Government of South Australia

Green Industries SA

apc waste consultants

South Australia's Kerbside Waste Audit Guidelines

Consultation Forum






Government of South Australia

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Acknowledgement of Country

Green Industries SA acknowledges this land that we meet on today is the traditional lands of the Kaurna people, and we respect their spiritual relationship with their country. We also acknowledge the Kaurna people as the custodians of the Adelaide region and that their cultural and heritage beliefs are still as important to the living Kaurna people today.



"OUR CIRCULAR ECONOMY"
Artist – Karen Briggs

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Why update the guidelines?

- Kerbside waste audits are a critical tool for councils to assess household waste management performance
- Audits have historically been guided by the Guide to Kerbside Performance Reporting released in 2007
- 2007 Guidelines were developed in a different context, and are now outdated
- Kerbside waste audits have been undertaken with increasing variation in methodology
- This lack of consistency has limited the reliability and comparability of audit data
- Need to standardise statewide audit methodology that supports consistent, timely reporting and accurate measurement of progress toward resource recovery and contamination reduction targets

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Forum outline

- Why update the guidelines?
- The APC team
- Project outline and aims
- Stage 1: Reviewing guidelines and practices, consultation and recommendations – What we heard?
- Stage 2: Draft guidelines and resources
- Consultation and feedback process
- Q&A

APC's Team

Natasha Schultz	APC General Manager and Peer Review
Daniella Mac Dowell	Senior Consultant and Project Manager
Bronwyn Elliott	Senior Consultant and Stakeholder Consultation
Dr. Stephen Beare	Statistician
Dr. Joe Pickin	Blue Environment - Peer Review

The APC team have extensive waste auditing experience and solid career backgrounds in waste, resource recovery, sustainability and circular economy within government, community and industry

Dr. Stephen Beare has developed sampling plans for Qld litter surveys and Household Kerbside Waste Audit Guidelines plus audits of CDS systems in NSW, ACT, Vic and Tas

Dr Joe Pickin prepares Australia's National Waste Reports and Australian Standard for Data Reporting.

Project Outline

Green Industries SA (GISA) commissioned APC Waste Consultants in a two-stage project.

Stage 1

- APC reviewed 2007 guidelines, audit reports and current kerbside waste audit council practices used in SA
- We also reviewed guidelines used in other Australian states
- We engaged with stakeholders nominated by GISA, to better understand current practices, challenges, needs and expectations, providing report and recommendations

Stage 2

- APC developed draft new South Australian kerbside waste audit guidelines to align with best practices suitable for the South Australian context, providing consistent and standardised kerbside waste audit methodologies
- We also developed draft supporting toolkit with templates, references and resources
- We are now conducting consultation with a broader group of relevant organisations, to gather feedback of the draft guidelines and supporting toolkit

Project Aims

Ensure audit results are reliable, comparable, and statistically robust, enabling meaningful benchmarking, trend analysis, and performance reporting

Support councils and improve confidence and adherence to a standardised audit process, strengthening the use of audit data to inform decision making, program design and policy development

Support accurate measurement and reporting against *South Australia's Waste Strategy 2025–2030* targets, particularly those relating to contamination reduction and improved resource recovery, as well as material circularity



STAGE 1

Review guidelines & practices, consult and provide recommendations

Who did we talk to?

CITY OF ADELAIDE

cawra

THE CITY of Unley

CITY OF HOLDFAST BAY

NAWMA

City of West Torrens

EastWaste

What did we hear?

- Audit data needs to be robust, comparable, consistent, reliable and good quality
- Audits need to track trends, waste behaviour, contamination, recycling rates and diversion rates
- Guidelines should inform the triggers that drive the need for auditing
- Agree on suitable, minimum sample that consider differing Council profiles
- Clarity of the role of different audit methodologies, their benefits and limitations
- Fast growing and changing demographics, including increasing density and cultural diversity

What else did we hear?

