

2020 summary report

WasteSorted Schools



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What are schools doing to generate less waste?

This report presents achievements and outcomes from Western Australia's WasteSorted Schools (WSS) Program for the calendar year 2019 as captured in the 2020 accreditation and reaccreditation survey completed by 273 schools, of which 23 were newly accredited schools.

Overall, 250 reaccredited schools reported undertaking a combined 4,623 waste wise activities that contributed to avoiding and recovering waste (see Appendix 1 for data tables that list activities reported under the avoid, reuse and recycling categories).

Avoiding

In 2019, 247 schools implemented 1,658 activities focused on avoiding the production of waste. These activities focused on reducing paper use; reducing packaging of items purchased; restricting printer/photocopier use; using bin and waste audits to identify common waste items and then target waste avoidance activities; promoting waste-free days/lunches; and changes to canteen offerings and operations to minimise waste production.

Reusing

In 2019, 241 schools implemented 711 activities focused on reusing waste. Common actions reported included reusing waste items in class; collecting and storing resources for future reuse; conducting lessons on reusing; and joining ReMida.

Recycling

In 2019, 246 schools implemented 2,254 activities focused on recycling waste. The most common activities reported included recycling paper and cardboard; conducting lessons on recycling; recycling food scraps (through worm farms, composting, keeping chickens and the food organics and garden organics [FOGO] service); recycling batteries and e-waste; and recycling other comingled products (plastics, glass, cans). Many schools (148) reported planting and maintaining vegetable gardens as a means of closing the loop and using onsite recycled organic waste.



Targeting focus materials in the Waste Strategy

Organics

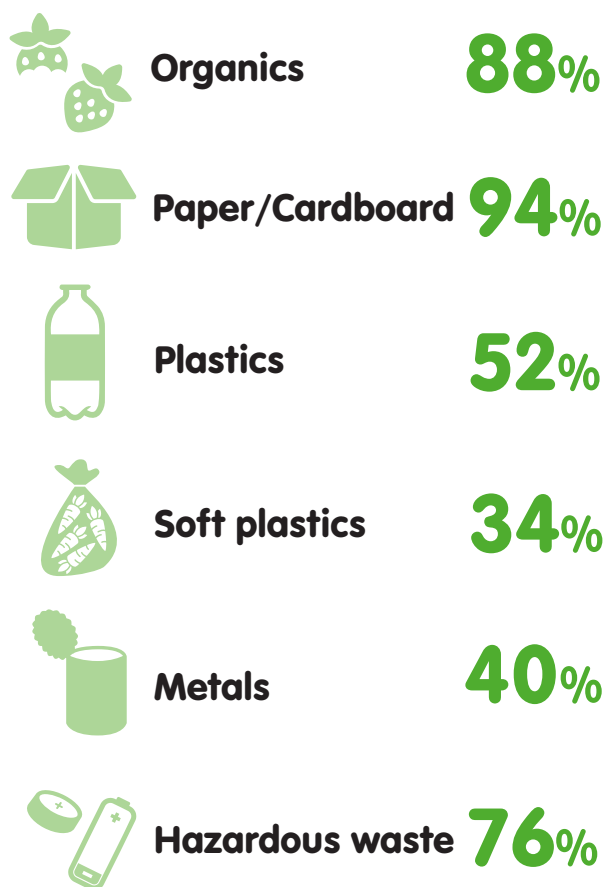
A large majority of WSS activities implemented by schools focused on organic waste recycling, specifically targeting food waste. For example, 219 schools (88 per cent) engaged in one or more forms of organic waste recycling using either onsite services (activities like composting, worm farming and keeping chickens in 85 per cent of schools) or offsite collection and processing services (FO, GO or FOGO in 23 per cent of schools). Schools reported high rates of organic food waste diversion from landfill.

Paper/Cardboard

Most schools (91 per cent) used an electronic platform to distribute school news instead of a paper newsletter. All 250 reaccredited schools reported actions, behaviours or use of an external collection service indicating recycling paper and/or cardboard occurs at their school.

- 236 schools (94 per cent) reported undertaking actions related to paper and/or cardboard recycling
- 210 schools (84 per cent) reported using a paper and/or cardboard recycling service
- 90 per cent of all schools reported that students 'always' or 'often' put paper and cardboard in the correct recycling bin.

Per cent of schools recycling:



Targeting focus materials in the Waste Strategy

Plastics

Schools implemented plastic materials avoidance, reuse and recycling activities. Hard and soft plastic waste generation through school lunches was avoided through daily and weekly waste-free/nude food days routinely carried out by 109 schools (44 per cent).

- 109 schools (44 per cent) promoted low-waste and no-waste canteens that have as one objective the removal of single-use plastics
- 131 schools (52 per cent) reported engaging in some form of hard plastic recycling. This finding was supported by 113 schools (45 per cent) reporting the use of an external comingled collection service
- More than 20 schools are participating in WA's Containers for Change program, with this number expected to grow.

