



GOVERNMENT OF
WESTERN AUSTRALIA



Annual report 2021-22

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November 2022

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Cover image: WasteSorted Award application
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Hon. Reece Whitby, MLA, Minister for Environment

In accordance with section 23 of the *Waste Avoidance and Resource Recovery Act 2007*, I am pleased to submit the Waste Authority annual report for the period 1 July 2021 to 30 June 2022, for presentation to Parliament.

I would like to thank Reg Howard-Smith, whose term as Chair ended on 8 July 2022, and returning members for their leadership and dedication in advancing the goals of the *Waste Avoidance and Resource Recovery Strategy 2030*. This annual report reflects the progress made and their strong commitment to ensuring Western Australia has a sustainable, low-waste future based on circular economy principles.

I am excited by the journey ahead of us, and look forward to working collaboratively with fellow Waste Authority members and our many stakeholders to embrace opportunities and overcome challenges as we work towards building a better Western Australia.

Elizabeth Carr AM
Chair, Waste Authority



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Acknowledgement of country

The Government of Western Australia acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

Chair's report



My fellow members and I have completed our third year of service at the Waste Authority. In partnership with the Department of Water and Environmental Regulation (the department) and the Minister for Environment, we have focused on actions to meet all the waste-related challenges in the *Waste avoidance and resource recovery strategy 2030* (the waste strategy).

The waste strategy's three key objectives continue to guide our actions: waste

avoidance; recovery of valuable resources; and the protection of human health and the environment from the harmful effects of waste. The five- and 10-year targets in the waste strategy are a key part of achieving change in Western Australia. It is inspiring to see so many stakeholders working together to progress these important goals.

Western Australia's waste industry has continued to respond positively to many pandemic-related challenges. I would like to acknowledge the Western Australian Local Government Association (WALGA) for spearheading agreements on sharing staff, vehicles and equipment so that essential waste services could be delivered during Covid-19 disruptions. This spirit of cooperation is an exemplar of the modern waste industry functioning at the highest-possible standard.

Fluctuating Australian and international material markets remain a challenge. Governments at federal, state and local levels are continuing to work together to find solutions. The industry has a key role in finding innovative supply and demand solutions to minimise waste generation, maximise resource recovery, and protect the environment and human health from the harmful effects of disposed waste.

Waste infrastructure is critical to ensure waste materials are turned into high-value, recycled commodities in Western Australia. In 2021–22, plastic and tyres became subject to waste export regulations under the federal *Recycling and Waste Reduction Act 2020*. In February 2021, the federal and state governments announced funding for infrastructure projects in Western Australia as part of the national Recycling Modernisation Fund. These projects will increase the local processing capacity for plastic and tyre waste.

Western Australia's Plan for Plastics complements this funding and will see the phase-out of a range of single-use plastics including cups, plates, bowls, cutlery, straws and plastic bags, and of helium balloon releases. Regulations commenced on 1 January with a transition period to allow businesses and the community to adapt.

A key target of the waste strategy is to increase material recovery rates to 75 per cent by 2030. The latest figures (see [Waste and recycling in Western Australia 2020–21](#)) include a reported recovery rate of 60 per cent.

Organics recovered from three-bin food organics and garden organics (FOGO) services can make the single-biggest contribution to achieving the material recovery targets for municipal solid waste. The Better Bins and Better Bins Plus programs have directed funding to 15 local governments to introduce FOGO services and another 10 to provide garden organics services, covering more than 530,000 households across Western Australia.

With a continued focus on the FOGO rollout, the Waste Authority released [Better practice FOGO services: A step-by-step guide](#) and a report on the [Impacts and benefits of kerbside collection systems – Perth and Peel](#). The impacts and benefits report showed that high-performing FOGO systems can achieve recovery rates of around 75 per cent, and even more if waste to energy is used to process residual waste.

Local governments in Perth and Peel need new infrastructure to support the rollout of FOGO services. In 2022, the department called for expressions of interest for organics processing infrastructure projects to be co-funded under the Food Waste for Healthy Soils program. Successful projects will be funded by the federal and state governments and project proponents.

The use of recycled construction and demolition (C&D) waste is key to meeting the waste strategy's recovery targets, because this waste stream makes up just over half of all waste generation. The material recovery rate for the C&D waste stream was 84 per cent in 2020–21, exceeding the 2025 waste strategy target of 77 per cent. Despite the high reported recovery rate, significant tonnages of C&D waste are not being recycled for best use and there are opportunities for further improvements.

The waste levy is an economic instrument designed to reduce waste to landfill that also generates funds for a range of waste and environmental purposes. The waste levy in 2021–22 was \$70 per tonne. Under the *Waste Avoidance and Resource Recovery Act 2007*, a minimum of 25 per cent of the forecast waste

levy revenue is allocated to support the waste strategy and implementation of the Act. In 2021–22, waste levy revenue of \$20.03 million was used to deliver important programs such as Better Bins Plus, Household Hazardous Waste, Roads to Reuse, WasteSorted communications, WasteSorted Schools and grants for education and recycling infrastructure.

This year the WasteSorted Infrastructure and Community Education Grants program was reviewed. In summary, 134 projects were completed between 2016 and 2021, with seven additional projects still underway at the time of evaluation. The grant projects have led to an additional 340,000 tonnes of waste being recycled and supported the creation of 445 long-term jobs.

This year the WasteSorted Schools program celebrated 20 years of helping schools to improve how they manage waste. The program is available to all schools across the state, with 956 schools participating since 2002.

Funding was also allocated for activities such as waste data collection, waste policy, compliance and enforcement, supporting the Plan for Plastics and implementing the litter strategy.

A Program Risk and Performance Committee (PRPC) supports the Waste Authority. The PRPC meets quarterly and provides oversight and guidance on risk management, program evaluation and financial reporting. The Authority developed a risk appetite statement after a facilitated session by RiskWest in August 2021. The statement identifies the level of risk the Authority is willing to take across various categories such as financial, compliance, health and safety and performance.

In addition to these initiatives, the Waste Authority recognises the vital work of other government agencies in supporting the waste strategy, in particular the Department of Transport, as described in the *Waste avoidance and resource recovery strategy action plan 2021–22* (the action plan). I thank everyone involved in meeting the action plan's commitments, and for their continued efforts going forward. Another example of the excellent work in waste avoidance and recycling is DevelopmentWA's deconstruction of Subiaco Oval, the Hamilton Senior High School and the former Princess Margaret Hospital, each of which demonstrates that strong leadership and early planning can lead to minimal waste generation and high material recovery rates.

This is the final annual report of the current Waste Authority because our terms of appointment expired on 8 July 2022. I take this opportunity to thank the current and former Ministers for Environment and my fellow Authority members Lee Broomhall (Deputy Chair), Josh Byrne, Kelly Howlett and Tim Youé for their ongoing commitment to implementing the waste strategy. I also thank the department's Director General Michelle Andrews and her excellent teams for their support of the waste strategy and the Waste Authority.

With the foundations we have laid during the past three years, I look forward to Western Australia continuing its journey towards a more sustainable, low-waste future based on circular economy principles.

Reg Howard-Smith
Chair, Waste Authority

Performance overview

The waste strategy targets support our move towards a sustainable, low-waste circular economy and allow performance to be monitored against baseline data.

Overall objectives and state targets

Avoid	Recover	Protect
<i>Western Australians generate less waste.</i>	<i>Western Australians recover more value and resources from waste.</i>	<i>Western Australians protect the environment by managing waste responsibly.</i>
<ul style="list-style-type: none">2025 – 10% reduction in waste generation per capita2030 – 20% reduction in waste generation per capita	<ul style="list-style-type: none">2025 – Increase material recovery to 70%2030 – Increase material recovery to 75%From 2020 – Recover energy only from residual waste	<ul style="list-style-type: none">2030 – No more than 15% of waste generated in Perth and Peel regions is landfilled2030 – All waste is managed and/or disposed to better practice facilities

In 2020–21, Western Australia generated 6.4 million tonnes of waste, of which 60 per cent, or 3.8 million tonnes, was recovered. This is up from 42 per cent in 2014–15 and is moving towards the 70 per cent target for 2025.

Waste generation increased by one per cent between 2014–15 and 2020–21. Reported waste generation has increased during the past two years because a more complete dataset was obtained through mandatory reporting requirements. However, per capita waste generation decreased by five per cent to 2,342 tonnes per capita and is halfway to the 2025 target of a 10 per cent reduction from 2014–15.

The material recovery rate for the C&D waste stream was 84 per cent in 2020–21, exceeding the 2025 waste strategy target of 77 per cent. However, the recovery rate is likely to be inflated due to the stockpiling of C&D waste.

Material recovery from the commercial and industrial (C&I) waste stream decreased from 53 per cent in 2014–15 to 40 per cent in 2020–21, continuing to fall short of the 2020 waste strategy target of 70 per cent. While the C&I waste sector has responded to increases in the waste levy, this sector's material recovery performance is also closely tied to international market prices for waste-derived products.



