Circular Economy Risk, Consequence and Contingency Plan

Edition 3 – 2026–2028

RECYCLING VICTORIA

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

DEECA is committed to genuinely partnering with Victorian Traditional Owners and Victoria's Aboriginal community to progress their aspirations.

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Executive summary

Recycling Victoria has prepared the third Circular Economy Risk, Consequence and Contingency (CERCC) Plan 2026 to identify, describe and manage risks to service continuity and the transition to a circular economy in Victoria's waste recycling and resource recovery sector. The CERCC Plan is part of a broader approach to risk, consequence and contingency planning for waste, recycling and resource recovery services to manage serious risks. The CERCC Plan 2026 supersedes the CERCC Plan 2025 and is based on the 2025 calendar year.

Waste, recycling and resource recovery services faced significant challenges in 2025, including increased packaging waste due to a growth in online shopping. The increasing proliferation of Lithium-ion battery (LiB) sourced fires continues to impact these services and may lead to their significant disruption. The growing likelihood of a significant biosecurity emergency, such as foot-and-mouth disease will require novel solutions to minimise the impacts to these services.

The CERCC 2026 identifies 9 serious sector risks. These are largely consistent with those outlined in the CERCC Plan 2025, with a closer focus on effective planning for services, acknowledging the competition for appropriate land and the impacts of encroachment on existing facilities. The plan identifies robust, reliable data as key to the effective delivery of services. Accountability for the risks to these services is shared between government agencies and entities who provide the services.

Governments at all levels are implementing strategies to prevent and minimise the risks to these services. The Australian Government is working towards kerbside harmonisation and national packaging reform and recently published an updated Per- and polyfluoroalkyl substances (PFAS) National Environmental Management Plan (PFAS NEMP). Victoria has started work on a mandatory product stewardship scheme for small batteries and electrical products with embedded batteries and included disruptions to waste services within its State Emergency Management Plan.

Responsible entities, providers of services in the waste, recycling and resource recovery sector that present the greatest risks if disrupted have continued to manage the risks of disruption and hindrance to the services. They provided their second Responsible Entity Risk, Consequence and Contingency (RERCC) Plans demonstrating the activities they are undertaking to ensure continuation of the services. Entities outlined lessons learned and improvements they have made, based on risks that had been realised during the year. This included strengthening workforce practices, improving fire prevention activities and site security as key controls of risk.

As part of the focus on continuous improvement, the CERCC Plan 2026 outlines measures to be undertaken by responsible entities to strengthen controls for these risks. Many entities may already have these in place and only need to refer to them, while others may need to outline how they intend to implement the controls.

Recycling Victoria consulted on a draft of the CERCC Plan 2026 with responsible entities, public sector bodies that may be affected by the CERCC Plan and others deemed appropriate. Feedback from this consultation has informed this plan.

On 4 December 2025, the Victorian Government announced that Recycling Victoria will be merged with the Environment Protection Authority Victoria (EPA) as part of broader reforms to streamline government functions and reduce administrative burden. This transition will take effect from 30 June 2026.

In conjunction with the transfer of Recycling Victoria's responsibilities, the CERCC Plan will transition from annual preparation, to once every 3 years. This enables greater capacity for consultation with responsible entities in preparing CERCC Plans.

The requirement for responsible entities to prepare and submit a RERCC Plan and Statement of Assurance will also transition from annual preparation to once every 3 years, commencing in 2026 and due by 30 November.

The decision to merge Recycling Victoria's functions into the EPA will not change the legislative obligations of responsible entities to manage risks. Prior to the transition, Recycling Victoria, working closely with the EPA, will continue to support responsible entities to implement their RERCC Plans and progressively improve their risk management and contingency preparedness practices. This work will continue seamlessly through the EPA post the transition.

Acronyms

Table 1: List of Acronyms

Abbreviation	Full name
AI	Artificial intelligence
CE Act	*Circular Economy (Waste Reduction and Recycling) Act 2021*
CE Regulations	Circular Economy (Waste Reduction and Recycling) (Risk, Consequence and Contingency Plans and Other Matters) Regulations 2023
CERCC	Circular Economy Risk, Consequence and Contingency
DEECA	Department of Energy, Environment and Climate Action
DELWP	Department of Environment, Land, Water and Planning (the former)
DJSIR	Department of Jobs, Skills, Industry and Regions
EAD	Emergency animal disease
EPA	Environment Protection Authority Victoria
e-waste	Electronic waste
FMD	Foot-and-mouth disease
FY	Financial year
GWMO	(United Nations) Global Waste Management Outlook
HEPA	Heads of EPA Australia and New Zealand
ISO	International Organization for Standardization
LiB	Lithium-ion battery
PFAS	Per- and polyfluoroalkyl substances
PFAS NEMP	PFAS National Environmental Management Plan
RERCC	Responsible Entity Risk, Consequence and Contingency
USA	United States of America
VRIP	Victorian Recycling Infrastructure Plan
WtE	Waste to energy

Introduction

Legislative environment for a circular economy

An objective of the Australian Government's *Recycling and Waste Reduction Act 2020* is to develop a circular economy that maximises the continued use of products and waste material over their life cycle and accounts for their environmental impacts. The Australian Government's National Circular Economy Framework, released in December 2024, is the blueprint for Australia's circular economy transition and defines a circular economy for Australia and outlines its benefits. It drives alignment of regulations, planning and program funding with circular economy goals and supports better coordination across jurisdictions.

In Victoria, the *Circular Economy (Waste Reduction and Recycling) Act 2021* (CE Act) introduces a circular economy that maximises the continued use of products and waste material over their life cycle and accounts for their environmental impacts.

The CE Act establishes an approach to risk, consequence and contingency planning for waste, recycling and resource recovery services to manage serious risks of failure, disruption or hindrance to the provision of services and risks of a financial nature to Victoria's transition to a circular economy. It requires preparation of the Circular Economy Risk Consequence and Contingency (CERCC) Plan, which articulates these serious risks and outlines their consequences and severity to be submitted to the Minister for approval.

The CE Act is designed to proportionately apply controls for providers of services in the waste, recycling and resource recovery sector that present the greatest risks if disrupted (referred to under the CE Act as responsible entities). For this reason, greater legislative obligations are placed on these providers. Responsible entities are required to develop and submit a Responsible Entity Risk, Consequence and Contingency (RERCC) Plan to identify and manage these risks and to comply with the CERCC Plan that is in force. Where required to effectively manage the serious sector risks, the CERCC is to specify measures that responsible entities are to take and address within RERCC Plans.

Section 16 of the CE Act outlines the functions of government to monitor and review whether RERCC plans are suitable to effectively prevent or minimise risks to the provision of essential services and monitor and review compliance by responsible entities with the CERCC Plan and their RERCC Plan.

Under section 183 of the CE Act, the Circular Economy (Waste Reduction and Recycling) (Risk, Consequence and Contingency Plans and Other Matters) Regulations 2023 (CE Regulations) have been made which further specify the details of the CERCC and RERCC Plans.

It is important that as part of a shared responsibility for minimising sector risks, all essential service providers operating in the waste, recycling and resource recovery sector are familiar with the risk requirements of the CE Act and CE Regulations. A copy of these can be found on the Victorian Legislation website at: www.legislation.vic.gov.au

What is resilience in the waste, recycling and resource recovery sector?

Resilience in the waste, recycling and resource recovery sector requires:

- strategic coordination of industry to mitigate and manage sector risks
- sector-wide risk planning
- increased government visibility over sector-wide risks, operations and data
- improving sector-level risk, consequence and contingency management practices by service providers.

Increasing the level of resilience aims to result in greater reliability and fewer significant disruptions to the provision of services.

What is a circular economy?

A circular economy continually seeks to reduce the environmental impacts of production and consumption, while enabling economic growth through more productive use of natural resources.[1] It allows us to avoid waste with good design and effective recovery of materials that can be reused.

It promotes more efficient business models that encourage intense and efficient product use, such as sharing products between multiple users, or supplying a product as a service that includes maintenance, repair and disposal.

The value people obtain from the resources used to create goods and services increases.

It transforms our linear economy mindset—make, take, use and throw away—and fosters innovation and productivity that invigorates existing businesses and creates new ones, delivering more jobs and more growth for local, regional, state and global economies.

Victoria's circular economy goals

Victoria's transition to a circular economy is guided by 4 goals spanning the life cycle of materials (make, use, recycle and manage). Each goal is designed to maximise value and minimise waste.

Goal 1 – Design to last, repair and recycle

- Generate less waste in businesses through innovation and design.
- Use recycled materials in products and consider impacts across product life cycles.
- Support business to explore new circular economy business models.

Goal 2 – Use products to create more value

- Help people make smart purchasing decisions and extend the life of products and support the reuse economy.
- Repair goods where possible.

Goal 3 – Recycle more resources

- Reform kerbside collections to generate more value from waste.
- Improve the separation of recyclable materials.
- Develop markets for recovered materials.
- Plan for and boost investment in recycling infrastructure.
- Embed the waste hierarchy in the management of materials.
- Support the development of appropriate waste to energy facilities.

Goal 4 – Reduce harm from waste and pollution

- Protect communities and the environment from high-risk and hazardous wastes.

1 DELWP (Department Environment, Land, Water and Planning), Recycling Victoria: A new economy February 2020.

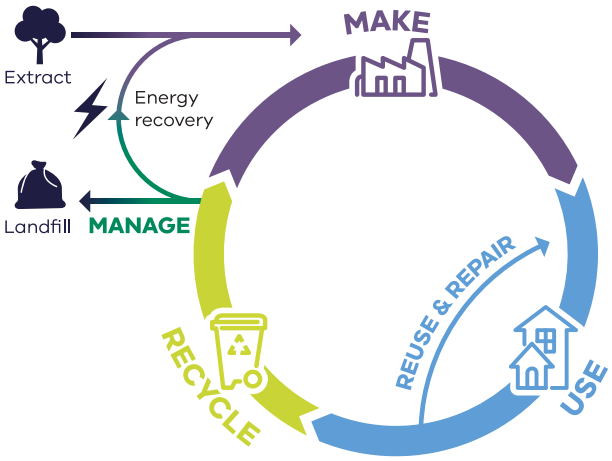

Figure 1: Resource flows in a circular economy

Victoria's circular economy policy, *Recycling Victoria: a new economy* outlines that it is the responsibility of all levels of government, along with industry, businesses, communities and individuals in Victoria to support the growth of a circular economy [2]. Improving sector resilience through risk management and mitigation will help deliver these goals.

A circular economy mindset directly strengthens Victoria's sector risk management approach by reducing systemic risk, lowering consequences of disruption and building contingency into material flows. Designing products to last, repair and recycle reduces risk exposure. More resilient supply chains, clearer material streams and embedded waste hierarchy decision-making all support more proactive planning. This ensures Victoria can prevent failures, absorb disruptions and rapidly recover from service disruptions, protecting communities while enabling a stable, sustainable circular economy.

2 DELWP (Department Environment, Land, Water and Planning), Recycling Victoria: A new economy February 2020.

Context

Sector risk context in 2026

Understanding the full context in which the Victorian waste, recycling and resource recovery sector operates supports effective identification and management of its risks. There are international political, financial, social and environmental trends that affect the resilience of the sector and could impact the effective transition to a circular economy. Across Australia, interjurisdictional actions, industry collaborations and Australian Government policies aim to enable effective transition to a circular economy. Within Victoria, there are challenges that inform the risks, opportunities that aim to mitigate the risks and policies and strategies implemented by government departments and responsible entities that prevent the risks from occurring or minimise the impacts should they be realised.

Global macro risks and trends affecting the sector

In an increasingly interconnected world, the risks we face are more interdependent than ever before. Environmental and societal crises are being driven by underlying geopolitical and economic trends, which will continue to shape the next decade. Compounding shocks, interconnected risks and diminishing resilience are making society more susceptible to crises.

