



Action Plan

2021–22

Waste Avoidance and Resource Recovery Strategy 2030

Be a GREAT Sort!
Landfill is the last resort.



Table of Contents

Introduction	3
Waste strategy – key elements	4
Role of the action plan	5
2021–22 Emerging issues	6
2021–22 Priorities	9
Waste reform	10
Headline strategy 1	11
Headline strategy 2	15
Headline strategy 3	17
Headline strategy 4	21
Headline strategy 5	23
Headline strategy 6	25
Headline strategy 7	27
Headline strategy 8	29
Additional actions that support the delivery of the waste strategy	33

Introduction

The *Waste Avoidance and Resource Recovery Strategy 2030* (waste strategy) is Western Australia's (WA's) strategy towards becoming a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste. It encourages all Western Australian's to work towards three objectives – **avoid, recover and protect** – and sets targets which underpin these objectives.

By 2030, the targets are a 20 per cent reduction in waste generation per capita, at least 75 per cent of waste is recovered; no more than 15 per cent of waste generated in the Perth and Peel regions is landfilled; and all waste is managed and/or disposed of to better practice facilities. The waste strategy encourages better practice approaches to waste management which are consistent with the waste hierarchy, to support a more circular economy.

The waste strategy includes a number of high-level strategies to achieve these targets. This action plan clarifies the specific tasks, lead responsibilities and timelines that will be progressed over the next year.

This is the third annual action plan under the current waste strategy. Positive progress was made under the previous action plans, with regular progress reports to the Waste Authority and overall achievements included in the Waste Authority annual reports. This action plan is supported by an annual *Waste Authority Business Plan* (business plan) which focuses on the actions and activities that are funded through the Waste Avoidance and Resource Recovery Account (WARR Account).

In addition to the proactive actions outlined here, there is additional work on issues that arise during the course of the financial year undertaken by the Department of Water and Environmental (DWER) staff and Waste Authority members for which no specific resources have been allocated. Depending on the complexity of these issues, this can impact the planned work program.

The 2021–22 action plan is aligned to the waste reform work underway by the DWER and the headline strategies included in the waste strategy: **Waste reform:** Policy and legislative reforms to improve the waste management framework in WA and support the implementation of the waste strategy.

Headline strategy 1: Develop Statewide communications to support consistent messaging on waste avoidance, resource recovery and appropriate waste disposal behaviours.

Headline strategy 2: 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 the State Government through the application of financial mechanisms.

Headline strategy 3: Implement sustainable government procurement practices that encourage greater use of recycled products and support local market development.

Headline strategy 4: Implement local government waste plans, which align local government waste planning processes with the waste strategy.

Headline strategy 5: Review the scope and application of the waste levy to ensure it meets the objectives of the waste strategy and establish a schedule of future waste levy rates with the initial schedule providing a minimum five-year horizon.

Headline strategy 6: Undertake a strategic review of WA's waste infrastructure (including landfills) to guide future infrastructure development.

Headline strategy 7: Review and update data collection and reporting systems to allow waste generation, recovery and disposal performance to be assessed in a timely manner.

Headline strategy 8: Provide funding to promote the recovery of more value and resources from waste with an emphasis on focus materials.

In addition, there is a section in this action plan that relates to the actions committed to by progressive State Government agencies which support the overall waste strategy objectives of avoid, recover and/or protect, but do not fit directly within one of the eight headline strategies.

