



Government of Western Australia  
Department of Water and Environmental Regulation

# E-waste to landfill ban in Western Australia

## Consultation summary report



August  
2023

## Department of Water and Environmental Regulation

Prime House, 8 Davidson Terrace  
Joondalup Western Australia 6027  
Locked Bag 10 Joondalup DC WA 6919

Phone: 08 6364 7000

Fax: 08 6364 7001

National Relay Service 13 36 77

[www.dwer.wa.gov.au](http://www.dwer.wa.gov.au)

© Government of Western Australia

This work is copyright. You may download, display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. Apart from any use as permitted under the *Copyright Act 1968*, all other rights are reserved. Requests and inquiries concerning reproduction and rights should be addressed to the Department of Water and Environmental Regulation.

### Disclaimer

This document has been published by the Department of Water and Environmental Regulation. Any representation, statement, opinion or advice expressed or implied in this publication is made in good faith and on the basis that the Department of Water and Environmental Regulation and its employees are not liable for any damage or loss whatsoever which may occur as a result of action taken or not taken, as the case may be in respect of any representation, statement, opinion or advice referred to herein. Professional advice should be obtained before applying the information contained in this document to particular circumstances.

This publication is available at our website [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au) or for those with special needs it can be made available in alternative formats such as audio, large print, or Braille on request to the Department.

### Acknowledgement

We acknowledge the Traditional Owners, the Whadjuk people of the Noongar Nation of the land upon which we live and work and pay our respects to their Elders past and present. We recognise the practice of intergenerational care for Country and its relevance to our work bringing it to life on Whadjuk Noongar Boodja\*. We seek to listen, learn and genuinely engage and build strong partnerships. We aim to provide sustainable opportunities for Aboriginal people within our workforce and through our business.

Country is a term used by Aboriginal people to describe the lands, waterways and seas to which they are intrinsically linked. The wellbeing, law, place, custom, language, spiritual belief, cultural practice, material sustenance, family and identity are all interwoven as one. Working with the community, we move forward with a shared commitment to protect and conserve Country for our future generations.

---

\* The Department of Water and Environmental Regulation's head office, Prime House, is located in Joondalup, on Whadjuk Noongar Boodja. The above Acknowledgement of Country was endorsed by the department's Aboriginal Water and Environmental Advisory Group.

# Contents

Executive Summary.....	1
1 Introduction.....	4
2 Ban approach and the preferred option .....	7
2.1 Legislation, regulations, and enforcement .....	8
3 Scope of the ban .....	10
3.1 Definitions and product details .....	10
3.2 Future phases and inclusions.....	10
3.3 Residual and out of scope waste .....	11
3.4 Suggestions for inclusions.....	12
3.5 Implementation and review timeline .....	13
4 Evaluation.....	14
4.1 Evaluation and review of the ban .....	14
5 National alignment.....	15
5.1 National alignment, harmonisation and product stewardship .....	15
6 Financial implications .....	16
6.1 Costs of participation .....	16
6.2 Geographic cost disparity .....	19
6.3 Financial incentives and support .....	20
6.4 Cost benefit analysis .....	22
7 Capacity, infrastructure and access in Western Australia.....	23
7.1 Market: drivers, development, and support.....	23
7.2 Infrastructure.....	24
7.3 Reasonable access .....	24
7.4 Reuse and repair .....	25
7.5 Waste to energy.....	26
8 Education and engagement.....	27
8.1 Community education .....	27
8.2 Industry education and better practice guidance .....	27
8.3 Engagement and consultation.....	28
9 Logistics and management.....	29
9.1 Response.....	29
10 Risks and hazards .....	30
10.1 Response.....	30
11 Extended producer responsibility.....	31
11.1 Response.....	31
12 Consultation and change process .....	33
12.1 Response.....	33
13 Other issues .....	34
Glossary .....	36

References .....	37
Appendices.....	38
Appendix A – Submission list .....	38
Appendix B – Out-of-scope comments.....	39

## Figures

Figure 1	Responses by month.....	4
Figure 2	Submissions by entity type.....	5
Figure 3	Submissions by location.....	5
Figure 4	Support for ban .....	7
Figure 5	Support for Option 2.....	7

## Tables

Table 1	Other issues raised in submissions .....	34
Table B1	Out of scope issue summary.....	39

## Executive Summary

The Department of Water and Environmental Regulation (the department) is working to deliver implementation of an e-waste to landfill ban in Western Australia by 2024.

In January 2023, the department published a consultation paper and invited the community and industry to voice their concerns and help shape the e-waste ban to ensure it is practical, workable and effective. Over a 10-week consultation period, 28 submissions were received from a range of stakeholders, including metropolitan and non-metropolitan local governments, regional councils, peak bodies, private industry, not-for-profit representatives and individuals.

### Issues and concerns

Submissions raised issues and concerns such as the:

- likelihood of disproportionate impacts to non-metropolitan locations
- financial and operational implications of a ban for local governments, regional councils and charities
- variability of the scope of materials included
- readiness of the state's e-waste management collection and processing systems.

These concerns are being carefully considered through ongoing planning for implementation. Further details on the scope of materials for inclusion in the ban will be provided during upcoming communications with industry and the community.

Grant funding will help offset the cost to increase the state's readiness to collect and process e-waste. Further engagement with industry and the regions will be undertaken prior to the commencement of the ban, including via an E-waste Technical Advisory Group that has recently formed and is providing operational and technical advice to the department.

### Implementation, review and evaluation

Submissions called for:

- an implementation plan and review timeline
- the provision of industry guidance materials
- clarity on items included in the initial and future scope
- clarity on how performance would be evaluated
- assurance of appropriate compliance and enforcement measures.

A communications campaign will provide guidance to industry, particularly to clarify which items are included and how to meet obligations in the implementation. An indicative implementation plan has been drafted. Reviews of the ban may align with future reviews of the *Waste Avoidance and Resource Recovery Strategy 2030* (waste strategy). An evaluation framework is in the planning phase, along with compliance and enforcement program consideration and design.

## **Broader waste management strategies**

Submissions mentioned the importance of holistic strategies for responsible e-waste management such as:

- increasing extended producer responsibility
- ensuring national alignment of waste policy and e-stewardship developments
- increasing focus on re-use and repair
- enabling market development.

The department acknowledges the importance of national alignment and is working with the Australian Government and other states on the current and future e-stewardship initiatives. Grants from round one included the provision of funding towards initiatives to reuse and repair e-products. The current review of the waste strategy also provides a mechanism to consider feedback about market development at a broader focus.

## **Obligations and encouragement**

Regulatory obligations in the preferred option focus on the collection and processing networks to ensure responsible management and diversion of e-waste from landfill.

Commercial entities and other sectors are to ensure significant amounts of e-waste generated are also managed responsibly under the preferred approach.

Households will be encouraged to participate in the ban by providing e-waste to existing and growing reuse, recycling and reprocessing pathways.

Recordkeeping and reporting of obligated parties, coupled with compliance and enforcement activities, will help measure, inform and monitor e-waste management.

## **Progress towards 2024**

Following the consultation and during assessment of the submissions:

- Outcomes from the Round 1 E-waste Infrastructure Grants program will see projects supported to increase the state's capability and capacity to collect and process the additional e-waste diverted from disposal to landfill. A second funding round is anticipated to open for applications early next year.
- An E-waste Technical Advisory Group has formed and convened in June 2023. This group is advising the department on technical and operational matters to consider in regulatory provisions and the implementation of the ban.

Planning of community education delivery is also underway:

- The department has started researching and designing messaging to influence community behaviours. This will align with existing messaging such as the GREAT Sorts campaign material, which already provides guidance on

correct disposal of e-waste (i.e. e-waste should never be put in any kerbside bin<sup>1</sup>).

- The department's focus is on providing immediate clarity on the ban. Long-term behaviour change activities are also anticipated.
- Input from key stakeholders will inform the materials and communications when required, to support collaboration, clarity and consistency for the community.

A decision regulatory impact statement is anticipated for release later this year. Further consultation is planned on key areas of the approach in the coming months.

### **Thank you**

We would like to thank all respondents for their submissions and input into the development and delivery of this important initiative in Western Australia.

---

<sup>1</sup> [www.wastesorted.wa.gov.au/be-a-great-sort/take](http://www.wastesorted.wa.gov.au/be-a-great-sort/take)

# 1 Introduction

This report presents the findings from public consultation on the *E-waste to landfill ban in Western Australia: Consultation paper* (Department of Water and Environmental Regulation, 2023). Consultation was open for 10 weeks from Monday 23 January 2023 to Friday 31 March 2023.

A total of 28 responses were received (Figure 1):

- Twenty-six were submissions received during the consultation period
- One submission was received one business day after the end of consultation period
- One submission was a letter from a Government of Western Australia (State Government) agency indicating it had no comments on the consultation paper.

A full list of submitters is available at Appendix A and a redacted copy of the full submissions are provided on consultation webpage<sup>2</sup>.