The 2025 Global Risks Report[3] highlights deepening geopolitical and geoeconomic tensions as a key change in the global context, which could lead to a geopolitical recession and supercharged economic tensions between global and regional powers. This leads to greater economic uncertainty, which may impact on the Victorian waste, recycling and resource recovery sector through:

- unexpected increases in the costs of doing business
- an influx to Australian markets of products intended for sale in the United States of America (USA) increasing the burden on the sector and undermining the effective transition to a circular economy.

The report also highlights the move of environmental risks from long-term concern to urgent reality with extreme weather events anticipated to become more frequent. It serves as a call to action, urging us to prepare ourselves for the next crisis and work together to create a more stable and resilient world.

The 2025 Global Risks Report ranks risks over the short and long term (**Figure 2**).

The UN Global Waste Management Outlook 2024[4] (GWMO), jointly published with the International Solid Waste Association, provides an update on global waste generation and the cost of waste and its management since 2018 and provides analysis by 13 identified regions, of which Australia and New Zealand are one.

3 Elsner M, Atkinson G and Zahidi S (2025), World Economic Forum – The Global Risks Report 2025
4 United Nations Environment Programme (2024), Global Waste Management Outlook 2024: Beyond an age of waste – Turning rubbish into a resource. Nairobi

The GWMO highlights that, despite some concerted efforts, little has changed in the waste management output since the initial outlook published in 2015 stating, 'if anything, humanity has moved backwards – generating more waste, more pollution and more greenhouse gas emissions.' While Australia and New Zealand produce a small proportion of worldwide municipal solid waste, the region's production per capita is third overall with 1.5kg/person/day (note: 2023–24 production for Victoria was 1.64kg/person/day[5]) with a 54% recycling rate and 39% sent to landfill.

The annual Circularity Gap Report[6], from Circle Economy, in collaboration with Deloitte, provides a detailed analysis of the progress towards a global circular economy. The report for 2025 states that global circularity metric continues to decline. Most materials entering the economy are virgin, with the share of secondary materials falling from 7.2% to 6.9% as of the latest analysis.

These global trends exacerbate the risks to the Victorian waste, recycling and resource recovery sector, increasing the likelihood of economic shocks and stressors and external natural threats. This emphasises the need for the sector and government to effectively plan to meet demand for increased waste material and infrastructure to support an effective transition to a circular economy.

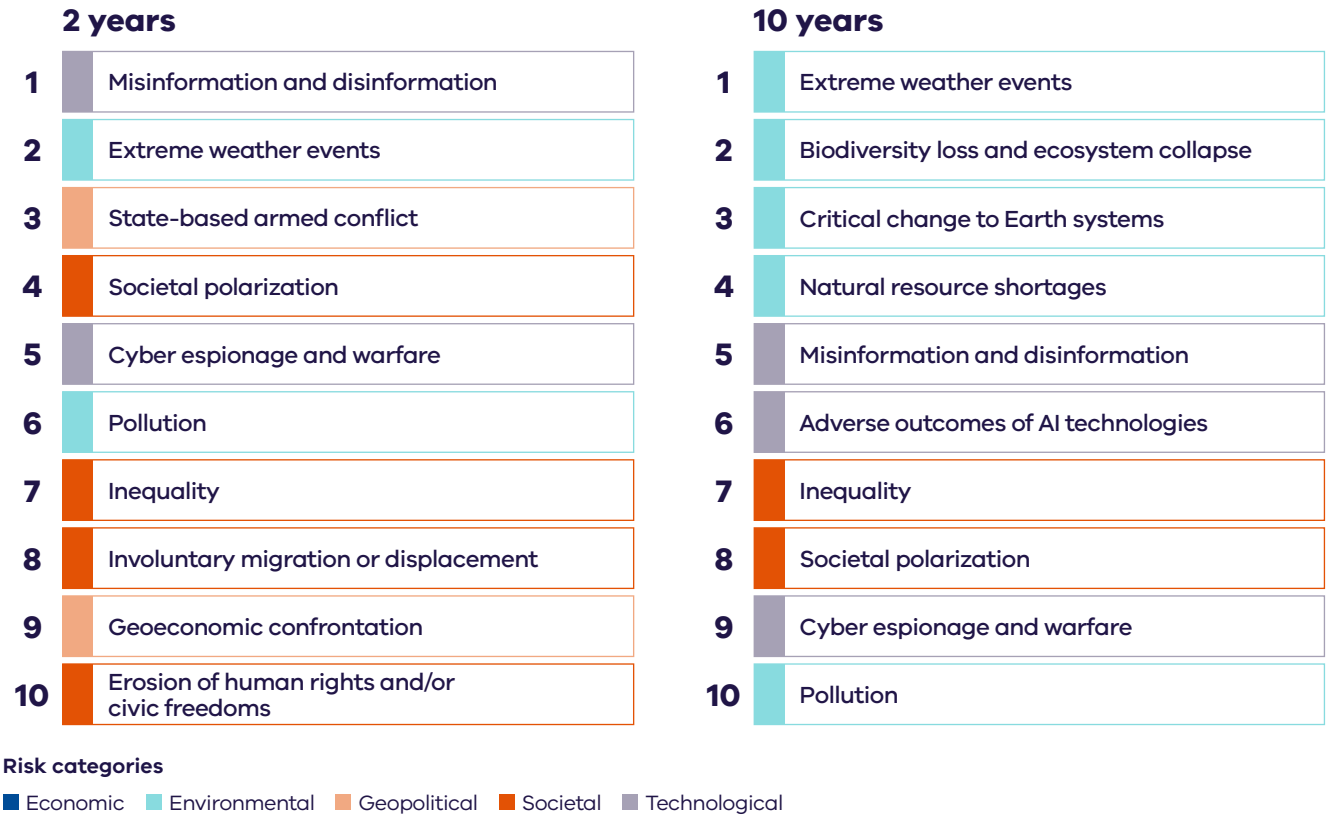

Figure 2: Global risks ranked by severity over the short and long term

5 Recycling Victoria (2025), Data hub, accessed on 19 December 2025
6 Circle Economy (2025), The circularity gap report 2025, Licensed under Creative Commons Attribution-ShareAlike 4.0 International licence

National trends and emerging issues in the circular economy

The most recent Environment Ministers' Meeting in December 2024 introduced the Australian Government's National Circular Economy Framework and agreed to a strengthened National Waste Policy Action Plan.

Both are highly relevant to Victorian sector risk considerations. These national directions reinforce the need for jurisdictions to anticipate and manage system-wide risks, improve material stewardship and enhance contingency preparedness across supply chains. They signal a clear expectation to build resilient, transparent and low-contamination resource flows, reduce reliance on unstable export markets, and strengthen domestic processing capacity. This alignment ensures the CERCC Plan remains responsive to emerging national priorities and supports coordinated risk and consequence management across Australia's recycling system.

As part of a suite of tools that will support sector risk management and the transition to a circular economy, Ministers agreed in principle to a roadmap to harmonise kerbside collection and agreed to release a summary of the National Roadmap: Harmonising action on problematic and unnecessary plastics, which outlines actions for states and territory governments to better align initiatives.[7] They also noted that the Australian Government will consult with state and territory governments and industry in 2025 on packaging design guidance.

Ministers were updated on the planning and preparedness work being undertaken across all jurisdictions to respond to high pathogenicity avian influenza H5N1, a strain of bird flu which has already caused mass death in wildlife on every other continent.

Ministers agreed to publish an updated Per- and polyfluoroalkyl substances (PFAS) National Environmental Management Plan (PFAS NEMP) as part of their collective work to continue strengthening Australia's management of environmental PFAS contamination. In March 2025, the Heads of Environment Protection Authority Australia and New Zealand (HEPA) published the NEMP.[8]

PFAS are synthetic organic compounds that have been used for more than 50 years to make products non-stick, oil and water repellent, and fire, weather and stain resistant. PFAS accumulates in the environment and the human body.

The PFAS NEMP recognises the need for sound regulation of PFAS by each jurisdiction in a way that can adapt to local circumstances and emerging priorities and establishes guidelines for the management of risks associated with PFAS in resource recovery products.

In the longer-term, this should improve contamination within waste, recycling and resource recovery services. This is an example of government action to address contamination risks.

The fifth session of the ongoing negotiations for an international plastics treaty ended on 15 August 2025 with no global plastics treaty agreed.[9] However, the Australian Government has signalled its continued commitment to coordinated global phase out of problematic plastic products and harmful chemicals used in plastics, as well as better design of plastics to reduce waste and increase circularity.

The Product Stewardship Centre of Excellence reported in 2024 that across Australia, there are 85 product stewardship initiatives and schemes driven by government, industry bodies and individual organisations with a further 15 in development.[10] These initiatives and schemes are funded either voluntarily or compulsorily by the organisations placing products and/or packaging on to the market. They predominately focus on activities to reduce waste and increase recycling at end of life. Some initiatives also invest in activities to prevent waste at the product/packaging design phase or develop next markets for recovered materials helping to mitigate service disruption risks and transition to a circular economy of in scope products and packaging.

7 Department of Climate Change, Energy, the Environment and Water (2025), National Roadmap Snapshot: Harmonising action on problematic and unnecessary plastics, accessed on 19 December 2025

8 HEPA (2025), PFAS National Environmental Management Plan 3.0 Heads of EPA Australia and New Zealand 2025. Licensed under Creative Commons Attribution 4.0 International Public Licence

9 Geneva Environment Network (2025), Road to Geneva | Plastic Pollution INC-5.2, accessed on 19 December 2025

10 Product Stewardship Centre of Excellence (2025), 2024 Annual Impact Report

Sector challenge: Battery sourced fires continue to impact the sector

Batteries have become a crucial part of everyday life, providing power to items such as consumer electronics, e-scooters, power tools, toys, mobile phones and motor vehicles. They are also a key part of the transition to net zero, providing storage solutions for renewable energy, powering homes, businesses and vehicles.

This transition is resulting in significant growth of Victoria's battery market. As more batteries are used, more will reach their end-of-life. It is estimated that the total volume of battery waste in Australia will increase by 500% over the next 25 years, while the total volume of Lithium-ion battery (LiB) waste will increase by 900% over the next 20 years.[11]

End-of-life batteries pose significant risks to human harm and environmental impact if they are not safely managed. They also contain valuable resources that can be recovered and recycled. LiB, in particular, present an increasing fire risk for the sector. These fires are becoming more common with reports estimating that the waste, recycling and resource recovery sector experiences approximately 10,000 LiB-related fires and heat events across Australia each year. While not all these fires are significant enough to warrant an emergency services response, Fire Rescue Victoria estimates they are responding to approximately one battery-related fire a day, including and in addition to fires in waste services.

While batteries can catch fire during their use through improper handling and overcharging, reports indicate that the greater number of battery-related fires occur at end-of-life, when batteries are improperly disposed of in kerbside waste and recycling bins. In addition to fires, metals and other toxic substances from landfilled batteries can escape in the form of toxic leachate, contaminating ground and surface water.

Without intervention, these impacts are expected to escalate and may lead to internal threat risks for operators and under extreme circumstances, may lead to an external threat of major emergency. The Victorian Government is committed to ensuring that people, property and the environment are protected throughout the entire lifecycle of batteries.

11 Department of Climate Change, Energy, the Environment and Water (NSW) and Department Energy, Environment and Climate Action (DEECA) (2024) Draft Regulatory Impact Statement – Batteries Product Stewardship Reform – prepared for Environment Ministers, unpublished

Case study

Managing battery contamination risks to services through mandatory battery product stewardship

While battery fires are a potential risk across the supply chain, essential service providers in the waste, recycling and resource recovery sector are disproportionately impacted by the inappropriate disposal of batteries.