Waste strategy - key elements

VISION	Western Australia will become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste.			Supporting documents
OBJECTIVES	Avoid Western Australian's generate less waste.	Recover Western Australian's recover more value and resources from waste.	Protect Western Australian's protect the environment by managing waste responsibly.	
TARGETS	<ul style="list-style-type: none"> ○ 2025 – 10% reduction in waste generation per capita ○ 2030 – 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 landfilled. ○ 2030 – All waste is managed and/or disposed to better practice facilities 	<ol style="list-style-type: none"> 1. Waste Avoidance and Resource Recovery Strategy Action Plan
HEADLINE STRATEGIES	<ol style="list-style-type: none"> 1. Develop statewide communications to support consistent messaging on waste avoidance, resource recovery and appropriate waste disposal behaviours. 2. 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 the State Government through the application of financial mechanisms. 3. Implement sustainable government procurement practices that encourage greater use of recycled products and support local market development. 4. Implement local government waste plans, which align local government waste planning processes with the Waste Avoidance and Resource Recovery Strategy 2030. 5. 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. 6. Undertake a strategic review of Western Australia's waste infrastructure (including landfills) to guide future infrastructure development. 7. Review and update data collection and reporting systems to allow waste generation, recovery and disposal performance to be assessed in a timely manner. 8. Provide funding to promote the recovery of more value and resources from waste with an emphasis on focus materials. 			<ol style="list-style-type: none"> 2. Waste Authority position and guidance statements 3. State Waste Infrastructure Plan 4. Annual Business Plan 5. Waste Data Strategy.

Role of the action plan

This action plan supports the waste strategy through identifying and prioritising actions to deliver against the high-level strategies and targets. It has been prepared with input from State Government agencies.

The action plan is a key reference document to monitor our progress, guide allocation of resources from the WARR Account and inform provision of advice to the Minister for Environment.

The action plan provides information about the timing and implementation of each identified task, and the waste strategy objectives and strategies to which they relate. It also outlines which organisations will lead specific actions, including the Waste Authority, DWER and other State Government agencies.

Local governments and industry play key roles in reaching the waste strategy targets and many of the actions require the lead organisation to work closely with these stakeholders.

The waste strategy, including its targets, guiding concepts and principles, applies to the whole of the state. The action plan contains commitments which support better waste management practices across the state, including in regional and remote communities.

Each action in the plan directly relates to one or more of the 50 strategies outlined in the waste strategy. This action plan focuses on the current highest-priority strategies, so not every strategy in the waste strategy is addressed.

Each headline strategy is associated with actions and timeframes. These are presented as a table, together with the lead agency and the strategy and objective which the action addresses.

The identified timeframes are:

- **ongoing:** underway and/or continuous
- **short term:** commence within the next 1–2 years
- **medium term:** commence within the next 3–5 years
- **long term:** commence in more than five years.

Delivery of the action plan is supported by an evaluation framework. Evaluation of various programs will demonstrate the degree to which they are meeting the intent of the waste strategy and potential improvements will be identified and implemented.

The progress of the action plan is monitored quarterly by the Waste Authority's Program Risk and Performance Committee, reviewed by the Waste Authority and reported annually in the Waste Authority's annual report (for actions led by the Waste Authority) and (where relevant) in the DWER annual report.

The action plan is reviewed annually. The overall waste strategy is reviewed every five years, with the next review to take place in 2023–24.

2021–22 Emerging issues

The waste area is complex and dynamic with direct and indirect impacts from a range of variables and emerging issues:

Community expectations

The community has increased expectations regarding waste avoidance and waste recovery, with heightened mainstream and social media awareness regarding how we deal with finite resources and create a more sustainable environment. Negative coverage on mainstream and social media has contributed to reduced confidence in recycling processes. However, there appears to be a lack of general understanding of efficient and effective waste management costs. Increased transparency through tools such as the MyCouncil website, which provides waste and recycling data for local governments, is helping to promote awareness of the true costs of waste and recycling services.

There are also heightened levels of community and government awareness of waste issues nationally and globally, with varied responses to the many challenges. Many jurisdictions, including the United States of America, the United Kingdom, the European Union and Australia, need to find more efficient and effective solutions to their waste. Decreasing international markets and low values for materials combined with inadequate recycling and reprocessing or manufacturing facilities add to the challenges and issues to be considered.

Regional challenges

The Waste Authority acknowledges that remote and rural communities face increased challenges, including those associated with economies of scale and distance to recycling markets, which limit the range of options that can feasibly be applied to waste management. Many regional and remote areas do not yet have separate kerbside household collection services for recyclable materials. The Containers for Change container deposit scheme introduced in WA from 1 October 2020 will make a significant improvement as there are many regional collection points, however additional regional and remote solutions need to be implemented. Construction and demolition (C&D) waste, food organics and garden organics (FOGO) and large-scale industrial waste present

opportunities for local governments and industry in regional areas to increase recycling rates because these materials can be processed and reused locally.