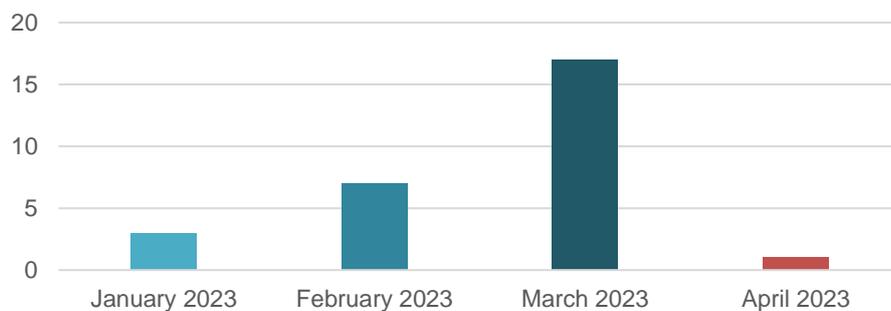


Figure 1 Responses by month

Of the 27 submissions with comments:

- four were from State Government agencies
- seven were from local government authorities
- two were from regional councils
- seven were from representative or peak bodies
- one was from private industry
- six were from individual members of the public
- one was categorised as 'other'.

---

<sup>2</sup> [consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/](https://consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/)

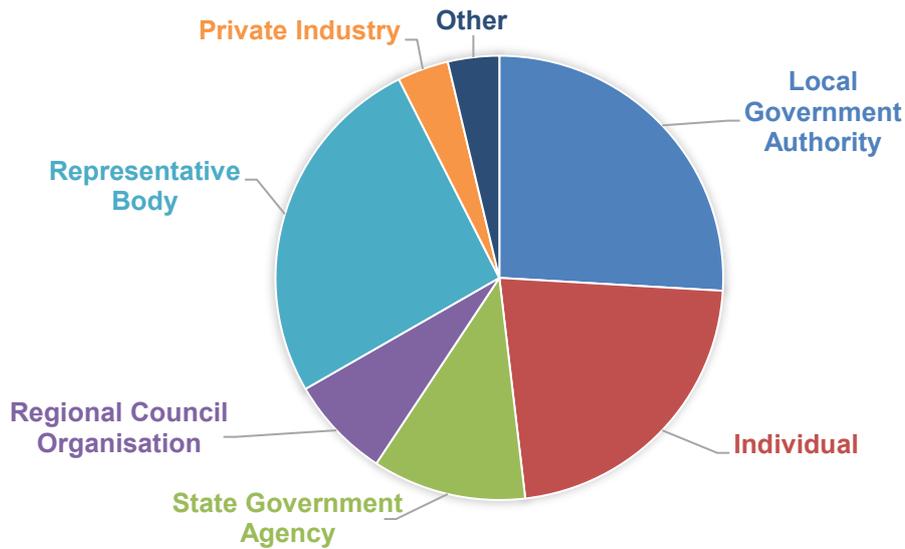


Figure 2 Submissions by entity type

The geographical distribution (Figure 3) was:

- Nineteen submissions were from Western Australia: 12 metropolitan, seven non-metropolitan.
- Six submissions were from other Australian jurisdictions: four from New South Wales, one from Victoria, one from Queensland.
- Two submissions were from unspecified locations.

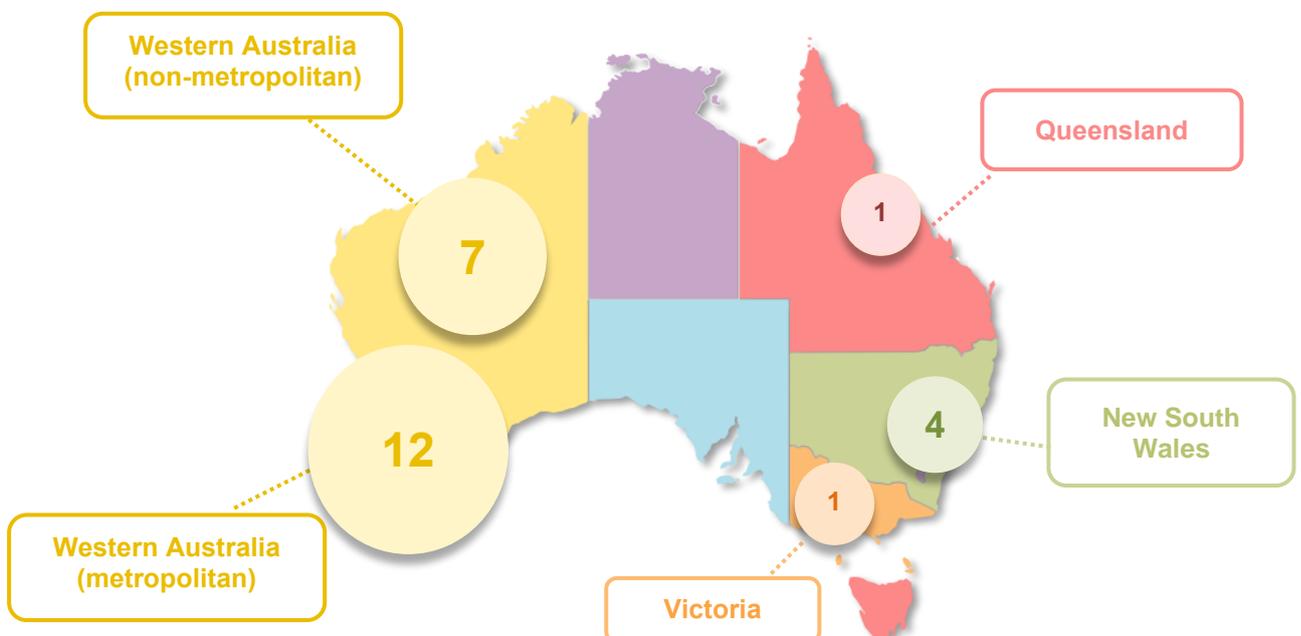


Figure 3 Submissions by location

The remainder of this report discusses the submissions and provides a response from the department, grouped under these main themes:

- Ban approach and the preferred option
- Scope of the ban
- Evaluation
- National alignment
- Financial implications
- Capacity, infrastructure, and access in Western Australia
- Education and engagement
- Logistics and management
- Risk and hazards
- Extended producer responsibility
- Consultation and change process
- Other issues
- Out-of-scope issues (Appendix B).

## 2 Ban approach and the preferred option

Most of the submissions supported an e-waste to landfill ban (Figure 4):

- Eleven submissions stated support for a ban, five supported a ban with conditions or changes, and two did not support a ban.
- Nine submissions did not explicitly state whether they supported a ban or not.

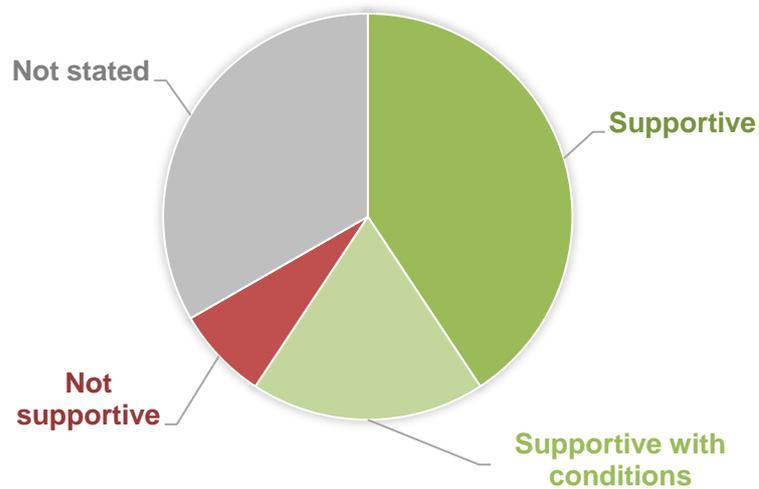


Figure 4 Support for ban

Most of the submissions supported the preferred option from the consultation paper<sup>3</sup> (Option 2) as the preferred implementation option (Figure 5):

- Nine submissions supported the preferred implementation, one supported the preferred option with conditions or changes.
- Fifteen submissions did not explicitly state support for any of the implementation options.