The Victorian Government is committed to addressing the risks of battery sourced fires and supporting sustainable battery recycling and is investigating how a mandatory product stewardship scheme for small batteries and items with embedded batteries might work in Victoria. This will shift the costs of end-of-life batteries from governments, sector operators and the community to batteries suppliers. Suppliers will be required to take responsibility for their products at the end of their life, ensuring they are safely collected and recycled.

Mandatory battery product stewardship can also incentivise suppliers to reduce costs associated with bringing poor quality and hazardous batteries into a jurisdiction.[12]

Other jurisdictions across Australia have committed to considering similar action and Victoria is working closely with all jurisdictions to align approaches and minimise any unnecessary regulatory burden.

A voluntary battery product stewardship scheme exists in B-cycle, with other aligned schemes (MobileMuster and the National Television and Computer Recycling Scheme) collecting certain types of batteries. However, these arrangements report relatively low battery collection rates (less than 15% for B-cycle)[13]. Much of the growing scope of battery powered products (such as toothbrushes, e-scooters and cordless appliances) are ineligible.

12 Australian Government Department of Industry, Science and Resources (2024), National Battery Strategy 2024, Licensed under Creative Commons Attribution 4.0 International Licence CC BY 4.0

13 Battery Stewardship Council and B-cycle Battery Recycling (2024), Positive Charge 2023–24 Report, accessed on 1 December 2025

Sector challenge: Online shopping may create unprecedented service demands

External changes to the wider economy can have significant impacts on, and increase risks for, the waste, recycling and resource recovery sector. The transition to an online economy has been embraced by many Australians.[14] While the use of online shopping appeared to summit during the COVID-19 pandemic, reaching a peak of $4,394 million per month seasonally adjusted, the value of online spending reached a new peak of $4,703 million per month in June 2025[15] and presents potential benefits to consumers. However, it can also lead to challenges for sections of the retail sector and an increase in demand for waste, recycling and resource recovery services.

A 2022 report into the impact of online shopping on waste generation warns of the potential consequences online shopping presents to waste service dependence.[16] It found that online shopping creates 4.8 times more packaging waste than traditional bricks and mortar shopping. This will increase demand and potentially place pressure on Victorian waste, recycling and resource recovery services.

The report identifies that $100 spent on online shopping "generates an additional 3.4 kg of packaging waste, accounting for 1.06% of total waste per capita per year.

If online shopping continues to grow at the current rate, it's estimated that it will produce more than an additional 10% in total waste over the next 10 years." Without appropriate planning, this may place pressure on comingled recycling services and landfill to address these volumes, potentially increasing risks of service continuity.

Compounding the risks from increased volumes, the current geopolitical uncertainty, including the imposition of tariffs by the USA, may disrupt existing supply chains. With a compromised entry into the USA market, suppliers may elect to target other markets, including Australia. This may lead to an increase in low-quality disposable products, including ones with embedded batteries and other difficult to process materials. These materials present contamination risks to services and have limited scope in a circular economy.

Without suitable planning and infrastructure for this demand, service operators and the sector more generally, may experience the consequences of demand exceeding capacity, including stockpiling and consequences of insufficient capability to process certain material types. Overcoming these challenges is a shared responsibility between governments and industry.

14 Redsearch (2025), Australian eCommerce Statistics 2025, accessed on 19 December 2025
15 Australian Bureau of Statistics (Reference period June 2025. Released July 2025), Retail Trade, Australia: Online retailing
16 Kim Y, Kang J, Chun H (2022), Is online shopping packaging waste a threat to the environment? Economics Letters, Vol. 214.

Victorian challenges, trends, emerging issues and opportunities for the circular economy

In 2023–24, Victoria generated 14.2 million tonnes of material (down 0.3 million tonnes from 2022–23) with 9.9 million tonnes recovered for recycling, resulting in a statewide recovery rate of 70%. Per capita waste generation decreased to 2.1 tonnes per person (down from 2.2 tonnes in 2022–23).[17]

Issues of performance and supply

Section 74B(2)(f) of the CE Act requires Recycling Victoria to identify issues relating to the performance or supply (including issues relating to the generation, collection, sorting, reprocessing, or re-manufacturing of waste) within the circular economy market or a part of the market of waste management services in the CERCC Plan.

Issues evident during 2024 and 2025 include the following:

- Responses to emergency animal disease outbreaks generating biohazard waste, including a response to a high pathogenicity avian influenza outbreak in June 2024. Managing risk to service disruption is a key priority and preparedness planning is assisting in the mitigation and management of these major emergency disruptions (refer to Sector Challenge: Biosecurity emergencies present an external risk).
- Battery fires continue to be a concern across essential waste, recycling and resource recovery services, with regular smaller fires and the ongoing risk of catastrophic fire (refer to Sector Challenge: Battery sourced fires continue to impact the sector).
- Social acceptance of local waste, recycling and resource recovery facilities can be built through proactive community engagement by industry proponents, well before statutory approvals are sought for proposed facilities or expansions. Maintaining materials at their highest order in a circular economy helps build public confidence in solutions to waste generation. Comprehensive planning and engagement for waste to energy (WtE) facilities involving potentially impacted communities will aid their establishment, reducing reliance on system expansion proposals for landfills. Issues from land use competition and encroachment can also impact social licence and be mitigated through sound planning and consultation.
- Inflationary pressures, as identified as a sector challenge in the CERCC Plan 2025, continue to influence risks of economic shocks and stressors and commercial viability in the market. A lack of end markets for some services further impacts these risks. This discourages investment in new processing technologies, limiting the ability of providers to deliver more efficient or effective waste, recycling and resource recovery services. Inflationary pressures may also impact the willingness of community to prioritise circular outcomes over price, impacting end markets.
- Land use competition and site availability remain an issue for the sector. Encroachment of residential land zoning into existing industrial zoned areas creates operational challenges for infrastructure and competition for available land.
- Revisions to EPA's buffer and separation guidelines[18] have increased buffer and separation distances for some activities where community has asked for greater gaps, or new services / materials require suitable separation distances, compounding competition and zoning issues.
- In 2025, there have been issues experienced when seeking approvals of new or expanding facilities to deliver waste, recycling or resource recovery services, particularly for landfill. Not securing the appropriate approvals will disrupt services.
- Soft plastics continue to be an issue for the sector, both as a contaminant within services and a missed opportunity to support the transition to a circular economy.
- Contamination represents an ongoing challenge for the sector. This includes the risk of contamination from hazardous materials, which has been supported by Victorian Government initiatives such as Detox Your Home. Contamination of feedstock, particularly in food organics and garden organics collections, which creates issues for material processing and limits reuse. Industry cites the importance of community education for consumer behaviour improvements to mitigate this.
- Industry has identified that inconsistent standards or their application across jurisdictions and differing regulatory approaches increases administrative costs for the management of materials and missed opportunities for recycling and resource recovery.
- In 2025 Recycling Victoria identified a number of providers of essential services who have entered into voluntary administration or ceased operations.

17 Recycling Victoria (2025), Data hub, accessed on 19 December 2025
18 EPA (2024), Supporting information for separation distance guideline and landfill buffer guideline.

Case study

Addressing commercial viability risks with artificial intelligence vision and robotics – the University of Melbourne

Australian Government export restrictions have changed the nature of the Australian recycling market and removed potential end markets for lower grade materials. Researchers from the University of Melbourne are using artificial intelligence (AI) and machine learning to reduce contamination and increase efficiency in waste sorting to improve the commercial viability of plastics recycling.

PixaLens, established in response to the 2019 Australia Government ban on plastic waste export, identified the sector lacked the advanced technology needed to efficiently audit and sort waste at scale locally, relying on overseas AI and robotic systems, which weren't optimised for Australian waste streams.

In meeting with industry leaders in plastic recycling, PixaLens discovered the scale and severity of the risk, including insufficient material auditing, valuable materials being sent to landfill and recycling plants lacked the data needed to monitor infeed material, output material quality and overall factory performance for variable waste, directly affecting the pricing and profitability of materials.

PixaLens is developing an AI powered vision system paired with robotic automation to identify, classify and sort waste with high accuracy. The system can recognise various materials like plastics, paper, metal and even specific polymer types such as polyethylene terephthalate, high-density polyethylene and polypropylene, down to their colour and product type such as food and non-food grade, delivering these in single-polymer streams for high-quality recycling. This improves the value of recovered materials.

PixaLens, through the University of Melbourne, has secured $1.55 million through an Australia's Economic Accelerator Ignite grant, a Cooperative Research Centres Project Grant and Melbourne Proof-of-Concept funding to implement its initiative. The goal is to offer a cost-effective, Australian-made vision hardware and software system that not only competes with international alternatives but exceeds them.

Victorian Government progress towards risk mitigation and management

Throughout 2024–25, the Victorian Government has implemented programs and policies that will strengthen resilience within the waste, recycling and resource recovery sector and help to enable an effective transition to a circular economy. Key initiatives include the following:

- The publication of the Victorian Recycling Infrastructure Plan[19] (VRIP) in October 2024, which provides a roadmap for sector infrastructure and investment needs to minimise disruption risks and enable an effective transition to a circular economy. The VRIP includes actions on land use planning guidance and establishing an external infrastructure working group.
- The implementation of the RERCC reporting process, commencing in July 2024 has provided Recycling Victoria with a more detailed view of the risks within the waste, recycling and resource recovery sector and how they are being managed.[20] It enables targeted, broader government actions and the implementation of measures to strengthen sector resilience.
- The inclusion of waste emergencies and waste service disruption in the State Emergency Management Plan in November 2024, and led by Department of Energy, Environment and Climate Action (DEECA).[21] This aims to provide effective focus, resources and coordination for major disruptions to services that minimise interruption and enable a smooth resumption to business as usual. This activity lists DEECA, EPA, WorkSafe Victoria, Fire Rescue Victoria, Country Fire Authority and councils as participating agencies in mitigating and responding to waste emergencies. This should help industry support coordination of waste services and asset reinstatement and the return to reliable services.
- Inclusion of a circular economy in the Economic Growth Statement[22] released in December 2024, as one of 5 priority sectors for the state, highlights the strategic importance of the sector for Victoria's future development. Resilient service delivery in the waste, recycling and resource recovery sector will be critical to its implementation.
- The Victorian Industry Policy[23], also released in December 2024 and delivering on the Economic Growth Statement, supports the aims to strengthen local industries, enhance economic resilience and promote technological advancements across key sectors, including advancing a circular economy. Together, these demonstrate a commitment to and investment opportunities for the transition and alignment of a circular economy across government, beyond the waste, recycling and resource recovery sector.
- In October 2025, the Victorian Government released a 10-year plan for industrial land[24], as Victoria's roadmap to meet demand. This plan considers the priorities of the VRIP[25] and the circular economy key focus area of the Victorian Industry Policy.[26]
- WtE cap licence allocations announced in August 2025 are an important step in establishing this new industry. WtE facilities are required, once operational, to assist with mitigating mid to long term service disruptions to residual waste management and support resource recovery of materials that would otherwise go to landfill.
- A 12-month Parliamentary Inquiry which commenced in August 2025, will consider and report on the development and expansion of WtE in Victoria. It is envisioned that this inquiry may, amongst other factors, consider the implications and the adequacy of community consultation for this method of handling waste.[27]
- Commencement of planning for a mandatory battery product stewardship scheme announced for Victoria in October 2025, which is focused on minimising battery contamination and fires in waste, recycling and resource recovery services.