Waste export ban

Australia has enforced its ban on the export of all waste plastic, paper, glass and tyres that have not been processed into a value-adding material. The [Recycling and Waste Reduction Act 2020](#) regulates the export of certain types of processed waste while building Australia's capacity to generate high-value recycled commodities and associated demand.

The timeframe for implementing waste export bans started with waste glass on 1 January 2021; mixed plastics phase 1 on 1 July 2021 and phase 2 on 1 July 2022; tyres on 1 December 2021; and paper and cardboard on 1 July 2024.

It is acknowledged that WA has some unique challenges in terms of the size of its population centres and the distances between them.

In February 2021, the Morrison and McGowan Governments [announced](#) \$70 million in joint funding which will drive \$174 million in recycling investments in WA. \$20 million from the national Recycling Modernisation Fund and \$15 million from the State Government will leverage investments across eight new projects processing approximately 140,000 tonnes of WA plastic and tyre waste every year. These projects form part of the Perth City Deal initiative. The WA State Government remains committed to awarding \$5 million in industrial zoned land in the future.

A further \$15 million from the national Recycling Modernisation Fund and \$15 million from the State Government will go towards a new \$86.6 million Suez/Auswaste pulp mill capable of processing 100,000 tonnes of waste paper and cardboard. It will be operational before the export ban on mixed paper comes into effect on 1 July 2024.

Improved e-waste management

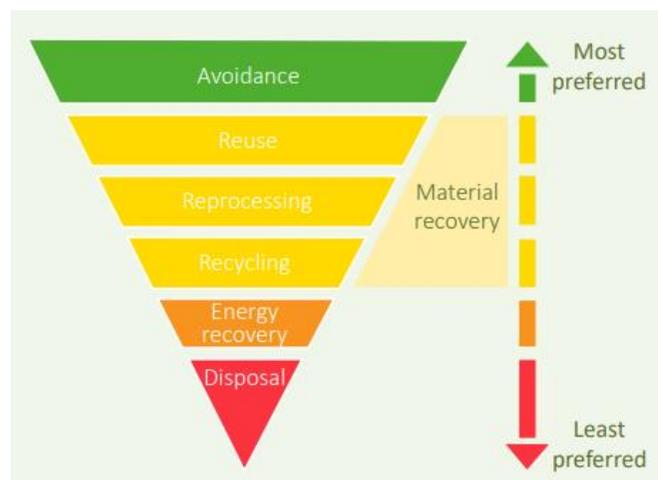
The State Government has allocated \$14 million to support a [ban on e-waste](#) from landfill by 2024. This new commitment will require legislation, investment in recycling infrastructure, as well as complementary measures such as a communications and education program.

Waste infrastructure and planning

Following a review of existing waste infrastructure across the state, further guidance for planning for the future will be developed. In addition to funding to support the waste export bans and e-waste improvements, WasteSorted infrastructure grants will continue with an emphasis on the recovery of focus materials including C&D materials and organics.