5% decrease
in waste generation
per capita since 2014-15



84%
of C&D material recovered
Exceeding the target of 77%





60%
of waste was recovered
in 2020-21

Table 1 – Material recovery in Western Australia

Year	Metro MSW	Major regional centres	Commercial and industrial	Construction and demolition	Statewide recovery rate	Per capita generation (kg per person)
2014–15	39%	30% ³	53%	42%	42%	2,452
2015–16	36%	31%	48%	64%	49%	2,029
2016–17	32%	28%	47%	77%	52%	1,787
2017–18	37%	28%	47%	75%	51%	1,769
2018–19	34%	29%	51%	81%	57%	1,852
2019–20	31%	28%	44%	81%	58%	2,168
2020–21	32%	27%	40%	84%	60%	2,342
State targets 2020	65%	50%	70%	75%	-	-
State targets 2025	67%	55%	75%	77%	70%	2,207
State targets 2030	70%	60%	80%	80%	75%	1,962

Notes: Figures from 2019–20 are from data collected under regulation 18C of the WARR Regulations.

Figures before 2019–20 are from the Recycling activity in Western Australia annual reports, except MSW performance (major regional centres) which is from the annual census of Western Australian local government waste and recycling services.

Some historical data have been revised. The data presented here supersedes all previous versions.

¹Excludes one major regional centre due to data verification issues.

The material recovery rate for municipal solid waste (MSW) generated in the Perth metropolitan region continues to underperform and was 32 per cent in 2020–21, less than half the target of 67 per cent by 2025. A headline strategy of the waste strategy is the adoption of three-bin food organics and garden organics (FOGO) collection systems across the Perth and Peel regions. These systems have been shown to significantly improve MSW recovery rates. At 30 June 2022, FOGO systems have been rolled out to more than 170,000 households. Another 10 local governments have committed to, or expressed strong interest in rolling out FOGO in the future, which would take these systems out to a further 165,000 households.

The waste strategy has a headline strategy to improve the quality and timeliness of waste data for assessing and reporting against its targets. Waste management organisations must now undertake waste data reporting under the revised Waste Avoidance and Resource Recovery Regulations 2008 (WARR Regulations).





Operational structure

Organisational structure

Sections 16(1) and 17(1) of the *Waste Avoidance and Resource Recovery Act 2007* (WARR Act) provide that the Minister for Environment will ensure the Waste Authority has the services and facilities reasonably necessary to enable it to perform its functions. Section 16(2) provides that the Minister may, by arrangement with the department, allow the Waste Authority to make use of the services of any officer in the department.

Services are provided by staff employed by the department under provisions of the *Public Sector Management Act 1994*, pursuant to section 16(1) of the WARR Act. Officers are subject to the department's human resources policy, information technology and administrative processes, and other policy matters regulated by the *Financial Management Act 2006* and Treasurer's instructions.

A service-level agreement for the provision of services and functions between the department and the Waste Authority is in place and reviewed annually. The agreement includes both section 16 services and section 80 functions that are approved by the Minister. The agreement sets out the parties' mutual understanding of their respective statutory and other legal functions and obligations through a statement of expectations and performance deliverables for the provision of services.

Membership

In July 2019, the Governor of Western Australia appointed the members of the Waste Authority for three-year terms. The terms of all the members expired on 8 July 2022.



Chair Reg Howard-Smith

Reg Howard-Smith is an industry advocate who has provided representation to the highest level of government, private sector and academia within Australia and internationally. He has considerable experience in shaping the strategic direction and policy of organisations, has been a member of numerous boards, and is known for his ability to evolve and cultivate strong relationships with leaders and stakeholders.

Reg is currently the Chair of the Building and Construction Training Board.

He was the Chief Executive Officer (CEO) at the Chamber of Minerals and Energy for more than a decade, where he positioned and maintained the chamber as a leading resource sector organisation in Western Australia with a membership larger and more diverse than any other in the sector, Australia-wide.



Deputy Chair Lee Broomhall

Lee Broomhall is the CEO of Workpower and has held this role since 2012.

Workpower is a not-for-profit organisation that owns and operates several large-scale commercial businesses in Western Australia. Its enterprises exist to employ and support people living with disability.

With a 25-year tenure, Lee was previously the Deputy CEO and held executive roles such as the Executive Manager People, Performance and Strategy and Chief Operating Officer.

In 2010 Lee was the Western Australia winner of the Telstra Young Business Women's Awards. Lee holds qualifications in human services, business management and professional coaching. She is a Fellow of Leadership WA.



Member Dr Josh Byrne

Josh Byrne is an environmental scientist and urban design professional with a national profile as a consultant, researcher and communicator in urban sustainability. His approach is leadership through demonstration by engaging in projects that provide opportunities to test innovation, build capacity and share learnings with stakeholders and the wider community.

Josh has a PhD in Environmental Engineering, a Bachelor of Science with Honours in Environmental Science, and Diplomas in Landscape and Amenity Horticulture. He has a long association with applied research and is Dean of Sustainable Futures at Curtin University, one of four capability platforms supporting learning, research and partnership activities for the Faculty of Humanities.

Josh is well known as the WA presenter on ABC TV's Gardening Australia program where over the past 20 years he has demonstrated how gardening can improve urban livability to a national audience. He is a regular contributor to print and radio media, and author of three popular books on sustainable gardening and low carbon living.



Member Kelly Howlett

Kelly Howlett is the CEO of Pilbara charity, Bloodwood Tree Association Inc. Bloodwood Tree is a wholly Aboriginal-controlled organisation that provides services to people experiencing disadvantage, unemployment or alcohol and other drug problems both in the Port/South Hedland and broader Pilbara areas.

Kelly has made her life and career in the Pilbara, and served as Mayor of the Town of Port Hedland for almost seven years until 2016.

An active and passionate environmental and sustainability practitioner, Kelly founded and remains the Chairperson of the local Care for Hedland Environmental Association.

Kelly was inducted into the Western Australian Women's Hall of Fame in March 2018 in recognition of her lengthy contribution to the Pilbara environment and community. She has extensive governance experience and a keen interest in social issues, the natural environment and sustainability. Kelly has a Bachelor of Science (Environment)/Bachelor Forest Science (Hons) and is a graduate of the Australian Institute of Company Directors' program.



Member Tim Youé

Tim Youé is the CEO of the Resource Recovery Group (RRG), a statutory local government authority with a vision of a circular economy with less waste and lower carbon emissions.

Tim was also a National Director of the Waste Management and Resource Recovery Association of Australia (WMRR). He previously held senior management roles in the global logistics sector with a focus on business development, sales and marketing.

Tim is a graduate of the Australian Institute of Company Directors' program and holds Bachelor degrees in Sociology and Politics from Murdoch University and a Masters of Business Administration from Curtin Graduate School of Business.

Enabling legislation

The WARR Act establishes the Waste Authority. Sections 19 and 20 establish the Authority's general powers and functions, while schedule 2 sets out 17 functions in full. These enable the Authority to:

- advise and make recommendations to the Minister for Environment on matters relating to the Act
- inquire into any matter relating to the Act and advise the Minister for Environment or CEO of the department (Director General) when the Minister or Director General requests advice
- advise and make recommendations to the Director General on the regulation of waste services
- advise and make recommendations to the Director General with respect to subsidiary legislation under the Act
- seek the advice of other entities that the Waste Authority thinks fit for the purpose of advising the Minister for Environment in relation to the setting and variation of a levy
- act as an advocate for the objects of the Act
- develop, promote and review the waste strategy and coordinate its implementation
- monitor and assess the adequacy of, and report to the Minister for Environment on the operation of the waste strategy, product stewardship plans and extended producer responsibility schemes
- promote community awareness and understanding of resource efficiency, waste avoidance and resource recovery.

The Waste Authority, with support from its Program Risk and Performance Committee, monitors the implementation of programs in the annual business plan, which is approved by the Minister for Environment, and gives advice to the Minister as requested.

The Waste Authority seeks to identify and promote the economic and environmental benefits from improved waste avoidance and resource recovery practices. The Authority also works to ensure the community understands the benefits of resource recovery and avoiding waste generation.

The Waste Avoidance and Resource Recovery Account (WARR Account) is credited with at least 25 per cent of the forecast waste levy revenue. During 2021–22, the department provided administrative support, functions and services, as well as the management of programs funded from the WARR Account as outlined in the service-level agreement and the business plan.

Responsible Minister

The Waste Authority reports to the Minister for Environment, Hon Reece Whitby MLA, as the Minister responsible for the WARR Act. During 2021–22, the Waste Authority also reported to the former Minister for Environment, Hon Amber-Jade Sanderson MLA, from July to December 2021.

Performance management framework

Funding principles

The application of funds, through the programs set out in the annual business plan, is a key mechanism for delivering the waste strategy. The Waste Authority has a set of funding principles to ensure a clear link between funds provided from the WARR Account and relevant activities.

Table 2: Funding principles

Funding objectives	
<ul style="list-style-type: none">Promote the most efficient use of resources and prioritise the avoidance of waste (by reusing, reprocessing, recycling and energy recovery) over disposal.Protect the environment by reducing environmental harm, including pollution through waste.Ensure consistency with the principles set out in section 4A of the <i>Environmental Protection Act 1986</i>.	
Outcome principles	
Shared responsibility and partnership	Funded activities should result in a reduction in the impact of waste generated and protection of the state's environmental resources.
Innovation and growth	Funded activities should consider innovation that enables and expands our waste management capacity and know-how.
Better practice	Funded activities should promote better practice approaches in waste management, considering the full costs, benefits and impacts of waste management decisions.
Waste as a resource	Funded activities should consider the waste hierarchy, avoiding waste generation where possible, maximising waste recovery, and protecting the environment from the impacts of disposal.
Intergenerational equity	Funded activities should ensure the health, diversity and productivity of our environment is maintained or enhanced for the benefit of future generations.