19 Recycling Victoria (2024), Victorian Recycling Infrastructure Plan
20 Recycling Victoria (2025), Responsible Entity Risk, Consequence and Contingency Plan
21 State of Victoria (Emergency Management Victoria) (2024), Victorian State Emergency Management Plan
22 Department of Treasury and Finance (2024), Victoria's Economic Growth Statement – Victoria: Open for Business
23 Department of Jobs, Skills, Industry and Regions (DJSIR) (2025), Victorian Industry Policy
24 Department of Transport and Planning (2025), A 10-year plan for industrial land.
25 Recycling Victoria (2024), Victorian Recycling Infrastructure Plan
26 DJSIR (2025), Victorian Industry Policy
27 Parliament of Victoria (2025), The development and expansion of waste to-energy (WtE) infrastructure in Victoria – Legislative Council Economy and Infrastructure Committee Inquiry, accessed on 19 December 2025

- Publication of Recycling Victoria's Circular Economy Market Report which provides market data and insights to inform policy, investment and regulatory decisions to support Victoria's circular economy and waste reduction targets.
- EPA's statement of regulatory intent on climate change 2025 to 2027[28] includes a focus area of major industry with increased pollution and waste risks due to climate change and a focus area on the circular economy.
- EPA has made progress on delivering a national guideline for the safe management of end-of-life LiB's.
- The Victorian Government's program of work to support a transition to a circular economy through facilitating investment in infrastructure, education and behaviour change and place-based community transition and circular product development and use (such as procurement practices).

These actions are reflected in the assessment of sector risks.

Responsible entity reporting on risk mitigation

The CERCC Plan 2026 is the second plan that is informed by information provided by responsible entities in their RERCC Plans. RERCC Plans provide valuable information about the actions responsible entities are taking to mitigate the risks they identify to their services and how the serious sector risks identified in the CERCC Plan are being assessed and managed within the sector. RERCC Plans also allow better assessment of the effectiveness of controls in place to mitigate sector risks and target potential measures.

The CERCC Plan 2025 outlined measures to be undertaken, where relevant, by responsible entities to further understand and strengthen the management of serious sector risks. All responsible entities have outlined how they have addressed these measures, or why the requested measure is not relevant to their organisation.

Responsible entities have articulated risks of disruption to services from internal and external sources and have outlined existing controls to manage these. Of note in 2025, responsible entities have focussed on strengthening their workforce as a key risk control, with succession planning and workforce strategies being implemented. Controls in place prevent risks occurring or minimise the consequences should a risk be realised. Responsible entities assess the effectiveness of the controls in managing their risks. Examples of the controls responsible entities have reported having in place to mitigate or manage risks included:

- **engineering controls** – fencing, weighbridges, colour coded equipment to prevent cross-contamination, fire suppression, automatic shut-down, process redundancy
- **administrative controls** – inspection procedures, maintenance programs, visitor management procedures, financial management practices, KPIs with contractors, risk assessments, sampling regimes, active weather monitoring, emergency/crisis management planning and testing, business continuity planning, relationships/agreements with other providers, business disruption insurance
- **technological controls** – automated sorting, advanced inspection technology, detection and alarms, cyber security controls (including multi-factor authentication and firewalls), disaster recovery planning
- **people controls** – workforce management plans, process training, competency testing.

28 EPA (2025), EPA: Our statement of regulatory intent on climate change 2025 to 2027, accessed on 19 December 2025

Sector challenge: Biosecurity emergencies present an external risk

There are external threat risks to waste, recycling and resource recovery services, which though unforeseen, will rapidly elevate demand for services. These surge events have the potential to interrupt service delivery, although the risks can be reduced by preparedness planning.

Foot-and-mouth disease (FMD), which affects livestock including cattle, buffalo, camels, sheep, goats, deer and pigs, was detected in Indonesia in 2022. Learnings from this biosecurity event informed preparedness activities for a potential incursion in Victoria. Agriculture Victoria modelled disease spread scenarios of an outbreak, including potential waste volumes. Waste modelling included estimating the number of carcasses, animal by-products (such as manure, bedding, animal feed, milk and liquid feed) and other waste generated from a response, such as clinical waste, to inform capacity demands.

To avoid disease spread, infected and contaminated material must be disposed of as 'quarantine and biosecurity waste' under EPA Environment Protection Regulations 2021. Agriculture Victoria and EPA work collaboratively to determine the most appropriate disposal option, considering cost, classification and risk.

Challenges associated with disposal include:

- transport of the materials off-farm when it cannot be managed on the infected premises. This requires using trucks that are licensed to transport biosecurity waste
- complex disposal considerations, including managing large numbers of carcasses quickly, for example if burying at landfills where necessary, digging deep burial pits at separate tipping faces, not designed to receive large animal carcases
- high-costs and limited availability for disposal at commercial facilities, including 3 landfill facilities and 3 clinical waste facilities, all located in the Melbourne metropolitan region
- challenges to service continuity for existing services, if having to accommodate this additional material.

Case studies

Reducing waste generated in agriculture emergencies

Emergency animal diseases (EAD) present an external threat to waste, recycling and resource recovery services, due to the potential for a large-scale rise in waste material. However, preparation can reduce these risks.

Experiences in responding to High Pathogenicity Avian Influenza outbreaks in 2024 and 2025 has led to significant improvements in how Agriculture Victoria's response teams plan for and handle waste. By focusing first on reducing the amount of waste generated, through cleaning and decontaminating materials (for example, pallets and packaging) and composting poultry manure and litter rather than taking it to landfill, the costs, potential spread of the disease and risks to waste services were all minimised.

Agriculture Victoria is using this experience and funding from the Victorian Government's Sustainability Fund, to investigate more environmentally sustainable methods for use of these materials to a higher order, including composting or rendering. These alternatives reduce service demand risks of waste generated by an EAD outbreak.

Investment from the industry provided Livestock Biosecurity Fund enabled a cattle composting trial as an alternative to off-farm landfill disposal. Through thermophilic composting, designed to raise the material to temperatures over 55 degrees Celsius, the carcasses and a range of diseases can be destroyed.

Victorian waste, recycling and resource recovery sector risks

Risk assessment process

Recycling Victoria followed a standard risk methodology to identify risks and develop the CERCC Plan. Refer to methodology details in **Appendix 4**.

There are elements of each CERCC Plan that will remain consistent between plans, as the content of the plan is prescribed by the CE Act and the CE Regulations. In reviewing this plan, risks have been considered through the lens of disruption to waste, recycling and resource recovery services and of impeding an effective transition to a circular economy.

Risk identification

The interconnected nature of the sector means that disruptions to one business can have cascading effects on other businesses, which makes risk mitigation at an individual business level alone insufficient to strengthen the sector. Likewise, the risks to the effective transition to a circular economy requires a statewide view.

The context in which the sector operates is monitored regularly to identify the impacts of new challenges, which may emerge as new risks or change the assessment of existing risks and activities and programs which may improve the management of the risks. This information, along with an analysis of the RERCC Plans provided by responsible entities, is used to determine risks that are deemed to be serious risks and included in the CERCC Plan. This and consultation with key stakeholders on the serious sector risks presented in the CERCC Plan informs the final identification and rating of risks.

The CERCC Plan 2025 included 7 serious risks to the resilience of the sector and transition to a circular economy:

- contamination
- external threats
- planning
- social acceptance
- internal threats
- economic shocks and stressors
- commercial viability in the market.

Through the review process, these risks have been assessed and updated. They remain as serious sector risks, however the previous planning risk has been split into 2 risks:

- The **planning** risk now focuses on effective planning for regulatory approvals by sector entities and regulators, including respectively understanding and applying legislative requirements.
- A new risk, **land use competition and encroachment**, reflects the competition for and excessive encroachment upon a limited supply of industrial and commercial land. This may lead to an inability of the sector to meet service demand and to effectively support transition to a circular economy.

Another new serious sector risk identified is **data**. This risk underlines the importance of having accurate and up to date data on the production, processing and disposal of materials to enable entities to better manage for service continuity and ensure effective planning for the sector.

Risk analysis

The CE Act requires that, for each risk, a determination of the severity of the harm and the likelihood of that impact occurring be undertaken. This determination is made using the consequence and likelihood tables at **Appendix 4** with a consideration of the controls (such as policies, processes, assets, staff) currently in place to prevent the risk occurring or minimise the consequences should the risk be realised. This includes controls articulated by responsible entities within their RERCC Plans, activities by industry bodies and government policies, programs and regulations. Those activities proposed to be undertaken to improve the controls have not been considered when determining the impact and likelihood. These are proposed treatments which, when implemented, should improve the management of the risks.

For each risk in this plan, its potential impact of failure, disruption or hindrance to the provision of services has been determined separately from its potential financial impact to Victoria's transition to a circular economy, with their corresponding likelihoods.

The 9 serious sector risks have been assessed. The contamination risk has been assessed as Likely rather than Almost Certain as provided in 2025. Analysis of incidents has demonstrated that while there are frequent incidents within individual facilities, the likelihood of an incident with serious disruption to service with a Major impact is not Almost Certain, as defined at **Appendix 4**.

Due to continuing inflationary pressures and international uncertainty, the economic shocks and stressors risk has moved in likelihood from Possible to Likely to have a Major impact on the resilience of a service.

Risk evaluation

Once the impact and likelihood were determined for each risk, they were evaluated using the qualitative risk matrix as outlined in **Appendix 4**. Risks for which either the assessment for resilience of the sector or transition to a circular economy in accordance with the risk matrix (**Figure 5** in **Appendix 4**) as having a Significant or High rating were considered serious risks which are required to be listed in a CERCC Plan. The risk assessment and risk rating for the 9 serious sector risks against both service disruption and the potential impact to the transition to a circular economy are demonstrated at **Figure 3**.

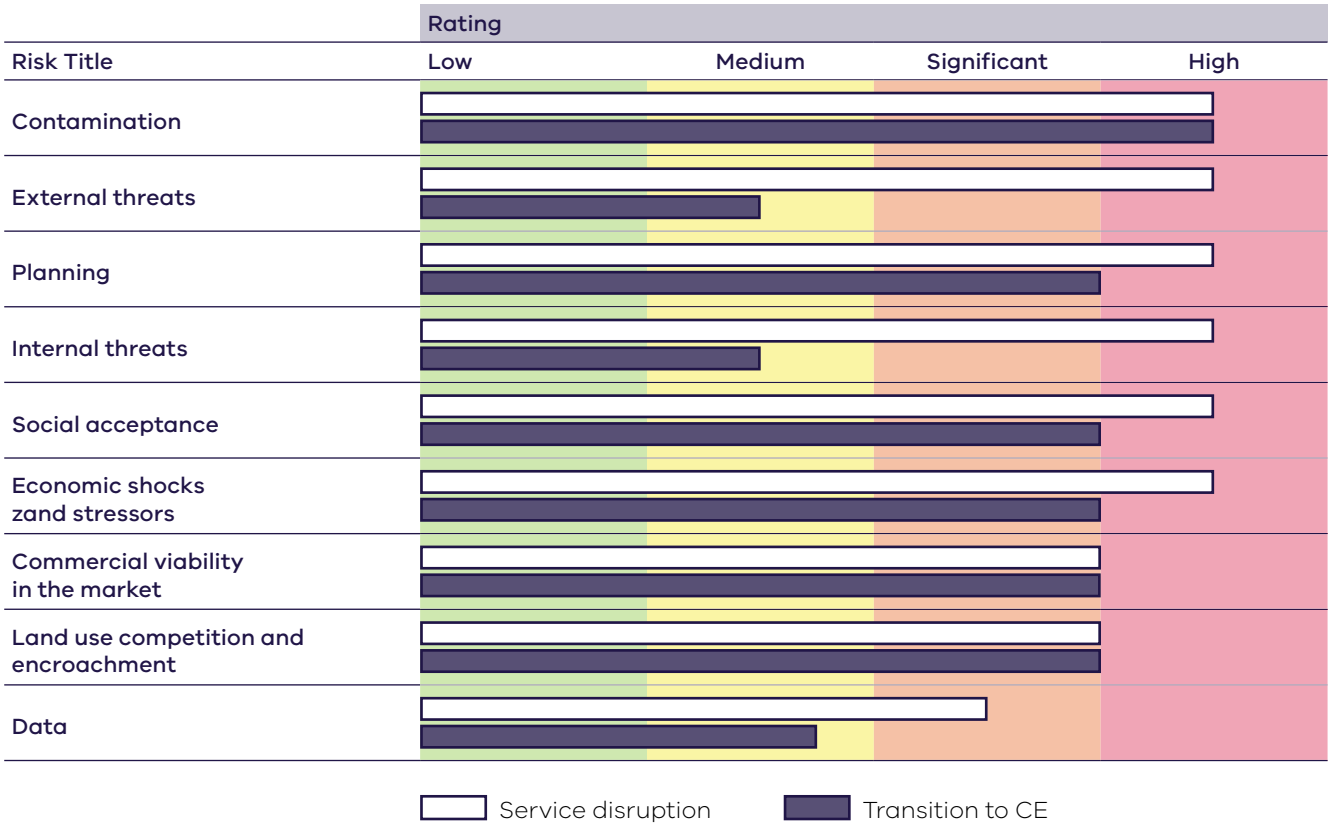

Figure 3: Serious sector risks and their ratings

Serious sector risks

The 9 serious risks have been outlined below with their causes, consequences and assessments. Responsible entities are to consider how these risks affect the services they offer and identify the mitigations they have in place or propose to implement to prevent or minimise the impacts of them and include in their RERCC Plan.