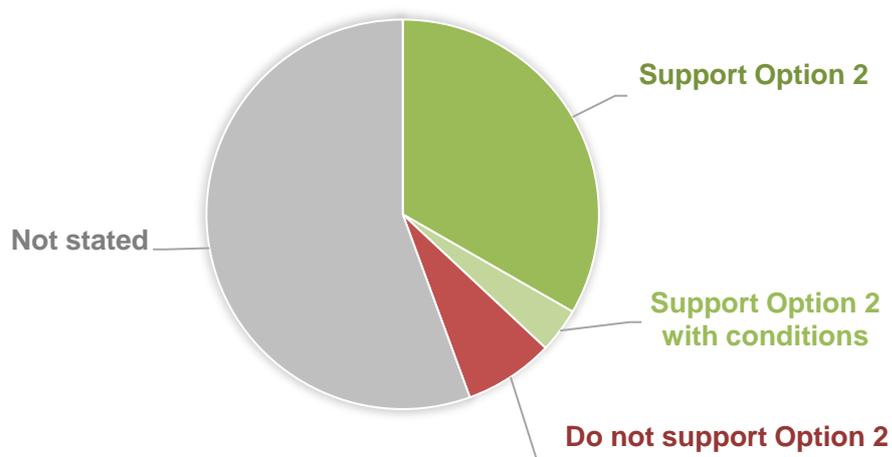


Figure 5 Support for Option 2

<sup>3</sup> [consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/](https://consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/)

## 2.1 Legislation, regulations, and enforcement

Nine submissions referred to legislation, regulations and enforcement of a ban. The main issues raised included:

- Legislation was preferred over a voluntary option to give effect to a ban.
- Legislation should form the basis of the ban and underpin any related policy.
- Any new or amended legislation (including regulations) should complement existing laws, and participants managing e-waste should be subject to licensing requirements where appropriate.
- To be effective, a ban would need:
  - good supporting regulations that mitigate perverse outcomes
  - to include record keeping and reporting obligations to track e-waste
  - to have power to apply appropriate penalties to appropriate entities
  - to include consideration of special circumstances such as exemptions for material that cannot be recycled due to damage or similar issues.
- Once regulations are in place, the agency in charge of applying the ban needs to be well-resourced so that compliance, monitoring and enforcement activities can occur.

### 2.1.1 Response

The department notes the support from stakeholders for an e-waste to landfill ban and the support for a legislative basis to underpin the implementation. Research of landfill ban implementations globally shows having regulations in place can help to ensure waste will be diverted into preferred alternative pathways (Hyder, 2011).

To deliver the ban in the required timeline, the department has progressed drafting of new regulations to give effect to the ban, which is aligned with the department's preferred implementation approach. A technical advisory group has formed and is working with the department on operational and industry regulatory matters. Practicalities, achievement of the objectives and learnings from other jurisdictions are being carefully considered during this planning and drafting phase.

The implementation described in the preferred approach includes measures to utilise existing legislative mechanisms to avoid regulatory duplication and thus applying efficiencies. The ban will complement existing legislation requirements where practicable (e.g. activities licensing, conditions, and obligations), particularly relating to waste industry regulation.

When considering the compliance and enforcement activities, the department will look for ways to align with existing policies<sup>4</sup>, for efficiency purposes. Work on the compliance program has started. The department is committed to clearly

---

<sup>4</sup> DWER Compliance and Environment Policy: [www.wa.gov.au/government/publications/dwer-compliance-and-enforcement-policy](http://www.wa.gov.au/government/publications/dwer-compliance-and-enforcement-policy)

communicating the requirements of any new laws and any impacts to existing requirements to obligated and affected entities and persons as soon as practicable.

## 3 Scope of the ban

Eleven of the submissions raised issues related to the scope of the ban. These included requests for detail of definitions about banned categories, future phase inclusions, detail on residual waste, out-of-scope categories and ban implementation timelines.

### 3.1 Definitions and product details

Submissions requested detail about products included in the initial and subsequent phases such as:

- the definition of e-waste, with reference to items such as e-scooters
- banned categories and the crossover with management under the Household Hazardous Waste Program and B-Cycle scheme
- specifics of medical devices that would be included in the initial ban phases.

#### 3.1.1 Response

The department will provide clarity and detail on an e-waste definition and item inclusions in upcoming communications and broader community education.

Information on specific items and products within broader e-waste categories will draw from existing accepted sources including the Waste from Electrical and Electronic Equipment (WEEE) Directives (European Commission, 2012) and United Nations University (UNU) Keys (United Nations University, 2021). A further opportunity for public comment on the details of the ban is anticipated in coming months.

For medical devices, the Department of Health is providing advice on the scope and current practice through the technical advisory group.

Guidance will be provided to industry and the community, including on the availability of collection and processing options as implementation progresses. This includes continuing to encourage the community to utilise responsible waste management pathways such as the Household Hazardous Waste Program and B-Cycle.

### 3.2 Future phases and inclusions

Submitters highlighted the importance of emerging and future e-waste streams when considering an expansion of banned categories and future ban phases. Increased waste from photovoltaic systems was noted in several submissions.

#### 3.2.1 Response

All implementation options presented in the consultation paper considered future waste streams, such as photovoltaic systems. The department is committed to monitoring the impacts of the ban and considering opportunities for expansion (e.g. to include photovoltaics). This may include banning materials in future phases where it is appropriate and practical to do so.

The department is working with the Australian Government and other key stakeholders on e-stewardship action. Work on the development of a regulatory product stewardship scheme for photovoltaics has progressed, with the Australian Government releasing a consultation paper<sup>5</sup> titled, *Wired for change: Regulation for small electrical products and solar photovoltaic system waste*.

Funding through Round 1 of the E-waste Infrastructure Grants program contributes to increasing our photovoltaics processing and recycling<sup>6</sup> capacity in the state. Funding of nearly \$2.4 million towards two photovoltaic recycling facilities will increase Western Australia's material recovery processing of solar panels and diversion from disposal to landfill. The funded infrastructure includes automated and technically advanced recycling equipment, predicted to process an additional 22,000 solar panels per year.

### 3.3 Residual and out of scope waste

Submissions from State Government and local government requested clarification and detail about residual waste in the context of the ban.

Submissions also requested information about what would happen to non-banned items in the initial phases of the ban, such as small household items.

#### 3.3.1 Response

More detailed information on defining residual waste is underway, including work with the technical advisory group, through ongoing better practice guidance planning and through the waste strategy review. Information will be clarified and made available as part of stakeholder communication and education to ensure stakeholders are informed when the ban comes into effect.

E-waste items that are not included in the initial phase of the ban, or are not yet banned, are able to continue to be managed using existing management pathways in place before the ban. Where banned items are mixed with non-banned items or other waste types, appropriate 'best endeavours' source separation should be carried out at the home or collection points (e.g. vergeside, transfer stations, specific collection boxes) for better recycling outcomes<sup>7</sup>.

Obligations on waste services providers, including source separation requirements of e-waste collected for management or recycling purposes, is being considered as part of the operational implementation and further details will be provided when finalised.

Round 1 of the E-waste Infrastructure Grants program will provide just over \$50,000 for a project that will manage dedicated e-waste collection bins at four Containers for Change<sup>8</sup> recycling depots in the Perth metropolitan area. Source separation of mixed

---

<sup>5</sup> [consult.dcceew.gov.au/regulation-small-electrical-products-solar-pv](https://consult.dcceew.gov.au/regulation-small-electrical-products-solar-pv)

<sup>6</sup> [www.wa.gov.au/service/community-services/grants-and-subsidies/e-waste-infrastructure-grants-program](https://www.wa.gov.au/service/community-services/grants-and-subsidies/e-waste-infrastructure-grants-program)

<sup>7</sup> [www.wasteauthority.wa.gov.au/publications/view/position-statements/source-separation-of-waste-position-statement](https://www.wasteauthority.wa.gov.au/publications/view/position-statements/source-separation-of-waste-position-statement)

<sup>8</sup> [www.containersforchange.com.au/wa/](https://www.containersforchange.com.au/wa/)

waste and promotion of out-of-home recycling options will be utilised in the establishment of this collection setup. Waste will be categorised, stored and transported to e-waste collection centres in the city. This will promote resource recovery and contribute to a circular economy while promoting consistent messaging about the importance of the reuse and recovery of e-waste within community networks.

### 3.4 Suggestions for inclusions

Submitters suggested products and categories for inclusion in the ban, including:

- small household items
- vapes and e-cigarette devices.

#### 3.4.1 Response

The preferred option and scope of e-waste included in an initial ban largely focuses on e-waste with waste management pathways that provide alternatives to landfill, such as national product stewardship schemes to ensure shared financial responsibility and the participation of industry.

Small household items may be low demand and low value for recycling because of highly variable componentry and the amount of different plastic types in them. They are also generally of a size that can be disposed of in household waste collections so motivating consumers to recycle them may be difficult.

The Australian Government is considering waste from small household items through the release of its *Wired for change: Regulation for small electrical products and solar photovoltaic system waste* consultation paper<sup>9</sup>. State and national action delivered under this agenda will likely result in an expansion of the list of inclusions when appropriate.

There are currently no product stewardship schemes or recycling markets to support banning vapes and e-cigarette waste from disposal to landfill in the initial phase. Batteries from vapes (if removable) are accepted by B-Cycle; however, there are currently no specific guidelines on the disposal of vapes.

