

Victoria's waste and recycling sector

supporting use of recycled materials in infrastructure

ecologiQ Green Infrastructure Conference
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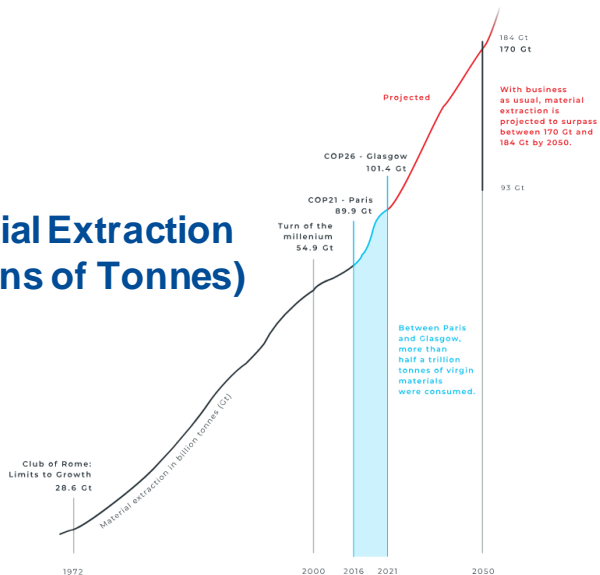
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Circularity – issue and opportunity ...



Material Extraction (Billions of Tonnes)

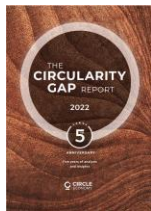


Our take-make-waste economy consumes 100 billion tonnes of materials py, wastes over 90%

70% of all global greenhouse gas emissions are related to material handling and use

Cut material use by 28% and greenhouse gas emissions by 39%

Towards greater circularity and efficiency ... use fewer resources, make them last longer, regenerate, recycle.

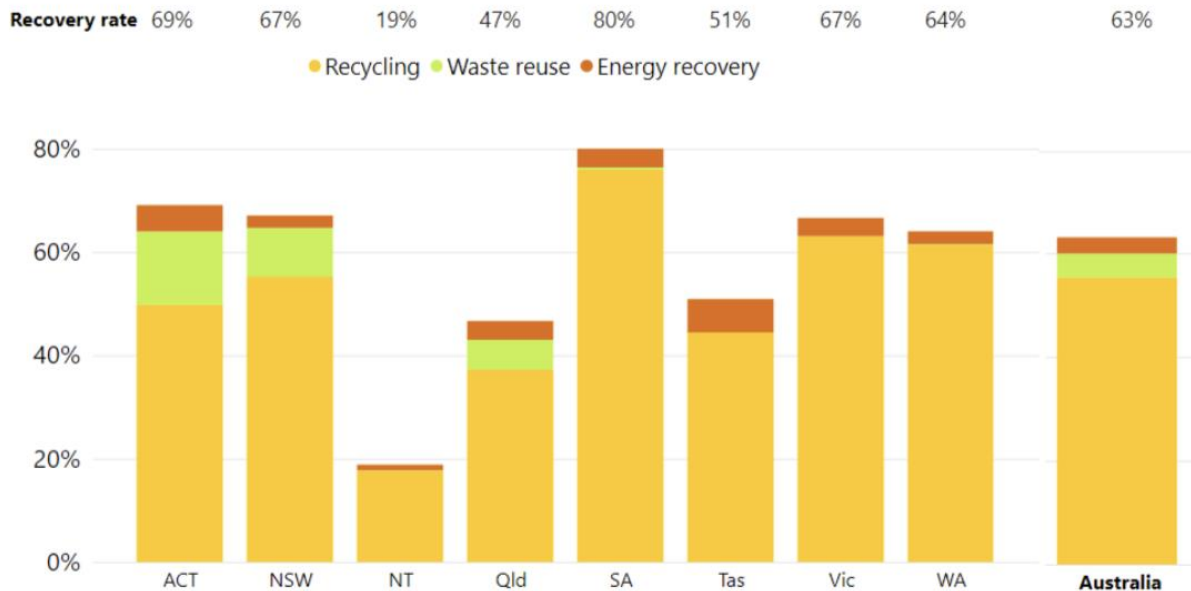


National Waste Report 2022 (released March 2023)



SA had the highest recovery rate at 80%. Following, in order, were the ACT (69%), NSW and Vic (67%), WA (64%), Tas (51%), Qld (47%) and NT (19%).