Table 2: Risk 1 – Contamination

Risk description: Unacceptable levels of contamination of a waste material or stream			
	Impact	Likelihood	Rating
Service disruption	Major	Likely	High
Transition to a circular economy	Major	Likely	High

Causes and consequences of contamination risk events

Causes	Consequences
• consumer and business behaviour, such as kerbside contamination • materials entering or within the market that are complex to process • emerging contaminants, such as PFAS • insufficient separation of waste streams by businesses • lack of accessible disposal options for certain products • inadequate detection or increased requirements for testing • inadequate technical ability in system to sort highly contaminated material • contracting arrangements that do not consider contamination effectively	• increase in fires or chemical pollution incidents at waste, recycling or resource recovery facilities resulting in concurrent or protracted service disruptions • oversupply of unusable products, resulting in stockpiling non-compliance or affecting viability of end markets • potential increase in environmental pollution • increased costs for additional sorting, handling and disposal of contaminated waste • harm to human health, including directly to operators and potentially to community from contaminated products • lower recovery rates and greater disposal of recoverable materials in landfill • loss of consumer confidence • equipment damage and increased maintenance needs

Table 3: Risk 2 – External threats

Risk description: Severe or sustained external disruption event affecting services			
	Impact	Likelihood	Rating
Service disruption	Major	Likely	High
Transition to a circular economy	Moderate	Possible	Medium

Causes and consequences of external threats risk events

Causes	Consequences
• emergencies, as defined in the *Emergency Management Act* 2013, including: – earthquake, flood, windstorm or other natural event – a fire, an explosion, a road accident or any other accident – a plague or an epidemic, or contamination – a warlike act or act of terrorism, whether directed at Victoria or a part of Victoria or at any other Australian state or a hijack, siege or riot – cyber-security emergency including malware, ransomware, denial of service attacks. • supply chain limitation or failure • international market or policy changes • critical utility outage such as power, telecommunications, water, gas, or loss of or delayed access to key transport or transport routes	• damage to assets, infrastructure or energy supply essential to service provision • disruption to the collection, transportation and processing of material • increased waste generation and rates of material contamination • inability to reuse, recycle or recover emergency waste material • an inability to communicate, navigate effectively • stockpiling of waste material awaiting processing, when services cannot be delivered • a loss of public trust in waste, recycling and resource recovery services due to lack of resilience

Table 4: Risk 3 – Planning

Risk description: Inadequate planning for capacity and capability			
	Impact	Likelihood	Rating
Service disruption	Major	Likely	High
Transition to a circular economy	Major	Possible	Significant

Causes and consequences of planning risk events

Causes	Consequences
• variable capability and capacity for business planning in the sector • a lack of appreciation, or variable consideration of, and planning for regulatory approval requirements • workforce constraints, such as staff unavailability due to fatigue/illness, skills shortages or widespread industrial action • rapid changes in consumer behaviour that increases generation of certain materials • updated legislation, regulation, standards or guidance not appropriately considered • inability to spread demand across facilities through reluctance to collaborate • inadequate oversight of emerging waste generation trends • poor data collection methods or retention • supply chain limitations, including consumables, feedstock or equipment • poor forward planning for major state infrastructure projects	• insufficient capacity in services to match demand, including sufficient residual waste landfill capacity, prior to alternative management capacity • inability to expand capacity of existing waste management facilities • reduction in processing capacity or inability to perform functions and continue services • increase in prevalence of non-compliant operations such as stockpiling of material • requirement to operate in less optimal locations or areas such as temporary transfer facilities • community opposition to facility location and expansion • increased costs to manage material such as transport to alternative possessing facilities • lack of public confidence and trust in the waste, recycling and resource recovery system • greater prevalence of infiltration of the sector by organised or opportunistic criminal operations

Table 5: Risk 4 – Internal threats

Risk description: Severe or sustained internal disruption event affecting services			
	Impact	Likelihood	Rating
Service disruption	Major	Likely	High
Transition to a circular economy	Moderate	Possible	Medium

Causes and consequences of internal threats risk events

Causes	Consequences
• inadequate or insufficient maintenance of plant and equipment, particularly critical equipment • mishandling of hazardous material • vehicle accidents • poor site hygiene protocols • sabotage/disgruntled insiders • poor risk culture/control regime • inadequate standard operating procedures • inability to attract and retain the right workforce • non compliance with regulatory requirements • illegal activities, including breaching standards, stockpiling and dumping • inaccurate or unavailable data to inform decision making • poor financial management	• significant disruption in the resource recovery process • harm to employees and the community • air, land or water pollution • damage to infrastructure, assets or storage • possible hazardous materials contamination of processed material • an increased prevalence of waste stockpiling • legal proceedings in relation to hazards and workplace health and safety issues • insolvency, foreclosure, mergers, acquisitions • an increase in potentially recyclable material entering landfill • a loss of public trust in waste, recycling and resource recovery services

Table 6: Risk 5 – Social acceptance

Risk description: A loss of, or a significant reduction in, or an inability to gain a social licence to operate			
	Impact	Likelihood	Rating
Service disruption	Major	Likely	High
Transition to a circular economy	Major	Possible	Significant

Causes and consequences of social acceptance risk events

Causes	Consequences
• high profile service disruptions • minimal participation in, or failures of, recycling programs and voluntary product stewardship schemes • underinvestment, or low participation, in education and behaviour change campaigns • socio-economic variability • real or perceived impact on health, property prices and lifestyle • change to planned facility operating life or site use, post operation phase • increased expectations across the community and globally in response to climate action • variable access to certain services in regional and remote areas • recyclable materials ending in landfill, without reasonable excuse • public concern at potential WtE facilities/locations due to perceived impacts • consumer concerns over certain material types/ content, such as microplastics • inconsistent policy design across jurisdictions	• reduced participation in recycling or resource recovery services • requirement for new/expanded landfill sooner, to address demand • resistance to higher order objectives in the transition to a circular economy • persistently higher contamination rates • difficulty in gaining approvals to operate • lower demand for end markets • inability to recover true costs of service provision • resistance to further development within the sector • increased incidence of illegal dumping • delay or inability to establish key facilities • heightened public scrutiny and the potential for further appeals to proposal • slower processing resulting impacts on system-wide capacity • underutilisation of council services, such as resource recovery facilities

Table 7: Risk 6 – Economic shocks and stressors

Risk description: Extrinsic factors influencing the system making it not cost effective for operators to provide services, due to changes in market conditions			
	Impact	Likelihood	Rating
Service disruption	Major	Likely	High
Transition to a circular economy	Major	Possible	Significant

Causes and consequences of economic shocks and stressors risk events

Causes	Consequences
• wider economic issues such as inflation impacts commercial viability • rapid or unexpected changes in commodity prices • increasing costs of business operations • import/export scale of required investment to keep pace with a changing characterisation of material streams • tariffs and their unpredictable application/rate on exported materials • adjustment to increased or changed non-waste and recycling specific regulation • waste crime and/or operators that undercut legitimate businesses • lack of producer accountability for the life of products • narrowing of margins from increasing feedstock costs and decreasing affordability • cost of recycling and resource recovery becomes greater than virgin materials and disposal	• an increase in disruptions in the supply chain • voluntary and involuntary exit of market players • difficulties in predicting revenue and undertaking longer-term investment planning • insolvency, foreclosure, mergers, acquisitions • barriers to new market entrants • unaffordable access to services for consumers under financial strain • reduced investment in new technologies, expansion and diversification • renegotiation or variations of waste management contracts • increased rates of non-insurance and under-insurance

Table 8: Risk 7 – Commercial viability in the market

Risk description: Intrinsic factors within the system, services or market are not commercially viable			
	Impact	Likelihood	Rating
Service disruption	Major	Possible	Significant
Transition to a circular economy	Major	Possible	Significant

Causes and consequences of commercial viability in the market risk events

Causes	Consequences
• insufficient, immature or cost prohibitive circular economy end markets, particularly in Victoria • products are not cost competitive against raw or virgin materials • raw or virgin materials are not subject to the same testing requirements as recycled material • perceptions of inferior performance of materials or products • cost prohibitive research and development to find new products or markets • loss of markets, for example, as an adjustment to export bans • exemptions to export bans reducing viability of developing onshore recycling • scale of required investment to keep pace with a changing characterisation of material streams • anti competition policy preventing cooperative collaboration • a lack of community knowledge in relation to accessing materials from recycling or resource recovery • inadequate volume of material in services or across the system • low margin – high operational costs favours larger scale operators over smaller scale operators • underlying market conditions that may not support circularity without intervention • focus on waste and recycling over truly circular solutions	• delay to effectively transition to a circular economy • loss of community confidence in recycling • reduced investment in new waste, recycling and resource recovery infrastructure • insolvency, foreclosure, mergers, acquisitions • stockpiling of material • increased pressure on landfill services • inability to achieve cost parity to similar products made with unrecycled content • increased market consolidation • reduced business profitability • difficulties in predicting revenue and undertaking longer-term investment planning

Table 9: Risk 8 – Land use competition and encroachment

Risk description: Land use competition and excessive encroachment for industrial and commercial land, which is in limited supply			
	Impact	Likelihood	Rating
Service disruption	Major	Possible	Significant
Transition to a circular economy	Major	Possible	Significant

Causes and consequences of land use competition and encroachment risk events

Causes	Consequences
• population growth driving demand for residential zoned areas over industrial or commercial land use zones • finite supply of appropriately zoned of land in Victoria, with competition from other industries in commercial and industrial zoned land • potential amenity impacts of waste, recycling and resource recovery entities • separate approving agencies for land use planning, environmental approvals and appeals can result in inefficiencies and delays to decision making • insufficient consideration of land use planning conflicts restricting expansion of existing facilities, or building new facilities • long distances impacting commercial viability for locations in remote and regional communities increasing pressure on urban locations • cost and time of complying with buffer and separation guidance requirements or achieving enhanced buffer protection and planning scheme amendments	• inability to expand capacity of existing waste management facilities • reduction in processing capacity or inability to perform functions and continue services • competition for available land and increase in capital costs to acquire suitable land • community opposition to facility location and expansion changes the conditions for sector permissions, may force closure of key infrastructure or inability of the sector to grow and diversify facilities moving to less optimal locations with increased cost of transport

Table 10: Risk 9 – Data

Risk description: Inadequate or insufficient data related to waste, recycling and resource recovery services			
	Impact	Likelihood	Rating
Service disruption	Major	Possible	Significant
Transition to a circular economy	Moderate	Possible	Medium

Causes and consequences of data risk events

Causes	Consequences
• inconsistent data collection and quality assurance processes • information asymmetries, lack of transparency and constraints on data sharing • inadequate capability to collect or analyse data • insufficient investment in data collection and management • fragmentation of data systems • cyber-security incidents • insufficient stakeholder engagement and lack of incentive for data sharing • some material streams are a challenge to collect data, such as electronic waste (e-waste) • limitations on data accuracy and the need to use best available data for material streams beyond landfill and hazardous data	• challenges to effective contingency planning • inability to respond effectively to an emergency event • inability to effectively plan for capacity needs – facilities may reach capacity sooner than planned • inability to promote or direct essential service needs • ineffective planning for the transition to a circular economy • public scepticism towards government data management • reduced capacity to report on whether policy and regulations are delivering as intended • redundant assets • reliance on voluntary data which has limitations, for example relying on estimates of tonnes managed • constraints on ability to track progress on government targets

Actions proposed to be undertaken by responsible entities

Recycling Victoria has summarised actions proposed to be taken, by responsible entities from their RERCC Plans, to prevent or minimise the risks identified, in accordance with Section 74B(2)(e) of the CE Act. These actions are in response only to the risks identified in the CERCC Plan 2025.