On 2 May 2023, the Australian Government announced measures to reduce vaping in Australia. This includes delivering stronger regulation and enforcement of all e-cigarettes, with new controls to be introduced on their importation, contents and packaging (Australian Department of Health and Aged Care, 2023). The Australian Government has committed to working with states and territories to:

- ban all single use, disposable vapes
- stop the import of non-prescription vapes
- increase the minimum quality standards for vapes including by restricting flavours, colours, and other ingredients

---

<sup>9</sup> [consult.dcceew.gov.au/regulation-small-electrical-products-solar-pv](https://consult.dcceew.gov.au/regulation-small-electrical-products-solar-pv)

- require pharmaceutical-like packaging
- reduce the allowed nicotine concentrations and volumes.

The Australian Government has also committed to working with states and territories to stop vape sales in retail settings and end vape sales in convenience stores and other retail settings, while also making it easier to get a prescription for legitimate therapeutic use.

Regarding the movement of hazardous e-waste materials, including international export, Western Australia is working with the federal Department of Climate Change, Energy, the Environment and Water and other jurisdictions in line with international conventions (including amendments to Basel Convention, and incorporation into the Organisation for Economic Cooperation and Development [OECD] Control System).

## 3.5 Implementation and review timeline

Several submissions requested detail about ban implementation timelines.

### 3.5.1 Response

Detailed implementation planning is underway for the ban and information will be released when finalised. Broadly:

- A Decision Regulatory Impact Statement will be released later this year (2023), followed by making of the regulations to give effect to the ban.
- Round 1 of the E-waste Infrastructure Grants program will see collection, reuse and processing projects approved and begin rollout this calendar year. Information on these grants is mentioned throughout this report.
- Community education and communications will occur alongside the major milestones, and a larger community media campaign is likely to occur when regulations start in 2024.
- Targeted communications and guidance materials will be developed and released as required.
- Monitoring, compliance and enforcement will be ongoing and performance evaluation development is currently in planning phase.

## 4 Evaluation

### 4.1 Evaluation and review of the ban

Five submissions suggested evaluation, review and monitoring actions would be useful in assessing the success of the ban, and to measure improvements or amendments in future. Some of the suggestions included:

- monitoring (compliance, data collection, reporting and recordkeeping) to measure outcomes, where data collection could include:
  - the length of time a consumer owned an item before recycling/disposal
  - tracking of e-waste export activity
- provision of verification audits to measure effectiveness of the ban and mechanisms
- a scheduled review of the ban after implementation.

One submission also suggested a pilot program of the ban prior to full implementation.

#### 4.1.1 Response

The department notes comments that monitoring, review and evaluation is essential to future planning and decision making and to measure performance.

Recordkeeping and reporting obligations proposed under the ban would facilitate the collection of more detailed Western Australian e-waste management data, which would in turn inform improvements to the monitoring and evaluation of the ban over time.

Data from sources such as the relevant product stewardship schemes (National Television and Computer Recycling Scheme, MobileMuster, B-Cycle), recyclers, grant recipient reports, licensed facilities reporting and liable parties (in terms of annual waste data) will be used in performance assessment.

A formal evaluation framework for the ban is in the planning phase and suggestions received as part of the consultation process will be considered in the final framework development. It will likely include reviewing compliance and enforcement activities under the proposed regulations and complementary law practice.

In terms of the suggestion of a pilot program, the department is carefully considering the experiences and lessons arising from the implementation of similar bans in other jurisdictions. This is considered the most effective way of predicting and preparing for impacts and unintentional consequences of the ban.

The department will actively monitor implementation following the commencement of the ban and will make adjustments if necessary.

## 5 National alignment

### 5.1 National alignment, harmonisation and product stewardship

Eight submissions raised the issues of national alignment and harmonisation and product stewardship in relation to the ban including:

- lessons learnt from existing bans in Victoria and South Australia
- the importance of alignment and harmonisation with national processes, including existing product stewardship schemes
- aligning the ban timing with future national product stewardship schemes (including identified priority 'electrical and electronic products' expected in 2025)
- State and federal funding support for product stewardship scheme materials
- harmonisation across jurisdictions to increase retail cohesion.

#### 5.1.1 Response

The department is carefully monitoring landfill bans in Victoria and South Australia, as well as guidance for disposal in the Australian Capital Territory and Queensland's planning of an E-products Action Plan. Lessons learned from other jurisdictions have helped inform development of the proposed Western Australian ban implementation options.

Western Australia has consistently confirmed its support for product stewardship and a coordinated national approach to waste policy. The initial phase of the ban largely focuses on e-waste with established national product stewardship schemes, which will help to support shared financial responsibility and the participation of industry.

State funding investments into material recovery programs include Better Bins, Charitable Recyclers Rebate, Roads to Reuse, Household Hazardous Waste and WasteSorted, as well as E-waste Infrastructure Grants administered by the department specifically for e-waste collection and processing infrastructure ahead of ban implementation.

Other schemes supported by Western Australia (such as the Australian Packaging Covenant) also include mechanisms such as producer responsibility, design and collection, which contribute to holistically decreasing disposal culture and the financial burden of waste management.

Improving market development can increase competition and see a reduction in costs among product stewardship scheme participants, collectors and processors over time.

The State Government will continue to seek information from, and work closely with, the Australian Government and states that have bans in place to achieve best outcomes and national harmonisation.

## 6 Financial implications

Twenty-one submissions mentioned issues related to costs associated with the ban. This included costs to participate in e-waste recycling and management (for local governments, residents and charities/donation collectors), geographic cost disparities, financial incentives and support, and the independent *Cost benefit analysis of options for an e-waste landfill ban in Western Australia* (Synergies Economic Consulting, 2022).

### 6.1 Costs of participation

#### 6.1.1 Costs to local governments and residents

The following issues were raised in relation to costs to local government and residents/individuals:

- Collecting e-waste for recycling may require financial investment from local governments to establish and operate. These costs may then be passed on to residents through rate increases or gate/drop-off costs.
- The focus of the E-waste Infrastructure Grants funding on collection and processing infrastructure does not consider ongoing operational costs.
- Cost for local governments to deal with potential increase in 'bi-catch', or items not covered under product stewardship schemes because of the ban.
- The ban may result in collectors charging individuals a fee to drop off banned e-waste items for recycling.
- There was potential for cost inequity between local government areas:
  - Drop-off services may become overburdened with costs of collecting, transporting, and/or processing recycling from residents living outside of catchment areas.
  - Those offering pick-up services to any person in the state will incur extra costs for others that do not offer recycling programs for e-waste to their residents.
- A potential increase in illegal dumping may result in increased costs to local governments.
- It was suggested that local governments be required to accept e-waste at no charge and be subsidised by private industry, because private industry is likely to financially benefit from increased recycling volumes.

##### 6.1.1.1 Response

The department is carefully considering the financial effects of implementing the ban. An increase of e-waste items to the collection and recycling network is anticipated. The state's waste industry is likely to need adjustments to meet new demand and growing stream of e-waste.

The scope of e-waste in the initial ban has been tailored to include those with established alternative pathways, including national product stewardship schemes, to help offset costs.

The department has heard from local governments and industry that items under product stewardship schemes incur costs to manage, above what is subsidised by the schemes. Bi-catch items are reported to incur even higher costs for local governments to manage under their current arrangements.

The State Government will continue to advocate for improvements to national product stewardship schemes, particularly where the full costs of collection and management are not adequately accounted for.

Waste acceptance criteria for e-waste from non-residents may need consideration. Charges for e-waste management across local authorities may also need review and evaluation. The collection network, including local governments, may consider the application of the 'user pays' principle.

Work on delivering a communications and education campaign for the ban has started and future consultation with the collection networks is anticipated in the coming months to ensure consistent messaging and clarity for residents and businesses.

Ban-specific communications will help to ensure the community is aware of the full scope of items included under the ban and the range of collection and recycling options for the state's e-waste.

Behaviour change initiatives will raise awareness of various options to participate in more responsible waste management of e-waste, such as:

- donating working e-products to charities
- repair and reuse
- taking accepted items (laptops, peripherals, batteries, etc.) to private, retail or other drop-off collections
- gifting items via 'Buy Nothing' and similar community initiatives
- utilising consumer return schemes and device upgrade programs
- cash-back programs that take away large household goods
- post-back options for mobile phones.

E-waste Infrastructure Grants Round 1 is providing some assistance in expanding state's the e-waste processing capacity and anticipates a reduction in costs for the collection network. Funding will support a project to construct a metropolitan e-waste processing plant that will increase the recycling capability and capacity of the state to process an additional 10,000 tonnes.

A second funded project will see plant upgrades to enable processing of an additional 5,000 tonnes of e-waste material each year.

In terms of the cost benefit analysis, costs to local governments were estimated using information available at the time. Actual costs will be monitored in the early stages of the ban's implementation to inform any remedial action that may be necessary.

The department carries out investigation and prosecution of illegal dumping offences under the *Environmental Protection Act 1986* (EP Act). Incidences and frequency will be considered in performance evaluation.

Commercial contractual arrangements between waste service providers and local governments are an agreement between involved parties, and outside of the remit of the department.

