. Introduction and summary

In April 2019, the Victorian Special Minister of State asked Infrastructure Victoria to provide advice on the infrastructure requirements for increased recycling and resource recovery. Specifically, the Government is seeking advice on the infrastructure that would be required and the role for government in providing support to:

- develop Victoria's re-processing sector for recycled material, particularly those that currently rely heavily on overseas markets such as plastics
- better enable the use of products containing recycled materials in a variety of Victoria industries, such as manufacturing, construction and agriculture
- support a waste-to-energy sector that prioritises the extraction of recyclable material and recovers energy only from the residual waste (i.e. without diverting waste from reuse or recycling)
- support high levels of resource for organics, particularly food organics.

To inform the advice, Infrastructure Victoria has undertaken a review of legislative and regulatory settings of the recycling and resource sector. The aim of this work is to understand the authorising environment that exists for waste and resource recovery, and where there are barriers or enablers for the points outlined above. This includes understanding the barriers to using recycled materials in a range of applications, and the regulatory requirements for resource recovery facilities (including planning and land use settings).

We have reviewed the legislative and regulatory settings for local, Victorian and Australian governments, with a view to understanding what role the Victorian Government can play in addressing existing barriers or take advantage of possible opportunities. This review also identifies where there may be scope for the Victorian Government to address these barriers or enablers for particular legislative or regulatory instruments.

## 1.1 What impact do the legislative and regulatory settings have, and where can this be improved?

There is a variety of Victorian and Australian legislative and regulatory instruments (acts and regulations) that create settings that bring about opportunities and barriers for particular aspects of recycling and resource recovery.

It is important to note that settings that may create barriers are generally, in isolation, serving a necessary purpose. However, where settings are balancing several competing interests, positive outcomes for recycling and resource recovery may not be sufficiently prioritised. Further, the cumulative effect of several barriers from different legislative and regulatory settings can become burdensome, and may limit or prevent positive outcomes for the future of recycling and resource management in Victoria. For example, industry seeking to establish new resource recovery facilities (including recycling, waste-to-energy and organics recovery) will face a number of regulatory hurdles, including environmental and planning barriers.

By contrast, where legislative and regulatory settings already have a positive impact on waste management practices, there may be opportunities to expand and strengthen these further, such as product stewardship measures at a national level, or product bans at a Victorian level.

Some key opportunities identified for the Victorian Government are as follows:

- **Providing clarity in policy direction and regulatory application and enforcement**, ensuring regulatory objectives are sufficiently balanced with facilitation of developments which align with policy aims. Victoria's policy and strategy for bolstering recycling and resource recovery outcomes must be harmonised with the applicable legislative and regulatory regimes. This will be relevant to planning and land use decision making (for example by local governments and VCAT).
- **Extending zoning and land use protections**, looking at existing levels of protection given to strategic areas identified in the Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP), and expanding to incorporate the State's strategic policy direction (in relation to waste-to-energy and organics).
- **Increasing data collection requirements**, for example using existing powers of the State to increase obligations on councils and MRFs to report on the fate of recovered resources.

- **Implementing changes to procurement**, including increasing incentives or requirements for Australian, Victorian and local government procurement of recycled materials.
- **Conducting regular reviews and updates of standards and guidelines to reflect best practice as technologies evolve**, for example for construction and roads standards, and also food standards (for use of recycled packaging).
- **Extended bans on problematic materials**, through possible extended application of the mechanisms that have brought about the e-waste ban and plastic bag ban.
- **Advocate to the Australian Government for a stronger national approach**, for example through strengthening existing product stewardship schemes and extending them to other products, strengthening the scope and powers in legislation and extent of funding. There is also scope for Victoria to use its existing roles of influence, for example expanding its involvement with the Australian Packaging Covenant Organisation.

These opportunities and relevant barriers are considered in further detail throughout this report.

# Overview of settings

An overview of the various authorising settings from the Australian and Victorian Governments that may be applicable to interventions into recycling and resource recovery.

# 2. Australian, Victorian and local governments: Division of roles and responsibilities

There is a broad range of legislative and regulatory issues arising from changes to recycling and resource recovery. The Australian, Victorian and local governments have different but also overlapping roles to play. The line between these roles is not always clearly defined, and may depend on political appetite for involvement.

## 2.1 What is the Australian Government's role?

The Australian Government has the power to make laws on matters that are listed in Section 51 of the Constitution, often referred to as the Government's 'heads of power'. There is not specific constitutional authority to legislate in relation to environmental issues and waste management. However, this does not mean the Australian Government is barred from creating laws that affect these issues.

There are three key ways that the Australian Government has the power to legislate in relation to environmental issues and waste management, which are considered as follows.

### Other constitutional powers

The Constitution allows for the Australian Government to regulate the impact of any activity for which it has the power to legislate. For instance, the Government can use its financial powers to regulate issues relating to the environment, for example through its taxation power, power to make grants to states, and power to expend money for 'the purposes of the Commonwealth'.

### Clarification by the High Court

A number of High Court cases have also expanded the scope of the Australian Government's power to legislate in relation to the environment. A key example of this is the landmark Tasmanian Dams case in 1983, which held that the Australian Government had the power—through its 'external affairs' power in the Constitution—to stop the development of a dam based on its obligations under the World Heritage Convention. This clarified that the Australian Government can enact legislation where it fulfils Australia's international legal obligations under international treaties and conventions. For example, in 1992 Australia signed the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, which places obligations on signatories such as ensuring adequate disposal facilities for hazardous waste.

### Intergovernmental agreements

The scope of involvement can be changed by mutual agreement and 'cooperative federalism' between the Australian Government and the states and territories.

- A key example of this is the **Intergovernmental Agreement on the Environment (IGAE)** from 1992.<sup>1</sup> The IGAE is an agreement between the Australian Government and the states and territories that provides a framework for administering government powers in relation to the environment.<sup>2</sup> The agreement sets out the division of responsibilities regarding the environment between different levels of government. Key pieces of legislation stemming from this agreement include:

<sup>1</sup> *Intergovernmental Agreement on the Environment*, available at <https://www.environment.gov.au/about-us/esd/publications/intergovernmental-agreement>. Accessed on 30 September 2019.

<sup>2</sup> *Promise or Pretence - Compliance with the Intergovernmental Agreement on the Environment: The National Environment Protection Council (Western Australia) Act 1996*, Geoff Leane, Gary D Meyers, Sonia Potter. Available at <http://classic.austlii.edu.au/au/journals/MurUEJL/1997/8.html#n8>. Access on 30 September 2019.

- The **National Environment Protection Council Act 1994**: This Act further clarified the IGAE’s agreement of the different roles, and specifies that the National Environment Protection Council can establish measures to protect the environment from impacts associated with hazardous wastes and the reuse and recycling of used materials. This Act is considered in more detail later in this report.
- The **Environment Protection and Biodiversity Conservation Act 1999**: This Act creates responsibility for the Australian Government but only with regards to nine defined matters of national environmental significance. This Act is considered in more detail later in this report.
- The **National Waste Policy (2018)** was endorsed by the Australian Government, state and territory governments and the Australian Local Government Association to establish national recycling and resource recovery policy direction up to 2030, and has a focus on moving towards a circular economy. The Policy is aimed at harmonising and creating consistency amongst the various states’ policy and regulatory approaches to waste management and resource recovery, and to provide ‘coordinated action’ where it is necessary to tackle particular challenges. As it stands the National Waste Policy is a very high level policy and so is limited in its effect. It requires specific legislation, funding and product direction to be effective. For example, the enactment of the *Product Stewardship Act 2011* is an outcome of a previous version of the National Waste Policy, and gives power to regulate a national approach to product stewardship.

Because of the various powers given above, the Australian Government legislates and regulates in relation to a number of areas that are relevant to recycling and resource recovery. Some of the key instruments are considered in more detail later in this report.

