

# Managing e-waste in Victoria

## Response to comments

### Purpose of this document

This document has been developed by the Department of Environment, Land, Water and Planning and the Environment Protection Authority. It summarises the issues, concerns and comments raised during the Victorian Government's recent consultation on the proposed approach to managing e-waste (electronic or electrical waste) in Victoria.

It also provides the Victorian Government's response to each issue and explains how the feedback has informed the final regulatory measures.

### Context

In December 2014, the Victorian Government committed to banning e-waste from landfill. In October 2017 the government proposed how it would implement the ban, published an assessment of the possible impacts on Victorians, and invited feedback.

The proposed approach includes both regulatory and non-regulatory measures aimed at keeping e-waste out of landfill.

The regulatory measures are instruments made under the *Environment Protection Act 1970* (EP Act):

- A new waste management policy (WMP), which specifies how e-waste is to be managed safely (WMP (E-waste)).
- Modifications to the existing *WMP (Siting, Design and Management of Landfills)*, which includes e-waste as a waste banned from landfill (WMP (Landfills)).

The non-regulatory measures include upgrades to Victoria's existing e-waste collection network and an education and awareness campaign.

### Regulatory process

Under section 18A of the EP Act, a new WMP or amendments to a WMP must be made publicly available, along with a policy impact assessment (PIA), for 90 days before it can be finalised.

All submissions must be considered and responded to.

The proposed policy package, including the draft WMP (E-waste) and amendments to the WMP (Landfills) were available for comment on [Engage Victoria](#) between 4 October 2017 and 25 January 2018.

### Consultation process

We provided a range of opportunities for anyone likely to be impacted by the new changes to learn about and discuss the proposed approach. Activities included in-person meetings, phone calls, site visits, workshops and information sessions.

### Submissions received

We received 58 written submissions. Most submissions received were from local councils, with others from a range of industry representatives, community groups and community members.

Submissions were also provided through Engage Victoria, at meetings, consultation forums, and email.

Most submissions were supportive of an e-waste ban. The breadth of the feedback received reflects the complexity of keeping e-waste out of landfill.

Those who made written submissions are listed in Appendix 1 and all non-confidential submissions are available to view at <https://engage.vic.gov.au/waste/e-waste>

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## Summary of changes

Feedback received during consultation has been very useful and has helped shape the final WMPs.

The most significant changes to the WMPs are:

- the commencement date in the WMP (E-waste), which is now 1 July 2019
- the description of prohibited e-waste in the WMP (Landfill), which now makes exception for negligible amounts of e-waste dispersed through other types of waste not otherwise prohibited from disposal to landfill, to remove unreasonable liability on a landfill operator.

Other changes to the WMPs have:

- improved clarity and removed ambiguity of language that could be misinterpreted or difficult to enforce
- corrected grammatical errors
- removed repetitiveness of some definitions and statements.

## Abbreviations and acronyms

AS/NZS 5377:2013	<i>Australian/New Zealand Standard 5377:2013 Collection, storage, transport and treatment of end-of-life electrical and electronic equipment</i>
BEPM	<i>Best practice environmental management (Siting, design, operation and rehabilitation of landfills)</i> , EPA publication 788.3
DELWP	Department of Environment, Land, Water and Planning
Duty-holder	Anyone who has a duty or obligation under the WMPs
EPA	Environment Protection Authority
EP Act	<i>Environment Protection Act 1970</i>
E-waste	electronic or electrical waste
MFA	material flow analysis
NTCRS	National Television and Computer Recycling Scheme
PIA	policy impact assessment
Product Stewardship Act	<i>Product Stewardship Act 2011</i>
SV	Sustainability Victoria
WMP	waste management policy
WMP (Landfill)	<i>Waste Management Policy (Siting, Design and Management of Landfills) No. S264</i>

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## Feedback on the proposed policy package

Table 1 lists the comments that were specifically about the draft regulatory instruments. Table 2 summarises the broader issues raised about the proposed policy package. Responses to all issues are provided.

**Table 1: Feedback on the regulatory instruments**

Issue	Comments	Response
<b>WMP (E-WASTE)</b>		
<b>General</b>	One submission suggested that the clause that requires a person to take all reasonable steps to prevent e-waste disposal to landfill should underpin the entire e-waste strategy because it is unreasonable to expect a landfill operator to prevent all e-waste from being disposed to landfill.	<p>It would be unreasonable to expect a landfill operator to prevent every single item of e-waste from being disposed to landfill. The e-waste that is now prohibited through the WMP (Landfill) (Waste Management Policy (Siting, Design and Management of Landfills) No. S264) has been updated to ensure a landfill operator will not be considered non-compliant should negligible amounts of e-waste enter a landfill cell amongst other waste.</p> <p>Together with the WMP (Landfills), the WMP (E-waste) aims to share the responsibility for the fate of e-waste. Landfill diversion is important, but recovering resources from e-waste and minimising risks of harmful components are equally important goals of the strategy.</p> <p>In response to this comment this clause was removed from the WMP (E-waste), because e-waste is prohibited through the WMP (Landfills), and the provision should be in only one place. The WMP (E-waste) focuses on ensuring a person maximises recovery of e-waste, which will divert e-waste from landfill.</p>
	One submission suggested that the WMP (E-waste) specify types of e-waste that <i>are</i> permitted to be disposed to landfill, rather than ban e-waste via the WMP (Landfill).	To ensure all waste types prohibited to landfill are consolidated in one place, e-waste remains under clause 19(6) in the WMP (Landfill).