Figure 28 Resource recovery rates of core waste plus ash by jurisdiction, 2020–21



If ash is excluded, the resource recovery rates of the ACT, NT, SA and Tas are unchanged but the rates for NSW and WA fall to 64% and 62% respectively and those for Qld and Vic rise to 58% and 70% respectively.



The **Recycled First Policy** is using government purchasing power to increase use of recovered resources

29 Big Build projects currently have a Recycled First requirement



Recycled plastic pipes in action on a Victorian road project



Recycling Victoria - Our key priorities



Engagement and consultative committees



Strategic procurement



Market intelligence



Service standards



Market risk and contingency plans



Container Deposit Scheme



Infrastructure planning



Waste to Energy Scheme

Recycling Victoria Data Hub – Industry

RECYCLING VICTORIA

Victorian waste projection model - material details

Select year

2020-21

15,818,400t
Total generated

11,126,500t
Recovered for reprocessing

10,152,600
Processed locally

965,400
Exported to processing

3,500
Waste to energy

Select sector source

All

70.3%
Recovery rate

2.40
Waste generated per capita

4,691,897t
Disposed

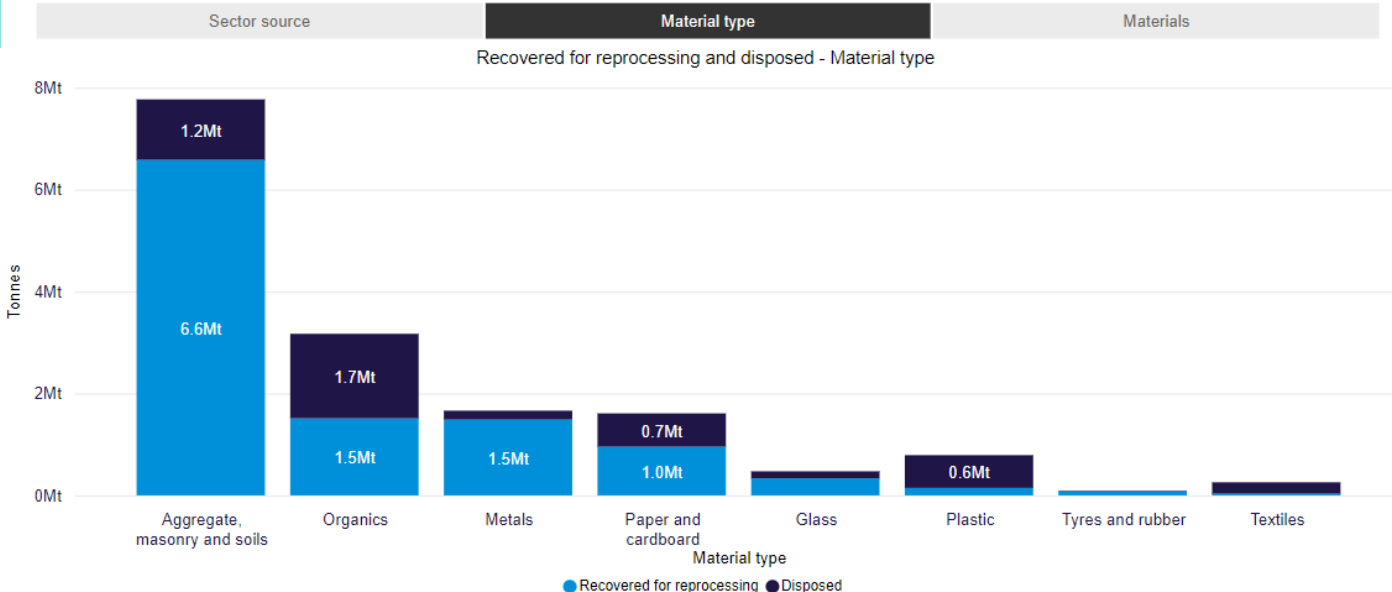
Converted to a volume measure (cubic meters), total waste generated would fill **34.7 MCGs**, with **18.8 MCGs** worth of material recovered.