- Most audits use 3rd party auditors
- 3 yearly audits would be best – note limited budgets
- Councils value specialist audits (e.g. MUDS, FOGO)
- Challenges measuring and comparing Councils with different profiles
- Update categories and reporting (including counts for CDS, e-waste, battery, other emerging wastes)
- Ensure Councils receive quality raw data

Challenges we heard

- Funding, especially budgeting for audits
- Other resources (e.g. safe and compliant sorting sites; suitable collection vehicles)
- Where services differ (e.g. opt-in/opt-out FOGO)
- Accreditation/upskilling of auditors
- Logistics
- Timing



STAGE 2

Draft guidelines, toolkit and resources



Draft Guidelines Method:

- Recommended routine audit
- Aggregated method
- “Matched pair” collection
- Frequency: every 3 years



Draft Guidelines Overview:

- Audit planning
- Health, safety and environment
- Confidentiality and privacy
- Audit sample size and selection
- Sample collection
- Sample sorting



Draft Guidelines Overview:

- Analysis and reporting
- Additional audit options
- Guidelines Toolkit
- Glossary



Sampling plan considered

- Number of material categories
- Categories with item counts
- Number of kerbside bin waste streams
- Accuracy level required
- Number of councils
- Council profiles (population, area, housing type MUD/SUD etc.)
- Geography
- Sample size
- Bias
- Sampling costs

Sampling plan – Minimum sample for routine audit

Group A includes most metropolitan and some large regional councils

Group B includes smaller metropolitan and larger regional councils

Group C includes smaller regional councils

Councils	Location	Area (km^2)	Population 2025	No. households (2025 est.)	SUDs%	MUDs%	Sampling plan group	Minimum sample size
Adelaide	Metro	16	30,173	16,763	41.4	56.9	Group A	200
Adelaide Hills	Metro	794	42,875	15,880	98.4	1.2	Group A	200
Adelaide Plains	Regional	932	11,736	4,347	98.4	0.3	Group B	150
Alexandrina	Regional	1,827	31,427	13,664	97.7	1.1	Group B	150
Barossa	Regional	894	26,817	11,174	98.2	0.9	Group B	150
Barunga West	Regional	1,590	2,688	1,280	97.4	0.8	Group C	50
Berri Barmera	Regional	476	10,758	4,677	97.0	1.9	Group B	150
Burnside	Metro	28	48,257	19,303	88.9	10.8	Group A	200
Campbelltown	Metro	24	58,826	23,530	90.5	9.3	Group A	200
Ceduna	Regional	5,420	3,757	1,565	95.5	1.8	Group C	50

Sampling Considerations – Appendix

GROUP A			Sample size options			
Councils	SA2 Name	SA2 share	100	150	Minimum 200	250
Adelaide	Adelaide	0.71	71	106	142	178
Adelaide	North Adelaide	0.29	29	44	58	72
Adelaide Hills	Adelaide Hills	0.32	32	48	64	80
Adelaide Hills	Aldgate - Stirling	0.28	28	42	56	70
Adelaide Hills	Lobethal - Woodside	0.25	25	38	50	63
Adelaide Hills	Uraidla - Summertown	0.15	15	22	30	37
Burnside	Burnside - Wattle Park	0.42	42	63	84	105
Burnside	Beaumont - Glen Osmond	0.28	28	42	56	70
Burnside	Toorak Gardens	0.3	30	45	60	75
Campbelltown	Athelstone	0.22	22	33	44	55
Campbelltown	Paradise - Newton	0.39	39	58	78	98
Campbelltown	Rostrevor - Magill	0.39	39	58	78	98
Charles Sturt	Flinders Park	0.15	15	22	30	38
Charles Sturt	Henley Beach	0.14	14	21	28	35
Charles Sturt	Hindmarsh - Brompton	0.18	18	27	36	45
Charles Sturt	Seaton - Grange	0.17	17	26	34	42
Charles Sturt	West Lakes	0.17	17	26	34	42
Charles Sturt	Woodville - Cheltenham	0.19	19	28	38	48