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Issue	Comments	Response
<b>Definitions</b>	One submission suggested that 'e-waste' be capitalised in both the WMP (E-waste) and WMP (Landfills).	The capitalised 'E' in e-waste references in the WMPs indicates the beginning of a sentence. In all other references, e-waste is not capitalised. No change has been made.
	One submission pointed out that the proposed definition of e-waste in the draft WMP (E-waste) is different to the proposed corresponding definition in the WMP (Landfills)	The definition of e-waste in the WMP (Landfills) has been updated to exactly reflect the definition in the WMP (E-waste).
	<p>One submission suggested that 'residual waste':</p> <ul style="list-style-type: none"> <li>• be excluded from the definition of 'e-waste', because residual waste is defined as "the products of reprocessing e-waste, which are intended for disposal".</li> <li>• be further defined so that it is clear whose intention it is to dispose it.</li> <li>• be further defined so that it is clear how and when a material becomes residual waste.</li> </ul>	The definition of 'residual waste' has been updated to '...materials resulting from reprocessing which are suitable only for disposal, with or without treatment'.
	<p>One submission requested further information about how an e-waste service provider was defined, and was concerned that it applied to smaller council services, such as community and library collection hubs, or high-rise building managers.</p> <p>Another submission requested that the definition of 'e-waste service provider' exclude 'non-e-waste recyclers'.</p>	<p>The WMP (E-waste) aims to capture anyone managing e-waste, intentionally or otherwise, so that the risks of e-waste are minimised in any situation. This includes smaller council services and high-rise building managers.</p> <p>The definition of 'e-waste service provider' in the WMP (E-waste) remains the same.</p> <p>The Environment Protection Authority (EPA) will produce guidance to support compliance, which will include examples of what an e-waste service provider is. EPA will release this guidance in late 2018.</p>
<b>Specified e-waste</b>	One submission was concerned that all requirements apply to all types of e-waste.	There is one requirement that only applies to 'specified' e-waste, now named 'specified electronic waste' to align with the <i>Environment Protection (Scheduled Premises) Regulations 2017</i> .

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Issue	Comments	Response
	<p>Submissions suggested that only specified e-waste should be kept separate from other types of waste.</p> <p>Many suggested that all other e-waste types should be allowed to be mixed with other waste, should not need to be stored undercover, and should be allowed to be compacted.</p>	<p>One objective of the WMP (E-waste) is to minimise the risk of harm of e-waste to the environment and human health.</p> <p>As such, the EPA will expect that risks of any e-waste storage have been assessed based on the types and volumes of e-waste being managed, and adequately mitigated. After assessing the risks, a duty-holder may determine it is safe to mix different types of e-waste, or store them outside, or safely compact them.</p> <p>The EPA will produce guidance to support compliance. The guidance will help a duty-holder to understand the risks of the e-waste they manage and how to mitigate those risks. EPA will release this guidance in late 2018.</p>
<b>Application</b>	<p>One submission suggested that any person involved in the 'resale' of e-waste be captured by the WMP (E-waste).</p>	<p>The intention of the new WMP (E-waste) is to address the risks of e-waste. As electrical equipment nears end of life, the greatest risks are associated with dismantling, breaking, crushing, compacting, and other processes that alter the state of the e-waste.</p> <p>Processes that enable electrical equipment to be re-used, repaired or sold on are not destructive, nor are they likely to result in pollution from dust, run-off, ground contamination or fire, and therefore are omitted from the WMP (E-waste).</p> <p>However, if at any point a person adopts processes that physically alter the state of electrical goods at their end of life, they will be required to comply with the WMP (E-waste).</p>
<b>Storage</b>	<p>One submission suggests that the clause that requires an e-waste service provider to only store e-waste for the purposes of transfer, reuse, recycling or reprocessing, is 'ambiguous'.</p>	<p>The purpose of this clause is to prevent e-waste service providers storing e-waste indefinitely, perhaps with the intention of abandoning it.</p> <p>The EPA will produce guidance to support compliance which will include examples of how to comply with this requirement. EPA will release this guidance in late 2018.</p>

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<b>Material recovery</b>	<p>One submission requested further clarity about the material recovery rate calculation, and recommended that:</p> <ul style="list-style-type: none"> <li>the definitions of 'output materials' and 'reprocessing' be amended to include waste to energy, offshore processing and parts harvesting</li> <li>the definition of 'residual waste' be amended to state whether thermal disposition or incineration can be included as a disposal method.</li> </ul>	<p>Waste to energy, offshore processing and parts harvesting change the physical structure or properties of e-waste, so they meet the existing definition of 'reprocessing'. This definition has not been changed.</p> <p>The definition of residual waste has been modified to recognise the role of 'treatment' before disposal. This will allow for additional treatment of residual waste where necessary.</p> <p>EPA will expect that e-waste is reprocessed in line with the WMP (E-waste), Table 1 of the AS/NZS 5377:2013, and other relevant legislation and policy.</p>
	<p>One submission asked about the material recovery rate of e-waste by metal recyclers.</p>	<p>This will vary depending on the types of e-waste received at a metal recycling site. Rough estimates based on a mix of different types of e-waste suggest approximately 70 per cent recovery.</p>
	<p>One submission suggested that material recovery rates and targets should be set to ensure maximum resource recovery rates</p>	<p>Under clause 6(4)(e), minimum material recovery standards are required. For e-waste types captured through accredited product stewardship schemes, the WMP (E-waste) requires material recovery rates in line with <i>the Product Stewardship Act 2011</i> (Product Stewardship Act). For other types of e-waste, a minimum level of processing is required, in line with those outlined in AS/NZS 5377:2013.</p> <p>Targets have not been set at this point, however this may be considered at a later date.</p>