The department has convened a technical advisory group with the Western Australian Local Government Association (WALGA) as a member. This provides an opportunity to work through cost and implementation concerns in more detail.

### 6.1.2 Impact on charities, including costs

The following issues were raised in relation to costs to charities and donation resellers:

- The ban may impact charities if banned items are donated and can't be resold.
- Grant funding may not be applicable for reuse and repair activities in a charity shop setting.

#### 6.1.2.1 Response

E-waste generation is increasing towards a predicted 23 kg per capita nationally by 2030 and, as a result, charities would expect to see increases in e-products donated in both saleable and non-saleable condition over time.

The department understands that charities receive unsaleable donated items such as e-waste. The balance between making donation of goods easy and efficient for customers (e.g. via donation bins), while ensuring viable volumes of goods are received and saleable, is an ongoing challenge facing the charity sector.

An increase in the volume of unsalable e-waste left at charity locations and bins (i.e. illegal dumping) was seen in other jurisdictions as an unintended consequence of landfill bans. The impact of COVID lockdowns and households cleaning out their homes of waste also saw an increase of unsalable items like e-waste left with charities for management.

In Western Australia, the preferred approach to the ban does not place regulatory obligations on households in terms of what is placed in kerbside recycling bins. The approach uses community education and encouragement to play a key role in minimising problematic waste management choices. Messages that reiterate the

importance of donating only saleable goods to charities, including e-products, will continue via long-term behaviour change initiatives<sup>10</sup> like the WasteSorted program.

Charities may see benefits from partnerships with waste management providers which would, in turn, deliver higher rates of recycling and an increase in recovery of unsalable products received<sup>11</sup>.

The department has convened a technical advisory group which is receiving advice and feedback from Charitable Recycling Australia about regulatory considerations of the ban.

Grant funding announced in Round 1 will help reduce e-waste management costs for customers, including charities. One project that received support from Round 1 funding involves the purchase and provision of asset recovery cages and shelving for the collection network. The new infrastructure will support source separation of e-waste and increase reuse of items prior to on-processing. Like other funded projects, this project supports the principles of circular economy.

Infrastructure eligible for grant funding, such as testing and tagging equipment, storage cages and storage shelving, would be relevant to charities. A second funding round is anticipated for early 2024. For further information, see the Round 1 Grant Guidelines<sup>12</sup>.

## 6.2 Geographic cost disparity

The following issues were raised in relation to geographical cost differences:

- There could be greater recycling costs for regional, remote and non-metropolitan local governments because of transport costs and availability of collection and processing infrastructure.
- There was a suggestion that private industry should collect e-waste from non-metropolitan local governments if recycling was economically favourable for those companies.

### 6.2.1 Response

The department recognises that waste management costs in the regional areas can be higher than in the metropolitan area.

The ban is not prescriptive in how e-waste is collected; local governments may tailor collections and choose options that work best for their geographical circumstances.

In regional locations, periodic community drop-off events have been funded previously and are an example of collaboration of neighbouring areas to increase recycling outcomes and minimise costs (Government of Western Australia, 2021; Waste Authority, 2022; Western Australian Local Government Association, 2023).

---

<sup>10</sup> [www.wastesorted.wa.gov.au/be-a-great-sort/gift](http://www.wastesorted.wa.gov.au/be-a-great-sort/gift)

<sup>11</sup> [www.goodsammy.com.au/news-waste-isnt-waste-until-its-wasted](http://www.goodsammy.com.au/news-waste-isnt-waste-until-its-wasted)

<sup>12</sup> [www.wa.gov.au/government/publications/e-waste-infrastructure-grant-guidelines](http://www.wa.gov.au/government/publications/e-waste-infrastructure-grant-guidelines)

Communications from local governments will inform residents of these options and can be adapted as needed.

The ban largely focuses on e-waste with established national product stewardship schemes to support shared financial responsibility and participation of industry. The State Government will continue to advocate for improvements to national product stewardship schemes to ensure they reflect the full costs of collection and management from regional areas.

Round 1 of the E-waste Infrastructure Grants program will see six regional local governments receive funding to support infrastructure for enabling collection and management of e-waste for their residents, including establishing a drop-off facility, storage sheds, cages and sea containers.

Further analysis, planning and periodic monitoring of the ban will contribute to measuring performance and practicality, particularly in regional areas of the state. This may better identify regional local government funding support needs.

### 6.3 Financial incentives and support

The following suggestions were raised in terms of incentives/support:

- The State Government could provide financial incentives for local governments to participate.
- The State Government could provide support for local governments outside of the E-waste Infrastructure Grants funding process (additional resourcing for landfills, operational costs for local governments, etc.).
- Incentives could be provided for collection centres, including support for job creation.
- Financial incentives could apply to e-waste generators when recycling an item, similar to a container deposit scheme model.
- Financial assistance and support for could be provided to charities.
- There could be incentives for individuals to repair items (such as tax deductions).
- The State Government should support technological innovation that is not yet independently commercially viable.

Issues/comments included:

- Extended producer responsibility schemes and increased federal support through existing product stewardship schemes may reduce local government costs.
- Funding for some federal product stewardship schemes has reduced over time.
- Cost transparency across industry could assist local governments in securing cost-competitive contract arrangements.

### 6.3.1 Response

The preferred approach to the ban is multifaceted, where regulations are supported by communication and education, as well as financial incentives, which aims to achieve a balanced result. The ban largely focuses on e-waste with established national product stewardship schemes to support shared financial responsibility and the participation of industry.

The preferred approach to implementation of the ban considers known existing collection and processing infrastructure capacity in Western Australia. Future growth in the waste industry is anticipated to increase processing capacity to meet the needs of the state. Additionally, well-developed markets are likely to increase competition and reduce costs for participants, collectors and processors over time.

It is expected that local governments will continue to tailor collections and choose options that work best for their circumstances following implementation of the ban.

The commercial arrangements between waste contract providers and local governments are an agreement between involved parties, including cost of services to collect, store and transfer e-waste.

While local governments are likely to provide a large proportion of e-waste collection services under the ban, there are alternatives that add capacity. Collection options for e-waste may include drop-off, pick-up and take-back schemes. Some consumer return schemes/device upgrade programs offer discounts for upgraded products.

Future incentive and financial assistance programs will be considered, with monitoring and evaluation data collected during the stages of the ban providing key input into incentives and assistance needs.

Other kinds of support that will be part of the implementation of the ban include:

- **Monitoring:** The department will carry out compliance and enforcement for the ban, and ongoing measures will align with existing policies. The approach will be communicated to obligated parties during implementation, as appropriate.
- **Education:** The ban will have a multifaceted approach where regulation will be supported by communication and education, as well as financial incentives, which aims to achieve a balanced result.
- **Industry support:** Grants to support the expansion of industry capacity to support the increase in recycling volume are a key part of the ban, ensuring that collection and recycling are not limited to local government services.

Western Australia has consistently confirmed its support for product stewardship and a coordinated national approach to e-waste management. National product stewardship schemes currently supported by Western Australia include mechanisms such as producer responsibility, design and collection. It is noted that take-back programs and packaging clarity about disposal/recycling are actions that can influence responsible disposal behaviour.

Financial incentives to recycling similar to a container deposit scheme model are not currently being considered as part of the implementation of the ban. However, as

mentioned above, there are options available to consumers that incentivise recycling of goods through brand-associated item return discounts and cash-back schemes.

Infrastructure to support new technology will be considered for grant funding under the E-waste Infrastructure Grants program. The department is also working with other State Government agencies, such as the Department of Jobs, Tourism, Science and Innovation, to support and encourage innovation in e-waste recycling.

## 6.4 Cost benefit analysis

Comments about the content of the cost benefit analysis developed by Synergies Economic Consultants are summarised here:

- Western Australian costs are higher than what was represented.
- Disparity in geographical differences in Western Australia was not explicitly represented.
- Details about local government costs were less represented than industry benefits.

### 6.4.1 Response

Cost to local governments as part of the e-waste ban were stated as an estimation in the cost benefit analysis. Further analysis and planning will be undertaken as part of detailed implementation work for the ban.

Recordkeeping and reporting obligations proposed under the ban will facilitate the collection of more detailed Western Australian data, which will allow for further detailed monitoring and evaluation of the ban after implementation. The ban will be evaluated over time and will be amended and adjusted as appropriate according to performance.

## 7 Capacity, infrastructure and access in Western Australia

Sixteen submissions raised issues relating to recycling capacity, infrastructure and access in Western Australia. This included:

- market development and drivers
- competition
- end markets
- the capacity of facilities in the state to cope with increased volumes of e-waste
- the lack of local infrastructure solutions
- the distance between populations and town across the state and the impacts this would have on access to services and infrastructure
- the role of reuse and repair markets
- the role of 'waste to energy' after implementation of a ban.