However the Australian Government has espoused the view that it is the state and territory governments that have primary responsibility for regulating domestic waste management and recycling and that state, territory and local governments are ‘in the best position’ to ‘make decisions on recycling regulation and to respond to market developments’.<sup>3</sup>

## 2.2 What is the State Government’s role?

Anything that is not mentioned in Section 51 of the Commonwealth Constitution creates a ‘residual’ power which the State Governments will have responsibility for. This means that State Governments play a key role in environmental management and in regulating domestic waste management. In Victoria, the *Environment Protection Act 1970* is the key piece of legislation in Victoria regarding the environment. With respect to domestic waste management, the Victorian Government’s role involves the regulation of the operation of landfill facilities, and also the imposition of the Landfill Levy.

However because of the reasons discussed above, the Australian Government will still have some powers in relation to the environment (and accordingly waste management insofar as it is an environmental issue), and Australian Government law will prevail if it conflicts with State laws.

### Possible role for the Victorian Government in relation to the Australian Government

There are a number of areas where it will make sense for the Australian Government to legislate, such as where it is sensible to have national consistency for a particular issue. The Victorian Government can play a role in advocating to the Australian Government about the type of changes that it wants to see, for example in strengthening the Australian Government’s outputs in terms of legislation, regulation and funding that follows from the National Waste Policy. The Victorian Government can also further support the National Waste Policy by implementing its own legislation and funding in line with the policy. Further advocacy opportunities are explored in specific sections throughout this report.

### Possible role for the Victorian Government in relation to local governments

The *Constitution Act 1975* provides the State Government with the power to require across-the-board compliance with initiatives via legislation and subordinate instruments. This will be relevant if the State wants local governments to roll out consistent approaches to recycling and resource recovery, including in relation to bins, source separation, and collection as well as targets.

The *Local Government Act 1989* contains a number of obligations in terms of reporting on budget and financial management. There is scope to create analogous reporting obligations in relation to waste management statistics to bolster MSW data in Victoria, which was noted in the VAGO 2019 report on ‘Recovering and Reprocessing Resources from Waste’ to be unreliable and incomplete, and in need of further regulatory measures. This Act is considered in further detail below.

<sup>3</sup> Report: *Waste and recycling industry in Australia, 2018*, at [2.76], available at [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Environment\\_and\\_Communications/WasteandRecycling/Report/c02#c02f82](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/WasteandRecycling/Report/c02#c02f82). Accessed 30 September 2019.



## 2.3 What is local government's role?

There are 79 Local Government Areas in Victoria. They are generally responsible for locally-specific issues, such as making local planning laws and planning decisions (which can affect where and how resource recovery sites can operate), and also through the provision of waste and recycling collection services. Their responsibilities can be varied by state legislation. There are a number of Victorian legislative instruments relevant to local governments, and the following is a discussion of two of the key instruments relevant for recycling and resource recovery.

### *Local Government Act 1989 (Vic)*

The *Local Government Act 1989* (Vic) establishes the powers and functions of local governments in Victoria. It broadly enables the function of Council to plan, provide and maintain services and infrastructure for the local community, as well as undertaking strategic and land use planning.<sup>4</sup> Under this Act, a council can pass local laws that reinforce land use planning and municipal recycling and resource recovery strategies.

In the absence of specifically mandated requirements, if Council has the ability to exercise discretion in relation to any changes implemented, they should be exercising their discretion in line with the Best Value Principles outlined in the *Local Government Act*. This discretion can be exercised in a number of areas relevant to waste, including land use and planning decisions, and procurement and contracting decisions. However given the discretionary nature, they are not a method to ensure consistent application of policies by Councils.

The Act requires that Councils use resources efficiently and effectively, and services are to be provided in accordance with the Best Value Principles to best meet the needs of the local community. The Best Value Principles that Councils must follow are that services are provided to quality and cost standards, responsive to the needs of its community, accessible to the community, and that there should be continuous improvement in provision of services and regular consultation with its community.<sup>5</sup>

This obligation to achieve best value was raised as a reason that Councils had chosen to contract with SKM (an article in *The Age* on 15 July 2019 had stated that Councils were being 'forced' by State laws to hire SKM, which was disputed by Municipal Association of Victoria<sup>6</sup>).

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<sup>4</sup> *Local Government Act 1989* (VIC) s 3E.

<sup>5</sup> *Local Government Act 1989* (VIC) s 208B.

<sup>6</sup> 'Waste industry chief calls on councils to cancel contracts with SKM' (*The Age*) by Adam Carey, Noel Towell and Sumeyya Ilanbey, 15 July 2019, available at <https://www.theage.com.au/national/victoria/waste-industry-chief-calls-on-councils-to-cancel-contracts-with-skm-20190715-p527f1.html>. Accessed on 30 September 2019.

Table A: Division of Government responsibilities in waste management and resource recovery

Area of influence	Australian Government role	Victorian Government role	Local government role
<b>Influence by/over other levels of government</b>	<p>Some relevant Constitutional heads of power (e.g. external affairs power, corporations)</p> <p>Australian (Commonwealth) laws will prevail over state or local government laws to the extent of any inconsistency</p> <p><i>National Environment Protection Council Act 1994</i> (Cth)</p> <p>National leadership and coordination by way of agreement</p> <p>Ensuring compliance with international treaties and national environmental policies</p> <p>Power to make grants</p>	<p>Primary responsibility for environmental protection and management, and regulating domestic waste management</p> <p>However, Australian (Commonwealth) laws will prevail if in conflict with Victorian law</p>	<p>Local government responsibilities can be varied by state legislation</p> <p><i>Local Government Act 1989</i> (Vic)</p> <p><i>Constitution Act 1975</i> (Vic)</p>
<b>Environment (general)</b>	<p>National leadership and coordination by way of agreement</p> <p>Implementing and ensuring compliance with international treaties and national environmental policies</p> <p>Intergovernmental Agreement on the Environment</p> <p><i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)</p>	<p>Key role in environmental protection and management</p> <p><i>Environment Protection Act 1970</i> (Vic) and <i>Environment Protection Act 2017</i> (Vic)</p> <p>Environment Protection Authority (<b>EPA</b>)</p> <p>Sustainability Victoria (<b>SV</b>)</p> <p><i>Climate Change Act 2017</i> (Vic)</p>	<p>Local environmental issues</p> <p>Education and awareness programs</p>
<b>Waste collection, disposal, treatment</b>	<p>National leadership and coordination by way of agreement</p> <p>Used Packaging Materials NEPM</p> <p>Ensuring compliance with International treaties and national environmental policies</p> <p>National Waste Policy</p>	<p>Regulating domestic waste management</p> <p>(Including operation of landfill facilities, imposition of landfill levies)</p> <p>Waste Management Policies (WMPs)</p> <p>Waste and Resource Recovery Groups (<b>WRRGS</b>), EPA, SV</p> <p>Statewide Waste and Resource Recovery Infrastructure Plan (<b>SWRRIP</b>)</p> <p><i>Occupational Health and Safety Act 2014</i> (Vic)</p>	<p>Provides and procures MSW waste and recycling collection services</p> <p>Litter infrastructure – waste collection in public places</p> <p><i>Local Government Act 1989</i></p>
<b>Planning and land use</b>	<p><i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth), if triggered</p>	<p>Planning laws and land use</p> <p>Makes some planning decisions</p> <p><i>Planning and Environment Act 1987</i> (Vic)</p> <p>Victorian Planning Provisions (VPPs)</p>	<p>Determination of most planning decisions and local planning laws</p>

		SWRRIP	
<b>Packaging and goods</b>	<p><i>Product Stewardship Act 2011 (Cth)</i></p> <p><i>National Environment Protection Council Act 1994</i> and the Australian Packaging Covenant</p> <p>EPR Schemes</p> <p>Australian Government procurement policies</p> <p><i>Food Standards Australia New Zealand Act 1991</i></p>	<p>State government procurement policies</p> <p>State prioritisation of product stewardship</p> <p>Plastic bag ban</p> <p>Possible scope for Container Deposit Scheme (implemented by other states and territories)</p>	<p>Local initiatives and local government procurement policies</p>

# 3. Australian Government's Acts and subordinate documents

The following is an exploration of the Australian Government's legislative and regulatory schemes, and what role the Victorian Government can play in improving these settings to benefit recycling and resource recovery.