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<p><b>Use of AS/NZS 5377:2013</b></p>	<p>One submission suggested that the WMP (E-waste) should more explicitly reference, and require accreditation to, AS/NZS 5377:2013 to ensure e-waste service providers comply with the clauses that apply to them.</p> <p>The submission recommended that the WMP (E-waste) requirements be extended to risk assessment, emergency response, training, storage facilities and re-use, for which there are designated sections in AS/NZS 5377:2013.</p> <p>This would ensure a more level playing field for the sector.</p>	<p>The WMP (E-waste) does not require e-waste service providers to adopt, or be accredited to AS/NZS 5377:2013, as there are other ways to comply.</p> <p>However, anyone who does adopt or gain appropriate accreditation to the standard would be deemed compliant with the WMP.</p> <p>The WMP (E-waste) also states that duty holders will be taken to be compliant with the WMP (E-waste) if they comply with sections:</p> <ul style="list-style-type: none"> <li>• 1.6 Organizational Requirements,</li> <li>• 2 Requirements for Collection and Storage Facilities,</li> <li>• 3 Recovery for Re-use from End-of-Life Electrical and Electronic Equipment,</li> <li>• 4 Requirements for Transportation, and</li> <li>• 5 Requirements for the Treatment of End-of-Life Electrical and Electronic Equipment of AS/NZS5377:2013.</li> </ul>
	<p>One submission objected to the use of AS/NZS 5377 2013, suggesting that it constitutes an abdication of the legislative role of the government.</p>	<p>AS/NZS 5377: 2013 is a standard that has been adopted and is well understood by the e-waste recycling sector. This standard was chosen as one acceptable way of complying with the WMP (E-waste).</p> <p>Note that those with obligations under the WMP (E-waste) may comply through methods alternative to the standard.</p>
	<p>One submission suggested that data reporting should be underpinned by requirements of AS/NZS 5377:2013, which are monitored and enforced by the Australian Government as part of the National Television and Computer Recycling Scheme (NTCRS).</p>	<p>The WMP (E-waste) requires certain data to be recorded and maintained for inspection by EPA. The WMP (E-waste) does not require a duty-holder to report this data.</p> <p>Metrics are modelled on those required by Victoria's <i>Environment Protection (Industrial Waste Resource) Regulations 2009</i> or the NTCRS, and specified in AS/NZS 5377:2013.</p>

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<b>Additional requirements</b>	<p>Various submissions suggested that the WMP (E-waste) be updated to require:</p> <ul style="list-style-type: none"> <li>- gases in refrigerated items to be managed in accordance with current legislation and standards</li> <li>- safe handling and management of associated health and safety issues</li> <li>- staff training and education on these topics.</li> </ul>	<p>The WMP (E-waste) includes all new requirements relating to the management of e-waste in Victoria. It does not repeat or overlap with other legislative instruments that already exist.</p> <p>The EPA will produce guidance to support compliance, which will remind duty-holders of their other, related legal obligations. EPA will release this guidance in late 2018.</p>
<b>Record-keeping</b>	<p>One submission asked if there would be a requirement for transfer stations to sort and report on e-waste received.</p> <p>One submission requested clarity about whether landfills are required to sort and record e-waste received - either whole or parts of items.</p>	<p>The WMP (E-waste) does not include requirements for e-waste service providers to sort or report on e-waste received.</p> <p>However, sorting is good practice and can be an appropriate method of minimising risks from e-waste, and reducing the costs of recycling or transporting e-waste.</p> <p>Landfill operators are not required to sort and record negligible amounts of e-waste received in mixed loads, as implied by the description of e-waste prohibited from disposal to landfill.</p> <p>However, any information that will help to prevent consistent and large loads of e-waste being disposed to landfill will be useful to EPA.</p> <p>Section 7.4 in EPA's <i>Best Practice Environmental Management (Siting, design, operation and rehabilitation of landfills)</i> (BPEM (Landfills)) addresses how a landfill operator should manage the receipt of prohibited wastes.</p>
	<p>One submission requested further clarity on why duty-holders need to record information only about loads greater than 3m<sup>3</sup>, and notes that multiple smaller loads may cumulatively surpass 3m<sup>3</sup>.</p>	<p>This volume was originally used in the WMP (E-waste) because many waste service providers use this volume to differentiate between commercial or bulk volumes, and residential volumes.</p> <p>However, we have now updated the WMP (E-waste) to require e-waste service providers who transport, or organise the transport of, any load of specified electronic waste to record certain information. Records of e-waste accepted are no longer required.</p> <p>Those who reprocess e-waste are also required to record material recovery information.</p>



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Issue	Comments	Response
	One submission requested further information on how to record data on loads of mixed e-waste that include both 'specified e-waste' and other types of e-waste.	The EPA will produce guidance to support compliance, which will include guidance on recording data. It may be useful to treat a mixed load as a load of specified e-waste for the purposes of recording. EPA will release this guidance in late 2018.
	One submission suggested that responsibility for reporting e-waste data be clarified, particularly if there are various collectors within the chain.	<p>The WMP (E-waste) requires e-waste service providers to record and maintain certain data for inspection by EPA. It does not include a requirement to report this data.</p> <p>The responsibility for recording data is triggered when a load of specified e-waste is transported by an e-waste service provider or accepted by an e-waste reprocessor, or to demonstrate material recovery of e-waste.</p>
	One submission contends recording requirements will not necessarily provide useful data to drive investment in the recycling industry	Recording the data specified in the WMP (E-waste) and making it available to EPA will help the government better understand the flow of e-waste throughout Victoria and beyond. This will be useful to inform future investment and intervention opportunities.
<b>Exemption process</b>	One submission asked that any exemption process to enable e-waste to be landfilled should be developed in consultation with reprocessors.	<p>EPA's existing approval processes will be used to enable e-waste to be disposed to landfill. EPA will discuss the circumstances that caused a need to landfill e-waste and determine an appropriate approval process.</p> <p>Relevant existing approval processes include provisions of section 30A of the EP Act, which allow, in specified circumstances, disposal of waste that would otherwise not be permitted, or regulation 11 of the <i>Environment Protection (Industrial Waste Resource) Regulations 2009</i>.</p>
<b>WMP (Landfills)</b>		
<b>General</b>	While there were no questions about when the new WMP (E-waste) would take effect, some submissions asked when the amendments to the WMP (Landfills) will commence, given the WMP (Landfills) is an existing instrument that is available on EPA's website.	<p>The amendments to the WMP (Landfills) will take effect on 1 July 2019, at the same time as the new WMP (E-waste).</p> <p>Both the WMP (E-waste) and the amendments to the WMP (Landfills) will be available on EPA's website at <a href="http://www.epa.vic.gov.au">www.epa.vic.gov.au</a> and DELWP's website at <a href="https://www.environment.vic.gov.au/sustainability/e-waste-in-victoria">https://www.environment.vic.gov.au/sustainability/e-waste-in-victoria</a>.</p>