### 7.1 Market: drivers, development, and support

The following issues were raised in relation to markets, including drivers, development, and support:

- Market development is required for ban success, specifically:
  - increased competition among recyclers and processors
  - end-market development for recycled materials.
- Submitters questioned whether there was excess recycling capacity in the state because of low demand for materials.
- Some items such as whitegoods have low value metal recovery as a recycling pathway.

#### 7.1.1 Response

Predictions and modelling of e-waste material flows shows moderate and iterative increases of e-waste to the state's collection and recycling network<sup>13</sup>, with national volumes of about 23 kg per capita generated by 2030.

Government intervention such as regulation can be an effective driver of waste management market development, including through increasing the supply of e-waste for recyclers (Hyder, 2011).

The preferred approach to implementation includes E-waste Infrastructure Grants, providing funding to grow that capacity and capability in the state. Round 1 supported

---

<sup>13</sup> WA Material Flows Analysis of E-waste:

[www.wasteauthority.wa.gov.au/images/resources/files/2022/02/DWER\\_E-Waste\\_MFA\\_-\\_FINAL.pdf](http://www.wasteauthority.wa.gov.au/images/resources/files/2022/02/DWER_E-Waste_MFA_-_FINAL.pdf)

projects for processing capacity including: the procurement of an e-waste recycling plant upgrade to process an additional 5,000 tonnes per year and the construction of an e-waste facility with projections to process 10,000 tonnes per year.

The grants are also funding 16 collection and storage infrastructure projects, which help achieve source separation of e-waste. Separated material streams are less contaminated by other materials and are easier and less costly for recyclers to recover<sup>14</sup>. This represents a higher value product to recycling markets and supports end market development.

Finally, the department is consulting with the Australian Council of Recycling, including via the technical advisory group formed, to provide advice and feedback about regulatory considerations of the ban.

## 7.2 Infrastructure

The following issues were raised in relation to e-waste recycling infrastructure and capacity in Western Australia:

- There were concerns about the capacity of Western Australian recycling industry and whether this would be sufficient with an increased volume of materials following a ban.
- There were concerns about whether there was existing infrastructure in the state to recover materials from e-waste.
- Local infrastructure solutions are critical to the success of the ban.
- It is important to build local capacity to reduce waste export activities.

### 7.2.1 Response

The preferred approach to the implementation of the ban considers existing collection and processing infrastructure capacity in Western Australia. The provision of infrastructure grants will help to grow the state's capability and capacity for managing e-waste.

Round 1 of grants funding will see 21 projects funded, totalling \$6.5 million and providing pathways for 17,000 tonnes of e-waste to be diverted from landfill, with processing for 920,000 customers. A second round of grant funding is proposed for early in 2024.

A state waste infrastructure plan<sup>15</sup> is being developed to provide a long-term information framework to guide decision-making for the planning and development of waste infrastructure in Western Australia.

---

<sup>14</sup> [www.wasteauthority.wa.gov.au/images/resources/files/2019/11/Source\\_Separation\\_of\\_Waste\\_2014\\_-\\_Position\\_Statement.pdf](http://www.wasteauthority.wa.gov.au/images/resources/files/2019/11/Source_Separation_of_Waste_2014_-_Position_Statement.pdf)

<sup>15</sup> [consult.dwer.wa.gov.au/waste/draft-state-waste-infrastructure-plan/](http://consult.dwer.wa.gov.au/waste/draft-state-waste-infrastructure-plan/)

## 7.3 Reasonable access

The following issues were raised in relation to access to recycling services and facilities:

- Reasonable access to services (including proximity, cost, ease of participation, etc.) for individuals should be considered.
- Geography and distance will impact access to services.
- A collection network beyond local government services would increase access.

### 7.3.1 Response

A map of collection points in regional Western Australia developed from publicly available information was provided in the consultation paper. It showed options for e-waste offered by local governments – including drop-off and pick-up services – as well as for private industry.

Grants to support the expansion of industry capacity and increase recycling volumes are a key part of the ban and are not limited to local government services. Private industry is eligible to apply for grants under the E-waste Infrastructure Grants and to operate collection and processing services for e-waste under the ban.

Round 1 of grants funding will see 21 projects funded under the two streams, totalling \$6.5 million and providing pathways for 17,000 tonnes of e-waste to be diverted from landfill, with processing for 920,000 customers.

Monitoring to assess performance and practicality will be carried out. This will include monitoring the ban's effect on regions.

## 7.4 Reuse and repair

The following issues were raised in relation to reuse and repair activities for e-waste:

- Development of reuse and repair markets should be considered.
- Grant funding for reuse and repair would assist in increasing options to reduce the frequency and volume of e-waste disposal.

### 7.4.1 Response

Government intervention such as regulation can be an effective driver of market development, including in the reuse and repair sectors.

Round 1 of the E-waste Infrastructure Grants accepted applications for equipment that assists with the reuse of e-waste. This aims to support industry capacity to reprocess e-waste, aligning with sustainable practices and supporting transition to a circular economy. Projects focusing on reuse, supported from Round 1 include:

- the expansion of an e-waste refurbishment and reuse workshop, with provision of tools, storage and benches from grant funding

- the provision of cages and shelves for storing collected e-waste and to enable items to be readily assessed for repurpose and reuse
- sanitation equipment to divert up to 10,000 hard drives from landfill per year.

Future incentives and financial assistance programs for reuse and refurbishment will be considered, informed by monitoring and evaluation data collected during the stages of the ban.

## 7.5 Waste to energy

The following issues were raised in relation to waste to energy:

- The types of waste accepted at waste to energy facilities and how the ban might impact the energy recovery stream.
- A question was raised about whether waste to energy facilities could process residual waste from e-waste recycling processes.

### 7.5.1 Response

Delivery of the ban aligns with the guiding concepts of the waste strategy, including the waste hierarchy. It identifies energy recovery as preferred over landfilling (which follows avoidance, reuse, reprocessing and recycling).

More detailed information on residual material, and the intersection with waste to energy, will be available as part of stakeholder communication and education.

Waste to energy activities and premises are subject to works approval and licensing requirements under the EP Act and the Environmental Protection Regulations 1987.

Waste to energy would continue to be an option for the contracting of waste services by local governments and/or private industry.

## 8 Education and engagement

The implementation options presented in the consultation paper all include carrying out community and industry education and engagement. Thirteen submissions highlighted that, along with increasing the volume of recycled materials, education and engagement could help mitigate potential perverse outcomes and could reduce risks such as battery fires in waste management facilities.

### 8.1 Community education

Submitters raised or emphasised the importance of the following elements in relation to community education:

- detailed and accessible community recycling and disposal behaviour education
- specific community education about what, how, and where to recycle, including information on product stewardship schemes that are in place
- an emphasis on reuse and repair education.

#### 8.1.1 Response

The ban has a multifaceted approach where regulation is supported by communication and education, as well as financial incentives, which aims to achieve a balanced result.

Work on the delivery of the communications to support the ban has started and the department has committed to working with the collection network and recyclers to ensure immediate and ongoing messaging is timely, informative and relevant.

Community education mechanisms that focus on waste avoidance behaviour, repair and reuse culture are delivered under the existing WasteSorted and GREAT Sorts behaviour change initiatives. The implementation program for the ban will utilise existing education mechanisms and new fit-for-purpose education materials to support community participation.

Hyder Consulting (2011) found that government intervention such as regulation can be an effective driver of market development, including in the reuse and repair sectors.

### 8.2 Industry education and better practice guidance

Submitters raised and emphasised the importance of the following elements in relation to industry education:

- guidance material for industry and local government
- education and guidance materials that have a best-practice focus.

### 8.2.1 Response

Details and information will be made available as part of stakeholder communication and education in the coming months.

Information on specific items and products within broader e-waste categories will be gathered from existing accepted sources including the WEEE Directives and UNU Keys.

Supporting guidance will be provided to the community to describe and detail complementary collection and processing pathways.

## 8.3 Engagement and consultation

Submitters raised and emphasised the importance of the following elements in relation to engagement and consultation:

- ongoing engagement and consultation will assist implementation
- engagement and consultation with Aboriginal and remote communities to address specific challenges faced by these communities.

### 8.3.1 Response

Further community engagement will be undertaken as part of the ban implementation.

Specific engagement with regional and remote First Nations communities about waste avoidance and resource recovery strategies is part of a review of the waste strategy that is currently underway.

The department will work with the Waste Authority to conduct meaningful engagement on waste initiatives, including how comply with the e-waste ban.

## 9 Logistics and management

Five submissions raised issues relating to how a ban would be managed at individual collection sites, including operational logistics such as:

- the impact of contractual arrangements between collectors and processors
- whether degassing and other procedures would be ensured
- how landfills would monitor whether banned waste was entering a facility
- issues such as space restrictions at charity and donation stores that impact whether banned e-waste products could be accepted, stored and transported for recycling.