Table 2: Funding principles cont.

Process principles	
Be efficient and effective	Funded activities should be cost-effective, efficient and deliver a net benefit to the state.
Integrity and accountability	Funded activities should be conducted in a manner that exhibits integrity and accountability and adheres to appropriate funding and governance processes.
Be collaborative	Funded activities should involve collaboration with relevant agencies and stakeholders where it is likely to lead to an outcome that involves greater benefits for the state and/or delivers outcomes more efficiently.
Be informed	Funded activities should be developed and evaluated using an evidence-based approach informed by the collection and reporting of relevant data and information.
Stakeholder engagement	Funded activities should be informed by stakeholder engagement and designed and implemented in a manner supported by relevant stakeholders.
Manage risk	Funded activities should be designed and implemented with appropriate identification, evaluation and risk management.
Be flexible and responsive	Funded activities should operate within the anticipated budget, although being flexible and responsive to changing circumstances is necessary. A 25% variation (up or down) in any given line item is permitted with the Chair's approval, on the basis that the overall expense limit for the year is not exceeded. If a variation of more than 25% is required, Ministerial approval will be sought.

Waste levy collection

The waste levy is payable for all waste disposed of at category 63, 64 and 65 landfills within the metropolitan region and for metropolitan waste disposed of to landfills outside the metropolitan region. In 2021–22, \$85.50 million in waste levy was collected, an increase on the \$79.43 million collected during the 2020–21 financial year. Thirty landfill premises were monitored in relation to the waste levy, most of which were in the Perth metropolitan area.



Waste Authority performance

This section of the annual report sets out the Waste Authority's key achievements for 2021–22 against the waste strategy's headline strategies. It also refers to some of the action plan achievements of the department and other agencies.

The WARR Act sets out requirements for the Waste Authority to develop a waste strategy for Western Australia. The current waste strategy was released in February 2019. It sets targets for waste reduction, resource recovery and the diversion of waste from landfill and is supported by an annual action plan.

The waste strategy aims for Western Australia to become a sustainable, low-waste circular economy in which human health and the environment are protected from the impacts of waste. The strategy has objectives to avoid waste, recover more value and resources from waste, and protect the environment and human health from the impacts of waste. The targets specified to achieve these objectives are ambitious and important to reach.

The Waste Authority gratefully acknowledges the waste-related commitments and achievements of the departments of Biodiversity, Conservation and Attractions; Communities; Education; Finance; Health; Justice; Local Government, Sport and Cultural Industries; Planning, Lands and Heritage; and Transport, as well as DevelopmentWA, Main Roads WA and the Water Corporation.

Examples of these contributions include:

- **DevelopmentWA:** Deconstructing and reusing materials from Subiaco Oval and the former Princess Margaret Hospital; transforming the former Hamilton Senior High School site into a sustainable residential community (with FOGO-derived products used in landscaping); putting a set of waste sustainability metrics in demolition tenders.
- **Department of Finance:** Releasing a sustainability framework – 'Caring for Country Together' – in November 2021 to help schools identify and reduce their carbon footprint, including reducing and managing waste.
- **Main Roads WA:** Using more than 100,000 tonnes of Roads to Reuse recycled products to date and committing to increase the use of recycled materials in construction products.

Develop statewide communications to support consistent messaging on waste avoidance, resource recovery and appropriate waste disposal behaviours.

Behaviour change

Consistent communication across multiple channels is essential to ensure the community has a shared set of knowledge, skills and behaviours to avoid waste, recover resources and protect the environment from the impacts of waste.

Headline strategy 1 brings together a suite of programs to achieve this, including the WasteSorted toolkit, the 'Be a GREAT Sort' behaviour change campaign, the WasteSorted Awards and other high-profile waste programs.

Positive behaviour change is the result of many Waste Authority programs that have sought to:

- grow awareness of and engagement in model behaviours
- encourage people to stop and think at the point of waste disposal
- give people the opportunity to manage their waste correctly through better infrastructure.

Contributing programs include the GREAT Sort campaign, bin tagging, Better Bins funding, WasteSorted schools, WasteSorted awards, and WasteSorted grants. Local governments, regional councils and many other stakeholders have also made significant contributions.

'Be a GREAT Sort' behaviour change campaign

A major long-term behaviour change program, with a strong research base, supports the waste strategy. The 'Be a GREAT Sort' campaign was launched in August 2020. The campaign targets five high-priority waste behaviours to encourage the community to take simple actions to make 'landfill the last resort'.

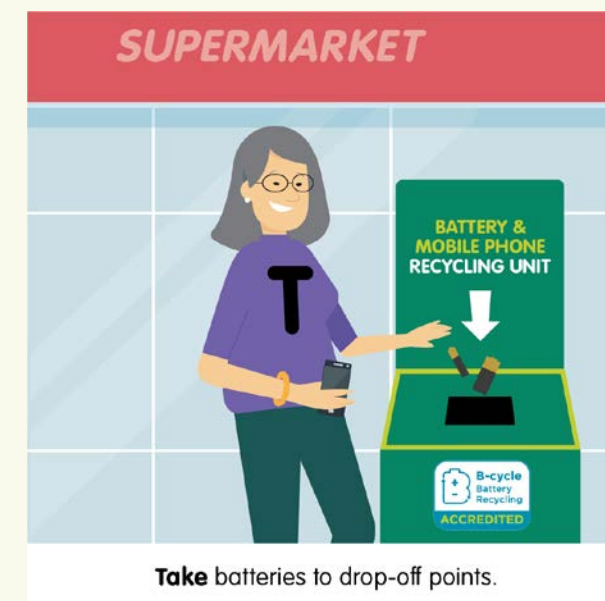
In 2021–22, 'Be a GREAT Sort' messages achieved a broad reach across many channels, including:

- 66,805 visits to the WasteSorted website
- 1,168,871 completed video views across social media, YouTube and broadcast video on demand (9Now, 10Play and SBS On Demand)
- social media advertising reaching 623,102 Western Australians
- 1,094,000 listeners on metropolitan radio
- 722,262 viewers of shopping centre displays.

In 2021–22, promoting correct battery disposal became part of the WasteSorted paid media campaign.

The annual evaluation of the 'Be a GREAT Sort' campaign was undertaken in May 2022. This used a survey of 1,000 households, media reach and bin tagging data to evaluate the effectiveness of key messages in changing behaviour.

The evaluation found a positive impact through improved attitudes, reduced contamination, increased recycling, more composting, and lower general waste volumes. The GREAT Sort campaign recognition is improving and confidence in local governments is increasing among those people who recognise the WasteSorted toolkit materials.



Behaviour change evaluation 2022: Key findings

Figure 1 – Waste attitudes have significantly improved (showing % agree)

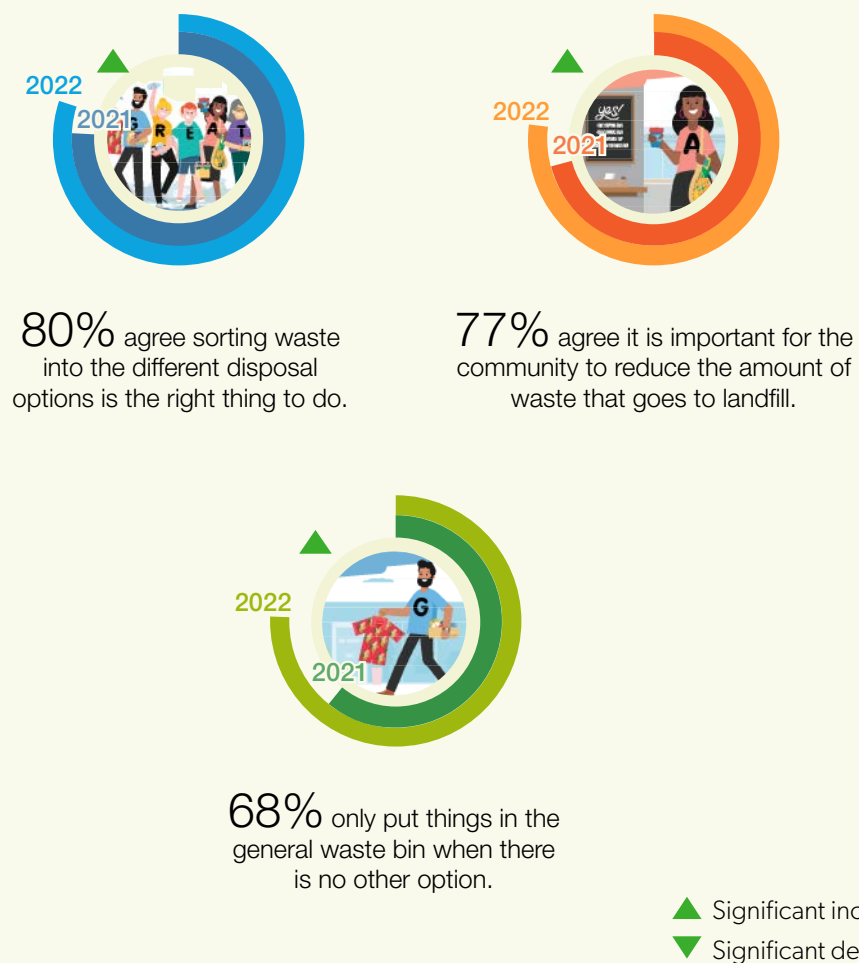


Figure 2 – Improved attitudes correspond with a decrease in the volume of general waste and fewer recyclables in the general waste bin