Select materials

- Select all
- Aggregate, masonry and ...
- Glass
- Metals
- Organics
- Paper and cardboard
- Plastic
- Textiles
- Tyres and rubber

Reset filters



Overview

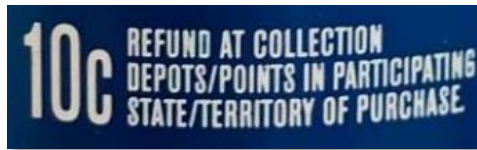
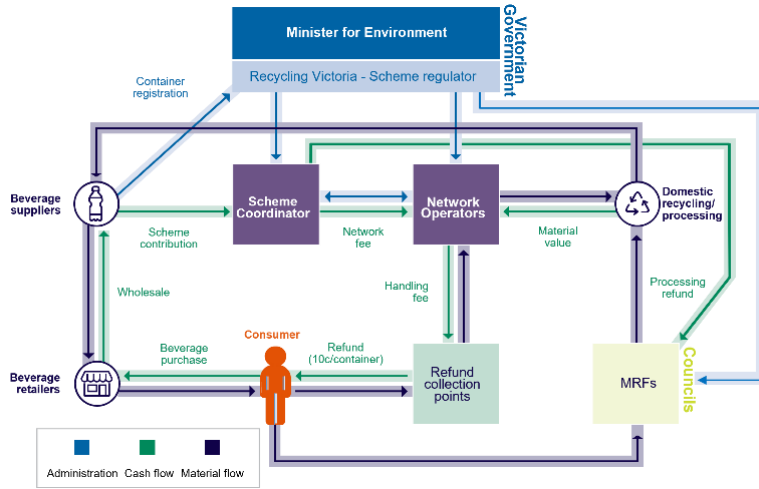
Glossary