## 3.1 Product stewardship

### What is product stewardship?

Product stewardship concerns managing the impacts of products and materials, and ensures shared responsibility to do so throughout their entire lifecycle. Commonly this will involve producers taking responsibility for the impacts of their products, often by collection and disposal of waste. Extended Producer Responsibility (**EPR**) is a type of product stewardship which places responsibility on the producer or importer (and sometimes the seller) of a particular product.

Product stewardship can be voluntary or by regulation, and it can focus on different stages of a product's lifecycle and the harm it may have on the environment, human health and safety.

Often the costs for operating the scheme, or for end-of-life product management, are covered by an up-front levy (point of import or purchase) or an agreed financial liability for waste management at the end of life (point of disposal).

### 3.1.1 Product Stewardship Act 2011

The main legislative instrument is the *Product Stewardship Act 2011* which establishes several mandatory, co-regulatory and voluntary schemes (set out in Table B). One co-regulatory scheme is also enabled via another piece of legislation: the Australian Packaging Covenant, which is discussed in more detail later in this report (at 3.1.2).

The *Product Stewardship Act 2011* provides the framework to effectively manage the environmental, health and safety impacts of products, and in particular those impacts associated with the disposal of products. The framework includes voluntary, co-regulatory and mandatory product stewardship.

The Act is structured to be flexible and adaptable to different products, materials and industries, and requires a list of products being considered for coverage by the legislation to be published each year.

### Other classes of products considered

The Product Stewardship Act requires the Minister for the Environment to list classes of products that it will consider to include in future accreditations or regulations under the Act.<sup>7</sup> However the relevant website has not been updated to include the 2018-2019 Product List. The priorities considered during 2017-18 for a product stewardship approach were plastic microbeads and products containing them, batteries, photovoltaic systems (used for solar power), electrical and electronic products, and plastic oil containers.

### States involved in product stewardship

The Victorian Government, through Sustainability Victoria (SV), has played a key role in developing and supporting product stewardship schemes. Currently, SV (on behalf of the Victorian Government) is leading an interjurisdictional working group to establish the preferred product stewardship approach for solar photovoltaic systems. SV has also acted

<sup>7</sup> See list for 2017-2018 available at <http://www.environment.gov.au/protection/waste-resource-recovery/product-stewardship/legislation/product-list-2017-18>. Accessed on 30 September 2019.

as the secretariat to develop the Paintback scheme including managing trials to support the development of the scheme, and played a lead role in supporting Tyre Stewardship Australia through the development of the National Market Development Strategy for Used Tyres and collaborating on multiple research projects.

Other Australian states have also played a role in product stewardship and extended producer responsibility (EPR) schemes. In NSW, there is a requirement to publish an annual Priority Statement on EPR schemes that it proposes to implement. The priority statement reinforces areas that it wants to pursue EPR schemes, including by working with industry and the Australian Government to advance nationally consistent measures. Other policy examples include Western Australia's Local Government Association *Policy Statement on Extended Producer Responsibility* from 2008.

### Australian Government review of product stewardship

A review into the *Product Stewardship Act 2011* was being undertaken by the Federal Department of the Environment and Energy in 2018, with a public consultation process closing on 29 June 2018. The Act is still under review. At this stage, no update has been provided as to when this will be complete.

### How is product stewardship done elsewhere?

The AlphaBeta report prepared for Infrastructure Victoria explored the use of EPR by various jurisdictions including South Korea and Germany. South Korea has mandated EPR policies since 2003, and there are 27 products which it applies to. It ensures compliance through EPR with online data reporting about sales, imports, and waste that is collected and recycled. Germany also has a mandated EPR scheme, however the AlphaBeta reports that this system can be costly and complex to manage. The AlphaBeta report is available to review on Infrastructure Victoria's website at [infrastructurevictoria.com.au](http://infrastructurevictoria.com.au).

### Possible role for the Victorian Government

- Advocate to the Australian Government to pursue product stewardship schemes in further areas, and to pursue more mandatory and co-regulatory schemes where voluntary schemes fail to demonstrate achievement of stated objectives.
- Continue to play a leadership role in supporting the development of any new product stewardship schemes, as it is currently doing with solar photovoltaic systems and has previously done with paint.

## 3.1.2 National Environment Protection Council Act 1994

The *National Environment Protection Council Act 1994* establishes the National Environment Protection Council (NEPC), and gives authority to make National Environment Protection Measures (NEPMs), which are national objectives designed to assist in protecting or managing particular aspects of the environment.

NEPMs can be made about environmental matters as prescribed by the NEPC Act. The NEPC Act specifies that the NEPC may make measures relating to the re-use and recycling of used materials.<sup>8</sup> NEPMs are implemented by corresponding legislation in other Australian jurisdictions (for instance the Used Packaging Materials NEPM is implemented in Victoria via a Waste Management Policy (WMP)). The establishment of the NEPC is also supported by state and territory legislative instruments such as the *National Environment Protection Council (Victoria) Act 1995*.

The Used Packaging Materials NEPM underpins the creation of the Australian Packaging Covenant, discussed below.

### Australian Packaging Covenant

The Australian Packaging Covenant (**the Covenant**) is a cooperative product stewardship arrangement between the Australian, state and territory governments and the packaging industry, and applies to businesses in a supply chain that produce packaging or packaged products with an annual turnover of \$5 million or more.

The Covenant is aimed at reducing the environmental impacts of consumer packaging, including plastics, paper and cardboard, by changing the culture of businesses to design more sustainable packaging, increase recycling rates and reduce litter.

Signatories to the Covenant have made commitments to practice product stewardship for the lifecycle of consumer packaging, including in relation to design of packaging (eliminating excessive packaging), adopting Sustainable Packaging Guidelines, supporting

### 2025 National Packaging Targets

1. 100% of packaging to be reusable, recyclable or compostable
2. 70% of plastic packaging recycled or composted
3. 30% average recycled content across all packaging
4. Phase out problematic and unnecessary single-use plastic packaging through redesign, innovation or alternative delivery methods.

<sup>8</sup> *National Environment Protection Council Act 1994 s 14(1)(f)*.

material recovery systems and infrastructure used for packaging materials, and demonstrating continuous improvement against KPIs and targets in the Covenant.

The Covenant's Strategic Plan for 2017-2022 identifies roles for collaboration with the Australian and state governments including:

- developing product design standards
- implementing necessary legislation, policy, regulation, grants and other facilitation
- developing recycled product procurement standards.

The Australian Packaging Covenant Organisation Ltd (**APCO**) is an independent, co-regulatory and not-for-profit company established to administer the Covenant on behalf of government and Covenant signatories. In 2018, government and industry launched the 2025 National Packaging Targets, and APCO will be working with a variety of stakeholders from government and industry to ensure these targets can be met.

### Victoria's role in the Covenant

The Victorian Government is also a signatory to the Covenant, and a number of Victorian Government entities are supporting its implementation in Victoria on tasks including alignment with the commitments set out in the Victorian Government Action Plan 2011-2015.

Sustainability Victoria is working with APCO towards its 2025 targets and co-funds Covenant projects. The EPA supports the Covenant by administering the WMP for Used Packaging Materials. The WMP is the Victorian vehicle for ensuring that brand owner signatories to the Covenant are not competitively disadvantaged by fulfilling their commitments to the Covenant, by targeting 'free riders' who have not signed up to the Covenant, and by requiring brand owners to ensure recovery rates of 70% for specified consumer packaging materials (which includes paper and cardboard, glass, steel, aluminium and plastics).

### Possible role for the Victorian Government

- Advocate to the Australian Government to bolster requirements under the Covenant.
- Use Victoria's role in assisting APCO to facilitate best-practice standards, legislation, policy, regulation, and grants to minimise damaging effects of packaging and improve packaging production in Victoria and across Australia.