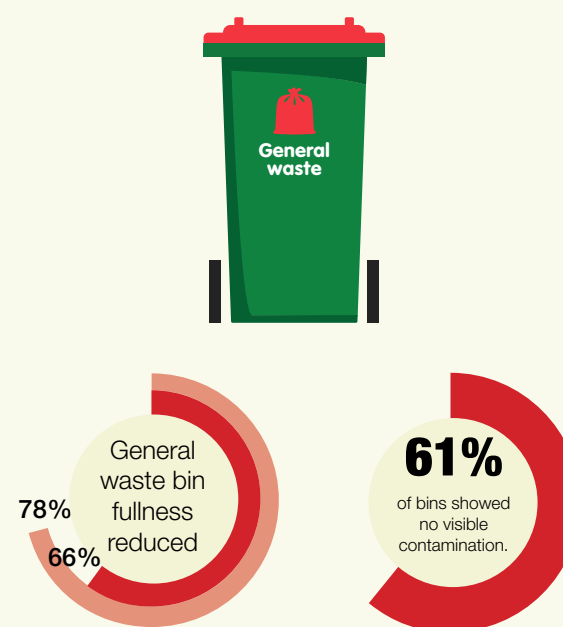
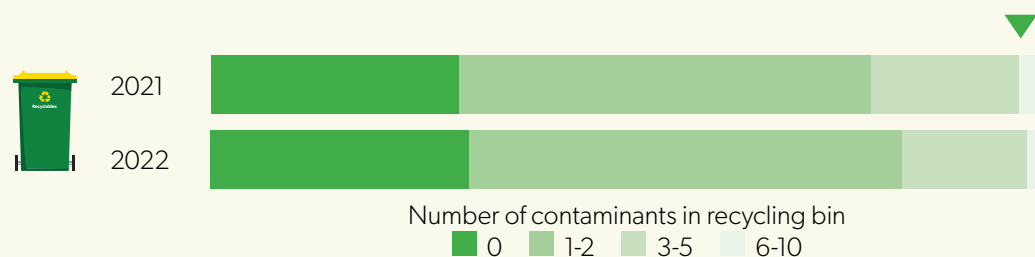
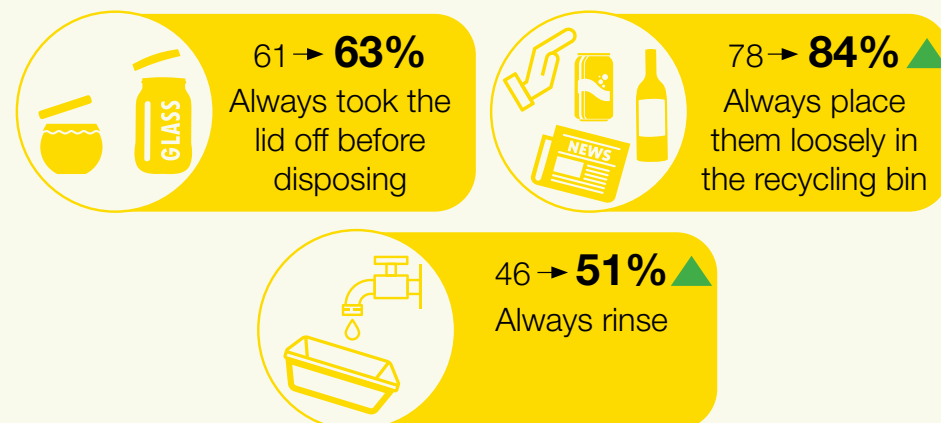


Figure 3 – Contamination in recycling bins decreased



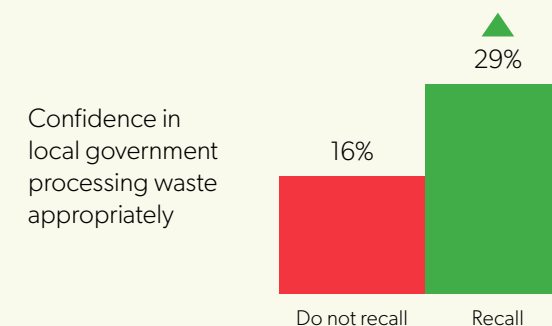
Bin tagging and survey data suggests that the improvement is driven by a reduction in **soft plastics, clothing, unrinsed containers** and **aerosol cans**.

Figure 4 – Recycling behaviours have significantly improved



▲ Significant increase (desirable)
▼ Significant decrease (desirable)

Figure 5 – People who recall the WasteSorted materials shown are more confident their local government is processing waste appropriately





Bin tagging was delivered to
10,000 households

Bin tagging

In 2021–22, bin tagging was delivered to 10,000 households, providing them with feedback on individual kerbside bin contents to reduce contamination and improve material recovery rates. WALGA received \$120,000 in 2021–22, as part of a three-year grant (2020–23), to deliver the bin tagging program in conjunction with six local governments and regional councils.

The program also enables WALGA to provide training to other local governments. A bin tagging app was first developed in 2020–21 and this was refined and tested during 2021–22. Another element to the program during 2021–22 was the commissioning of waste audits before and after bin tagging to measure the impact of the program. WALGA has also worked with Containers for Change to pilot various approaches to reduce the number of eligible containers in the general waste bin.



WasteSorted Grants – recycling infrastructure and community education

The WasteSorted Grants program has two streams:

- Stream 1 supports investment in local infrastructure projects that divert more waste from landfill and increase material recovery rates (action under headline strategy 8).
- Stream 2 supports community education programs that align with the WasteSorted messaging.

In 2021–22, \$1,416,881 in funding was directed to 21 projects, including \$1,265,968 to nine organisations undertaking recycling infrastructure projects across Western Australia and \$150,913 to 12 community education projects. Tables 2 and 3 outline the projects that received WasteSorted Grants funding in 2021–22.



\$1.4
million in
WasteSorted
grant funding



9
infrastructure
projects



12
community
education
projects



WasteSorted toolkit

The WasteSorted toolkit provides a suite of free resources for local governments and regional councils to communicate with residents about sorting waste correctly to reduce contamination in kerbside bins and increase material recovery and recycling.

Stakeholders are regularly consulted about the ongoing development of the WasteSorted toolkit to ensure it meets their needs, including the Consistent Communications Collective of the Western Australian Local Government Association (WALGA).

In 2021–22, the WasteSorted materials were updated to include:

- waste resources in 11 languages for Culturally and Linguistically Diverse (CALD) communities
- resources to reduce illegal dumping at charity stores and bins
- videos promoting recycling and FOGO processes
- resources to support stakeholders, such as truck decals and public place signs.

In 2021–22, a range of local governments and regional councils used the WasteSorted toolkit and 'Be a GREAT Sort' campaign materials, including the Resource Recovery Group; Eastern Metropolitan, Western Metropolitan and Bunbury Harvey regional councils; the cities of Albany, Armadale, Bayswater, Bunbury, Busselton, Cockburn, Fremantle, Kalamunda, Kwinana, Mandurah, Melville, Perth, South Perth, Swan, Vincent and Wanneroo; the towns of Bassendean, Cottesloe, Victoria Park and Port Hedland; and the shires of Augusta–Margaret River, Dardanup, East Pilbara and Esperance. The materials were also used by SUEZ, Cleanaway and WALGA.

Table 2: WasteSorted Grants stream 1, recycling infrastructure

Organisation	Project	Grant
City of Karratha	Organics landfill diversion and compost manufacturing	\$250,000
City of Kalamunda	Cardboard compactor	\$18,740
WA Recycling	WA Recycling Resource Recovery Centre improvement project	\$224,250
City of Armadale	Championing food waste at the Champion Centre	\$6,193
City of Busselton	Reuse shop at Busselton Waste Transfer Station	\$150,000
Green Skills Inc. (Denmark)	The Green Skills Denmark tip shop infrastructure improvement project	\$16,785
C-Wise Holdings Pty Ltd	Cocoon composting system	\$100,000
Resource Recovery Group	Increasing FOGO processing capabilities with procurement of larger trommel	\$250,000
Hastie Waste	Waste Less in the South West	\$250,000
Total		\$1,265,968

Table 3: WasteSorted Grants stream 2, community education

Organisation	Project	Grant
Repair Cafe Bassendean	Share Shed Bassendean	\$6,500
Australian Association for Environmental Education WA Inc.	Reusable and modern cloth nappy waste pilot project in early childhood centres in Western Australia	\$17,033
City of Armadale	Reducing waste at the source through education workshops	\$17,130
Serpentine Jarrahdale Community Resource Centre Inc.	Turning our household food wastes into black gold for our gardens	\$6,594
Adventure Kids Entertainment	Regional tour of Patti the Pig 'It's Not All Rubbish' children's show	\$6,089
REmida Perth Inc.	GREAT with Purpose	\$23,520
Eastern Metropolitan Regional Council	Circular economy in the community	\$20,000
WA Community Gardens Network	Gathering and growing – community gardens and waste	\$5,955
City of Cockburn	Cockburn GREAT Sort waste education program	\$16,500
City of Bayswater	Cloth nappy rebate	\$10,000
North Midlands Project Incorporated	Geraldton Repair + Create Lab	\$19,219
City of South Perth	Sorting out recycling on the South Perth foreshore	\$2,373
Total		\$150,913

For more details on grants projects visit:

www.mediastatements.wa.gov.au/Pages/McGowan/2021/11/Community-waste-reduction-projects-share-in-1-4-million-dollars.aspx

WasteSorted Schools

The WasteSorted Schools program (formerly Waste Wise Schools) supports schools with educational strategies, including hands-on learning experiences, to reduce waste to landfill and develop positive environmental values in students and the school community. Together with the community behaviour change campaign, consistent waste messages are delivered to young students through to adults.