Actuals - total generated

Actuals - materials

Projections

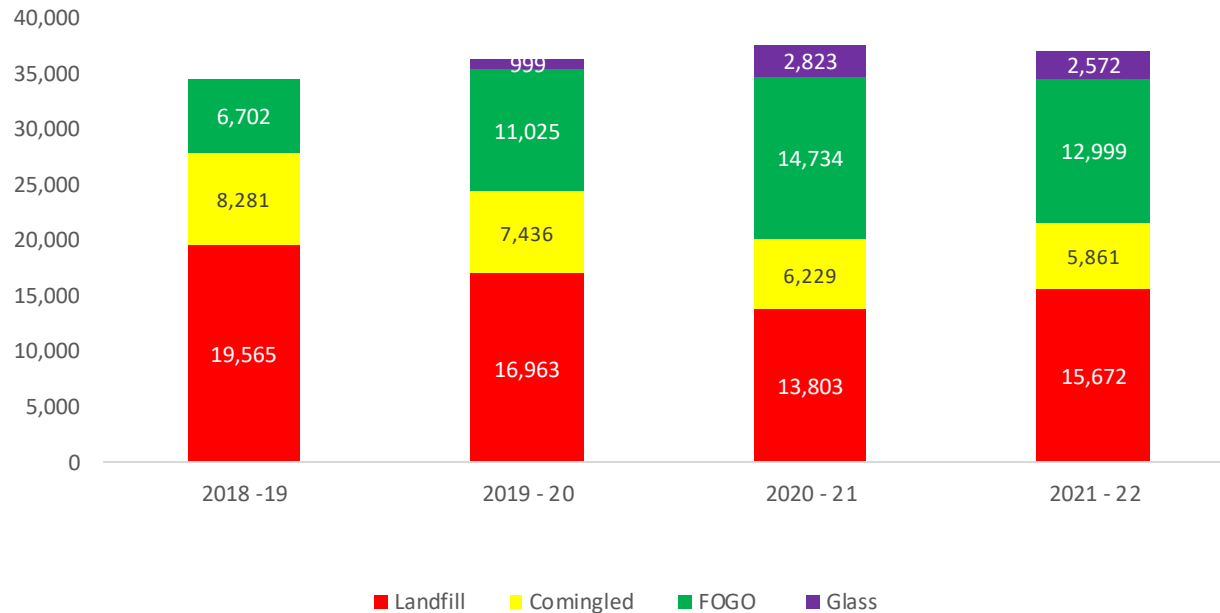
Victoria's Container Deposit Scheme



Making it easier to recycle at home



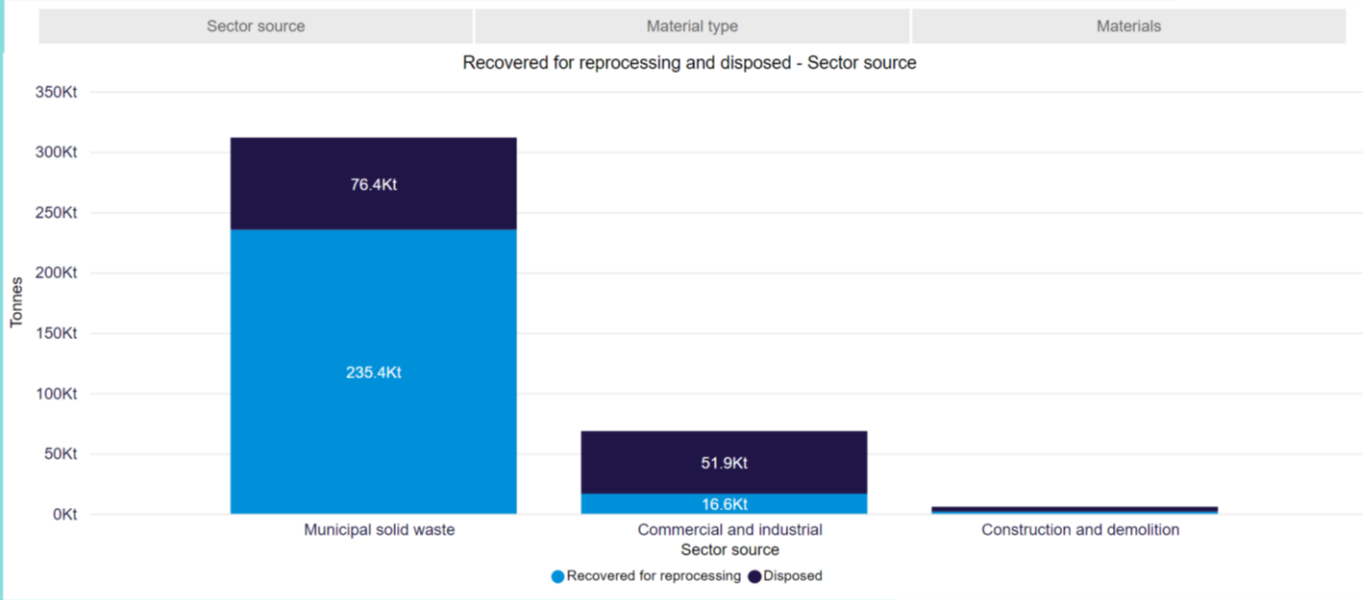
Victoria is standardising waste and recycling with a four-stream service:
Glass | Food and Garden Organics | Recycling | Residuals



Vic Waste Projection Model - Glass



386,100t Total generated	Year: 2020-21	253,800t Recovered for reprocessing	243,700 Processed locally	10,100 Exported to processing	0 Waste to energy
2.5% of all materials		132,292t Disposed	Converted to a volume measure (cubic meters), total waste generated would fill 0.7 MCGs, with 0.5 MCGs worth of material recovered.		
65.7% Recovery rate	0.06 Waste generated per capita				