Table B: Existing Product Stewardship Schemes: Mandatory, co-regulatory and voluntary

Type	Explanation	Examples of existing schemes
<b>Mandatory schemes</b>	Imposes legal obligations including restrictions on labelling of products, requiring arrangements for recycling, or requiring a deposit/refund to be applied to a product	No fully mandatory product stewardship schemes currently in place
<b>Co-regulatory schemes</b>	Regulated by the Australian Government, and may include requirements to avoid, reduce or eliminate waste from products	<ul style="list-style-type: none"> <li>• <b>Australian Packaging Covenant</b></li> <li>• <b>National Television and Computer Recycling Scheme:</b> Targets an 80% nationwide recovery rate for televisions and computers by 2026</li> </ul>
<b>Voluntary accreditation schemes</b>	Not regulated, but because of their adherence to the Act's accreditation requirements they provide the community with increased certainty	<ul style="list-style-type: none"> <li>• <b>FluoroCycle</b> (for mercury-containing lamps)</li> <li>• <b>MobileMuster</b> (for mobile phones)</li> </ul>
<b>Non-accredited voluntary schemes</b>	Not regulated or accredited Majority of the product stewardship schemes in Australia fall within this category	<ul style="list-style-type: none"> <li>• <b>RedCycle</b> (soft plastics recycling)</li> <li>• <b>Paintback</b></li> <li>• <b>National Tyre Product Stewardship Scheme</b></li> <li>• <b>PVC Product Stewardship Program</b></li> <li>• <b>ChemClear</b> (for agricultural and veterinary chemicals)</li> <li>• <b>DrumMuster</b> (for empty agricultural and veterinary chemical containers)</li> <li>• <b>Plasback</b> stewardship scheme for recycling silage wrap and baling twine (no longer operating)</li> </ul>

## 3.2 Food Standards Australia New Zealand Act 1991 (Cth)

The *Food Standards Australia New Zealand Act 1991* creates the entity 'Food Standards Australia New Zealand' (FSANZ) as a statutory authority, and sets its functions which include the development of food standards.

Food standards can impact the type of packaging that can be used with food, including whether recycled materials are permitted. Food standards may also influence how much food waste is created, because of the influence of 'best before' dates on packaging.

### Food Standards Code and other documents

There are a number of subordinate instruments that are relevant to the use of recycled materials for food packaging material, which include:

- **Food Standards Code**
  - Standard 1.4.1 ('Contaminants and Natural Toxicants') sets out the maximum levels of some contaminants that may be present in food as a result of contact with packaging material.
  - Standard 3.2.2 ('Food Safety Practices and General Requirements') requires food businesses to use packaging that is 'fit for its intended use,' only use material that is not likely to contaminate food, and ensure that food is not contaminated during the packaging process.
- **Safe Food Australia (Guidance document from FSANZ, November 2016):** Provides further input on the requirements under Standard 1.4.1. The guidance document clarifies that recycled and reused materials may be used for food packaging applications, provided they are suitable for the intended use and will not contaminate food. The document raises concerns regarding contaminants in the source material and degradation of packaging due to reuse or cleaning and sanitizing procedures, and notes that packaging comprised of recycled material may be constructed to prevent contaminants from migrating into food.
- **Australian Standard AS 2070-1999:** Plastics materials for food contact use.

### Possible role for the Victorian Government

- Regulate (or advocate to the Australian Government for regulation of) type of plastics that can be used, to prevent hard-to-recycle plastics from entering the market.
- Regular review and update of standards and guidelines to reflect best practice as technologies evolve.
- Provide clarity and guidance to new market entrants about requirements and how to comply.
- Consider working with industry groups to progress better packaging design.

### Contamination, packaging and food

Sustainability Victoria's Recovered Resources Market Bulletin recently explored the problems that arise from 'problematic plastics' and other contamination issues that limit the recyclability of packaging, in particular with regards to whether that recycled product can be used in food packaging. This is an area that could greatly benefit from increased regulation and oversight.

*One of the worst contaminant problems for some plastics is other plastics. PVC is a serious problem for PET recycling and hard to detect. It is reported that PVC contamination in recovered PET packaging at levels as low as 50 parts per million will make that PET commercially unusable for the manufacture of food contact recycled PET.*

*For these reasons the Australian Packaging Covenant Organisation (APCO) and many brand owners, retailers and packaging suppliers are actively attempting to address problematic plastics, including through deselecting them from consumer packaging applications.*

*... Of critical importance is thoughtful packaging design to ensure that packaging is highly recyclable, or else it is made very clear to consumers that the packaging is for disposal to landfill. There is much being done in the packaging design space by packaging manufacturers, brand-owners and APCO. Improvements in packaging design and material selection are a major opportunity for reducing packaging contamination in the medium to longer term.*

*Sustainability Victoria's Recovered Resources Market Bulletin, July 2019, p 32*

### 3.3 National Greenhouse and Energy Reporting Act 2007 (Cth)

The *National Greenhouse and Energy Reporting Act 2007* (**NGER legislation**) establishes a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information specified in the Act.

Obligations created by the NGER legislation will be relevant to industry participants in the waste-to-energy and organics recovery sectors.

#### Possible role for the Victorian Government

- Provide clarity and guidance to new market entrants about requirements and how to comply, in particular for waste-to-energy and organics recovery if Victoria is seeking to facilitate their development.

### 3.4 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**) creates responsibilities for the Australian Government when a proposed project has the potential to have a significant impact on a matter of national environmental significance.

There are nine defined matters which fall within this scope (listed in the adjacent table), and it is not very likely that they would be triggered by the development of resource recovery facilities such as waste-to-energy or organics. Two matters that are more likely to be relevant would be if a proposal created a risk for nationally threatened species and ecological communities, or migratory species.

If the matters of national environmental significance are not relevant to a proposal, it is the jurisdiction of the states and territories to consider the environmental impact.

#### Scope of EPBC Act – Nationally Protected Matters:

- world heritage properties
- national heritage places
- wetlands of international importance
- nationally threatened species and ecological communities
- migratory species
- Commonwealth marine areas
- Great Barrier Reef Marine Park
- the environment where nuclear actions are involved (including uranium mines)
- a water resource in relation to coal seam gas development and large coal mining development.



# 4. Victorian Acts and subordinate documents

The following is an exploration of the existing legislative, regulatory and policy settings in Victoria which influence recycling and resource recovery practices.

## 4.1 Environment Protection Act

### Scope of Infrastructure Victoria's review

Given the recent review and updates to the Environment Protection Acts (referring to both the 1970 and 2017 Acts), we have considered additional amendments to the Acts to be out of scope for the purposes of this review. However, we have considered how the Environment Protection Act and subordinate legislation may affect the viability of different approaches to waste collection, infrastructure development and materials use.

### Environment Protection Act 1970 (1970 Act)

The 1970 Act, as it stands, establishes and regulates a number of key Victorian waste management functions. This includes establishing rules regarding landfills, classification of types of waste and facilitating the distribution of Landfill Levy funds. The Act also requires Sustainability Victoria to develop the Statewide Waste and Resource Recovery Infrastructure Plan (**SWRRIP**), and to facilitate its implementation via the Regional Implementation Plans. The Act also establishes guiding principles including the waste hierarchy and underpins the regulatory framework for managing waste, including waste management polices (**WMPs**), State environment protection policies, and regulations.

### Recent and upcoming changes to the Act

Following an independent inquiry into the Environment Protection Authority (**EPA**) in 2016, reforms to the Environment Protection Act are currently underway. The reforms seek to establish a modern regulatory approach focusing on prevention of waste and pollution impacts, instead of managing these impacts after they have occurred.

The first stage of reforms has already been enacted through the passage of the *Environment Protection Act 2017* (**2017 Act**). The second and more significant stage of reforms are intended to take effect on 1 July 2020, with changes that are contained in the *Environment Protection Amendment Act 2018* and supporting regulations. The proposed regulations and other related documents have recently been released for public comment, which closes at the end of October 2019.

A key change to the Act will be the introduction of a general environmental duty (**GED**). This adopts a preventative approach, requiring those engaged in activities that may cause risks of harm to human health or the environment from pollution or waste to minimise those risks. The new Act will also implement a three-tiered system of EPA permissions (licences, permits and registrations) to support risk-based and proportionate regulatory oversight.