A total of 242 schools achieved accreditation in 2021–22, including 20 schools that were accredited for the 10th consecutive year.



Program expenditure in 2021–22 was \$403,000. In 2021–22, the program:

- launched an improved program to align with other Waste Authority programs, including a new grants program
- awarded grants totalling \$126,967 to 41 schools for projects that avoid and recover school waste, such as paper and cardboard, food waste, single-use packaging and general recycling
- developed new resources, including ATAR Geography curriculum and school worm farming videos
- delivered 16 professional development workshops and webinars for teachers and students from 233 schools, as well as 54 educational waste audits and 29 school waste activities
- partnered with organisations to support schools in the Kimberley and Kalgoorlie–Boulder regions and Perth's southern suburbs, as well as to deliver workshops to early years learning services.

National Recycling Week

National Recycling Week is held in the second week of November every year. Households, schools, workplaces and local governments all get involved to learn more and celebrate recycling. The Waste Authority invested \$23,000 in promoting National Recycling Week in November 2021. This included a supplement on recycling in The West Australian newspaper, radio advertising, online content and social media advertising.

The liftout included a message from the Minister for Environment and two feature articles: one about the benefits of FOGO kerbside collection systems and the other promoting the success of the Roads to Reuse program.



The Western Australian litter strategy

The Keep Australia Beautiful Council WA (KABC) vision is for a litter-free Western Australia. KABC received grant funding of \$884,000 from the WARR Account towards implementation of the *Litter prevention strategy for Western Australia 2020–2025*. The strategy has four strategic objectives:

Objective 1 – Increase community understanding of the impacts of litter on the environment and support behaviour change

Objective 2 – Contribute to the long-term prevention of litter and marine debris.

Objective 3 – Regulation and enforcement of the *Litter Act 1979*

Objective 4 – Monitor the level of litter in Western Australia and its marine environment and evaluate the effectiveness of programs.



Key litter strategy achievements in 2021–22 were:

- using digital data capture technology, conducted the first full litter survey using the Australian Litter Measure in 10 locations in the Perth metropolitan area
- held 15 events, such as clean-ups and displays, and eight Clean Schools workshops in partnership with Waste Wise Schools
- registered 74 new schools in the Clean Schools program, bringing participating schools to 725
- expanded the Adopt-a-Spot program to 1,881 registered groups, bringing the total number of program volunteers to more than 53,000 since 2009
- developed new campaign materials to update KABC's 'Bin It' campaign and 'Bin It for Good', and promote its litter reporting scheme 'Unseen Heroes'
- launched the 2022 Tidy Towns Sustainable Communities Awards in May in Port Hedland, including a clean-up organised by Care for Hedland with 23 of its volunteers along with BHP volunteers, the Deputy Mayor of the Town of Port Hedland, Kevin Michel MLA and a representative from WA Return Recycle Renew Ltd
- took entries from 34 communities for the 2021 awards, with Boddington being the 2021 state winner (more than 58,000 hours of volunteer participation was recorded in the submitted projects).



For further details on Keep Australia Beautiful WA's work, see its 2021–22 annual report.

WasteSorted Awards

The WasteSorted Awards celebrate Western Australia's waste champions and recognise projects that avoid waste, recover value from waste streams and protect the environment.



A total of 104 nominations were received for the WasteSorted Awards and 38 finalists were announced on 11 April 2022. The Awards event was held on 19 May 2022 and was attended by 236 people. The Waste Authority warmly congratulates the 2022 WasteSorted Awards winners:

- Community Waste Award: Boddington RRR
- Commercial and Industrial Waste Award: DevelopmentWA / Lendlease / EarthCare – Builders Waste Recycling Program, Alkimos Beach
- Waste Management Award: WA Recycling
- WA Regional Waste Award: Shire of East Pilbara
- 2022 Waste Champion: Gordon Bateup
- Local Government Award: Western Metropolitan Regional Council/Resource Recovery Group – GREAT Games and School Waste Education Day
- Waste Team Award: Workpower's Waste Team
- Waste Innovation Award: Town of Cambridge: E-Waste Drop off Days
- WasteSorted School Award: Beeliar Primary School
- Waste Avoidance (Events) Award: Town of East Fremantle
- Waste Initiative of the Year: City of Wanneroo – Talking My Language project
- WA Waste Award: Workpower's Waste Team.





In 2021-22,

477 tonnes

of materials were collected for recovery or safe disposal.

Household Hazardous Waste program

The Household Hazardous Waste (HHW) program funds local governments and regional councils to collect, store, recover and dispose of flammable, toxic, explosive or corrosive hazardous waste generated by households. If not treated or disposed of correctly, these products can pose a threat to public health and the environment.

The program is delivered under a five-year funding agreement with WALGA that concludes in 2023. In 2021-22, \$1,824,385 was directed to WALGA for this important program. A further grant of \$785,888 will support the program in 2022-23.

Since 2011, 5,975 tonnes of materials have been collected from 15 permanent facilities (nine metropolitan, six non-metropolitan) and through temporary collection events. In 2021-22, 477 tonnes of materials including gas bottles, acids, batteries, flammable liquids, paint and cleaning products were collected for safe recovery or disposal.

The HHW program's operations and safety standards were evaluated independently in 2020-21. The recommendations are being implemented in conjunction with WALGA and the relevant site operators.



Better practice local government waste services

The primary collection methods for municipal solid waste (MSW) are kerbside, vergeside and drop-off services.

The Waste Authority's *Better practice FOGO kerbside collection guidelines* were introduced in 2020 to support the waste strategy's targets for municipal solid waste.

In 2021, the Waste Authority released [Guidelines for local government vergeside and drop-off services](#) to complete the suite of better practice guidance for local government waste services. Local governments are encouraged to use these documents when preparing their waste plans and planning their waste services.

The Waste Authority is building on the better practice waste services guidelines by developing better practice contracting guidance for FOGO services. This project will support the rollout of FOGO services across Perth and Peel by 2025 and better practice contracting for other local government waste services.



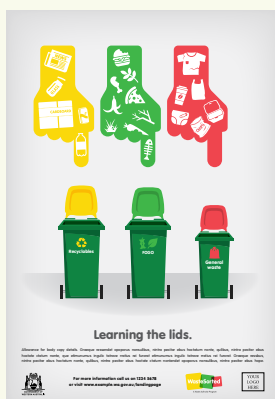
02

A consistent three-bin kerbside collection system, which includes separation of food organics and garden organics from other waste categories, to be provided by all local governments in the Perth and Peel regions by 2025 and supported by State Government through the application of financial mechanisms.

The waste strategy identifies organic waste as a focus material because of the volume that remains unrecovered and its impacts on the environment. Organics can be recycled into valuable products such as compost and mulch, which reduces the impacts of disposing it to landfill and supports a more circular economy.

The department is supporting the waste strategy target to roll out better practice three-bin FOGO services across Perth and Peel local governments by 2025. High performing three-bin FOGO services can achieve material recovery rates of more than 75 per cent (or more if waste to energy is used to manage residual waste) and make the single-biggest contribution to achieving the waste strategy's material recovery targets for municipal solid waste.

The Waste Authority's annual FOGO rollout plans, informed by a FOGO Reference Group, identify actions across the themes of markets, local government services, education and engagement, and organics processing.



High performing three-bin FOGO services can recover up to

75% of waste.

Markets

Strong markets for FOGO-derived products help to 'close the loop' and are critical to the success of the FOGO rollout. FOGO-derived soil amendment products are currently available in the retail market, in both bagged and bulk form. A *Market development strategy for FOGO-derived products*, released in 2022, identifies priority markets and recommends ways to strengthen them.

The FOGO Reference Group has identified better practice contracting as important for supporting local governments and service providers to deliver high-quality and efficient services. Better practice contracting is also central to supplying the market with high-quality FOGO-derived products. The Waste Authority has partnered with the Waste and Recycling Industry of WA and MRA Consulting to support better practice FOGO contracting.



Five local governments applied for funding to introduce FOGO services to an additional **27,000** households.

Local government services

The \$20 million Better Bins Plus: Go FOGO program continues to support local governments to introduce FOGO services.

In 2022, five local governments applied for a total of \$436,251 to introduce FOGO services to an additional 27,000 households. These local governments are expected to join 18 existing participants in the program, including the cities of Albany, Bayswater, Belmont, Bunbury, Fremantle, Kalamunda, Melville, Swan and Vincent; the shires of Augusta–Margaret River, Collie, Dardanup, Harvey, Mundaring and Serpentine–Jarrahdale; and the towns of Bassendean, Cottesloe and East Fremantle.