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Issue	Comments	Response
<b>Definitions</b>	<p>One submission suggested that 'waste equipment' be defined to support the definition of e-waste.</p>	<p>The definition of 'e-waste' has been modified to align with that of the AS/NZS 5377:2013. It is now included under Definitions in the WMP (E-waste), and cross-referenced from the WMP (Landfills).</p> <p>The WMP (E-waste) also now clarifies that 'waste' has the same meaning as in the Act. A definition for 'waste equipment' has not been added.</p>
	<p>One submission contended that single use batteries should be included in the definition of e-waste.</p> <p>Another submission suggested the new requirements be clearer that the ban applies to stand-alone batteries irrespective of their chemistry.</p> <p>One submission stated that technology associated with the 'Internet of Things' should be included.</p>	<p>Examples of the various types of e-waste have not been provided in the new regulatory tools to avoid a perception that there is an exhaustive list. If an item fits the definition of e-waste, it is captured by the new requirements.</p> <p>All types of batteries and technology associated with the 'Internet of Things' are included in the ban.</p> <p>EPA will produce guidance to support compliance, which will provide more examples of the types of e-waste that are included in the ban.</p> <p>A statewide education campaign will also help the community to better understand the various types of e-waste.</p>
<b>Conflicts with other legal requirements</b>	<p>Some submissions stated that the WMP (Landfills) conflicts with the waste acceptance condition in landfill EPA licences.</p> <p>They also highlighted that it was not possible for a landfill operator to prevent all e-waste from being disposed to landfill.</p> <p>Given that compliance with a licence must be reported each year, landfill operators were concerned that their legal liability would be compromised and they may be unfairly penalised for e-waste inadvertently ending up in landfill.</p>	<p>The waste acceptance condition in licences state which waste types a landfill is permitted to accept. The WMP (Landfills) explicitly <i>prohibits</i> some waste types from landfill. These provisions are not in conflict.</p> <p>To protect landfill operators from being held to an unreasonable standard of compliance, the description of the prohibited e-waste makes exception for negligible amounts of e-waste dispersed in wastes not otherwise prohibited from disposal to landfill.</p>
<b>Enforcement</b>	<p>One submission suggested that the new requirements were not practical or enforceable.</p>	<p>EPA has helped to develop the new regulatory measures, and considers them to be practical and enforceable.</p> <p>EPA will produce guidance to support compliance and will release this in late 2018.</p>

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Issue	Comments	Response
	<p>Many stakeholders requested further clarity on what was expected from duty holders in the first twelve months of the ban. A transition period was proposed to allow duty-holders to adapt infrastructure and systems to new requirements.</p> <p>Some commenters expressed concern that EPA would penalise new duty holders for non-compliance in this period.</p>	<p>The Victorian Government has decided to make the regulatory measures in 2018, with a commencement date of 1 July 2019.</p> <p>This provides those with new obligations more clarity around compliance expectations. EPA will enforce the ban in line with its existing <i>Compliance and Enforcement Policy</i> from 1 July 2019.</p>
	<p>Many submissions expressed concern about councils being penalised by EPA for e-waste being disposed to landfills via kerbside collection bins.</p>	<p>EPA expects that, while small volumes of e-waste will continue to go to landfill through domestic bins, reasonable steps should be made to prevent substantial quantities of e-waste entering a landfill cell.</p> <p>There are several tools available to local council to encourage householders to meet their obligations under the new regulatory measures. These include education, local by-laws, bin audits and incentive programs. Each local council will determine what works best for its communities.</p> <p>To encourage householders to store and dispose of their e-waste in a manner that both minimises the risks of e-waste and minimises the amounts that end up in landfill, the Victorian Government is supporting local councils through two key programs:</p> <ul style="list-style-type: none"> <li>• An education campaign that will increase awareness and understanding of the social, economic and environmental benefits of reusing, repairing or recycling e-waste.</li> <li>• Development of a core e-waste collection network that will enable all Victorians, including those in regional areas, to access safe e-waste collection sites. It will mean that 98 per cent of Victorians in metropolitan areas will be within a 20-minute drive of an e-waste disposal point, and 98 per cent of Victorians in regional areas will be within a 30-minute drive of an e-waste disposal point. This is in addition to some 1400 existing collection points in Victoria available for various types of e-waste items.</li> </ul> <p>The EPA will produce guidance to support local councils to understand how they can comply with the new requirements. EPA will release this guidance in late 2018.</p>

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Issue	Comments	Response
	<p>Several submissions suggested that effective enforcement, including EPA audits, health checks and certification, will be necessary to support the WMPs and high-quality e-waste recovery.</p> <p>There were suggestions that the new regulatory tools do not address bad practices such as increases in illegal export, risk-averse recycling processes and inappropriate storage of e-waste.</p>	<p>Inspections, audits and meetings are part of EPA's business-as-usual approach to implementing its annual compliance strategy in line with its <i>Compliance and Enforcement Policy</i>. This will continue once the new e-waste requirements take effect.</p> <p>EPA will take a risk-based approach to monitoring how e-waste service providers are complying with the new regulatory requirements.</p>
	<p>Some submissions highlighted the need for further funding for EPA and/or local councils to appropriately enforce the new requirements.</p> <p>One submission proposed that the EPA and local councils collaboratively enforce the new requirements.</p>	<p>In 2016-17, the government allocated \$162 million towards reforming the EPA. This funding broadly covers initiatives to make EPA a better regulator.</p> <p>This funding includes the government's pilot Officers for the Protection of Local Environment program, which aims to support councils to tackle a range of local issues, including local business environmental performance, illegal dumping and unsafe stockpiling.</p> <p>In 2018-19, the government committed \$9.1 million over four years to continue the work of EPA's Illegal Dumping Strikeforce. Together, these programs will help to manage the impacts from illegally dumping e-waste.</p> <p>EPA and local government often collaborate to manage local issues, and will continue to do so.</p>
<p><b>Support to comply</b></p>	<p>One submission pointed out that a lot of e-waste is processed by metal recyclers and suggested that the government support metal recyclers to reach AS/NZS 5377:2013 'certification' and increase material recovery rates of e-waste that have a low commodity value.</p>	<p>The WMP (E-waste) does not require e-waste service providers to adopt, or be accredited or certified to AS/NZS 5377:2013. However, anyone who does adopt or gain appropriate accreditation to the standard would be deemed compliant with the WMP.</p> <p>Metal recyclers may use AS/NZS 5377:2013 to achieve compliance with the WMP (E-waste) or use other methods to minimise risks of the e-waste they manage.</p> <p>EPA will produce guidance to support compliance with the WMP (E-waste) and release this in late 2018.</p>