Minimum categories

All minimum categories required for routine audit based on Guidelines

Routine audit material categories (minimum 32)	
Paper and cardboard	**Organics**
Paper	Garden organics
Cardboard	Food organics
CDS-eligible LPB containers	Compostable packaging
Other recyclable liquid paperboard (LPB)	Other organics (compostable)
Non-kerbside recyclable paper and cardboard	Other organics (contamination)
Glass	**Building and demolition materials**
CDS-eligible glass containers	Building and demolition materials
Other recyclable glass	**Hazardous wastes**
Non-kerbside recyclable glass	Hazardous wastes
Plastics	**Textiles, leather and rubber (excluding tyres)**
CDS-eligible plastic containers	Textiles
Kerbside-recyclable hard plastic	Leather and rubber
Kerbside-recyclable soft plastic	**E-waste**
Other bulky or non-kerbside recyclable plastics	E-waste
Metals	Lithium-ion batteries
CDS-eligible metal containers	Items with embedded batteries
Ferrous metals	Batteries other (excluding lead-acid batteries)
Aluminium (non-CDS)	**Other materials**
Non-ferrous metals (excluding aluminium)	Other - unclassified materials
Non-kerbside-recyclable metal	Bagged materials (except organic materials in compostable bags)

Minimum categories + sub-categories

Example of expanded list of sub-categories - definitions and inclusions

Minimum required categories for routine audits	Expanded list of audit sorting subcategories	Definition
Paper and cardboard		
Paper	Newspapers	Newspapers, newspaper-like pamphlets
	Magazines	Magazines (glossy and non-glossy), pamphlets, brochures
	Office paper	Office paper, A4 document paper, writing pads, letters, etc.
	Other recyclable paper	Paper packaging, paper bags, wrapping paper, envelopes
Cardboard	Non-corrugated cardboard	Cardboard without corrugation (cereal boxes, business cards, egg cartons)
	Corrugated cardboard	Cardboard with corrugation (e.g. clean pizza boxes, shipping or moving boxes)
CDS-eligible LPB containers	Liquid paperboard (LPB) containers (CDS-eligible)	CDS-eligible LPB containers for fruit juice, fruit juice drinks and flavoured milks
Other recyclable liquid paperboard (LPB)	Other recyclable liquid paperboard (LPB)	Other liquid paperboard (not silver-lined) such as milk cartons, cream cartons, ice cream containers. Check local council guidelines to see if TetraPak containers are included in this category as recyclables.
Non-kerbside recyclable paper and cardboard	Other non-kerbside recyclable paper/cardboard	Shredded paper, other non-recyclable paper products. Check local council guidelines to see if non-CDS silver-lined liquid paperboard stock cartons and TetraPak containers are included in this category since they are not being recycled.
Glass		
CDS-eligible glass containers	CDS-eligible glass containers	CDS-eligible beer bottles, wine bottles, spirit, cider/fruit-based, flavoured water, fruit juice
Other recyclable glass	Other recyclable glass	Other glass food and beverage containers, other glass packaging
Non-kerbside recyclable glass	Non-recyclable glass fines	Small crushed glass, particles typically measuring less than 5 mm
	Other non-kerbside recyclable glass	Plate glass (window/ windscreen), Pyrex, mirror glass, Corningware, light globes, laboratory, glass >4.75 mm
Plastics		
CDS-eligible plastic containers	Polyethylene terephthalate (PET) (1) drink containers (CDS-eligible)	CDS-eligible (PET) soft drink, flavoured water, fruit juice, sports drinks, plain water (carbonated/non-carb)
	High density polyethylene (HDPE) (2) drink containers (CDS-eligible)	CDS-eligible HDPE container, e.g. flavoured milk bottles
Kerbside-recyclable hard plastic	Polyethylene terephthalate (PET) (1) packaging	PET (1) food containers, mouthwash containers, detergent bottles
	High-density polyethylene (HDPE) (2) packaging	HDPE milk bottles, shopping bags, etc. HDPE may be coloured or opaque.
	Polyvinyl chloride (PVC) (3)	PVC (3) packaging and containers (i.e. PVC (3) cordial and juice bottles)
Kerbside-recyclable soft plastic	Low-density polyethylene (LDPE) (4)	Ice cream container lids, cream bottle lids, squeeze bottles
	Polypropylene – PP (5)	PP bottles and ice-cream containers, drinking straws, plant pots, some bottle caps, microwave oven ware, plastic garden settings
Other bulky or non-kerbside recyclable plastics	Polystyrene	Hard, rigid or clear polystyrene, such as yogurt and dairy containers, multipack pull-apart yoghurt cups, rigid CD cases, small rigid single-serve sour cream and custard tubs, multi-slot rigid plastic inner package for biscuits
	Expanded plastic foam packaging – EPS (6)	Fragile item packaging, foam beans, foam cups or trays, coat hangers, office accessories, packaging foam
	Other polyvinyl chloride (PVC) (3)	PVC (3) packaging, pipes, fittings, blister packs, toys
	Soft plastic and plastic bags (4)	Plastic film, plastic bags, chip packets, biscuit wrappers
	Other non-kerbside recyclable plastics	Other plastics, crates, pallets, bins, rigid moulded products, appliance parts, houseware/kitchenware, furniture, plant pots, composite plastic (mostly plastic), acrylics, nylon, rope, other mixed plastics (7)