In 2021–22, 12 local governments received Better Bins Plus payments totalling \$1.9 million. At 30 June 2022, FOGO systems have been rolled out to more than 170,000 households. Six local governments also received their final Better Bins instalments, totalling \$2.3 million, to introduce three-bin systems.

The Waste Authority produced two important resources in 2021–22 to support local government services:

1. A [step-by-step guide](#) to help local governments plan, implement and monitor better practice FOGO services (with assistance from WALGA).
2. A report, [Impacts and benefits of kerbside collection systems – Perth and Peel](#), to help local governments consider their options for kerbside services.

Education and engagement

The WasteSorted program continued to develop FOGO communications materials in 2021–22. The WasteSorted toolkit now includes a wide variety of templates for local governments to tell residents about FOGO, including social media, print media, short animations, bin stickers and a FOGO flyer in 11 languages.

In March 2022, the Waste Authority delivered a series of Let's Go FOGO online information sessions. These sessions updated stakeholders on key FOGO projects and shared information to support the FOGO rollout. More than 200 stakeholders joined the sessions.

FOGO systems have been rolled out to more than **170,000** households.



City of Vincent FOGO bins ready for rollout



City of Vincent FOGO braille kit

Improved capacity for organics processing

The Food Waste for Healthy Soils Fund aims to increase Australia's organic waste recycling rate from 49 per cent to 80 per cent by 2030. The fund will:

- provide grants to help Western Australian organisations develop infrastructure to process organic waste
- improve the quality, safety and consistency of recycled organic waste, especially for use in the agricultural industry
- develop markets for high-value nutrient-rich compost and soil conditioners.

During the year, the department called for expressions of interest for organics processing infrastructure projects to be co-funded under the Food Waste for Healthy Soils program. Successful projects will be funded by the federal and state governments and project proponents.



Implement sustainable government procurement practices that encourage greater use of recycled products and support local market development.

Reducing waste through procurement

The Waste Authority remains focused on supporting the procurement of recycled construction and demolition (C&D) products and organics because of the volume of these materials in the waste stream and the significant opportunities for government procurement to develop local markets.

The use of recycled C&D waste remains critical to achieving the state's material recovery targets as set out in the waste strategy.

The Waste Authority and the department continued to deliver the Roads to Reuse (RtR) program, in partnership with Main Roads WA, the Department of Health and the Waste and Recycling Industry Association of Western Australia (WRIWA). RtR supports the procurement and use of recycled C&D products in civil applications, such as road construction. It does this by providing a comprehensive framework that C&D recyclers can use to show purchasers how their recycled product meets the RtR specification designed to protect human health and the environment.

Six independent audits were conducted throughout the year to ensure recycled products met the RtR product specification. The Waste Authority also updated funding guidelines – rebranded as the RtR Recycler Support Scheme (RSS) – to support C&D recyclers to meet the requirements of the product specification.

Three accredited RtR recyclers were operating at four sites in the Perth and Peel regions in 2021–22.

Main Roads has used about 100,000 tonnes of RtR products since 2019 and has committed to use more in future projects.

The Waste Authority has established a C&D Reference Group to build on the success of RtR. The reference group is made up of stakeholders from the demolition, construction and recycling sectors, as well as state and local government representatives. The group's role is to advise the Authority in relation to the C&D objectives and targets in the waste strategy.

The Waste Authority has developed a C&D action plan with input from the reference group. The plan outlines priority C&D actions, including those to increase the procurement and use of RtR products in state and local government projects.

The Waste Authority, with support from the FOGO reference group, is also working to support markets for recycled organics. During the year, the Authority released a *Market development strategy for FOGO-derived products* containing recommendations to develop FOGO markets across priority sectors. The Authority also began a project to support better practice FOGO contracting between local governments and service providers. Better practice contracting is important for supplying high-quality materials to the market and underpinning the procurement of recycled products.



Main Roads has used about **100,000 tonnes** of RtR products, by reusing and recycling construction materials, since 2019.



04

Implement local government waste plans, which align local government waste planning processes with the *Waste avoidance and resource recovery strategy 2030*.

Local government waste planning

The Waste Authority requires local governments to submit waste plans to ensure their waste management activities align with the waste strategy's objectives and targets. These plans are also important to:

- increase consistency in waste planning across local government
- positively impact MSW recovery rates
- encourage local governments to adopt better practice and preferred approaches to waste management.

At 30 June 2022, 44 waste plans had been submitted to the department for assessment, with 35 plans endorsed by the Director General. Eight waste plans were not endorsed, and one is still under review.

Local governments will submit annual reports on waste plan implementation as part of Waste Data Online annual reporting. The first annual report is due on 1 October 2022.



35

local government waste plans have been endorsed.



05

Review the scope and application of the waste levy to ensure it meets the objectives of the *Waste avoidance and resource recovery strategy 2030* and establish a schedule of future waste levy rates with the initial schedule providing a minimum five-year horizon.

Review of the waste levy

The waste levy aims to influence waste management practices, including reducing waste to landfill, by increasing the price of landfill disposal. It also raises funds to support waste-related programs that reduce waste to landfill. A five-year schedule of rate increases set out in the *Waste Avoidance and Resource Recovery Levy Regulations 2008* (WARR Levy Regulations) was completed on 1 July 2018 when the levy reached \$70 per tonne at putrescible landfills and \$105 per cubic metre at inert landfills.

In February 2020, the department released the *Review of the waste levy* consultation paper for an extended five-month period (due to Covid-19). The review canvassed broader strategic issues related to the waste levy's design, including its geographical boundaries and a schedule of future levy rates.

The Minister for Environment did not increase the waste levy in 2021–22.



Levy evasion

In 2021–22, the department targeted waste levy compliance at regional landfills receiving leviable waste generated in the metropolitan region. Activities included 28 targeted inspections and surveillance of regional premises, as well as extended compliance campaigns at problematic sites (which resulted in improved operations and compliance with approvals).

Volumetric surveys and site investigations were also carried out to support levy evasion investigations. These provided evidence to charge a company for offences under the *Environmental Protection Act 1986* and to serve 'notices of estimation for unpaid levy' under the WARR Regulations.



06

Undertake a strategic review of Western Australia's waste infrastructure (including landfills) by 2020 to guide future infrastructure development.

Waste infrastructure planning

Understanding current and future infrastructure needs is critical for long-term strategic planning and ensuring sufficient waste management infrastructure is available to meet the waste strategy targets.

The department worked with consultants to undertake a waste infrastructure audit and needs analysis to:

- determine the waste management infrastructure required to meet the waste strategy targets and the state's needs to 2050
- examine the extent of gaps in existing infrastructure to meet the targets
- explore a range of scenarios for meeting future waste infrastructure requirements.

The waste infrastructure audit and needs analysis will inform the *State waste infrastructure plan* which is under development. The plan seeks to provide a long-term framework to guide decision-making for the planning and development of waste infrastructure in Western Australia.

07

Review and update data collection and reporting systems to allow waste generation, recovery and disposal performance to be assessed in a timely manner.

Waste data strategy

The *Waste data strategy* is a key supporting document of the waste strategy. It guides the actions of the Waste Authority and the department to improve waste data management and meet the waste data needs of stakeholders.

Actions progressed in 2021–22 included the collection and validation of data collected under the Waste Avoidance and Resource Recovery Regulations 2008 (WARR Regulations) and measurement and reporting against waste strategy targets. To improve data confidence, a compliance program for data reported under regulation 18C of the WARR Regulations was implemented. Nine returns were audited for accuracy and compliance with the regulations.

Mandatory reporting of waste and recycling data

Under regulation 18C of the WARR Regulations, waste and recycling data must be reported to the department each year. This year in 256 annual returns were lodged.

The Waste and recycling in Western Australia 2020–21 report was published on the department's website in 2021–22. This report replaces the previous series of reports, *Recycling activity in Western Australia and Census of local government waste and recycling services*.

Online system for waste reporting

The Waste Data Online system was launched on 1 July 2021 for organisations to lodge their annual returns as required under regulation 18C of the WARR Regulations.

MyCouncil reporting waste data

The department, on behalf of the Waste Authority, provided local government waste and recycling data for 2020–21 to the Department of Local Government, Sport and Cultural Industries for publication on its MyCouncil website.

Provide funding to promote the recovery of more value and resources from waste with an emphasis on focus materials.

Container deposit scheme

Western Australia's container deposit scheme, Containers for Change, enables consumers to return eligible drink containers for a 10-cent refund. The scheme is increasing recycling rates and reducing litter and is expected to recycle 6.6 billion beverage containers over 20 years. It has also created new opportunities in business, social enterprise and employment across the state.

Many Western Australians choose to donate their refund back to their community. As of 30 June 2022, more than 1.47 billion containers had been returned through Containers for Change, with about \$5 million donated to 4,900 registered charities and community groups.

More than 800 jobs have been created by Containers for Change, with about 30 per cent of these going to people living with disability, the long-term unemployed or Aboriginal people.

After 18 months of operation to 31 March 2022, Containers for Change achieved an average return rate of 56 per cent, representing an additional 500 million containers recycled compared with the pre-scheme baseline of 34 per cent recovery.