### Environmental Protection Act and implementing bans

2019 has seen the implementation of two different types of ban in relation to waste: A ban on the provision of plastic bags (of a certain thickness) and a ban on sending e-waste to landfill. Although these have been introduced using mechanisms under the 1970 Act, they operate in very different ways. There may be scope to expand the use of bans to other products, such as single-use plastic. How these bans work is considered in more detail over the page.

## Case Study: Waste-related bans in Victoria

How has the Environment Protection Act been used to implement different types of bans in Victoria?

Product	Stage in waste process	Method of ban	Scope of ban	Potential future use of this type of ban
<b>Plastic Bags</b> (from November 2019)	Waste generation (type of waste created)	Amendments to the <i>Environment Protection Act 1970</i> (via the <i>Environment Protection Amendment Bill 2019</i> ) to introduce a ban on lightweight plastic shopping bags and create related offences	<b>Prohibits</b> provision of plastic bags with handles, thickness of 35 micrometres or less, including biodegradable, degradable or compostable bags <b>Creates penalties</b> for provision of plastic bags by retailers, and suppliers or manufacturers giving false/misleading information about banned bags (does not create an offence for consumers who are provided with plastic bags) <b>Gives powers</b> for an authorised officer to enter any retail premises to ensure compliance	The new Environmental Protection Legislation may create additional or amended ability to prescribe product bans <b>A ban on other single-use plastics (for example on plastic straws or cutlery) could be implemented in a similar way</b>
<b>E-waste</b> (from July 2019)	Waste collection and processing	Implemented via EPA's Waste Management Policies (WMPs), which are legislative instruments made under the provisions of the <i>Environment Protection Act 1970</i>  E-waste WMP was declared in an Order in Council, gazetted in the Victoria Government Gazette on 28 June 2018	<b>Regulates conduct</b> of entities receiving/processing e-waste, and <b>requires general public</b> to provide e-waste to an e-waste service provider  <b>Enforcement</b> will be in line with EPA's <i>Compliance and Enforcement Policy</i>	WMPs will no longer exist once new Environmental Protection Legislation comes into force in July 2020  Existing WMPs may move to proposed regulations or change into guidance

### Could this type of ban be applied to other materials?

The Victorian Government is currently developing a plastic pollution reduction plan to tackle problematic plastics, which is expected to be finalised before the end of 2019. A product ban may be an effective mechanism to address problematic plastics.

Using mechanisms similar to the plastic bag ban, there is scope to expand this type of intervention to other types of materials. For example, several other jurisdictions have proposed or are commencing implementation of bans on other forms of single-use plastic:

- The SA Government has stated in July 2019 that it intends to draft legislation in 2019 banning certain single-use plastic products, and intends to introduce it to Parliament in 2020. Environment Minister David Speirs stated that they are first looking at plastic straws, cutlery and stirrers, and will later also look at items such as takeaway polystyrene containers and cups.
- Canada has announced a ban on single-use plastics by 2021, which is proposed to include items such as straws, cotton swabs, drink stirrers and Styrofoam fast-food containers and cups.
- The EU issued a directive in June 2019 on the reduction of the impact of certain plastic products on the environment, which includes a ban on single-use plastic products, listing cotton bud sticks, cutlery, plates, straws, beverage stirrers, balloon sticks, polystyrene food and beverage containers as within scope of the ban. The Member States have until 2021 from the date of the directive to transpose the ban into their national law.

### 4.1.1 Landfill Levy

The Landfill Levy is enacted under the *Environment Protection Act 1970* and is paid on all waste disposed of at licensed landfills in Victoria. Levy funds are used for environment protection activities, including promoting the sustainable use of resources and best practices in waste management.

The VAGO report entitled ‘Managing the Municipal and Industrial Landfill Levy’, tabled in July 2018, reviewed the operation of the Landfill Levy in Victoria and noted several issues in its administration.

One issue noted in the VAGO report was regarding the Priority Statement for how funds are to be used from the Sustainability Fund (which is the remaining balance of the Landfill Levy once core allocations have been made to Sustainability Victoria, the Environment Protection Authority, and the seven Waste and Resource Recovery Groups). It was noted that the Priority Statement does not define any terms in the table (below), so it is difficult to assess the extent to which matters in the priority list had been considered.<sup>9</sup>

#### What are the strategic priorities for spending the Sustainability Fund?

The Priority Statement sets out how, in order of priority, the Minister and Premier intend to apply money from the Fund to meet the legislated purposes. The following is an excerpt from the 2016 Sustainability Fund Priority Statement, which sets out the strategic priorities for the two legislated purposes under the Environment Protection Act.<sup>10</sup>

Sustainability Fund’s legislated purpose:	
Fostering environmentally sustainable uses of resources and best practices in waste management to advance the social and economic development of Victoria	Fostering community action or innovation in relation to the reduction of greenhouse gas substance emissions [mitigation] or adaptation or adjustment to climate change in Victoria
<p><b>Strategic priorities:</b></p> <ul style="list-style-type: none"> <li>• making alternatives to landfill more viable and cost competitive through the stimulation, creation and expansion of viable markets for recycled and recovered materials;</li> <li>• facilitating a network of best practice waste and resource recovery infrastructure which minimises public health and environmental impacts and maximises resource recovery opportunities;</li> <li>• providing equity in access to, and reducing impacts of, waste and resource recovery services on communities;</li> <li>• improving waste education and waste management capability to reduce waste generation, recover resources, and prevent littering and illegal dumping; and</li> <li>• modernising the management of legacy contamination or pollution.</li> </ul> <p>Investment will be guided by Victorian government policies, including the Statewide Waste and Resource Recovery Infrastructure Plan, Regional Waste and Resource Recovery Implementation Plans and other relevant strategies.</p>	<p><b>Strategic priorities:</b></p> <ul style="list-style-type: none"> <li>• supporting individuals, communities and industry to transition to a low carbon economy;</li> <li>• supporting Victorians to adapt to the impacts of climate change, particularly those most vulnerable and least able to do so;</li> <li>• building Victorian communities’ capacity, capability and skills in responding to climate change; and</li> <li>• assisting Victoria’s ecosystems and native species to be more resilient to climate change and/or support mitigation outcomes.</li> </ul> <p>Investment will be guided by Victorian government policies, including climate change policies, the Victorian Climate Change Adaptation Plan, Energy Efficiency and Productivity Statement, Renewable Energy Action Plan, biodiversity plan and other relevant strategies.</p>

#### How could the Priority Statement be improved?

- The VAGO report noted that better definitions of the terms in the priorities were needed, and further that it may be necessary to require a consideration of the environmental and economic benefit of different applications of the fund.<sup>11</sup>
- The Priority Statement could be updated to prioritise recycling and resource recovery of particularly problematic waste streams, as well as the development of sustainable end markets for the materials
- Clarification of the strategic priorities could be a tool to address a concern raised by many stakeholders about the distribution of the Sustainability Fund. Many stakeholders raised the concern with Infrastructure Victoria that although they are contributors to the fund via the Landfill Levy, they have not received the benefits as funds have been used to develop programs and initiatives that do not affect them. This issue is indirectly addressed in the strategic priority of ‘providing equity in access to, and reducing impacts of, waste and resource recovery services on communities’. It could be said that this means equity issues regarding regional implementation should be considered. However if ensuring that the allocated funds reach all areas that contribute to the fund is a priority, then this should be more expressly stated.

<sup>9</sup> *Managing the Municipal and Industrial Landfill Levy*, VAGO Report (2018), page 49.

<sup>10</sup> 2016 Sustainability Fund Priority Statement, available at [https://www.environment.vic.gov.au/data/assets/pdf\\_file/0029/49286/2016-Sustainability-Fund-Priority-Statement.pdf](https://www.environment.vic.gov.au/data/assets/pdf_file/0029/49286/2016-Sustainability-Fund-Priority-Statement.pdf). Accessed on 30 September 2019.

<sup>11</sup> *Managing the Municipal and Industrial Landfill Levy*, VAGO Report (2018), page 49.