Soft plastics

86 schools (34 per cent) collected and recycled soft plastic through external schemes such as REDcycle.

Metals

99 schools (40 per cent) reported recycling steel and aluminium cans.

Hazardous waste

190 schools (76 per cent) participated in battery recycling supported by school recycling hubs that invite donations from the school community.



Demonstrating positive waste behaviours

A very high number of schools (90 per cent) observed students frequently (always or often) performing correct behaviours for recycling paper and cardboard and placing general waste in the correct bin. Only 52 per cent of newly accredited schools reported students frequently performing the correct behaviours for recycling paper and cardboard.

A high number of the 250 reaccredited schools (65 per cent) reported students were very frequently separating food waste and leading waste wise projects within the school. Only 17 per cent of newly accredited schools reported students frequently performing the correct behaviours for separating food waste.

While the number of newly accredited schools is low (23), the evidence presented indicates schools that have held WSS accreditation status for one or more years report improved student recycling behaviours.



Engaging the wider community

Participating schools engaged the wider community through active involvement in WSS-related activities, ongoing mutually beneficial partnerships and the outward sharing of WSS-related news and tips.

A total of 182 schools (72 per cent) provided specific examples of engagement with the broader community, including stories of how students influenced waste behaviours and actions within households.



Waste-related infrastructure

A total of 154 schools (62 per cent) reported making improvements to waste-related infrastructure, including new bins to support the recycling of paper and cardboard, comingled waste, soft plastic and organics.

In relation to grants, approximately three-quarters of recipients provided descriptions of grant-funded activities that resulted in the recycling of waste generated at school. More than 60 per cent of all grants focused on the reduction of organic waste, with many reports that all, or the majority, of food waste has been diverted from landfill. Of the 191 schools reporting on past grants, 73 schools (38 per cent) indicated that the positive outcomes achieved had grown and strengthened since the grant was remitted; 43 per cent indicated the benefits had fully continued; and 16 per cent indicated the benefits had only partly continued. Only 3 per cent indicated that all benefits had ceased. This reporting indicates high levels of sustained benefit from program investment in grants.



Success stories

Schools reported large numbers of positive outcomes due to participation in WSS. Common outcomes were the introduction of new recycling infrastructure to facilitate big increases in resource recovery and large reductions in waste going to landfill. Some schools noted waste service cost savings as a result. Success stories are documented in Appendix 1. Schools value the WSS Program, with 81 per cent rating the program as outstanding (27 per cent) or above average (54 per cent).

The following quote from Hillcrest Primary School highlights the value of the investment in the WSS Program.



“State Government leadership in this area makes an enormous difference to change behaviour and to challenge the community to do better, by providing resources and assistance. Waste Wise Schools (WasteSorted Schools) is a great example of how leadership in schools makes a difference for changing attitudes in the community into the future and has big long-term benefits for WA as a whole.”

Appendix 1

Data tables

The following data tables are used to support the evidence presented in the main body of the WasteSorted Schools 2020 Summary Report.

Table 1. Numbers of accredited schools by types

School type	Number of accredited schools	% of schools
Primary	204	75%
Secondary	38	14%
K-12	20	7%
Special needs schools	11	4%
Total *	273	

* Includes 23 newly accredited schools

Table 2. Waste avoidance activities actioned during 2019

Avoid activities	Number of schools (n=250)
Email or electronic school newsletter	228
Encourage reduction of edible food waste	209
Conducting lessons on reducing waste	200
Bulk purchase supplies	177
Paper use policy	172
Printer and photocopy restrictions	150
School-led bin system assessment - Occurred at my school last year	116
School-led waste audits	111
Weekly waste-free lunches	109
Low waste Canteen	100
Participation in Plastic Free July or other campaigns	77
No waste Canteen	9

Appendix 1

Data tables

Table 3. Reuse activities actioned during 2019

Reuse activities	Number of schools (n=250)
Reusing items in class	226
Collecting and storing resources for future re-use	207
Conducting lessons on reusing	206
Member of ReMida	72

Table 4. Recycling activities actioned during 2019

Recycling activities	Number of schools (250)
Recycling paper and cardboard	236
Conducting lessons on recycling	199
Recycling food scraps	194
Recycling batteries	190
Recycling printer cartridges	181
Worm Farming	172
Composting	158
Waste Wise vegie gardening (closing the loop on organics recycling)	148
Recycling hard plastic	131
Recycling glass jars & bottles	99
Recycling aluminium cans	96
Recycling mobile phones	95
Conducting lessons on organics	95
Recycling soft plastic	86
Recycling toothbrushes	62
Recycling steel cans	58
Keeping chickens	54