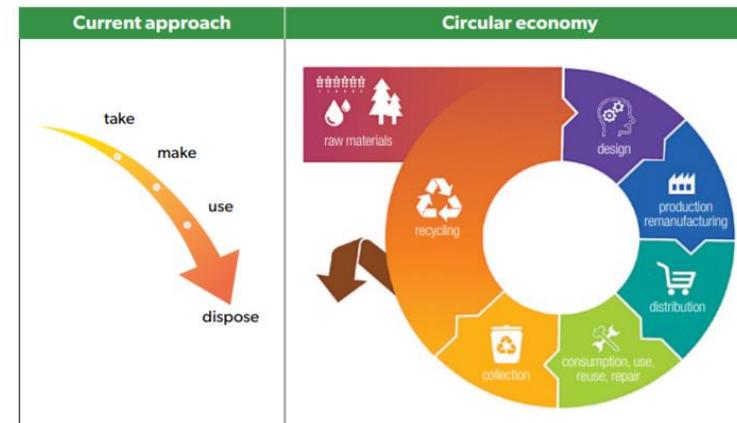
Waste-to-energy facilities

To protect the environment, WA needs to be achieving higher levels of material recovery and managing residual waste responsibly. The 2030 target is that no more than 15 per cent of waste generated in the Perth and Peel regions is landfilled and that all waste is managed and/or disposed of to better practice facilities. Waste-to-energy facilities, which use only the residual waste that remains after better practice source separation and recycling of higher-value materials, are a positive new opportunity for WA, with two new facilities being established in the Kwinana and East Rockingham areas. The Kwinana facility will be operational from 2022. In accordance with the waste hierarchy, converting residual waste to energy is a better alternative than sending it to landfill. Material recovery through reuse, reprocessing and recycling are preferred to energy recovery.



Circular economy

The circular economy concept is gaining further acceptance by decision-makers globally and locally. It requires fundamentally different approaches to waste than the traditional “take, make, use and dispose” model. A circular economy aims to have less reliance on the use of virgin raw materials and include improved planning of product lifecycles. This concept provides the opportunity to rethink waste materials. Instead of a burden to be disposed of, waste materials are viewed as a resource. The approach considers waste and recycling from the initial design phase, through to production, distribution, consumption, use, reuse, repair, collection and recycling. Product stewardship schemes are a proven mechanism to help in both waste avoidance and resource recovery efforts and are becoming a more recognised part of the solution.



Waste as an essential service

Waste management is an essential community service in a similar way to how water and energy are essential services. In the production of goods and services and in the development of infrastructure by the state and local governments and the private sector, waste is now recognised as fundamental to all aspects of planning. Local government undertook proactive contingency planning to allow organisations to utilise fleet and workers from other organisations if essential waste staff or contractors are affected. In addition, the State Emergency Management Committee considered waste along with other essential services in the COVID-19 response and recovery planning processes, underscoring its importance.

Pandemic

The COVID-19 pandemic will have medium- and longer-term waste impacts, many of which are yet unknown. There will likely be an increase in medical waste and the processing of recyclables may be impacted in the future if workforces are negatively affected and/or if international trade and shipping movements are restricted. Anecdotal information indicates that during the early months of the pandemic, commercial and industrial waste reduced as some businesses temporarily closed or reduced operations, and household municipal solid waste (MSW) increased due to a greater proportion of the population working from home. The actual impact of the pandemic on waste generation and management will not be clear until 2019–20 and 2020–21 waste data is received and analysed.

Local government waste plans and improved waste data

2021–22 will be the first full year of implementation of most local governments' waste plans. Annual reporting is due from 1 October 2022, and this data together with waste reporting improvements from landfill operators and recyclers will improve information to track progress against waste strategy targets and inform future decision-making.

Waste reform

There are significant challenges ahead, given that the current rate of material recovery is about 59 per cent.

The national waste export ban is being implemented progressively over the next three years with significant industry, State and Australian Government investment. The focus also needs to remain on recycling of organics and C&D materials to improve the overall recovery rate.

These emerging issues indicate an increased appetite to reduce waste generation and increase resource recovery. The waste sector is maturing through increasing government legislative and regulatory reform and funding incentives, industry innovations and community awareness and expectations. An increased focus on waste complements the move towards a more circular economy.

Reliance on market forces alone will not address all the increasing and complex waste issues or the rate of pre-processing and recycling. There is a continued role for government in both supporting and regulating the

market. The State Government's program of waste reform – including 2020 amendments to the *Environmental Protection Act 1986* (EP Act), the review of the waste levy, conditions on the treatment of waste-derived materials and the forthcoming review of the *Waste Avoidance and Resource Recovery Act 2007* (WARR Act) – provide further opportunities to consider these matters within a policy and legislative context.