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Issue	Comments	Response
	<p>Some submissions expressed concern that social enterprises and not-for-profit organisations dealing with e-waste would not be aware of their new regulatory requirements.</p>	<p>The Victorian Government has actively sought to inform anyone likely to be affected by the changes. Meetings, phone calls, word of mouth, emails, website updates, consultation sessions across Victoria, and social media have all been used to communicate the proposed changes.</p> <p>The government will continue to use a variety of channels to communicate the changes to as many potential duty-holders as possible.</p>
	<p>There were many suggestions for how duty-holders could be supported to better understand and comply with the new regulatory requirements. These included:</p> <ul style="list-style-type: none"> <li>- A checklist or template to guide data collection and reporting processes, like the 'Detox your Home' kit.</li> <li>- Updates to EPA's BPEM (Landfills) to ensure it reflects what is expected of landfill operators when e-waste arrives at a landfill.</li> <li>- Guidance that is specific to different types of duty-holders, such as local councils and landfill operators.</li> <li>- Guidance on completing annual performance statements.</li> <li>- A training and auditing program for e-waste service providers and auditors.</li> <li>- Financial support for social enterprises and not-for-profit organisations dealing with e-waste, particularly as they help minimise costs for local councils.</li> </ul>	<p>EPA will produce guidance to support compliance with the new regulatory requirements. This will be released in late 2018. Some of these suggestions may be implemented through this guidance.</p> <p>Other suggestions will be very useful when government agencies consider where further support is needed. In particular, Sustainability Victoria's (SV's) Resource Recovery Infrastructure Fund supports businesses tackling the recovery of priority waste streams, including e-waste. More information can be found here: <a href="http://www.sustainability.vic.gov.au/">www.sustainability.vic.gov.au/</a></p>

The new WMP (E-waste) and the WMP (Landfills) with amendments will be available on EPA's website at [www.epa.vic.gov.au](http://www.epa.vic.gov.au) and DELWP's website at <https://www.environment.vic.gov.au/sustainability/e-waste-in-victoria>.

# Managing e-waste in Victoria

**Table 2: Summary of broader issues and responses**

Issue	Comments	Response
<p><b>The proposed approach</b></p>	<p>Almost all submissions supported the concept of reducing the amount of e-waste ending up in landfills. However, some comments suggested that banning e-waste from landfill should not be a high priority, and is not 'economically efficient'.</p> <p>Some submissions suggested other approaches should be taken:</p> <ul style="list-style-type: none"> <li>- focussing on minimising the generation of waste</li> <li>- encouraging reuse and repair of used electrical and electronic goods</li> <li>- salvaging parts that could be reused in the repair process</li> <li>- restricting the import of cheap electrical goods</li> </ul> <p>There were a range of comments suggesting that Victoria's approach to defining and managing e-waste should be consistent with that of other Australian states and territories, or other countries.</p>	<p>Victoria's approach has been developed after research and consideration of approaches taken by other states and countries. There is no 'one-size-fits all' solution.</p> <p>Victoria has aligned its approach with other Australian states and the national product stewardship arrangements. Victoria's approach aligns with South Australia's, which includes a landfill ban as the central regulatory intervention. When introducing its ban, the South Australian government provided funding for infrastructure and education. The only other state or territory in Australia that specifically addresses e-waste is the Australian Capital Territory, and this is also through a landfill ban.</p>

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Issue	Comments	Response
<p><b>Product stewardship</b></p>	<p>Many submissions favoured a national product stewardship approach to e-waste, and contended that the ban should align with and not undermine schemes that already exist, such as the NTCRS and Mobile Muster.</p> <p>One submission noted the opportunity in the Commonwealth's current review of the Product Stewardship Act to expand the scope of the NTCRS.</p> <p>One submission suggested that only items <u>not</u> covered by product stewardship schemes should be banned.</p>	<p>As acknowledged in the <a href="#">policy impact assessment (PIA)</a>, the principles of product stewardship are widely preferred as a means to address e-waste.</p> <p>In Australia, the Australian Government retains the power to regulate companies under the Product Stewardship Act: there are no provisions for state-specific requirements.</p> <p>To complement and build on the positive outcomes of Australia's product stewardship schemes, the Victorian Government has built in some specific elements to its ban:</p> <ul style="list-style-type: none"> <li>- The ban includes all types of e-waste already captured by national product stewardship schemes.</li> <li>- The new WMP (E-waste) requires e-waste service providers to use AS/NZS 5377:2013 (or equivalent) to streamline the obligations that interstate service providers are required to meet.</li> <li>- The new WMP (E-waste) requires a minimum recovery rate, in line with the Product Stewardship Act.</li> </ul> <p>Victoria will continue to advocate to expand existing product stewardship programs to place more responsibility for recycling end-of-life electrical goods on producers or importers. Victoria has contributed to the Commonwealth's recent review of the Product Stewardship Act and the NTCRS.</p>
	<p>Many submissions advocated for an approach that shared responsibility of the management of e-waste so that the onus did not rest with the landfill operator.</p>	<p>To share responsibility for e-waste, the new WMP (E-waste) applies to those involved in activities related to e-waste upstream of landfills.</p>
<p><b>Analysis of the proposed approach</b></p>	<p>Some submissions suggested that the analysis did not consider all possible interventions.</p>	<p>The policy impact assessment considered several relevant and practicable options. It explains why the preferred option was more suitable in all the circumstances.</p>