#### Possible role for the Victorian Government

- Provide further clarification and definition of the terms in the strategic priorities to ensure that funds are being applied with the intended purpose of the strategic priorities.
- Expressly require consideration of environmental and economic benefit of different applications of the fund.
- Develop strategic priorities in line with an overarching strategy, which ensures all areas of Victoria benefit from the use of the fund.

## 4.2 Climate Change Act 2017

The *Climate Change Act 2017* establishes a legislated emissions target (net zero emissions by 2050<sup>12</sup>) and seeks to ensure the long and short-term impacts of climate change are considered in all Victorian Government policies, programs or processes. Section 20 of the Act specifies that the Government will endeavour that any decision, policy, program or process developed by government will take account of climate change.

A target of net zero emissions by 2050 may impact the development of landfills and waste-to-energy facilities or other resource recovery facilities in terms of the emissions that they create, and the type of technology that will be permitted to be pursued in Victoria.

Relevant documents stemming from the *Climate Change Act 2017* include:

- **Climate Change Framework:** The framework is the vision for Victoria in 2050, and includes reducing non-energy emissions from activities such as landfilling waste as one of the four pillars that underpin the transition to net zero emissions.
- **Climate Change Adaptation Plan 2017-2020:** Priorities for four years to understand impact and prepare. Areas covered that may be relevant to waste are the 2017-2018 review of land use planning policies and provisions to build systems that support environmentally sustainable development outcomes for new buildings, including improving waste management.

#### Possible role for the Victorian Government

- Provide clarity and guidance to new market entrants (including waste-to-energy) about requirements and how to comply (including clarity which may be provided in the upcoming Circular Economy Policy).
- Regular review and update of standards and guidelines to reflect best practice as technologies evolve.

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<sup>12</sup> *Climate Change Act 2017, section 6(1).*

## 4.3 Planning and Environment Act 1987

The *Planning and Environment Act 1987* sets out the objectives of planning in Victoria, and establishes the Victorian Planning Provisions and local planning schemes including the State Planning Policy Framework. The purpose of the Act is broadly to establish a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians. This involves a complex balance of many competing interests.

The planning system is a tool that can support best-practice resource recovery, but it can also act as a barrier to facilitating future development. One opportunity is using planning provisions as a mechanism to implement best-practice waste management at new developments, in particular for new high-rise and multi-unit developments, by mandating minimum waste infrastructure requirements.

But more importantly, the implications of the planning system and permitting particular uses of land is particularly relevant for landfills, MRFs, waste-to-energy and organics recovery. Being granted the necessary permits for development and use for resource recovery can be particularly challenging where a facility will have an impact on the surrounding environment in terms of noise, odour, pollution and emissions. This is exacerbated when residential or sensitive developments begin to encroach on existing facilities or areas for possible future development, which can create risks for investment, highlighting the need for land use buffers. Recent examples in the media demonstrate this tension, revealing the challenges faced by industry to find suitable locations and councils to protect competing interests in their local area.<sup>13</sup>

### Local government and land use decisions

Local councils play an influential role in planning, both in establishing local planning schemes and in administration of planning schemes where local government often holds the position of 'responsible authority', exercising decision-making powers such as granting permits. Where planning decisions made by responsible authorities are opposed, decisions may be taken to VCAT to be reconsidered.

### Victorian Planning Provisions

All planning schemes in Victoria refer to waste and resource recovery infrastructure, for example:

- Clause 19.03-5 requires planning authorities to consider the waste and resource recovery policies and documents listed when making decisions, including determining planning permits (under which the SWRRIP is specifically mentioned).
- Clause 52.45 of the VPPs lists what specifically needs to be considered in an application for a planning permit for a transfer station or recycling facility.
- Clause 53.10 of the VPPs specifies a table of uses 'with adverse amenity potential' which includes waste-to-energy, organic resource material recycling, and other resource recovery and recycling operations. These uses have a variable threshold distance (being the minimum distance from any part of the land to particular zones, including residential). For 'industry' (which includes resource recovery) the application then *must* be referred to the Environment Protection Authority.

### Statewide Waste and Resource Recovery Infrastructure Plan (SWRRIP)

The importance of the SWRRIP is supported by recent VCAT decisions that refer to the SWRRIP as the State's waste policy. The SWRRIP is given weight in decision-making as it is incorporated into one of the EPA's Waste Management Policies (**WMPs**).<sup>14</sup> The SWRRIP is also specifically referred to in the Victorian Planning Provisions.

The SWRRIP considers in detail the importance of strategic planning for the future of resource recovery. Strategic Direction 4 of the SWRRIP relates to the utilisation of land, specifically that '[s]uitably located and zoned land will be available for the expected mix of infrastructure required to manage waste and materials streams.' Section 3 of the SWRRIP considers integrated land use planning and hubs, and identifies several strategic sites across Victoria which are important for undertaking waste and resource recovery activities. Waste and resource recovery 'hubs' refers to the collocation of waste generators, resource recovery facilities and users of end products in hubs that may provide efficiencies. One of the benefits of locating strategic hubs is that this can help identify sites that are suitable for new infrastructure.

The SWRRIP identifies existing waste management sites that need to be protected, and there may be scope to expand this to apply to future sites recognised as having potential for resource recovery, including organics recovery or waste-to-energy facilities.

<sup>13</sup> See for example discussion of the Alex Fraser glass recycling facility in Clarinda in 'Shutdown threat for glass recycler' (6 September 2019), Benjamin Preiss, *The Age*.

<sup>14</sup> VCAT decision *Melton CC v Landfill Operations Pty Ltd (Red Dot)* [2019] VCAT 882 notes at [126] that: '[o]nce published in the Government Gazette, the SWRRIP and any RWRRIP become a waste management policy pursuant to section 16A of the Environment Protection Act 1970.'

To prioritise the future development of resource recovery sites, giving additional statutory weight to the SWRRIP (or other documents which identify sites that need to be protected, or land use for resource recovery that needs to be prioritised) would also be beneficial.

### Land use buffers

Land use buffers in planning are an important tool to protect recycling and resource recovery facilities, for example from encroaching land use that may be incompatible with being located next to facilities. This is particularly important for protecting strategic sites and hubs listed in the SWRRIP. When properly in place, land use buffers can provide certainty for industry and investors who are developing or expanding facilities.

Challenges in implementing land use buffers include the time and cost needed to change planning provisions, and opposition to imposing land use buffers which can limit the future use of implicated land, provoking opposition from local land owners and developers.

There are a number of previous and ongoing pieces of work that are seeking to bolster land use buffers. Between 2014-2018, work was done by the Metropolitan Waste and Resource Recovery Group (**MWRRG**) to provide support for land use buffers for waste and resource recovery facilities. This was done by supporting local planning authorities to define and maintain buffers, through developing planning tools such as guidelines and controls.<sup>15</sup> The Recycling Industry Strategic Plan (**RISP**) published in 2018 noted that the Government, being led by the EPA, will work to improve the use of buffers at recycling facilities. In May this year, DELWP prepared a consultation report on planning for buffers and separation distances<sup>16</sup> as part of its ongoing review into how the planning system can better manage buffers between industries and sensitive uses. Tangible outcomes from this work may take time to be seen, in particular because the process of amending planning provisions takes some time. It is important that this focus and work continues with a view to prioritising the future viability of recycling and resource recovery sites in Victoria, and that lessons are continually learnt from works done by different entities.

#### Possible role for the Victorian Government

- Provide certainty that land development and use for waste infrastructure that is identified as necessary in the SWRRIP will be permitted under the Victorian planning scheme, to help facilitate the development of resource recovery industry, including waste-to-energy and organics recovery.
- Bolster protections for strategic land identified in the SWRRIP to be used for future resource recovery facilities.
- Consider whether the strategic locations in the SWRRIP are suitable for waste-to-energy or organics recovery, or if further strategic sites need to be identified and protected if these avenues of resource recovery are to be prioritised.
- Ensure those strategic locations are identified in relevant documents, in order to be given sufficient weight in planning decisions including appeals to VCAT.