### 9.1 Response

Commercial arrangements between waste contract providers and local governments are an agreement between involved parties. Similarly, methodologies for acceptance and monitoring procedures are also determined by individual entities based on requirements. Local governments, landfill, private industry and other entities may tailor activities and choose options that work best for their circumstances.

The ban is not prescriptive in terms of how e-waste is collected and managed, including which electrical and electronic items local governments, charities and other entities should accept or not accept. Entities should tailor acceptance options to work best for their circumstances.

Additionally, illegal dumping and donation of unsaleable items is a known issue for charities and donation retail stores. Illegal dumping will be subject to existing legislation and regulations under the EP Act.

The department has convened a technical advisory group to advise on operational matters, including logistics and management.

Communications and information will be released to industry. This may include providing responses to questions frequently received from stakeholders about circumstances and scenarios experienced at the operational level.

Finally, the department will evaluate the effectiveness and implementation of the ban over time and will amend and adjust regulations as appropriate.

## 10 Risks and hazards

Risks and hazards were raised in four submissions, including:

- fire hazards resulting from the collection and recycling of batteries
- management of hazardous materials that can be found in some electrical and electronic products (such as heavy metals)
- risk of increased illegal dumping of banned materials.

### 10.1 Response

Hazardous materials and the associated risks, including fire hazards, will be managed using existing legislative and regulatory mechanisms (e.g. hazardous and controlled waste management measures, licence requirements and conditions included in the EP Act, contaminated sites legislation and regulations, dangerous goods legislation and regulations, applicable health and safety legislation and regulations).

The State Government is working with the federal Department of Climate Change, Energy, the Environment and Water and other jurisdictions to manage hazardous e-waste materials, including their movement as managed under international conventions.

Potential increases in illegal dumping have been considered in the consultation paper analysis of perverse outcome likelihood and included in the cost benefit analysis. Illegal dumping will continue to be subject to existing legislation, regulations and support under the EP Act.

## 11 Extended producer responsibility

Eleven submissions raised the issue of extended producer responsibility, specifically:

- the role of extended producer responsibility (including package labelling, retail take-back schemes and product design) in reducing the volume of e-waste generated in Western Australia, with potential actions including:
  - joint responsibility for waste reduction and recycling from retailers, manufacturers, and local governments
  - legislation and regulations to mandate extended producer responsibility
  - delay of the ban until national extended producer responsibility initiatives are in place.

### 11.1 Response

The consultation process for the ban is limited to issues about the implementation options outlined within the consultation paper. The process to legislate and mandate manufacturer actions and processes is outside the scope of this commitment.

Western Australia has consistently confirmed its support for product stewardship and a coordinated national approach, which has potential to be more efficient and effective than separate and/or duplicated state processes (Australian Government, 2021). National product stewardship schemes currently supported by Western Australia include mechanisms such as producer responsibility, design and collection. It is noted that take-back programs and clarity about packaging disposal/recycling are actions that can influence responsible disposal behaviour.

At the most recent Environment Ministers Meeting<sup>16</sup> all Ministers agreed that for the first time, Australia would mandate obligations for packaging design. This is part of a new packaging regulatory scheme based on international best practice that will make industry responsible for the packaging they place on the market. This scheme will also regulate out harmful chemicals and other contaminants in packaging.

The State Government is working with the Australian Government regarding priority materials that have been identified for product stewardship. Future phases of the ban will align with federal product stewardship actions for these materials.

The waste strategy's (Waste Authority, 2019) vision is that Western Australia will become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste. It positions Western Australia to focus on waste avoidance and sets targets for material recovery and environmental protection in addition to landfill diversion.

---

<sup>16</sup> [www.dcceew.gov.au/sites/default/files/documents/emm-communique-09-june-2023.pdf](http://www.dcceew.gov.au/sites/default/files/documents/emm-communique-09-june-2023.pdf)

A review of the waste strategy is currently underway and could provide an appropriate avenue to raise concerns, issues and ideas for government collaboration and action regarding extended producer responsibility and manufacturer obligations.

## 12 Consultation and change process

Five submissions raised issues relating to the public consultation and change process for the ban. These issues were:

- The public consultation and grant processes running concurrently reflects a lack of genuine consideration of submission feedback.
- The consultation may not largely influence the final decision.
- Access to public consultation is limited by the lack of in-person engagement.
- Guiding principles are not reflected in the ban options.

### 12.1 Response

Grants committed as a part of the ban are intended to fund collection and processing infrastructure. To allow sufficient time for the waste industry to establish necessary infrastructure using grant funding, the consultation and grant processes were run concurrently.

Public submissions for the e-waste ban are being considered in accordance with guidance from the Department of Treasury's Better Regulation Unit (Department of Treasury, 2020). This ensures that submissions are given proper consideration and stakeholders have a genuine opportunity to influence the outcome of a regulatory change.

Suggested methods included in the Better Regulation Unit guidance include public meetings and briefings, calls for submissions, direct communication to affected entities, media and advertising and large-scale social media activities. These options have all been undertaken as a part of this process.

Guiding principles of the ban option design are detailed in Table 4 of the *E-waste to landfill ban in Western Australia consultation paper*. An assessment of whether each option aligns with each guiding principle is presented in Table 7 of the consultation paper.

## 13 Other issues

This section outlines other issues mentioned in addition to the major themes addressed in previous sections 1–12.

Table 1 Other issues raised in submissions

Issue	Response
<p>One submission mentioned the circular economy and how it relates to the ban.</p>	<p>The waste strategy’s vision is that Western Australia will become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste. The waste strategy positions Western Australia to focus on avoidance and sets targets for material recovery and environmental protection in addition to landfill diversion.</p> <p>Implementation options for the ban consider several guiding principles in line with the focus of a Western Australian circular economy.</p> <p>A review of the waste strategy is currently underway, with public consultation to open later in 2023. This review process would be an appropriate avenue to raise concerns, issues and ideas related to improving circular economy alignment in Western Australia.</p>
<p>One submission raised the importance of investment in new technology to support recycling and processing</p>	<p>Grants to support the expansion of industry capacity to increase recycling volume are a key part of the ban. Private industry, including entities with new technology, are eligible to apply for funding under the E-waste Infrastructure Grants and to operate collection and processing services for e-waste under the ban.</p> <p>Infrastructure to support new technology will be considered for grant funding. The department is also working with other State Government agencies such as the Department of Jobs, Tourism, Science and Innovation, to support and encourage innovation in e-waste recycling.</p>
<p>One submission suggested a partnership with government on a recycling accreditation program and a recycling information application.</p>	<p>The department noted the extensive and detailed information provided on the recycling information application and the accreditation program, and its potential application in the implementation and operation of the ban.</p> <p>Research into the most effective tools for community engagement and education, obtaining accurate information from recyclers and collectors, and industry participation will be undertaken prior to the ban coming into effect.</p>

Issue	Response
One submission suggested manufacturer- and government-funded resale of donated and recycled, functional whitegoods.	The department noted this suggestion.
One submission provided information on regional recycling points that were not included in the interactive map of recycling locations presented in the consultation paper.	The department has noted this information.
One submission provided clarification of B-Cycle licensed premises information contained in the cost benefit analysis.	The department has noted this information.
One submission suggested that the sustainability of businesses should be considered before grant funding is allocated.	The E-waste Infrastructure Grants were developed using the department’s grants administration framework and toolkit, which closely aligns with the whole-of-government <i>Western Australian Grants Administration Guidelines 2022</i> (Government of Western Australia, 2022). A key principle of government grants administration is open, transparent and equitable access to grants, and consistent and equitable grant funding decisions.
One submission suggested collaboration between government departments to procure in a manner that reduces waste.	The department has noted this information.

## Glossary

Term	Definition
<b>Collection</b>	Means actions, processes and initiatives involved in, or that facilitate, the aggregation of similar types of things.
<b>Disposal</b>	Means to discard material.
<b>Extended producer responsibility</b>	Extended producer responsibility schemes place primary responsibility for the impacts of a product on producers, importers and sometimes the sellers of products. Under this approach, producers or importers are required to fund activities to reduce the environmental, health and safety impacts of a product. It is a strategy designed to promote the integration of environmental costs associated with goods throughout their life cycles into the market price of the products. <sup>17</sup>
<b>Illegal dumping</b>	Premeditated littering where people go out of their way to dump waste in public places illegally, typically for commercial benefit or to avoid disposal fees.
<b>Infrastructure</b>	Means physical equipment that is not designed for regular movement.
<b>Product stewardship</b>	An approach to managing the impacts of different products and materials. It acknowledges that those involved in producing, selling, using and disposing of products have a shared responsibility to ensure those products or materials are managed in a way that reduces their impact, throughout their life cycle, on the environment and on public health and safety.
<b>Processing</b>	Means an action or series of actions performed on something to change it. This could include mechanical, chemical or other actions.
<b>Recovery</b>	Recovery refers to mechanical, thermal, biological or chemical actions that recover all or some of the materials that may otherwise be disposed to landfill.
<b>Recycling</b>	Refers to using recovered waste materials substituted for raw materials.
<b>Residual waste</b>	Waste that remains after the application of a better practice source separation process and recycling system, consistent with the waste hierarchy as described in section 5 of the <i>Waste Avoidance and Resource Recovery Act 2007</i> .