Table 11: Actions proposed to be undertaken by responsible entities

Contamination	External threats
• Expand provision of educational materials • Implement inspection programs • Implement audit program • Advocate for product stewardship programs • Review staff training with focus on use of in truck cameras to identify contamination	• Enhance business continuity, emergency management and crisis management processes • Explore partnerships with other organisations • Improve internal and external cyber-security measures
Planning	**Social acceptance**
• Improve data collection • Strengthen relationships with local and state government • Implement and strengthen strategic planning functions	• Develop stakeholder engagement plans • Implement odour management • Implement marketing strategies • Conduct site tours
Internal threats	**Economic stressors**
• Implement workforce management plan including succession planning and award review • Implement optimised maintenance program • Enhance business continuity and emergency management processes • Develop backup agreements with other providers	• Investigate diversification opportunities of business • Implement cash flow controls • Establish financial reserves (insurance, emergency credit) • Look to secure long-term agreements with key suppliers
Commercial viability in the market	
• Invest in product innovation • Implement market monitoring	

Responsible entity measures

Recycling Victoria's functions relating to risk under the CE Act (refer to Section 16) include to identify, monitor, manage and mitigate risks and harm associated with waste, recycling or resource recovery services. Recycling Victoria must also monitor and review whether RERCC Plans are suitable to prevent or minimise risks of serious failure, disruption or hindrance to the provision of essential waste, recycling or resource recovery services.

The CE Act requires the CERCC Plan to specify any further measures for responsible entities to undertake to help prevent or minimise the risks (refer to Section 74B(2)(d) of the CE Act).

Recycling Victoria determined the need for additional measures to prevent or minimise the material risks identified through a gap analysis. This considered existing controls, subsequent risk evaluations and actions that are proposed to be implemented by responsible entities in RERCC Plans.

Responsible entities will need to document their response to each measure below, including suitably justifying where a measure is not relevant to their operations, in their RERCC Plan.

General measure

- For each waste, recycling and resource recovery service provided by the responsible entity, outline the contingency measures and notification procedures in place, should the service be compromised, including potential limitations to the contingency processes.

Planning and land use competition and encroachment

- Outline the controls in place or actions to be undertaken, covering the next 3 years, for obtaining necessary regulatory approvals required for service delivery, including reasonable engagement and determination timeframes.
- Outline suitable contingencies in place, or actions to be undertaken to maintain service continuity if approvals are delayed, or not successful.

Social acceptance

- Outline the plans and processes in place to proactively build and maintain public trust and confidence in waste, recycling and resource recovery services delivered, where social acceptance risks exist.

External, Internal threats and data

- Outline the controls in place, or actions to be undertaken, to prevent cybersecurity incidents which would result in a loss of sensitive data or impact service delivery.
- Provide evidence of any cybersecurity threat exercises undertaken (tests of cybersecurity controls) including outcomes and improvements made – Example exercise – https://www.cyber.gov.au/business-government/exercise-in-a-box

Contamination

- Outline the controls in place, or actions to be undertaken, for each waste, recycling and resource recovery service provided, to manage or reduce contamination causing disruption and/or to improve product quality.
- Review the guidelines within the PFAS National Environmental Management Plan, updated in March 2025, and update risk assessments and control measures appropriately.

Economic shocks and stressors

- Outline financial management controls in place, or actions to be undertaken, to minimise the impacts of external financial factors on service delivery.

Commercial viability in the market

- Outline the controls in place, or actions to be undertaken, to access resilient and diverse end markets.

While further details of how the measures have been implemented are not required in the RERCC Plans, evidence can be requested from a responsible entity to demonstrate compliance with their RERCC Plan and that the plan is suitable to prevent or minimise service risks (under Section 74J of the CE Act).

Engagement and support

The Victorian Government remains committed to supporting Victorians accessing waste, recycling and resource recovery services and continuing the transition to a circular economy.

Engagement

On publication of the CERCC Plan in May 2025, Recycling Victoria conducted a series of information sessions in June 2025 to further introduce entities to the RERCC planning process. This included legislative considerations, understanding the criteria of becoming a responsible entity and assisting essential service providers to complete the responsible entity self-assessment process. This enabled responsible entities to successfully complete their notification submissions by the notification deadline on 9 July 2025.

Recycling Victoria conducted a series of voluntary workshops with responsible entities during July and August 2025 to determine their need for compliance support and understand the usefulness of supports provided to responsible entities with their inaugural RERCC Plan preparation and submission. We hosted information sessions in August 2025 with responsible entities, outlining the requirements for the RERCC Plans including responding to the responsible entity measures.

Consultation on a draft CERCC Plan 2026

Recycling Victoria provided a draft CERCC Plan 2026 for feedback to:

- responsible entities
- public sector bodies that may be affected by the CERCC Plan
- any other person or entity considered appropriate by the Head, Recycling Victoria, which included organisations involved in waste, recycling or resource recovery, a peak body or association, local government and the Municipal Association of Victoria.

We consulted with these stakeholders from 13 October to 9 November 2025, via the Engage Victoria platform. We also held information sessions to inform stakeholders on the consultation process.

We received 13 survey responses via Engage Victoria and a further 8 supplementary submissions. Stakeholders also provided feedback during consultation information sessions.

Stakeholder feedback on the risks strongly supported the scale and significance of the risks identified. Additional risk causes and consequences were identified and where relevant, these have been included in the risk tables.

Some responsible entities raised concerns about the administrative burden relating to the proposed measures and potential duplication of existing reporting to other bodies. In response to this feedback, the wording of the measures was refined where appropriate to clarify their intent for responsible entities, in line with the requirements of the CE Act and to mitigate regulatory burden concerns.

We also received and noted feedback not directly related to the CERCC Plan 2026, such as requests for changes to regulations or due dates for RERCC Plan submissions.

Appendices

Appendix 1 – Table of prescribed essential waste, recycling or resource recovery services

Table AP1: Essential waste, recycling or resource recovery services

Item	Essential waste, recycling, & resource recovery service	Description of the service	Exclusions
1	Landfill services	Services relating to the operation of a landfill facility that receives, discharges or deposits solid waste to land, including waste containment and all associated services including but not limited to landfill gas management and leachate disposal. This includes landfill services related to the disposal of any of the following: (a) hazardous waste; (b) putrescible waste; (c) solid inert waste.	Services relating to: (a) the operation of a municipal landfill facility occupied by a council servicing fewer than 5000 people; or (b) a landfill used only for the discharge or deposit of mining or extractive industry wastes in accordance with the *Mineral Resources (Sustainable Development) Act (1990)* that discharges or deposits waste solely to land; or (c) the care and maintenance of a closed landfill facility.
2	Hazardous waste services	Services relating to any of the following: (a) the management of reportable priority waste; (b) the management of the disposal of radioactive materials; (c) services relating to the disposal of dangerous goods.	Services relating to the temporary storage of: (a) 40 m^3 or less of any biomedical waste not generated at the site by a council, a health service or an ambulance service; or (b) less than 10 m^3 of double wrapped, non-friable asbestos not generated at the site for a period of no more than 60 days on land: (i) permitted under a planning scheme made under the *Planning and Environment Act (1987)* for use as a transfer station and which is allowed to accept asbestos; or (ii) used as a depot by a public utility or a contractor of the public utility that stores only asbestos generated by the public utility or a contractor of the public utility and that is 100 metres or more from sensitive land uses, including residential premises, health services, childcare centres and education centres; or (c) 1000 litres or less of designated waste not generated at the site if the storage is for a period of no more than 60 days.
3	Residual waste services	Services relating to residual waste arising from any of the following; (a) municipal activities; (b) commercial activities; (c) industrial activities; (d) public waste services.	
4	Thermal waste to energy services	Services relating to the operation of a thermal waste to energy facility.	

Item	Essential waste, recycling, & resource recovery service	Description of the service	Exclusions
5	E-waste services	Services relating to the management or disposal of e-waste.	
6	Long term waste containment services	Services relating to the long-term on-site retention of any waste type in a structure (other than a landfill) specifically designed to contain waste.	
7	Construction and demolition waste services	Services relating to wastes generated by construction and demolition activities.	Services related to skip bin services for private domestic construction and demolition works.
8	Metal recycling services	Services related to waste metals.	
9	Municipal resource recovery centre and transfer station services	Services provided by or on behalf of a council or Alpine Resorts Victoria relating to the operation of a: (a) resource recovery centre; or (b) transfer station.	
10	Recycling services (commingled)	Services relating to any of the following: (a) recyclable materials (commingled) collected from: (i) municipal activities; or (ii) commercial activities; or (iii) industrial activities; or (iv) public waste services; (b) recycling from waste arising from municipal, commercial or industrial activities.	
11	Organics services	Services related to organic wastes including any of the following: (a) municipal food organics and garden organics services; (b) commercial and industrial food organics and garden organics services; (c) municipal green waste services; (d) commercial and industrial green waste services; (e) services processing organic waste by aerobic or anaerobic biological conversion; (f) rendering, in which substances derived from animals are manufactured or extracted.	Services related to operations processing organic waste generated on-site where the processed organic waste is retained on-site.
12	Public waste services	Waste services provided by or on behalf of a government agency on public land including any of the following: (a) waste services; (b) litter services; (c) waste-related maintenance of public assets including roadways (street sweeping and removal of roadkill); (d) collection, transportation and disposal of illegally dumped waste.	

Item	Essential waste, recycling, & resource recovery service	Description of the service	Exclusions
13	Secure waste destruction services	Services providing secure destruction of waste including any of the following: (a) documents; (b) records; (c) products; (d) e-waste; (e) hazardous waste; (f) other waste of a secure or confidential nature.	
14	Recycling services (glass)	Services relating to: (a) recyclable glass materials collected from any of the following: (i) municipal activities; (ii) commercial activities; (iii) industrial activities; (iv) public waste services; (v) container deposit scheme; (b) the recycling of glass arising from municipal, commercial or industrial activities.	
15	Container deposit scheme services	Services relating to the operation of the container deposit scheme.	

(sourced from Table 1 in Schedule 1 to the CE Regulations).

Appendix 2 – Definition of responsible entity

The following excerpt is from regulation 6 of the CE Regulations (Circular Economy (Waste Reduction and Recycling) (Risk, Consequence and Contingency Plans and Other Matters) Regulations 2023) and defines a responsible entity, as well as their role in the CERCC Plan and RERCC Plans.

Regulation 6 – Responsible entity

(1) For the purposes of the definition of ***responsible entity*** in section 74A of the CE Act, an entity is prescribed as a responsible entity if:

(a) the entity provides an essential waste, recycling or resource recovery service that is not an essential service within the meaning of section 74C of the *Emergency Management Act 2013*; and

(b) the entity

(i) holds 20% or more of the Victorian market share for that service or that service for a type of waste; or

Example
Clinical waste is a type of waste dealt with by an essential waste, recycling or resource recovery service that provides hazardous waste services.