<sup>15</sup> See Metropolitan Waste and Resource Recovery Group website, <https://mwrrg.vic.gov.au/planning/local-buffer-support-program/>. Accessed on 30 September 2019.

<sup>16</sup> *Planning for buffers and separation distances: Consultation Report (2019)*, DELWP.

## 4.4 Occupational Health and Safety

Occupational health and safety legislation and regulations are a necessary consideration for employers in the recycling and resource recovery industry. A key obligation under the occupational health and safety regime is to provide a safe work place, and to assess and control any risks.

### Overview of how issues are governed in Victoria

Occupational health and safety issues are governed in Victoria by several instruments. The *Occupational Health and Safety Act 2004* (Vic) gives functions, powers and obligations to the Victorian WorkCover Authority (WorkSafe Victoria). It also creates duties on employers to eliminate or reduce risks to health and safety so far as is reasonably practicable. This includes risks to both employees and also non-employees. WorkSafe Victoria also has the power to give advice on compliance.

The *Occupational Health and Safety Regulations 2017* impose further obligations, including creating a duty for employers to identify, assess and control hazardous manual handling risk. If the risk cannot be eliminated, the employer must (so far as is reasonably practicable) reduce the risk, for example by using mechanical aids. Further, if any alterations are made to processes, employers must review and amend their control measures.

WorkSafe Victoria has a number of guidelines and tools available to workplaces for assessing risks and compliance, including information *specific* to waste and recycling<sup>17</sup> and also for the safety risks of using hook lifts to load, unload and tip containers or waste bins<sup>18</sup> because of the serious risks involved in operating them.

Changes to waste and resource recovery may increase risks to employees and employers. For example, if changes are made to the way waste is collected (e.g. through increased manual handling) or the type of waste or product that people are exposed to (e.g. rotting waste that may be dangerous to human health, or through by-products created during organics recycling or waste-to-energy processes).

### Possible role for the Victorian Government

- Consider any OHS obligations when implementing changes to the way waste is collected or reprocessed, and those applicable to new facilities. In particular, assess any risks in the working environment and ensure appropriate measures are implemented to control those risks.
- Work alongside WorkSafe Victoria to develop any necessary guidelines, and to implement best practice OHS measures from the outset (in particular if significant changes are made to waste collection methods).

## 4.5 Agriculture

The agriculture industry is a known end market for recycled products, such as compost created from organics sources such as garden, food and timber collections. The agriculture industry is also an emerging end market for materials such as digestate created during anaerobic digestion (a form of waste-to-energy which creates biogas, and digestate as a by-product) as a soil conditioner to provide nutrients for plant growth and to protect soils from erosion. This is an area where further supporting work is required in Victoria before we can be confident in its application to land.

Increasing the rates of recycling of organics would assist in supporting a viable end market for the recycled materials, for example by making the process more cost effective, and may also in turn facilitate better collections practice.

### Victorian Livestock Disease Control Act 1994

The SWRRIP recognised that the use of food organics from food manufacturing may be used as feedstock for livestock, however this use can create the risk of spreading disease and needs strict controls.

A number of legislative instruments, including the *Victorian Livestock Disease Control Act 1994* and the Environment Protection Act, create a number of requirements that need to be followed when using food organics in particular industries, such as those involving livestock.

### Possible role for the Victorian Government

- Implement or facilitate standards for use of compost or digestate as a product to ensure protection of consumers and to facilitate market certainty.
- Regularly review and update standards and guidelines to reflect best practice as technologies evolve.
- Consider a ban on sending organics to landfill to further facilitate the recycling of organics and the development of end markets.

<sup>17</sup> See <https://www.worksafe.vic.gov.au/waste-and-recycling>.

<sup>18</sup> See <https://www.worksafe.vic.gov.au/resources/using-hooklifts-bin-design-and-maintenance>.

## 4.6 Construction and engineering

There is a recognised opportunity and existing field of work being pursued in the use of recycled materials in building and construction. In order to facilitate the use of recycled materials in an efficient and safe way, relevant building and construction standards, specifications, rules and regulations need to be regularly reviewed to reflect best practice as technologies evolve. Government procurement of recycled materials for use in public works projects is also a recognised opportunity for developing the market for use of recycled materials. This may include use in government-managed assets such as roads, rails, water and parks. Although there are some existing policies which would encourage this use, there is an opportunity to create clearer policy direction, improved market settings, incentives or mandated requirements to encourage further uptake of this market for recycled material.

### Sustainable procurement in construction

Several rating systems for procurement in construction encourage the use of recycled materials, such as:

- The Green Building Council Australia's Green Star Certification includes certification of re-used or recycled content as 'eco-preferred content' in its Material Calculator Guide, and considers the use of recycled material in its Construction and Demolition Waste Reporting Criteria.<sup>19</sup>
- The Infrastructure Sustainability Council of Australia includes several considerations in its Infrastructure Sustainability Rating categories that encourage the use of recycled material, including sustainable procurement and resource efficiency.

The Victorian Government's Social Procurement Framework also specifies that environmentally sustainable outputs are part of its procurement objectives, and specifies that one outcome sought in this area is the use of recycled content in construction. It is only discussed briefly at a high level, and so further directives may be necessary to actually influence government procurement practices. For example, mandating a minimum amount of recycled content that must be used in procurement.

### Standards, specifications and requirements

There are a number of existing building and roads standards, specifications or requirements which contemplate and allow for the use of recycled materials in construction. These standards and specifications are used in a variety of sectors such as water and rail. For example, several codes or standards state that materials—including second hand or recycled materials—need to be 'fit for purpose' and suitable for their proposed use, such as the National Construction Code (NCC) and VBA Guide to Standards and Tolerances 2015.<sup>20</sup>

There are existing specifications, supported by VicRoads, in place for using recycled glass, concrete, brick and rubber from tyres in the base of local roads and footpaths. For example, VicRoads Technical Note 107 contains additional information on the use of recycled materials to replace the use of virgin materials, and references a further ten specifications in Victoria that permit the use of recycled content in roads.

There is also an existing body of work on the use of recycled materials in areas of construction including roads, for example:

- Australian Asphalt Pavement Association's Pilot Specification for Crumb Rubber Modified and Open Graded Asphalt surface layers, which is to be used as a guide for creating technical specifications to use aggregates in roads and pavements.<sup>21</sup>
- Austroads (the peak organisation of Australasian road transport and traffic agencies) has recently released a guide to encourage the wider use of marginal quarry materials in fit for purpose sealed pavements.<sup>22</sup>
- Sustainability Victoria released a report titled: 'Recycled products in pavement construction: A business case for councils to use in local recycled products in pavement construction.'<sup>23</sup>
- Cement Concrete & Aggregates Australia (CCAA) 'Briefing 19, Sustainable Use of Aggregates' explores the use of recycled materials or aggregates in construction, which will necessarily involve a consideration of the material's

<sup>19</sup> See [https://www.gbca.org.au/uploads/239/2287/Material%20Calculator%20Guide\\_280709.pdf?\\_ga=2.259005135.497810904.1567638972-826336944.1567638972](https://www.gbca.org.au/uploads/239/2287/Material%20Calculator%20Guide_280709.pdf?_ga=2.259005135.497810904.1567638972-826336944.1567638972) and [https://www.gbca.org.au/uploads/237/34797/C-D\\_Waste\\_Reporting%20Criteria\\_FINAL\\_210613.pdf?\\_ga=2.225450719.497810904.1567638972-826336944.1567638972](https://www.gbca.org.au/uploads/237/34797/C-D_Waste_Reporting%20Criteria_FINAL_210613.pdf?_ga=2.225450719.497810904.1567638972-826336944.1567638972).

<sup>20</sup> See National Construction Code (NCC) and VBA Guide to Standards and Tolerances 2015, available at <https://www.vba.vic.gov.au/news/news/2015/guide-to-standards-and-tolerances-2015>. Accessed on 30 September 2019.

<sup>21</sup> See CRM OGA & GGA Pilot Specification, available at <https://www.aapa.asn.au/aapa-national-model-specifications/>. Accessed on 30 September 2019.