Overview:

- Biggest generator is through kerbside recycling
- Glass market reforms:
 - CDS, Nov 2023
 - 4-stream bin collection
- Market opportunities: glass packaging & construction
- Glass fine used in infrastructure applications

Emerging issues and opportunities:

- Increase volume through CDS
- New investments for upgrading and expansion
- Competition between end market applications

Vic Waste Projection Model - Paper and Cardboard



1,833,700t
Total generated
12.0% of all materials

Year: 2020-21

1,249,200t
Recovered for reprocessing

742,200
Processed locally

506,900
Exported to processing

0
Waste to energy

68.1%
Recovery rate

0.28
Waste generated per capita

584,493t
Disposed

Converted to a volume measure (cubic meters), total waste generated would fill **12.8** MCGs, with **8.9** MCGs worth of material recovered.

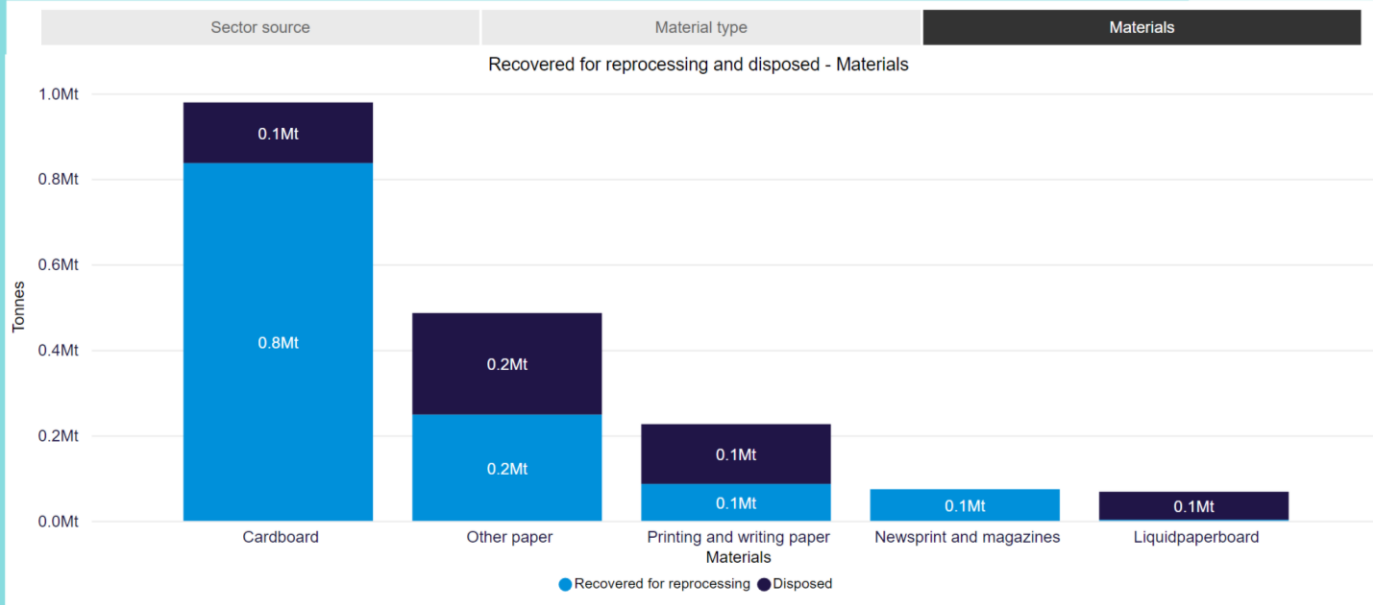


Overview:

- Vic is 2nd largest consumer in Australia
- High recovery rates relies mainly on exports
- Vic is net exporter to the international market
- Major demand for containerboard / corrugated packaging

Emerging issues and opportunities:

- Mix/ unsorted export licensing regime 1 July 2024
- Visy new drum pulper
- Liquid packaging saveBOARD
- 2030 target – 80% diversion



Vic Waste Projection Model - Plastic



763,200t
Total generated
5.0% of all materials

Year: 2020-21

147,600t
Recovered for reprocessing

70,000
Processed locally

72,400
Exported to processing

0
Waste to energy

19.3%
Recovery rate

0.12
Waste generated per capita

615,571t
Disposed

Converted to a volume measure (cubic meters), total waste generated would fill **6.5 MCGs**, with **1.2 MCGs** worth of material recovered.



Overview:

- End of life plastic waste generation
- Consistent recovery trend
- Export ban since July 2022 ceased export of any unprocessed plastic
- Strong local and export demand for clean PET, HDPE and PP
- Evidence of decoupling packaging grades: virgin vs recycled

Emerging issues and opportunities:

- Capacity to reprocess higher value bales e.g., PET, HDPE bottles
- New capacity in the coming years, for hard and soft plastics. Refer to RV Market Insight Report

Vic Waste Projection Model - Tyres



91,600t
Total generated
0.6% of all materials

Year: 2020-21

76,800t
Recovered for reprocessing

43,000
Processed locally

33,800
Exported to processing

0
Waste to energy

83.9%
Recovery rate

0.01
Waste generated per capita

14,753t
Disposed

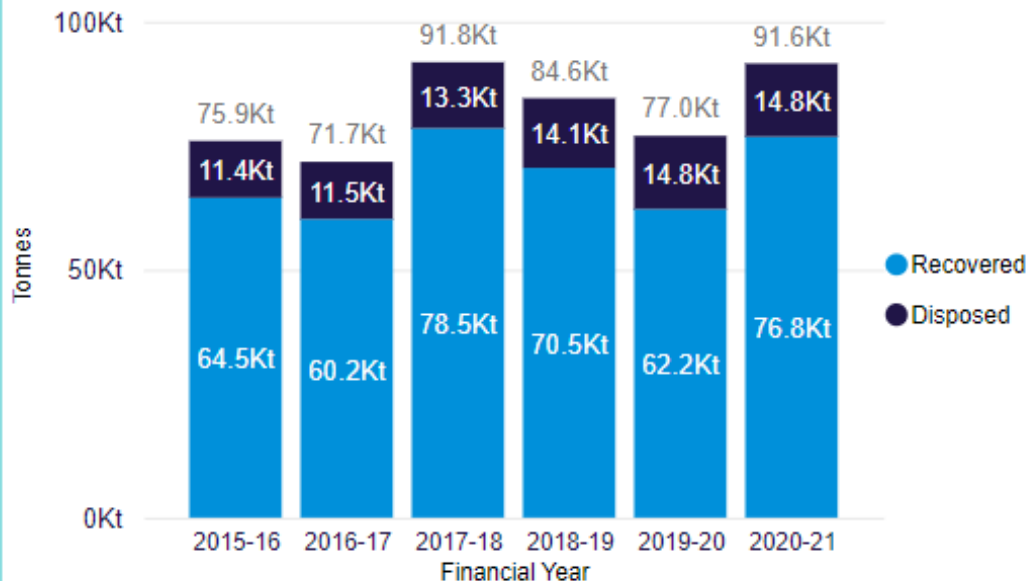
Converted to a volume measure (cubic meters), total waste generated would fill **0.1 MCGs**, with **0.1 MCGs** worth of material recovered.



Crumb Rubber (CR)



Total waste recovered for reprocessing and disposed by year



Overview:

- Minister's national priority list 2022
- WA developing national principles of product stewardship
- Main recovery comes from passenger and truck tyres
- High export demand for tyre derived fuel (TDF)
- Recycled crumb rubber in infrastructure
- Export ban on baled and unprocessed tyres in December 2021.

Emerging issues and opportunities:

- Tyre baling for exports
- Ongoing illegal dumping activities.



Thank you

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