(ii) holds one or more government contracts under which it delivers that service, with a total combined value of over $50 million over the life of the contracts; or

(iii) provides services under ongoing arrangements or at regular intervals in 5 or more declared regions.

(2) A public sector body is not a responsible entity unless it provides an essential waste, recycling or resource recovery service as specified in sub-regulation (1):

(a) as one of its statutory functions; or

(b) for reward or profit.

(3) Sub-regulation (1)(b)(i) does not apply to a service if:

(a) a CERCC Plan is not in force; or

(b) the total annual amount of waste managed in Victoria by all providers of that service is not published in the CERCC Plan that is in force.

(4) Sub-regulation (1)(b)(i) does not apply to a service for a type of waste if:

(a) a CERCC Plan is not in force; or

(b) the total annual amount of waste of that type managed in Victoria by all providers of that service is not published in the CERCC Plan that is in force.

(5) For the purposes of sub-regulation (1)(b)(ii), the value of a contract does not include the value of any option to extend that contract.

(6) For the purposes of sub-regulation (1)(b)(iii), a person does not provide a service in a declared region solely by transporting waste and materials for resource recovery:

(a) through that region; or

(b) to that region for the purpose of being aggregated, stored, treated or disposed of at a facility operated by another party.

Appendix 3 – Total amount of waste managed in Victoria for the specified period

The following information satisfies the data provision requirements of the CERCC Plan as outlined in regulation 11 of the CE Regulations (**Table AP2**).

As per regulation 7 of the CE Regulations:

The Victorian market share held by an entity providing an essential waste, resource recovery and recycling service during a specified period is the amount of waste managed in Victoria by the entity in that period:

a. in the course of providing that service, expressed as a percentage of the total amount of waste managed in Victoria by all providers of the service in that period; or

b. in the course of providing that service for a type of waste, expressed as a percentage of the total amount of waste managed in Victoria by all providers of that service for that type of waste in that period –

as the case requires.

The amount of waste included in the relevant section of Table 11 applies for the purposes of determining an entity's Victorian market share in the financial year (FY) commencing 1 July 2024 and ending on 30 June 2025. All data is rounded to the nearest thousand tonnes.

The sources of data include:

1. EPA – Landfill levy returns 2024–25
2. EPA – Hazardous Waste Tracker 2024–25
3. Recycling Victoria – Victorian Local Government Annual Survey 2024–25
4. Recycling Victoria – Container Deposit Scheme services period reporting data 2024–25
5. Recycling Victoria Data Hub – https://www.vic.gov.au/recycling-victoria-data-hub

Table AP2: Total amount of waste managed in Victoria for each essential waste, recycling or resource recovery service for the specified period

Essential waste, recycling and resource recovery service		Tonnes for the specified period (2024–25 FY)
1.	**Landfill services, including the following types of waste:**	
	a) Hazardous	769,800
	b) Putrescible and solid inert^	4,310,100
2.	**Hazardous waste services**	2,208,400
3.	**Residual waste services, including the following types of waste:**	
	a) Municipal	1,446,900
	b) Commercial and Industrial*	2,818,100
4.	**Thermal waste to energy services**	–
5.	**E-waste services**	–
6.	**Long term waste containment services**	–
7.	**Construction and demolition waste services**	5,535,000
8.	**Metal recycling services**	1,454,900
9.	**Municipal resource recovery and transfer station services#**	456,700
10.	**Recycling services (commingled), including the following types of waste:**	
	a) Municipal	476,800
11.	**Organics services, including the following types of waste:**	
	a) Municipal	707,000
	b) Processing organic waste by aerobic or anaerobic biological conversion	1,342,900
12.	**Public waste services**	–
13.	**Secure waste destruction services**	–
14.	**Recycling services (glass), including the following types of waste:**	
	a) Municipal	16,800
	b) Recycling glass arising from municipal, commercial or industrial activities	136,100
15.	**Container deposit scheme services+**	64,000

Notes:

1. ^ Type of waste includes material disposed at any licenced landfill for all non-hazardous waste (putrescible and solid inert waste from both municipal and industrial sources, including fill material).
2. * Type of waste includes commercial and industrial and construction and demolition material (excludes fill material).
3. # Service is defined as those provided by or on behalf of a council or Alpine Resorts Victoria.
4. + Service is defined as those provided through the container deposit scheme refund collection point network.
5. Further information about data sets relating to services 7, 8, 9, 10, 11 and 14 are available here https://www.vic.gov.au/recycling-victoria-data-hub.
6. Where volumes have not been reported, this is due to a lack of data availability at the time of reporting.

Appendix 4 – Victorian waste, recycling and resource recovery sector risk assessment process

Risk management process

The CERCC Plan risk management process is aligned with *International Organization for Standardization (ISO) 31000 – Risk Management Guidelines*[29] (**Figure 4**) to maintain common language and a recognisable approach, while allowing the process to remain flexible and adaptable to the complexity of circular economy sector risks.

The *ISO 31000 – Risk Management Guidelines* is a widely accepted, generic workflow for risk assessment that has been largely included in a range of international, national and state emergency risk guidelines, management plans and reports.

Figure 4: Risk process as detailed in the ISO 31000 – Risk Management Guidelines

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Scope, context, criteria

The scope of the risks for the CERCC Plan are outlined in the CE Act. The context for waste, recycling and resource recovery services is reviewed at a Global, National and Victoria level.

Risk assessment process

Risk identification

As the context changes, emerging risks of serious failure, disruption or hindrance to the provision of waste, recycling and resource recovery services and identify financial risks to Victoria's transition to a circular economy and to responsible entities are identified and articulated.

Risk analysis

The CE Act requires the likelihood and consequence of each risk that has been identified including the severity of the harm that may result to be outlined. The risk analysis for the CERCC is undertaken with consideration of the preventative and reactive controls in place. The effectiveness of each control is assessed utilising the control effective

The sector risk assessment uses the consequence guides (Table AP3 – Table AP11 in **Appendix 4**) and a likelihood rating and description to determine the probability of a risk, using Table AP12 in **Appendix 4**.

Risk evaluation

Once the likelihood and consequence ratings were determined for each risk, they are assessed using a qualitative risk matrix that combines the consequence and the likelihood levels to determine the risk level. The risks are categorised as high, significant, medium or low, depending on the likelihood and consequence ratings.

Risks scored in accordance with a risk matrix (**Figure 5**) identified as having a significant or high rating were considered serious risks. These risks are tested through consultation to confirm the risks.

Risk treatment process

Based on the risk ratings and risk treatment decision table at AP13 the risk treatment options are:

- avoiding risk
- removing a risk source
- changing the likelihood of the source of risk occurring
- changing the impact should the risk occur
- sharing the risk
- retaining the risk by informed decisions.

29 International Organization for Standardization (2018), ISO 31000:2018 Risk Management Guidelines

Recording and reporting

The risks identified, including their effectiveness at identifying serious risks to sector service continuity and material circularity will be recorded and reported on in the CERCC Plan.

The Minister can direct the preparation of a written report on the CERCC Plan under section 74E of the CE Act. The report may include:

- the CERCC Plan's ongoing suitability
- the effectiveness of measures to prevent or minimise any risks identified
- the compliance of a responsible entity or class of responsible entity with the CERCC Plan
- any actions the Head, Recycling Victoria has carried out or proposes to carry out in response to the report
- recommendations that the Head, Recycling Victoria considers appropriate.

Monitoring and review

Recycling Victoria has monitored and reviewed CERCC Plan risks as part of risk recording and reporting processes.

RERCC Plans, prepared by responsible entities inform the update to risks, actions proposed to be undertaken and measures required of responsible entities, informed by assessing existing controls.

Communication and consultation

Recycling Victoria will continue to communicate and consult on risks identified in the CERCC Plan, through consideration of the RERCC Plans and their associated statements of assurance, and in review of consultation responses to this draft CERCC Plan.

Risk assessment and rating references

Identifying and assessing existing controls

The sector risk assessment uses Table AP3 to assess the effectiveness of existing controls.

Table AP3: Control effectiveness

Control effectiveness rating	Description
(1) Good	• Controls are well designed, address the risk and are effective and reliable at all times • Require ongoing maintenance and monitoring • There are multiple controls in place to reduce risk
(2) Satisfactory	• Most controls are designed correctly and are in place and effective • Controls address risk at least partially however may require further improvement • Some work needs to be done to improve operating effectiveness or management has doubts about operational effectiveness and reliability of some controls • Consideration should be given to implementing further controls for risks outside of appetite
(3) Poor	• There are controls, but they do not effectively address the risk or require significant improvement • Most of the controls do not seem correctly designed and do not operate effectively • Significant control gaps • Additional controls must be developed for all risks outside of appetite
(4) Uncontrollable	• There are virtually no credible controls that exist to address the risk • Management has no confidence that any degree of control is being achieved due to poor control design and/or very limited operational effectiveness • Controls must be implemented to address risks outside of appetite

Assessing consequences

The consequences tables (Table AP4 to Table AP11) provide detailed lists of potential consequences impacting Victoria's transition to a circular economy. The highest potential impact from each table has been used when assessing the consequence rating. The rating is determined by judgement on the consequence and possible impact of the risk.

Consequences tables

Table AP4: Financial consequences

Level of harm	Financial impact
(1) Negligible harm	Victorian Government: increased cost / loss up to $0.1M Responsible entities: increased cost / loss <0.5% of operations
(2) Minor harm	Victorian Government: increased cost / loss $0.5M Responsible entities: increased cost / loss 0.5 – 2 % of operations
(3) Moderate harm	Victorian Government: increased cost / loss $5M Responsible entities: increased cost / loss 2–10% of operations
(4) Major harm	Victorian Government: increased cost / loss $10M Responsible entities: increased cost / loss 10–20% of operations
(5) Extreme harm	Victorian Government: increased cost / loss $100M or greater Responsible entities: increased cost / loss >20% of operations

Table AP5: Environment consequences

Level of harm	Environment impact
(1) Negligible harm	• Negligible effect on the natural and/or built environment • Environmental recovery is negligible and/or under 1 year • Contained locally within a single site/area • Negligible effect on the sector's capacity to process recyclable and non-recyclable materials
(2) Minor harm	• Limited effect on the natural and/or built environment and/or the environment suffers harm for 1–5 years • Environmental recovery on minor scale up to 5 years • Restricted to single township or locality • Limited effect on the sector's capacity to process recyclable and non- recyclable materials
(3) Moderate harm	• Moderate effect on the natural and/or built environment and/or environment suffers harm for 5–10 years • Environmental recovery on a small scale and/or over a period • 5–10 years • Impacts on a municipality or several responsible entities • Moderate effect on the sector's capacity to process recyclable and non-recyclable materials
(4) Major harm	• Major effect on natural and/or built environment and/or environment suffers harm for 10–20 years • Impacts on a region or multiple responsible entities • Significant increase of recyclable and non-recyclable material in landfill causing major effect on sector capacity
(5) Extreme harm	• Very serious effect on natural and/or built environment and/or environment suffers long-term harm (20+ years) • Environmental recovery on a very large scale and/or over 20+ years • Impacts on multiple regions and responsible entities • Very serious effect on the sector's capacity to process recyclable and non-recyclable materials