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	<p>Some submissions questioned whether the PIA adequately sought and considered certain information relating to:</p> <ul style="list-style-type: none"> <li>- what could be and what already is being achieved without a regulatory ban</li> <li>- collection and transport costs of e-waste (particularly items not captured by product stewardship)</li> <li>- impact of the NTCRS targets</li> </ul> <p>One submission asked about the make-up of the e-waste that ended up in landfill in 2014.</p>	<p>The estimates and projections of current and future e-waste generation and business-as-usual recycling / landfilling rates described in the PIA come from a material flow analysis (MFA), commissioned by SV in 2015.</p> <p>The MFA takes into account researched behaviours as well as the current regulatory and non-regulatory settings, including the targets set for the NTCRS, to estimate volumes and recovery rates.</p> <p>The PIA used the predicted volumes in the MFA and information obtained through surveys and interviews with those currently involved with e-waste, to estimate various costs and impacts, including for items not captured by national product stewardship schemes.</p> <p>As acknowledged in the PIA, it is difficult to know exactly what types and volumes of e-waste are disposed to landfill. We estimate that close to 47 kilotonnes of Victorian e-waste were likely sent to landfill, exported without a permit, dumped or reused in 2014. The largest proportions of this volume were kitchen and household appliances, audio and video equipment, and household tools.</p>
	<p>One submission challenged DELWP's analysis that e-waste recyclers would benefit from the landfill ban, considering in-scope items still incur a cost.</p>	<p>The Victorian Government's approach to managing e-waste does not compel e-waste recyclers to cover the cost of reprocessing e-waste.</p>
	<p>One submission suggested that volumes of e-waste generated in the coming years will decrease because electrical goods are getting smaller.</p>	<p>The MFA suggests that the volume of hazardous e-waste components entering Victorian landfills will decline, from the current levels of around 177 tonnes per annum to 124 tonnes by 2026. This is due to the forecast reduction in disposal of cathode ray tubes televisions, which can contain up to 3 kilograms of lead each.</p> <p>However continued growth in certain types of e-waste, notably an increase in large photovoltaic panels reaching the end of their useful life, will see volumes increase to an estimated 148 tonnes per annum by 2035.</p> <p>Decreases in volumes of e-waste could also be due to manufacturer trends, cost-saving incentives, market competition and corporate responsibility initiatives.</p>



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Issue	Comments	Response
<p><b>Perverse outcomes</b></p>	<p>Many submissions highlighted risks of banning e-waste. These include:</p> <ul style="list-style-type: none"> <li>- stockpiling to reduce transport costs</li> <li>- stockpiling items that reprocessors will not take due to lack of viable markets</li> <li>- fire from mismanagement of batteries</li> <li>- illegal dumping where convenient and readily accessible collection points are not provided</li> <li>- a rise in illegitimate reprocessors</li> <li>- increased transport of e-waste across state and national borders, both legal and illegal</li> </ul> <p>Some submissions highlighted the importance of contingency planning should there be market failures (e.g. allowing for safe stockpiling of low value materials and ban exemptions).</p>	<p>These and other risks were explored in the PIA. Section 5.4 of the PIA outlined the measures that manage these risks now, those that were proposed as part of the preferred policy package, and other planned risk mitigation work.</p> <p>The Victorian Government will monitor and evaluate how well the policy package is performing against its objectives at various stages once the ban takes effect.</p>
<p><b>E-waste collection - access</b></p>	<p>Many submissions stressed the importance of residents having convenient and ready access to collection points, particularly in regional and rural areas, to avoid illegal dumping and disposal in kerbside bins.</p> <p>One submission emphasised that, based on the proposed model in the PIA, 12 per cent of rural Victorians would be without reasonable access to collection points.</p> <p>There were some suggestions for how to improve access to collection points:</p> <ul style="list-style-type: none"> <li>- reduce travel distances to drop-off points</li> <li>- increasing the amount of alternative collection points, such as at electronic retailers</li> <li>- provide kerbside collection or on-demand pick-up services for those residents without transport options.</li> </ul> <p>One submission suggested it should be free to dispose of e-waste, while other submissions suggested that residents should pay to dispose of their e-waste.</p>	<p>The Victorian Government is investing \$15 million to upgrade existing e-waste collection infrastructure and create a core e-waste collection network that will enable all Victorians, including those in regional areas, to access safe e-waste collection sites. This is in addition to some 1400 existing collection points in Victoria available for various types of e-waste items.</p> <p>Once the core network is established, 98 per cent of Victorians in metropolitan areas will be within a 20-minute drive of an e-waste disposal point, and 98 per cent of Victorians in regional areas will be within a 30-minute drive of an e-waste disposal point. This will achieve a level of access far greater than that modelled in the PIA.</p> <p>As with the management of other waste types at local transfer stations, resource recovery centres and landfills, local councils may manage costs associated with e-waste through various mechanisms, such as user fees or council rates. Each council will decide what will work best for its communities.</p>