Appendix 1

Data tables

Table 5. External waste collection services used

External waste collection services engaged	Number of schools (250)	% of schools
General waste/rubbish	241	95%
Paper/cardboard	193	76%
Co-mingled (e.g. plastics and cans)	113	44%
Food organics waste and garden organics waste combined (FOGO) *	40	16%
Only garden organic waste (GO) *	40	16%
Paper only	27	11%
Cardboard only	20	8%
Only food organic waste (FO) *	15	6%

* FO, GO and FOGO services (reported by 90 unique schools) appear to be overreported when comparing the data provided on actual waste services included on waste management contracts, which shows that 57 schools (23%) reported use of FO, GO, FOGO services. Schools may have inadvertently reported their onsite organics recycling in response to this question focused on external collection services or receive these services free of charge from their local council (South West schools).

Appendix 1

Data tables

Table 6. Frequency of observed student behaviours at accredited schools reported by teachers (2020)

Student behaviours	Number of schools				
	Always	Often	Sometimes	Never	Not Applicable
Placing glass, hard plastics, steel cans and aluminium cans in the co-mingled recycling bin	16	66	58	14	96
Placing paper and/or cardboard in the correct paper/cardboard recycling bin	97	128	16	1	8
Separating food waste to be recycled either in compost, worm farms or via a waste service provider	57	109	41	11	32
Placing general waste in the waste bin	129	108	10	1	2
Taking responsibility for the running of waste wise (waste-related) projects	46	112	69	7	16
Volunteering their free time (recess, lunch time, after school) to take part in waste wise activities	26	93	84	17	30
Initiating waste wise projects or activities	14	72	108	32	24
Littering of waste items	5	19	140	72	14

Appendix 1

Data tables

Table 7. Infrastructure improvements

Infrastructure improvement categories	Number of schools
New recycling bins added for paper/cardboard, comingled waste	34
Bin signage added or upgraded	33
Bins in classrooms	21
Bin relocation	19
Bin replacement, upgrade or resizing	14
Bin or lid colour changes	10
Organic waste bins/container/caddy	10
Waste recycling hub/centre added/upgraded	9
Containers for change bins added	7
3-bin system introduced	6
Posters displayed promoting correct bin usage	5
FOGO bins added	4
Decreased general waste bins	4
Soft plastic bins introduced	3

Appendix 1

Data tables

The following three tables show school self-reported estimates of the percentage of specific waste streams recycled by their school using onsite or offsite services.

Table 8. Proportion of food waste recycled

Proportion of school food waste recycled	Number of Schools	% of schools
1 - 20%	51	20%
21-40%	46	18%
41-60%	38	15%
61-80%	33	13%
81-100%	37	15%
none	28	11%
Unsure	13	5%

Table 9. Proportion of school paper/cardboard waste recycled

Proportion of school paper/cardboard waste recycled	Number of Schools	% of schools
1 - 20%	12	5%
21-40%	18	7%
41-60%	33	13%
61-80%	89	36%
81-100%	82	33%
none	2	1%
Unsure	9	4%

Table 10. Proportion of school comingled waste recycled

Proportion of school comingled (plastic, glass, metal) waste recycled	Number of Schools	% of schools
1 - 20%	43	18%
21-40%	24	10%
41-60%	31	13%
61-80%	35	15%
81-100%	27	11%
none	67	28%
Unsure	14	6%

Appendix 2

Stories from schools

The following document includes a summary of outcomes and some of the success stories reported by schools participating in the WasteSorted Schools (WSS) Program. The outcomes and stories are categorised under three themes - 'waste recovery success stories', 'broader community engagement' and 'promoting change at home'.

Waste recovery success stories

Analysis of data reported by participating schools showed large numbers of positive outcomes.

- **South Bunbury Primary School** - "Our education of the school community has seen a reduction in the general waste bin collection from 32 bins per week to 14. We are redirecting more waste into recycling and FOGO, meaning more waste is being recycled and directed away from landfill. This has also meant a saving in our shire rates for rubbish collection."
- **Shelley Primary School** - "Last year we reduced the number of general waste bins located around the school to half. This year we are changing to the FOGO bin system to further improve student understanding of what they are actually putting into our bins and to try to further extend the amount of paper we recycle."
- **Whitford Catholic Primary School** removed all general waste bins from the school grounds except for during the two canteen days a week. All school lunch waste, except organics, is sent home with the students for recycling/disposal. A school representative said: "Our last Waste Wise Audit (September 2020) saw an annual reduction of 3,459 kg of fruit and vegetable scraps to 225 kg - a massive improvement!"