Table AP6: Cultural heritage consequences

Level of harm	Cultural heritage impact
(1) Negligible harm	• Negligible effect on significant heritage or Aboriginal sites/artefacts • Protection of cultural heritage is negligible and/or under 1 year • Contained locally within a single site/area
(2) Minor harm	• Limited impact on significant heritage sites/artefacts • Protection on a minor scale up to 5 years • Restricted to single Traditional Owner or site
(3) Moderate harm	• Moderate impact on significant heritage or Aboriginal sites/artefacts/ sacred objects • Aboriginal culture/site suffers harm for 5–10 years • Recovery on a small scale and/or over a period of 5–10 years • Impacts on an Aboriginal group or multiple Aboriginal groups
(4) Major harm	• Major impact on significant Aboriginal heritage sites/artefacts • Major impact on Aboriginal highly sensitive cultural heritage such as sacred sites, environment and/or traditional food source • Major impact on Aboriginal spiritual, social and cultural connection and cultural values (tangible and/or intangible) with Country • Recovery on a large scale and/or over 10–20 years • Impacts on a region or multiple areas under custodian of many Traditional Owners
(5) Extreme harm	• Very serious impact on significant Aboriginal heritage sites/ artefacts/environment, suffers long-term harm (20+ years) • Impacts likely or almost certainly result in highly significant Aboriginal cultural values to be lost, degraded or damaged and notably altered, modified, obscured, or diminished • Recovery on very large scale and /or over a long period (20+ years) • Impacts on state or multiple Traditional Owners custodians of land and water

Table AP7: Workforce consequences

Level of harm	Workforce impact
(1) Negligible harm	• On-site first aid treatment required by responsible entity staff, visitor, contractor or member of the public • No staff downtime or turnover • Staff disgruntlement • Lack of consistency in some practices by staff across enterprise
(2) Minor harm	• Minor injuries or illness (physical/ mental) requiring medical attention by responsible entity staff, visitor, contractor or member of the public • Responsible entity staff complaints, passively upset, uncooperative • Industrial action that impacts the operations of a non-critical essential waste service • Some responsible entity staff turnover with minor loss of skills, knowledge and expertise
(3) Moderate harm	• Significant injury or illness (physical/ mental) requiring in-patient hospitalisation of responsible entity staff, visitor, contractor or member of the public • Low morale, disengagement, increased absenteeism and workplace conflict • Industrial action that impacts the operations of a business unit or critical team • Some responsible entity staff have limited understanding of circular economy • Some turnover of key staff and loss of key skills, knowledge and expertise
(4) Major harm	• Significant injury or illness (physical/ mental) requiring in-patient hospitalisation of responsible entity staff, visitor, contractor or member of the public • Low morale, disengagement, increased absenteeism and workplace conflict • Industrial action that impacts the operations of an enterprise disrupting circularity • Many responsible entity staff have limited understanding of circular economy • Considerable turnover of key staff and loss of key skills, knowledge and expertise
(5) Extreme harm	• Single or multiple deaths or severe permanent disability or illness (physical/ mental) of staff, visitor, contractor or member of the public • Enterprise-wide morale issues and mass absenteeism • Widespread industrial action impacting responsible entity operations • Most staff are not engaged or have limited understanding of circular economy • Resignations of large numbers of key management staff with a significant loss of skills, knowledge and expertise • Staff are not upskilled to meet responsible entity enterprise goals and targets

Table AP8: Social license to operate consequences

Level of harm	Social license to operate impact
(1) Negligible harm	• Very limited public and political interest • Minimal adverse local attention • Complaint from one stakeholder regarding new facilities to support circularity
(2) Minor harm	• Adverse localised public and political interest regarding new facilities to support circularity or changes to waste, recycling or resource recovery practices • Limited attention on a single issue in local media regarding circular economy or changes to waste, recycling, or resource recovery practices
(3) Moderate harm	• Adverse localised negative public and political attention regarding new facilities to support circularity or changes to waste, recycling or resource recovery practices • Short-term negative local media attention regarding new facilities to support circularity or changes to waste, recycling or resource recovery practices • Local community concern on a single issue over a sustained period regarding new facilities to support circularity or changes to waste, recycling or resource recovery practices
(4) Major harm	• Serious adverse public attention at state/national level • Negative state/national media on one or more issues over a prolonged period • Repeated displeasure by the Minister regarding public discourse on circular economy and waste, recycling, or resource recovery • Medium-term negative public interest (correspondence and phone calls) and political interest (in parliament) regarding new facilities to support circularity or changes to waste, recycling or resource recovery practices
(5) Extreme harm	• Very serious public outcry at state/national level • Negative state/national media over a prolonged period regarding Victoria's progress to a circular economy • Breakdown of public confidence in the government/department/ Minister regarding Victoria's progress towards a circular economy • Ongoing or prolonged negative public interest (correspondence and phone calls) and political interest (in parliament)

Table AP9: Regulatory consequences

Level of harm	Regulatory impact
(1) Negligible harm	Non-compliance with legislation identified, resulting in government acknowledgement and process review
(2) Minor harm	Non-compliance with legislation or breach of duty and obligations as described in section 74 of the CE Act and either: • resolved by departmental staff with no further escalation • resulting in prosecution or civil action involving exposure to minor compensation and/or minor negative precedent
(3) Moderate harm	Non-compliance with legislation or breach of duty and obligations as described in section 74ofthe CE Act resulting in: • investigation or report to responsible authority • prosecution or civil action, with one of moderate level of compensation or moderate level of negative precedent
(4) Major harm	Non-compliance with legislation or breach of duty and obligations as described in section 74 of the CE Act resulting in: • investigation or report to responsible authority public inquiry, such as a royal commission or parliamentary committee • prosecution or civil action with high level compensation and high-level negative precedent • sanctions imposed by external regulator
(5) Extreme harm	Non-compliance with legislation or breach of duty and obligations as described in section 74 of the CE Act resulting in: • prosecution or civil action leading to imprisonment of an officer • public inquiry such as a royal commission or parliamentary committee • uninsured compensation payments • negative precedent requiring very serious impact and major reform to the department • severe sanctions imposed by external regulator

Table AP10: Service delivery consequences

Level of harm	Service delivery impact
(1) Negligible harm	• Insignificant impact on the sector's delivery of services/ function • No inconvenience to customers/stakeholders/communities • Negligible impact on the sector's critical activities • Insignificant impact (<5% delays) on transport and logistics
(2) Minor harm	• Minor, short-term impact on the sector's delivery of services/functions • Customers/stakeholders/communities slightly inconvenienced • Less than 1 day's impact on sector's critical activities • Minor impact (5–10% delay) on transport and logistics
(3) Moderate harm	• Moderate impact on the sector's delivery of services/ functions • Customers/stakeholders/ communities inconvenienced • Up to 3 days impact on the sector's critical activities • Significant impact (10–20% delay) on transport and logistics
(4) Major harm	• Ongoing difficulties in delivering the sector's services/functions • May impact on multiple responsible entities and/or regions • Major impact on customers/stakeholders/communities • Up to 10 days' impact on the sector's critical activities • Major impact (20–50% delay) on transport and logistics
(5) Extreme harm	• Long-term and severe impact on delivery of services/functions • Impacts on multiple responsible entities and/or regions • Severe impact on customers/stakeholders/communities • More than 10 days' impact on business unit's critical activities • Vital or very serious delays (>50% delay) to transport and logistics or operation's objective is not met

Table AP11: Consequences to Recycling Victoria's strategic objectives

Level of harm	Recycling Victoria impact
(1) Negligible harm	• Delivery of core function is unaffected, or impacts are immaterial • Insignificant impact on the sector's ability to grow and innovate
(2) Minor harm	• Limited reduction in delivery of core functions • Limited impact on the sector's ability to grow and innovate
(3) Moderate harm	• Significant reduction in the delivery of core functions • Divert some available Recycling Victoria's resources to deliver core functions or seek external assistance to deliver some of its functions • Moderate impact on the sector's ability to grow and innovate
(4) Major harm	• Severe reduction in the delivery of core functions • Divert a significant amount of Recycling Victoria's available resources to deliver core functions or seek external assistance to deliver the majority of its core functions • Significant impact on the sector's ability to grow and innovate. • Limited or inadequate redundancies in place to maintain circularity
(5) Extreme harm	• Unable to deliver core functions • Severe impacts on the sector's ability to grow and innovate • No redundancies in place to maintain circularity

Assessing likelihood

The sector risk assessment uses Table AP 12 likelihood rating and description to determine the probability of a risk:

Table AP12: Likelihood rating

Likelihood rating	Description
Rare (1)	Conceivable but only under extreme circumstances / once in 100 years
Unlikely (2)	Hasn't happened yet but could / once in every 10 years
Possible (3)	Could happen or known to happen / once a year
Likely (4)	Could easily happen / once a month
Almost Certain (5)	Occurs often / once a week

Risk evaluation

Once the likelihood and consequence ratings are determined for each risk, the risk is given an overall rating using the following risk matrix (Figure 5). The qualitative risk matrix combines the likelihood and consequence levels to determine the risk level, which ranges from low to high.

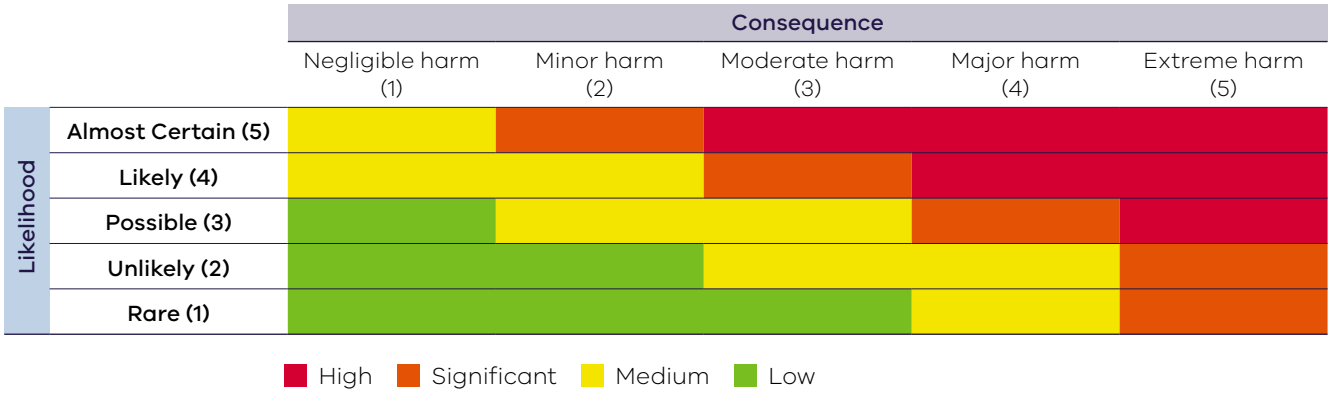

Figure 5: Risk matrix table

Risk treatment

Table AP13 provides detail on the appropriate management response and activities for each level of risk.

Table AP13: Risk treatment decision table

Level of Risk	Treatment and level of reporting requirement
High	• Falls outside risk appetite • Accountability and responsibility to be managed by Recycling Victoria and/or the responsible entity • A risk treatment plan must be established and implemented by Recycling Victoria and/or the responsible entity • To be managed to a level that is as low as reasonably practicable based on resource, cost and practicality • Active monitoring of risk and risk treatments • Risk must be integrated with corporate and/or business planning • Reporting must be provided from responsible entities to Recycling Victoria
Significant	• May fall outside risk appetite • Accountability and responsibility to be managed by Recycling Victoria and/or the responsibly entity • A risk treatment plan must be established and implemented • Should be managed to a level that is as low as reasonably practicable based on resource, cost and practicality • Regular monitoring of risk and risk treatments • Risk must be integrated with corporate and/or business planning • Responsible entities to report risks to Recycling Victoria
Medium	• Falls within risk appetite • Accountability and responsibility to be managed by Recycling Victoria and/or the responsible entity • May be managed or accepted without further treatment, provided the risk is appropriately monitored at least every 6 months, with re-evaluation undertaken based on factors that may increase consequence or likelihood • Risk should be integrated with corporate and/or business planning • Risk owner to monitor the risk at least every 6 months
Low	• Falls well within risk appetite • Accountability to be managed by the appropriate risk owner • May be reviewed to assess whether the risk is being over controlled, and whether some reduction inactive controls may be considered • Risk owner to monitor the risk at an appropriate frequency

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