# Managing e-waste in Victoria

Issue	Comments	Response
<p><b>E-waste collection – infrastructure needs</b></p>	<p>Many suggestions commended the government-funded program to improve the e-waste collection network in Victoria.</p> <p>However, some submissions expressed concern that the funding provided was not adequate and that the network would not be ready by 1 July 2018.</p> <p>One submission flagged that material recovery facilities, which are sites that collect and sort recyclable paper, plastic and glass, do not currently have capability to sort and process e-waste.</p> <p>There were many suggestions for where investment to the existing and new e-waste collection sites should be focused. These include:</p> <ul style="list-style-type: none"> <li>- upgrades to all existing collection facilities - many submissions highlighted that most collection points don't yet comply with AS/NZS 5377:2013.</li> <li>- increased clearance rates at collection points</li> <li>- improved security of hard waste collections and collection points</li> <li>- consistent or standardised 'collection units' to more effectively handle and transport e-waste and batteries, optimise resource recovery and protect the integrity of items</li> <li>- infrastructure to ensure safe handling, forklift access, conveyors and sorting equipment</li> <li>- clear public signage</li> <li>- appropriate storage and transport units for batteries should be in place to mitigate the risk of fire.</li> </ul> <p>One submission referenced the community recycling centres in New South Wales, which have been established to comply with AS/NZS 5377:2013.</p> <p>Some submissions contended that the government-funded collection network should be harmonised with other collection systems around the state.</p>	<p>To allow time for those with new obligations to make the necessary changes to infrastructure and systems, the Victorian Government has decided to make the regulatory measures this year, with a commencement date of 1 July 2019.</p> <p>This will allow time to upgrade existing e-waste collection infrastructure to enable the receipt and safe management of rising volumes of e-waste and establish the best e-waste collection network in Australia.</p> <p>SV will work with each collection site to ensure the specific needs of each site are considered when funding the infrastructure upgrades.</p>
<p><b>Reprocessing capacity and capability</b></p>	<p>One comment suggested that licensing and permitting of new e-waste recovery infrastructure should be expedited to support growth in the industry.</p>	<p>EPA will assess approvals for new e-waste reprocessing facilities within the statutory timeframes. Applicants should have early conversations with EPA for advice on the assessment process.</p>

# Managing e-waste in Victoria

Issue	Comments	Response
	<p>One submission advocated for more research focused on problematic e-waste materials currently not being recycled, such as photovoltaic panels and related energy storage solutions.</p>	<p>The Victorian Government is leading national work on a product stewardship approach to manage photovoltaic systems. SV is gathering evidence to identify the most appropriate product stewardship model for this emerging waste stream.</p> <p>This work will be supported by a broader analysis of the state of the market for the six priority materials (including e-waste) listed in the Victorian Market Development Strategy.</p> <p>The Victorian Government has also invested \$40,000 from Sustainability Victoria's Resource Recovery Infrastructure Fund towards Australia's first lithium and hand-held battery facility in Gisborne.</p>
<p><b>E-waste education and awareness</b></p>	<p>Many submissions raised concern that Victorians lack a basic understanding of what e-waste is and how to manage it.</p> <p>Others anticipated that the proposed statewide e-waste education and awareness campaign will be inadequate.</p>	<p>To allow time for Victorians to learn about e-waste before the ban takes effect, the Victorian Government has decided to make the regulatory measures this year with a commencement date of 1 July 2019. The Victorian Government has invested \$1.5 million for SV to develop an education campaign, which will commence in July 2018.</p> <p>The campaign will explain what e-waste is, why it's important to recover its materials and also provide information on where e-waste can be taken.</p> <p>Various channels will be used, including social media, public relations and advertising. SV will also provide councils with a kit of media materials that can be used to help educate their local communities.</p>
	<p>Some submissions suggested that the education and awareness campaign should be aligned with existing e-waste campaigns.</p>	<p>In developing the e-waste education campaign, SV has learned from and coordinated with existing product-specific initiatives and campaigns so that existing resources can be shared where appropriate.</p> <p>SV is also working with e-waste reprocessors to help them share information about when they might provide collection services.</p>

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Issue	Comments	Response
	<p>Submissions listed a range of topics that the education campaign should cover. They include:</p> <ul style="list-style-type: none"> <li>- the potential hazards of inappropriate management of e-waste</li> <li>- the value of repair and reuse of e-waste items, and related guidance</li> <li>- myth-busting i.e. what happens to products once reprocessed</li> <li>- how to properly dispose of e-waste</li> </ul> <p>Some submissions suggested that the campaign should help the public feel comfortable by:</p> <ul style="list-style-type: none"> <li>- showing how their e-waste is being recycled</li> <li>- explaining how security is managed responsibly</li> <li>- providing practical, user-friendly guidance on how to safely and securely manage data and hardware</li> </ul>	<p>These topics and others will all be addressed through the state's e-waste education and awareness campaign.</p>
	<p>Many submissions expressed the importance of retailers playing a role in educating customers about e-waste management as well as providing drop-off and collection points.</p>	<p>In delivering the e-waste education campaign, SV will work with peak industry bodies representing the retail sector to ensure their members are aware of the new requirements and are equipped to educate their customers.</p>
	<p>Another submission suggested that all parties throughout a product's supply chain and life cycle should contribute funding to the education campaign.</p>	<p>Victoria's statewide education and awareness campaign will be funded by the Victorian Government, and designed in collaboration with local councils and industry bodies.</p>
	<p>One submission asked how government will monitor and change behaviour of households that dispose of e-waste in their general waste bin.</p>	<p>The Victorian Government will measure and evaluate the reach, engagement and impact of the e-waste education campaign using advertising data and consumer surveys. Results from the evaluation will inform how this and other relevant education programs can be modified or designed to influence behaviour change.</p> <p>Local councils may also use other tools to influence behaviour change.</p>
<p><b>Costs associated with ban</b></p>	<p>Many submissions voiced concern about the costs to various parties associated with the ban.</p> <p>Some submissions were concerned that residents would be faced with increased travel costs and time spent travelling to collection points, gate fees at collection points, and the added mental load, skill needed and time required to sort and dispose of e-waste.</p>	<p>As with other improvements to the way we manage our waste and increase resource recovery, the proposed new regulatory requirements are likely to increase waste management costs. This may have larger impacts in different locations, particularly regional areas.</p> <p>Our analysis of costs and benefits show that, while the proposed policy approach will have a net overall benefit for the Victorian economy, most of the costs of</p>