Appendix 2

Stories from schools

- **Inglewood Primary School** placed comingled recycle bins in all classrooms and the office, which paved the way to reduce the number of general waste bins in service.
- **South West John Calvin Christian College** introduced a three-bin system that resulted in a 90 per cent reduction in waste to landfill. The school said: “Paper recycling bins - this has resulted in approximately 400 kg of paper waste going directly to paper recycling. Compost bins/bokashi - this has led to about 95 per cent of organic waste being diverted from landfill.”
- **Kinross College** - “We established at our Waste Audit that Kinross College for one day our total waste contained 8 per cent paper and cardboard. By implementing paper/cardboard recycling bins in every classroom we have stopped that waste unnecessarily ending up in landfill.”
- **Mother Teresa Catholic College** - “We have now reduced all food waste going to landfill from the students as it goes to the worm farms, compost bins and school chickens.”
- **Carcoola Primary School** introduced recycling bins into all classrooms resulting in a 40 per cent reduction in the amount of waste going to landfill.
- **Mundaring Christian College** collected and weighed the food scraps over three terms and reported that 582 kg of food scraps were diverted into compost bins and to chickens.



Appendix 2

Stories from schools

Broader community engagement

Examples of engagement with the broader community include:

Active participation

- Community recycling stations/hubs and participation in specific external recycling programs encourage engagement with the broader school community, who bring in items that are collected by the school. Examples of items collected include: ring pulls; bottle lids (supported by Lids for Kids); oral care products; stationery; batteries; soft plastics; valid Containers for Change containers; bread tags (supported through Bread Tags for Wheelchairs); mobile phones (via Mobile Muster); ink cartridges; and coffee pods.
- Worm farm leachate and garden produce is shared with, or sold to, the community.
- Working closely with Parents and Citizens (P&C) Associations. P&C sometimes support school-led WSS activities or assist through providing small amounts of funding. At Honeywood Primary School, the P&C has helped to coordinate the construction of a kitchen garden which uses school-made compost to “close the loop”.
- Dalkeith Primary School is working with the local IGA supermarket to supply reusable bags. Other schools, such as Byford Primary School, work with supermarkets chains like Coles and Woolworths on waste minimisation projects linked to the school.

Relationships

- Relationships established with local councils, including involvement from waste education coordinators.
- Relationships established with Lions Club groups, Bush Ranger cadets, Men’s Shed groups, local and national community/environmental organisations.
- At St Damien’s Catholic Primary School, parent-teacher meetings are used to encourage parents to reinforce the WSS messages used at school in the home.

Appendix 2

Stories from schools

Education & awareness

- School children making waste education posters for display around the school and to take home that educate the community.
- The community are kept informed about waste-related news through photos and updates in school e-newsletters and apps, school websites and social media platforms.
- Hosting sustainability expos and holding sustainability/waste-related stalls at school events.
- School waste activities and achievements are promoted at school open days.
- School engagement with parents and carers to educate and encourage participation in waste-free/nude food lunch days. Several schools are helping to educate caregivers by sending non-reusable lunch packaging home with students.
- School-led WSS activities and achievements featured in the local newspapers. For example, St Matthew's School in Narrogin shared its waste audit results through a newspaper article.
- Reporting waste audit results and yearly WSS summaries to the broader school community via newsletters.
- At Our Lady of Lourdes Dardanup, the local parish priest also encourages recycling among the parishioners.

Appendix 2

Stories from schools

Promoting change at home

Examples of positive change being reported at home:

- Honeywood Primary School reported that students have been going home and speaking with their families about ways to reduce waste to landfill and providing examples of how their families are implementing waste wise practices at home.
- Students are asking parents to buy in bulk to avoid buying small packets/tubs of food.
- Eden Hill Primary School reported families are making their own worm farms at home.
- Many more students have backyard chickens, worm farms and compost areas.
- At Star of the Sea Catholic Primary School, students encourage parents to make correct use of the three-bin system at home and to stop wrapping recyclables in plastic bags.
- At Greenbushes Primary School, students regularly recount occasions when they've encouraged parents to buy bulk packs of foodstuffs for lunchboxes.
- Liwara Catholic Primary School students reported that they recycle much more at home because of the school's involvement in recycling.
- Some schools reported that single-use straws were being discouraged for use at home and at cafes.
- At Notre Dame Catholic Primary School, children have developed vegetable gardens and worm farms at home in response to what they have experienced at school.
- Kinross Primary School students in varying year levels have reported that they have a compost bin at home after learning about composting at school.
- West Byford Primary School reported that students have begun encouraging parents to collect soft plastics to drop off at REDcycle centres.
- Bullsbrook College reported that Year 6 students are using recycled items collected at home and brought to school to build an irrigation system.
- Beverley District High School reported that parents who were previously not interested in recycling now have recycling systems in place in their homes due to the influence of their children.
- South Bunbury Primary School reported that families have been encouraged to recycle correctly.



WasteSorted Schools

www.wastesortedschools.wa.gov.au