<sup>22</sup> See their report, 'Appropriate Use of Marginal and Non-standard Materials in Road Construction and Maintenance'.

<sup>23</sup> Sustainability Victoria, September 2015.



properties, availability, performance, the whole-of-life sustainability of the product and whether it is economically viable to use.<sup>24</sup>

To encourage greater uptake of recycled material, specifications should be reviewed and updated to permit greater levels of recycled content where fit for purpose.

#### Possible role for the Victorian Government

- Regular review and update of standards, specifications and guidelines to reflect best practice as technologies evolve, in particular to provide clarity about when use of recycled materials is in fact sustainable (for example ensuring products are fit for purpose when considering the durability or performance of the structure or road).
- Expand existing research and development work to test the performance of materials in labs and field trials.
- If identified, remove unnecessary barriers these guidelines and standards create.

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<sup>24</sup> Cement Concrete & Aggregates Australia (2013), 'Briefing 19, Sustainable Use of Aggregates', page 1, available at [https://www.ccaa.com.au/imis\\_prod/documents/Library%20Documents/CAA%20Technical%20Publications/CAA%20Briefings/Briefing19%20Sustainable%20Use%20of%20aggregates.pdf](https://www.ccaa.com.au/imis_prod/documents/Library%20Documents/CAA%20Technical%20Publications/CAA%20Briefings/Briefing19%20Sustainable%20Use%20of%20aggregates.pdf). Accessed on 30 September 2019.

# 5. Annexure

## 5.1 Overview of legislative and regulatory settings that may impact initiatives

The following is an overview of the possible legislative and regulatory settings that may be applicable to different interventions or actions in waste and resource recovery. Not all legislative and regulatory settings have been considered in detail in this report, in particular where it was not considered to be a significant barrier or enabler.

Stage in waste cycle	Initiative	Legislative and regulatory settings it interacts with
<b>All stages</b>	<b>Education</b>	<ul style="list-style-type: none"> <li>Ensuring compliance with advertising standards, rules regarding misleading or deceptive conduct</li> </ul>
<b>Generation</b> What is waste, waste creation and waste avoidance?	<b>What is waste?</b> Definition of 'waste'	<ul style="list-style-type: none"> <li>Defined differently depending on the context</li> <li>EP Act definition (which may be changed in upcoming amendments, and may impact end markets, depending on what the difference is between waste and a waste product)</li> <li>SWRRIP definition (categorising between putrescible, inert, recyclables, hazardous waste)</li> <li>Hazardous waste classified by Australian Dangerous Good Code (AGDC) – includes flammable, toxic and infectious substances etc (with possible implications for waste-to-energy and organics depending on threshold)</li> </ul>
	<b>Avoiding waste creation</b> Changes to product design, production, manufacturing Taxes on type and level of packaging/residual material	<ul style="list-style-type: none"> <li>Food standards:               <ul style="list-style-type: none"> <li>Type of packaging permitted to be used on food</li> <li>Issues with containing recycled content, or recycling the content itself (reusing bottles)</li> <li>'Best before' date regulations</li> </ul> </li> <li>OHS implications in persons involved in transporting reusable products (e.g. reusable crates instead of disposable cardboard)</li> <li>Possible implications if harming businesses (losing customers to convenience, cost of lost produce due to changes to packaging)</li> <li>Packaging rules: Australian Government involvement</li> <li>Taxation on types of waste/pollution created at Victorian Government or Australian Government level</li> </ul>
	<b>Regulating type of waste created</b> Regulating 'problem' materials (such as problematic plastics that are hard to recycle) Bans on distribution of certain products (e.g. single use plastics)	<ul style="list-style-type: none"> <li>Product bans currently used in Victoria:               <ul style="list-style-type: none"> <li>E-waste ban via the Waste Management Policy, which is gazetted</li> <li>Method of ban to change with amendments to <i>EP Act 2017</i></li> <li>Plastic Bag Ban via the <i>EP Act 1970</i></li> </ul> </li> <li>Further bans would need legislative enactment similar to the plastic bag ban</li> </ul>

<p><b>Collection</b></p> <p>How does waste travel after it is created?</p>	<p><b>Mechanisms for pricing individual waste disposal</b></p> <p>Pay as you throw/pay per collection services</p> <p>Coordination</p>	<ul style="list-style-type: none"> <li>• Privacy implications in tracking waste (if tracking the time people put waste out, the type of waste, the amount etc, when does this amount to personal or sensitive information?)</li> </ul>
	<p><b>Alternative methods of physical collection</b></p>	<ul style="list-style-type: none"> <li>• OHS: Health and safety risks involved in different types of collection methods including more manual handling</li> </ul>
	<p><b>Responsibility for waste creation</b></p> <p>Extended producer responsibility (EPR)/product stewardship</p>	<ul style="list-style-type: none"> <li>• EPR compliance: Competition laws and requirements</li> <li>• Reporting of sales, imports, waste collected and recycled by private companies – issues with disclosure and competition</li> </ul>
	<p><b>Container Deposit Scheme (CDS)</b></p>	<ul style="list-style-type: none"> <li>• Planning – where to locate deposit points</li> </ul>
<p><b>Sorting aggregation</b></p>	<p><b>Source separation</b></p> <p>Increasing source separation, which can lead to increased manual handling during kerbside collection</p>	<ul style="list-style-type: none"> <li>• OHS: Kerbside collection risks (manual handling of multiple things); risks involved in exposure to organic waste</li> </ul>
	<p><b>Council procurement of waste management services</b></p> <p>May include municipal targets and levies to incentivise action at local level</p>	<ul style="list-style-type: none"> <li>• <i>Constitution</i> – State’s ability to compel councils’ compliance via legislation</li> <li>• <i>Local Government Act</i> – Councils’ approach to decision-making and the ‘Best Value Principles’ assessment</li> </ul>
<p><b>Processing and recycling</b></p> <p>What happens to the waste?</p>	<p><b>Targets/timelines for councils and collections</b></p>	<ul style="list-style-type: none"> <li>• Methods of implementing – <i>Constitution</i> and State’s ability to compel councils’ compliance</li> </ul>
	<p><b>Responsibility for waste management entities</b></p> <p>Compulsory waste risk insurance</p>	
	<p><b>Organics</b></p> <p>Food waste systems; infrastructure</p>	<ul style="list-style-type: none"> <li>• OHS: Collection, sorting, processing, handling of organics as a separate stream by individuals</li> <li>• Planning: where to locate, buffer zones, planning for surrounding roads</li> <li>• Environment: land and water contamination from leachate, creation of emissions and other bi-products, noise created from equipment and vehicles</li> </ul>
	<p><b>Waste-to-energy</b></p> <p>Regulatory standards to ensure its place in waste hierarchy</p>	<ul style="list-style-type: none"> <li>• OHS: Collection/handling of feedstock</li> <li>• Planning: where to locate, buffer zones, planning for surrounding roads</li> <li>• Environment: Emissions created, noise created (EPA guideline – Noise for Industry in Regional Victoria)</li> <li>• Grid connection requirements</li> </ul>
	<p><b>Government support and investment in innovation and research</b></p>	
	<p><b>Government support for infrastructure development</b></p>	

	Government ownership/co-funding/grant schemes	
<b>Reuse and disposal</b>	<b>Government procurement of recycled materials</b>	<ul style="list-style-type: none"> <li>• There are existing non-mandatory guidelines around procurement of recycled material</li> </ul>

# About us

Infrastructure Victoria is an independent advisory body, which began operating on 1 October 2015 under the *Infrastructure Victoria Act 2015*.

Infrastructure Victoria has three main functions:

- preparing a 30-year infrastructure strategy for Victoria, which is refreshed every three to five years
- providing written advice to government on specific infrastructure matters
- publishing original research on infrastructure-related issues.

Infrastructure Victoria also supports the development of sectoral infrastructure plans by government departments and agencies.

The aim of Infrastructure Victoria is to take a long-term, evidence-based view of infrastructure planning and raise the level of community debate about infrastructure provision.

Infrastructure Victoria does not directly oversee or fund infrastructure projects.



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