# Managing e-waste in Victoria

Issue	Comments	Response
	<p>Local councils were particularly concerned about costs associated with:</p> <ul style="list-style-type: none"> <li>- transport of e-waste from regional and rural areas to recycling facilities, particularly e-waste not captured under current product stewardship schemes</li> <li>- cleaning up illegally dumped e-waste</li> <li>- educating residents</li> <li>- collection infrastructure</li> <li>- administration of new waste strategies</li> <li>- enforcement</li> <li>- serving residents from neighbouring councils that do not or cannot provide an e-waste collection service.</li> </ul> <p>These costs are a particular concern for councils in light of the current state restrictions on rate increases, known as the Fair Go Rates system, and China's trade restrictions, which limit the import of low quality or unsorted waste and scrap products including plastics and paper/cardboard</p> <p>Several submissions stated that there was not enough time to budget for these costs.</p> <p>Other submissions stated that it was too difficult to budget for these costs because they had no way of predicting e-waste volumes generated in their area.</p> <p>Various submissions suggested that the Victorian Government help councils to minimise costs by:</p> <ul style="list-style-type: none"> <li>- staging the ban, with e-waste already captured under a product stewardship scheme being banned first</li> <li>- funding the transport of e-waste to recyclers, processing of low value e-waste, provision of regional e-waste collection events, additional drop-off points within inner Melbourne</li> <li>- compensating councils for additional costs associated with the ban for the first two years</li> <li>- supporting collaborative procurement of waste services between councils</li> </ul>	<p>implementing it are expected to fall on public sources, particularly local councils and their ratepayers. The costs were considered and described in the PIA.</p> <p>The government's non-regulatory measures, the \$1.5 million education campaign and the \$15 million infrastructure support package, are designed to support councils with the initial costs, but there are likely to be ongoing, operational costs.</p> <p>This is one reason the Victorian Government has decided to make the regulatory measures this year, with a commencement date of 1 July 2019. This will give those with new obligations time to budget for increased waste management costs.</p> <p>Other government initiatives that will help to alleviate costs of managing e-waste include:</p> <ul style="list-style-type: none"> <li>- Continued work with the Commonwealth Government to: <ul style="list-style-type: none"> <li>o advocate for expansion of existing product stewardship programs to place more responsibility for recycling end-of-life electrical goods on producers or importers</li> <li>o establish a national product stewardship scheme to manage photovoltaic systems.</li> </ul> </li> <li>- SV's market development program for recovered resources, which supports research and development in resource recovery, reduces existing market barriers, and promotes greater demand for those resources.</li> <li>- SV's <i>Guide to Better Practice at Resource Recovery Centres</i> helps councils and other operators of resource recovery centres or transfer stations to improve performance in a number of better practice areas, including financial sustainability.</li> </ul>

# Managing e-waste in Victoria

Issue	Comments	Response
	<p>Some submissions provided advice to collectors of e-waste to minimise costs, including:</p> <ul style="list-style-type: none"> <li>- segregating high metal materials to offset processing costs of low value items</li> <li>- maximising recovery of items captured by the NTCRS</li> <li>- safely compacting e-waste not captured by product stewardship programs</li> </ul> <p>One submission warned that additional compliance costs for electrical and electronics suppliers may result in some suppliers withdrawing from the Victorian or national markets.</p>	<p>The government supports this advice, and advocates for close collaboration between service providers in the e-waste supply chain to ensure e-waste can be managed in the most safe and efficient way.</p>
<p><b>Evaluation</b></p>	<p>One submission stated that the proposed evaluation strategy does not consider the costs of implementing the ban for local councils or Victoria.</p> <p>One submission asked that reporting on evaluation of the ban be publicly available.</p>	<p>The evaluation strategy in the PIA is a starting point. DELWP will further develop the evaluation strategy, and consider what other indicators, such as costs, should be monitored.</p> <p>We will use future evaluations to measure the effects of the policy package, with the aim of improving it over time. To do this effectively, we will need to liaise with those impacted by the policy package, such as local councils, and be transparent about the outcomes.</p> <p>The Commissioner for Better Regulation will monitor and report on the implementation of our evaluation strategy.</p>

## Appendix 1

Written submissions were provided by:

1. Individual 1 - 3162
2. Individual 2 - 3350
3. Individual 3 - 3029
4. Individual 4 - 3193
5. Individual 5 - 3182
6. Individual 6 - 3337
7. Individual 7 - 3337
8. Individual 8 - 3000
9. Individual 9 - 3910
10. Individual 10 - 3976
11. Individual 11 - 3450
12. Individual 12 - 3636
13. Individual 13 - 3030
14. Individual 14 - 3003
15. Individual 15 - 3824
16. Individual 16 - 3631
17. Individual 17 - 3805
18. Individual 18 - 3101
19. Individual 19 - 3072
20. Individual 20 - 3011
21. Individual 21 - 3028
22. Individual 22 – N/A
23. City of Melbourne
24. ReSouc
25. National Waste and Recycling Industry Council with Australian Landfill Owners Association
26. South Gippsland Shire Council
27. Mildura Rural City Council
28. Corangamite Shire
29. Wyndham City Council
30. Horsham Rural City Council
31. Australian Mobile Telecommunications Association with MobileMuster
32. WM Waste Management Services
33. Barwon South West Local Government Waste Management Forum
34. Australian Refrigeration Council
35. Golden Plains Shire
36. Gippsland Local Government Waste Forum
37. City of Boroondara
38. Mitchell Shire Council
39. Benalla Rural City Council
40. Hobsons Bay City Council
41. City of Casey
42. City of Whittlesea
43. SKM Recycling
44. Baw Baw Shire Council
45. Municipal Association of Victoria
46. ToxFree Australia
47. Waste Management Association of Australia
48. Australia and New Zealand Recycling Platform Limited
49. Mount Alexander City Council
50. Great Shepparton City Council
51. Shire of Campaspe
52. SUEZ
53. Ai Group
54. MRI E-cycle Solutions
55. Telstra
56. Cardinia Shire Council
57. Bayside Council
58. Whitehorse City Council