The container deposit scheme is a successful example of a state-based product stewardship approach.



1.47 billion containers have been returned through



\$5 million has been donated to 4,900 registered charities and community groups



More than 800 jobs created





Action on single-use plastics

The State Government released an updated Plan for Plastics in June 2021. The plan proposes to phase out unnecessary single-use plastics to address their known impacts on the environment, waste streams and human health. A single-use plastics working group has provided stakeholder input into enacting the Plan for Plastics.

- Items targeted in stage 1 include disposable plastic cutlery, stirrers, straws, thick plastic bags, bowls, plates, cups for cold beverages, expanded polystyrene food containers and helium balloon releases. The plan's stage 1 regulations began on 1 January 2022. The regulations provided a transition period for business and consumers to adapt to the change, with enforcement provisions coming into effect for all items on 1 July 2022, other than cold cups which starts on 1 October 2022. WWF Australia has rated Western Australia as the nation's best jurisdiction on single-use plastics action for two years in a row.



Stage 1

1 January 2022

1 July 2022

The department contracted the National Retail Association to implement a supplier and retailer engagement program to support businesses to adapt to the stage 1 regulations. Community engagement campaigns were delivered in December 2021 and January 2022, and in May and June 2022, which set out choices categorised into 'good, better, best'.



The Minister for the Environment launched the Plastic Free Places program on 14 April 2022. The Boomerang Alliance is partnering with the department to implement the program. This is a key strategy to support hospitality businesses and the events sector reduce their use of plastics. Businesses and organisations can transition away from plastic and become champions of change by adopting reusable alternatives.

Electronic waste (e-waste)

Waste electrical or electronic equipment (e-waste) is one of the fastest-growing waste streams. E-waste contains valuable materials, as well as substances that are hazardous to the environment. According to the federal Department of Agriculture, Water and the Environment's [E-product stewardship in Australia](#) report, the potential value of all Australian e-waste material in 2019 was about \$820 million, with only about 18 per cent of this being recovered.

The State Government has committed to ban e-waste disposal to landfill by 2024. The ban will support increased material recovery from e-waste, reduce the environmental impacts of e-waste in landfills and contribute to more jobs and economic growth in WA.

Funding of \$14 million has been committed to the implementation of the ban. Consultation on the approach and regulatory impact of the ban, grants for new infrastructure for collection and recycling, and community education will be delivered before and after the start of the ban.

The ban considers waste management practices, market forces, national policy and e-waste bans in other states and territories. The ban will complement existing product stewardship schemes for televisions and computers, mobile phones, batteries, fluorescent tubes and light fittings.



\$174 million will be invested in Western Australian recycling infrastructure in the next five years

Recycling modernisation fund

The federal *Recycling and Waste Reduction Act 2020* introduced provisions to ban the export of waste plastic, tyres, glass and paper and cardboard. The glass ban started on 1 January 2021; the paper and cardboard ban will commence on 1 July 2024. These bans present a variety of opportunities along with significant challenges for Western Australia given its reliance on export markets for many recycled materials. More local processing infrastructure will be required to enable the ongoing export of clean material streams while local end uses for products are developed.

The State Government has committed \$15 million funding to support the development of local paper and cardboard recycling infrastructure. This will help manage the state's estimated 80,000 tonnes of mixed and unsorted paper and cardboard that will need to be processed locally given the waste export bans. The government has also committed \$20 million funding and identified land to develop local processing infrastructure for plastics and tyres. The department is administering these two major infrastructure investment programs.

Combined with Australian Government contributions and industry investment, it is expected that \$174 million will be invested in Western Australian recycling infrastructure in the next five years. The department is continuing to work closely with stakeholders such as local recyclers and the Australian Government to manage the impact of the waste export bans.

Charitable recycling organisations

Charitable recycling organisations routinely dispose of materials that have been illegally dumped or cannot be recycled or reused, reducing their overall ability to deliver their services.

To provide practical assistance to these charities, the Charitable Recyclers Rebate (CRR) program provides a rebate for the cost of the waste levy incurred by these organisations when they dispose of unusable material in the metropolitan area. The program supports the continued efforts of charitable recycling organisations to divert waste from landfill and recognises that disposal may be the only option for some items. Seven charities participated in the program in 2021–22 and received a total of \$357,559.



More than
\$350,000
in rebates provided to seven charities towards cost of disposing unusable materials.



Other actions supporting the strategy

Improved regulatory framework for waste

The Waste Authority acknowledges the department's important work on legislative reforms to support the waste strategy's implementation. Many of the initiatives and programs delivered through the Waste Authority depend on improvements to the waste regulatory framework.

The department has conducted several major public consultation processes for waste reform projects. On 20 February 2020, it released the consultation paper *Closing the loop: waste reforms for a circular economy* for an extended five-month timeframe due to Covid-19.

Closing the loop outlined legislative proposals to improve waste management and the effectiveness of the waste levy in Western Australia. Proposed changes would modernise the licensing of waste facilities and reform how the waste levy is applied at landfills. New measures are also proposed to address long-term waste stockpiling. The department has reviewed the consultation submissions and is preparing advice for the State Government on approaches for waste reform.

Between September and December 2020, the department undertook 12 weeks of public consultation on the proposed legislative framework for waste-derived materials (WDM) in Western Australia. It then published the discussion paper [Waste not, want not; valuing waste as a resource](#) and held six information sessions.

The proposed legislative amendments will provide certainty about when materials derived from waste are no longer considered waste, meaning that licensing under the *Environmental Protection Act 1986* would not be required and, where relevant, waste levy requirements would not be triggered.

The proposed legislative framework will contribute to objectives in the waste strategy to encourage the use of waste-derived materials, increase demand for recycled products and develop relevant markets, while protecting the environment. A consultation summary report was published in July 2021.

In September 2020, the department published a discussion paper [Review of the Waste Avoidance and Resource Recovery Act 2007](#), seeking feedback to inform the statutory five-yearly review.

The review considered the effectiveness of the legislation in meeting its objectives for reducing waste and encouraging resource recovery and its alignment to the waste strategy. It also considered recommendations from the 2016 Auditor General and 2018 Public Accounts Committee reports, which outlined areas where waste management could be improved through potential legislative changes.

The feedback received during this process was considered in a report – [Review of the Waste Avoidance and Resource Recovery Act 2007](#) – which was tabled in Parliament on 27 October 2021.

Illegal dumping

The WARR Account funds the department's waste compliance program to respond to reports of illegal dumping and reduce the harmful impacts of waste on the environment. The program seeks to ensure compliance with the waste-related provisions of the *Environmental Protection Act 1986* and the WARR Levy Regulations. On conviction, offences under the Act carry a maximum penalty of \$125,000 for corporations and \$62,500 for individuals. The program is reviewed and evaluated annually in response to industry changes and social trends.

In 2021–22 the department continued targeted inspections and covert surveillance of problematic illegal dumping sites. It continued a collaborative approach with private and state government land managers by sharing opportunities to comment in the media, and jointly maintaining the program's social media profile.

In 2021–22, 45 people were convicted by the courts for waste and/or littering related offences. Fines ranged from hundreds of dollars to one of \$50,000 for illegal dumping.

The department made [29 successful illegal dumping prosecutions](#) throughout the year.

Summary of expenditure

The *Business plan 2021–22* focused on the actions and activities under each of the eight headline strategies that are funded through the WARR Account. Table 4 summarises project budgets and actual expenditure. Some variation between the planned budget and the final expenditure is inevitable given factors including the cost of services, the impacts of Covid-19 and changing State Government priorities. Where variations occurred, they were approved by either the Chair of the Waste Authority or the Minister for Environment as required under the *Business plan 2021–22*. By the 30 June 2022, 95 per cent of the projected 2021–22 budget was expended.

Table 4 – Project budgets and actual expenditure

Project	Original 2021–22 budget	Final 2021–22 expenditure
Headline strategy 1		
Action 1.1 – WasteSorted behaviour change	600,000	654,219
Action 1.1.1 – WasteSorted bin tagging	115,000	120,000
Action 1.1.2 – WasteSorted grants – community	150,000	150,913
Action 1.1.3 – WasteSorted Schools	500,000	405,152
Action 1.1.4 – WasteSorted Awards	190,000	118,220
Action 1.1.5 – Promotional opportunities (e.g. Waste & Recycle Conference, National Recycling Week)	61,000	48,279
Action 1.1.6 – KABC litter strategy	884,000	884,000
Action 1.1.7 – Plastic Free Foundation	19,250	20,000
Action 1.2 – Household hazardous waste	1,763,250	2,610,273
Headline strategy 2		
Action 2.1 – Progress market development	70,000	45,000
Action 2.3.1 – Original Better Bins	2,425,000	2,300,944
Action 2.3.2 – Better Bins Plus: Go FOGO	2,475,000	1,935,203
Action 2.4 – Guide processing	130,000	-
Headline strategy 3		
Action 3.3 – Roads to Reuse program	100,000	42,576





Project	Original 2021–22 budget	Final 2021–22 expenditure
Headline strategy 6		
Action 6.1 – State waste infrastructure plan	250,000	82,885
Headline strategy 7		
Action 7.3 – Improved waste data	40,000	37,676
Headline strategy 8		
Action 8.2 – Governance support CDS	55,000	54,622
Action 8.4 – Product stewardship	20,000	-
Action 8.5.2 – WasteSorted grants – infrastructure	1,000,000	1,304,238
Action 8.5.3 – Support waste streams	580,000	676,005
Action 8.5.5 – Grant management software	15,000	15,408
Action 8.6 – Charitable Recyclers Rebate	310,000	357,579
Other		
Compliance and enforcement operational costs	285,000	69,232
WARR and Waste Authority costs	34,500	87,745
Subtotal	12,072,000	12,020,167
Services and functions funded under section 16 and section 80 of the WARR Act and covered in the service-level agreement	8,678,000	8,012,944
Total operational budget 2021–22	20,750,000	
Expenditure limit increase ³	343,107	
Total operational budget versus total expenditure	21,093,107	20,033,111

Note 1: Table 4 provides project expenditure extracted from the department's financial management system. Its annual report provides an audited financial statement that includes expenditure from the WARR account.