<sup>17</sup> [www.dcceew.gov.au/environment/protection/waste/publications/national-waste-reports/2013/product-stewardship](http://www.dcceew.gov.au/environment/protection/waste/publications/national-waste-reports/2013/product-stewardship)

## References

- Australian Government, Department of Climate Change, Energy, the Environment and Water, 2021. Stewardship for consumer and other electrical and electronic products discussion paper. Available online: [haveyoursay.agriculture.gov.au/74338/widgets/359784/documents](https://haveyoursay.agriculture.gov.au/74338/widgets/359784/documents)
- Australian Department of Health and Aged Care, 2023. Taking action on smoking and vaping. Available online: [www.health.gov.au/ministers/the-hon-mark-butler-mp/media/taking-action-on-smoking-and-vaping?language=en](https://www.health.gov.au/ministers/the-hon-mark-butler-mp/media/taking-action-on-smoking-and-vaping?language=en)
- Department of Treasury, 2020. Better Regulation Guidance Notes. Available online: [www.wa.gov.au/government/document-collections/better-regulation-guidance-notes](https://www.wa.gov.au/government/document-collections/better-regulation-guidance-notes)
- Department of Water and Environmental Regulation, 2023. E-waste to landfill ban in Western Australia consultation paper, January 2023. Available online: [consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/](https://consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/)
- European Commission, 2012. Waste from Electrical and Electronic Equipment (WEEE). Available online: [environment.ec.europa.eu/topics/waste-and-recycling/waste-electrical-and-electronic-equipment-weee\\_en](https://environment.ec.europa.eu/topics/waste-and-recycling/waste-electrical-and-electronic-equipment-weee_en)
- Government of Western Australia, 2021. WA Government invests \$1 million in initiatives to divert 1,000 tonnes of e-waste from landfill. Available online: [www.mediastatements.wa.gov.au/Pages/McGowan/2021/01/WA-Government-invests-1-million-dollars-in-initiatives-to-divert-1000-tonnes-of-e-waste-from-landfill.aspx](https://www.mediastatements.wa.gov.au/Pages/McGowan/2021/01/WA-Government-invests-1-million-dollars-in-initiatives-to-divert-1000-tonnes-of-e-waste-from-landfill.aspx)
- Government of Western Australia, 2022. Western Australian grants administration guidelines 2022. Available online: [www.wa.gov.au/system/files/2022-06/WA%20Grants%20Administration%20Guidelines%202022\\_09June.pdf](https://www.wa.gov.au/system/files/2022-06/WA%20Grants%20Administration%20Guidelines%202022_09June.pdf)
- Hyder Consulting, 2011. Landfill ban investigation. Available online: [www.dcceew.gov.au/sites/default/files/documents/landfill-ban.pdf](https://www.dcceew.gov.au/sites/default/files/documents/landfill-ban.pdf)
- Synergies Economic Consulting, 2022. Cost benefit analysis of options for an e-waste landfill ban in Western Australia. Available online: [consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/user\\_uploads/cost-benefit-analysis-of-options-for-an-e-waste-landfill-ban-in-wa.pdf](https://consult.dwer.wa.gov.au/waste-policy/ban-on-e-waste-disposal-to-landfill-in-western-aus/user_uploads/cost-benefit-analysis-of-options-for-an-e-waste-landfill-ban-in-wa.pdf)
- United Nations University, 2021. E-waste Quantification. Available online: [unu.edu/projects/e-waste-quantification.html#outline](https://unu.edu/projects/e-waste-quantification.html#outline)
- Waste Authority, 2019. Waste Avoidance and Resource Recovery Strategy 2030. Available online: [www.wasteauthority.wa.gov.au/images/resources/files/Strategic\\_Direction\\_Waste\\_Avoidance\\_and\\_Resource\\_Recovery\\_Strategy\\_2030.pdf](https://www.wasteauthority.wa.gov.au/images/resources/files/Strategic_Direction_Waste_Avoidance_and_Resource_Recovery_Strategy_2030.pdf)
- Waste Authority, 2022. WasteSorted Awards 2022 - Winners' Stories. Available online: [www.wasteauthority.wa.gov.au/publications/view/infinity\\_awards/wastesorted-awards-2022-winners-stories](https://www.wasteauthority.wa.gov.au/publications/view/infinity_awards/wastesorted-awards-2022-winners-stories)
- Western Australian Local Government Association, 2023. E-waste Recycling Program. Available online: [www.wastenet.net.au/programs/e-waste-recycling-program.aspx](https://www.wastenet.net.au/programs/e-waste-recycling-program.aspx)

## Appendices

### Appendix A – Submission list

A list of consultation respondents is listed below.

Full copies of submissions are available on the Department of Water and Environmental Regulation's [consultation website](#).

Australian Council of Recycling

Australian Mobile Telecommunications Association

Australian Retailers Association

Battery Stewardship Council

Bernie Masters

City of Albany

City of Cockburn

City of Joondalup

City of Swan

Charitable Recycling Australia – WA Secretariat

Colin Trneny

David Karr

Department of Finance

Department of Health

Department of Local Government, Sport and Cultural Industries

Department of Planning, Lands and Heritage – No comment on consultation paper

Eastern Metropolitan Regional Council

Katie White

Margaret Ryan

No More Butts

Ron Stewart

Shire of Cuballing

Shire of Dumbleyung

Shires of Leonora, Laverton & Menzies

Total Green Recycling

Waste Management and Resource Recovery Association of Australia

Western Australian Local Government Association

Western Metropolitan Regional Council

## Appendix B – Out-of-scope comments

This report focuses on submissions received on the ban implementation options proposed in the consultation paper. Several matters, including some questions seeking specific information, were raised that were beyond this scope and are noted in Table B1.

Table B1 Out of scope issue summary

Issue	Summary of comments	Response
Planned obsolescence in electronics production	<p>Submission outlines the benefits of avoiding waste by legislating standards for manufacturers about the life and reparability of electronic goods.</p> <p>The submission describes the concept of planned obsolescence by electronic companies as a well-known issue that contributes to increased quantities of e-waste, and that control over production quality would yield better outcomes than landfill bans and recycling.</p>	Legislating any aspect of the manufacturing process including product design, reparability, duration of product life, etc. is outside of the scope of this consultation.
Local manufacturing	<p>Submission suggests that a large majority of electronic products are purchased from overseas sources, resulting in a significant carbon footprint and environmental impact.</p> <p>The submission states that increasing local manufacturing of electronic goods would result in economic and environmental benefits.</p>	Procurement and purchasing of electronic goods are outside of the scope of this consultation.
Avoiding electronic waste	Submission states that the consultation paper does not discuss ways Western Australians can avoid generating electronic waste.	The consultation paper focuses on how to implement a ban on e-waste disposal to landfill, but education and communication materials will align with the waste hierarchy, including guidance on how to avoid generating waste.
Question: Collection network – individual company.	One submission asked a question about a stakeholder’s not-for-profit status, charges for collection of e-waste by the stakeholder, and how these two issues relate to/impact the inclusion of that stakeholder as part of the e-waste collection network.	Not-for-profit companies are permitted to charge fees for services they provide, so the contracted arrangements with local governments are permitted.
Question: Licensed premises	One submission sought details of commercial e-waste specialist	E-waste recyclers and scrap metal recyclers are noted in <i>Western Australia E-waste</i>

Issue	Summary of comments	Response
	recyclers and scrap metal recyclers in Western Australia.	<p><i>Materials Flow Analysis</i> report published in September 2021<sup>18</sup>.</p> <p>Licence instruments provide licence holder details. Information on licences and works approvals managed by the department, including for scrap metal recyclers and waste processors in Western Australia, is available through the department's Licence and works approvals search<sup>19</sup></p>
Question: Detail of product stewardship schemes	One submission sought detail about costs, end destinations for materials and other internal working information for existing national product stewardship schemes.	<p>Information about national product stewardship schemes such as National Television and Computer Recycling Scheme, Battery Stewardship Scheme, and Mobile Muster scheme can be found by enquiring with federal Department of Climate Change, Energy, the Environment and Water.</p> <p>The Household Hazardous Waste program is administered by WALGA. Further information about the inner workings of this program can be found through WALGA.</p>

<sup>18</sup> [www.wasteauthority.wa.gov.au/images/resources/files/2022/02/DWER\\_E-Waste\\_MFA - FINAL.pdf](http://www.wasteauthority.wa.gov.au/images/resources/files/2022/02/DWER_E-Waste_MFA_-_FINAL.pdf)

<sup>19</sup> [www.der.wa.gov.au/our-work/licences-and-works-approvals/current-licences](http://www.der.wa.gov.au/our-work/licences-and-works-approvals/current-licences)