Minimum categories + sub-categories

			Accepted in			
Minimum audit sorting category	**Expanded audit sorting subcategories**	**Include a count of these items?**	**General Waste**	**Organics**	**Commingled Recycling**	**Comments**
Paper and cardboard						
Paper	Newspapers	☐			Y	
	Magazines	☐			Y	
	Office paper	☐			Y	
	Other recyclable paper	☐			Y	Books included in 'Other'.
Cardboard	Non-corrugated cardboard	☐			Y	
	Corrugated cardboard	☐			Y	
CDS-eligible LPB containers	Liquid paperboard (LPB) containers (CDS-eligible)	☑			Y	
Other recyclable liquid paperboard (LPB)	Other recyclable liquid paperboard (LPB)	☐			Y	Check local council guidelines to see if TetraPak containers are included in this category as recyclables.
Non-kerbside recyclable paper and cardboard	Other non-kerbside recyclable paper/cardboard	☐	Y			Check local council guidelines to see if non-CDS silver-lined liquid paperboard stock cartons and TetraPak containers are included in this category as they are not being recycled.
Glass						
CDS-eligible glass containers	CDS-eligible glass containers	☑			Y	
Other recyclable glass	Other recyclable glass	☐			Y	
Non- kerbside recyclable glass	Non-recyclable glass fines	☐	Y			
	Other non- kerbside recyclable glass	☐	Y			

Items counted:

- eligible CDS containers
- e-waste
- hazardous waste

Acceptance criteria:

guidelines recommend to confirm with:

- council
- consultation with the material recovery facility (MRF)

What's included in the draft guidelines?

Guidance on the definitions and formulas for: presentation rate, recovery rate, waste generation, diversion from landfill and information to assist in normalising data (e.g. kg/household/week)

Presentation rate

Bin presentation rate (%) = **Total number of households that presented a target waste stream bin in the sample collection** / **Total number of households passed (i.e. presenting plus non-presenting households)**

3-bin system recovery rate

3-bin system recovery rate (%) = **Organics + comingled recycling** / **Organics + comingled recycling + general waste**

What's included in the toolkit?

Guidelines Toolkit

Appendix A – Operational Checklists

- Audit planning and equipment checklist
- Tender checklist for councils engaging external waste audit service providers

Appendix B – Reference Material

- Sorting category definitions and inclusions
- Material categories acceptance in each kerbside collection stream
- Material categories consolidation for analysis purposes
- Sorting tips for auditors
- Decision-making matrix: guidance for other applicable methods

Appendix C – Audit Forms and Templates

- Single-unit dwellings sample collection form template
- Multi-unit dwellings sample collection form template
- Example sorting form: minimum audit categories
- Example sample sorting form: including all additional optional audit subcategories

Appendix D – WH&S Supporting Tools

- Example of Job Safety and Environment Analysis template
- Safe Work Method Statement (SWMS) examples adapted to waste audits

Appendix E – Statistical Considerations



Consultation and feedback process

- Stakeholders receive draft guidelines and toolkit
- Feedback through online form, until Friday 18 December 2026 COB (3 weeks). Feedback represents your organisation's view
- Feedback reviewed and considered alongside project objectives and technical requirements
- Review draft guidelines and toolkit as per feedback provided in consultation, where appropriate
- Final guidelines prepared and released during first half of 2027.



Feedback is particularly valuable on:

- Practicality of implementation
- Clarity of guidance
- Sampling methodologies
- Reporting requirements
- Resource implications
- Any gaps
- Any unintended consequences
- Any needed adjustments

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Q&A

Any questions?

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Any questions please reach out to:

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