Note 2: Variations between the original planned budget and the final expenditure were approved by the Chair of the Waste Authority if 25 per cent higher or lower than originally anticipated, or by the Minister for Environment.

Note 3: Expenditure limit increase is a result of refunds from grants and programs from the previous financial years received in 2021–22 as approved by the Minister for Environment.

Program evaluations

The Waste Authority's evaluation framework provides a methodology to assess the effectiveness and efficiency of various waste programs. All programs are regularly monitored. An independent evaluation of at least one funded program per year is undertaken to understand the extent to which it supports progress towards the waste strategy targets and to inform planning of future actions.

Programs scheduled for formal evaluation are broadly determined by the number of years the program has run and the cumulative budget that has been allocated. An allocation for these evaluations is put in each budget. The Household Hazardous Waste program was evaluated in 2020–21 and the recommendations are now being implemented. The WasteSorted Grants program was evaluated in 2021–22 and the recommendations will be considered for implementation in 2022–23. The anticipated schedule for future evaluations is:

2022–23

Charitable Recyclers
Rebate and Charitable
Recyclers Dumping
Reduction programs
and
Behaviour change 'Be a
GREAT Sort' program

2023–24

KABC litter strategy
and Container Deposit
Scheme

2024–25

WasteSorted
communications toolkit and
program

Changes in written law

There were no changes in any written law that affected the operations of the Waste Authority during the reporting period.





Disclosures and legal compliance

Processes are in place within the department to monitor and audit the financial performance of the WARR Account, as required by section 81 of the WARR Act and in accordance with the *Financial Management Act 2006*.

The management of the WARR Account is regarded as a department service for the purposes of sections 52 and 53 of the *Financial Management Act 2006*. Accordingly, the relevant financial information is contained within the department's annual report.

Ministerial directives

Under the WARR Act, the Minister for Environment may give written directions to the Waste Authority, either generally or in relation to particular matters. The Waste Authority did not receive any ministerial directions during 2021–22.

Pricing policies of services provided

Not applicable. The Waste Authority does not apply fees or charges for goods or services.

Employment and industrial relations

Not applicable. The Waste Authority is not an employing authority and does not employ staff.

Sitting fees

Remuneration of the Waste Authority members is determined by the Governor of Western Australia, on recommendation of the Public Sector Commissioner, in accordance with the *Public Sector Management Act 1994*. Annual remuneration for 2021–22 is outlined in Table 5.

Table 5 – Remuneration

Position	Name	Type of remuneration	Period of membership	Gross/actual remuneration* (\$)
Chair	Reg Howard-Smith	Sitting fees	1 July 2021 – 30 June 2022	45,016
Deputy Chair	Plastics	Sitting fees	1 July 2021 – 30 June 2022	27,977
Member	Plastics	Sitting fees	1 July 2021 – 30 June 2022	22,396
Member	Tyres	Sitting fees	1 July 2021 – 30 June 2022	22,396
Member	Tyres	Sitting fees	1 July 2021 – 30 June 2022	Does not receive sitting fees (ineligible)

* Includes superannuation

Director and officer liability insurance

Waste Authority members are covered under the department's RiskCover insurance arrangements.

Other legal requirements

Expenditure on advertising, market research, polling and direct mail

Table 6 – Expenditure

Disability access and inclusion plan access

Expenditure	Program	Organisation	Amount (\$)	Total (\$)
Advertising	Waste Authority membership: call for expressions of interest	Initiative Media Australia – <i>The West Australian</i> (public notices)	4,219	5,112
		Waste Management & Resource Recovery Association of Australia – Resource Bulletin	893	
	Promotional opportunities, Waste and Recycling Conference	Advans Exhibition	1,093	1,093
	Compliance and enforcement	Initiative Media Australia	162	162
Direct mail	WasteSorted Schools	Campaign monitor	183	183
Media advertising	National Recycling Week	Carat Australia	19,186	22,186
		Tribe	3,000	
	Single-use plastics	Carat Australia	27,721	27,721
	WasteSorted behaviour change	Carat Australia	430,718	438,102
		Facebook	4,339	
		Google	3,045	
Total				494,559

The Waste Authority is covered by the department's five-year disability access and inclusion plan.

Compliance with public sector standards and ethical codes

The Waste Authority's code of conduct aligns with the Western Australian Public Sector Commission's code of ethics and has been developed in accordance with the Public Sector Commission's *Conduct guide for public sector boards and committees and the Board essentials*.

Waste Authority members signed their code of conduct in August 2019 for their three-year term of membership, and in doing so, committed to act with honesty and integrity at all times. Members are aware of their legal and ethical responsibilities in carrying out official duties and understand the values, principles and standards of behaviour expected.

Recordkeeping plan

The Waste Authority complied with the *State Records Act 2000* through adherence to the department's recordkeeping plan.

In accordance with our code of conduct, the Waste Authority ensured that official information remained confidential, and records of decisions and all other documentation were securely retained. Minutes of Waste Authority meetings were circulated to members with meeting agenda papers. Confirmed minutes are provided to the Minister for Environment.

Government policy requirements

Occupational safety, health and injury management

Waste Authority staff comply with the department's three-tier occupational safety and health (OSH) system. Details on the department's OSH regulations are available in its 2021–22 annual report.



Governance disclosures

The Waste Authority's corporate governance arrangements ensure transparency in decision-making and operation, as well as accountability to stakeholders. The following disclosures of potential conflicts of interest were made by members of the Waste Authority during 2021–22:

Table 7: Governance disclosures

Meeting date	Member	Disclosures of potential conflicts of interest
10/12/2021	Tim Youé	Declared a potential conflict of interest in relation to an update on the national waste export ban and national and state Recycling Infrastructure Modernisation (RIM) funding. As CEO of the Resource Recovery Group (RRG), the RRG was negotiating lease terms with Chairay Sustainable Plastic Co Pty Ltd (a grant recipient of RIM funding) to host its facility at the RRG's Canning Vale premises.
16/06/2022	Josh Byrne	Advised that he had been appointed Dean of Sustainable Futures at Curtin University as an 0.5 FTE.

Ethics and integrity

The Waste Authority has an agreed governance charter. The code of conduct and conflict of interest policy was reviewed in 2019, with new versions of both documents signed for the current three-year term of memberships.

The department regularly updates and shares resources with the Waste Authority on corporate integrity matters.

Authority members participated in a survey on processes and improvements including self-assessments of skills and development opportunities.

Procurement practices followed the Government of Western Australia's guidelines and procurement policies.

Unauthorised use of credit cards

Not applicable. Members of the Waste Authority do not hold corporate credit cards.

Meetings

The Waste Authority held four meetings during 2021–22.

Table 8: Members' meeting attendance

Member	Meetings attended
Reg Howard-Smith	4
Lee Broomhall	4
Kelly Howlett	4
Josh Byrne	4
Tim Youé	4

During the year the Waste Authority also held a joint planning session with the Program Risk and Performance Committee to consider priorities for the 2022–23 business plan and action plan.

Waste Authority publications

During 2021–22, the Waste Authority published:

- *Waste and recycling in Western Australia 2019–20*
- *Waste and recycling snapshot 2019–20*
- *Waste Authority annual report 2020–21*
- *Waste Authority business plan 2021–22*
- *Household hazardous waste annual report 2020–21*
- *WasteSorted Schools guide*
- *WasteSorted Schools grant guidelines, FAQ and sample funding agreement letter*
- *WasteSorted Schools Geography ATAR curriculum booklet*
- *WasteSorted Schools worm farming at school videos (four versions)*
- *Food waste: In-home research summary on food waste in WA households 2021*
- *GREAT Sort behaviour change materials including charity dumping resources, battery disposal resources, and animations*
- *WasteSorted toolkit materials including FOGO resources and waste resources in 11 languages for Culturally and Linguistically Diverse (CALD) communities*
- *Recycling processing videos (three versions of different lengths)*
- *FOGO processing videos (three versions of different lengths)*
- *FOGO rollout plan 2021–22*
- *FOGO rollout plan 2021–22 report*
- *FOGO case studies (Town of Bassendean, Eastern Metropolitan Regional Council, Resource Recovery Group, City of Melville)*
- *Better practice FOGO services: a step-by-step guide*
- *Impacts and benefits of kerbside collection systems – Perth and Peel*
- *Guidelines for local government vergeside and drop-off services.*





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