2021–22 Priorities

The priority actions in this action plan are directly aligned with the eight headline strategies. 2021–22 will be a year of progress and enhancement of previous actions, consolidating and building on the strong foundations now established. Priority actions for the 2021–22 financial year include:

- Supporting a wide range of waste reforms including the review of the WARR Act and regulations, the [Plan for Plastics to reduce single-use plastic use](#) and the future schedule and conditions for the treatment of waste-derived materials and waste levy rates.
- Engaging with stakeholders to align WasteSorted messaging and maintain a range of effective communications strategies and events, including the [WasteSorted website](#), the [WasteSorted toolkit](#), social marketing, media, education and engagement mechanisms. This includes building on and providing support for consistent local government messaging for householders to ensure better practice kerbside recycling and reduced bin contamination, and supporting FOGO, implementation particularly in Perth and Peel.
- Continuing support of established programs including school and community education, Household Hazardous Waste (HHW) facilities, rebates for charities, research, and recognition of better practice waste management.
- Implementing the [FOGO rollout plan](#), with support from the Waste Authority's FOGO Reference Group, with a focus on market development, processing capacity to keep pace with generation, engagement and education. The Better Bins Plus: Go FOGO funding program will continue to support local government participants to transition to three-bin FOGO systems by 2025.
- Finalising the state waste infrastructure audit and enhancing planning for the future.
- Supporting ongoing improvements in government procurement to reduce waste generation, increase recovery of materials and encourage purchase of locally produced recycled products. This includes a continued focus on the increased use of recycled C&D materials in road base and other projects through the Roads to Reuse program.
- Supporting local governments and regional councils in their five-year waste plan implementation and annual reporting.
- Providing guidance to liable entities required to report waste and recycling data under the Waste Avoidance and Resource Recovery Regulations (WARR Regulations), including through the online reporting system, to ensure accurate waste data collection and reporting to allow waste generation, recovery and disposal performance to be assessed in a timely manner.
- Facilitating new local infrastructure supported by grants provided by the State and Australian Governments for improved local processing and recycling of paper and cardboard, plastics, and tyres; and supporting further waste infrastructure improvements through WasteSorted grant funding.
- Working towards the 2024 e-waste landfill ban, including policy development, regulations, compliance resources and grant administration support for improved e-waste recycling facilities.
- Engaging with the waste and recycling sector and local governments to support the waste strategy targets.
- Supporting existing and emerging product stewardship schemes, including the state container deposit scheme, and national waste reforms and improvements.

Waste reform

DWER is progressing legislative reforms to improve the waste management framework in WA and to support the implementation of the waste strategy. The extensive program of waste reforms has been co-designed with the Waste Reform Advisory Group and built through community and stakeholder consultation.

In particular, major amendments to the WARR Act, the EP Act and associated regulations will:

- Ensure that activities which have the potential to undermine the waste strategy are appropriately regulated.
- Support greater use of waste-derived materials and their market development. Legislative reforms are required to provide certainty around when materials cease to be waste and are instead considered a resource.

- Ensure that waste and recycling are considered essential services, so these continue in the event of an emergency such as the COVID-19 pandemic.
- Close loopholes for levy avoidance and evasion, which undermine efforts to reduce waste and improve material recovery; and increase the return of levy to government.

The table below details the actions currently being undertaken by DWER in relation to waste reform.

Lead	Actions	Timing
DWER	Improvements to waste policy regulatory framework: Continue to review and implement approved changes to the regulatory framework for waste to ensure it is appropriate, reduces the environmental impacts and risks from waste management, and facilitates adequate processing facilities to process collected materials.	Ongoing
	Compliance and enforcement, including improved levy compliance and illegal dumping strategies: Continue to develop and implement mechanisms to reduce levy evasion and stockpiling of waste. Implement actions to protect the environment from the impacts of illegal dumping including detection, investigation and prosecution of illegal dumping, and working with landowners or managers to build their capacity to tackle illegal dumping.	Ongoing
	Improved compliance with the waste policy regulatory framework: Review and reform regulations and policies, to create a reasonable risk of enforcement and ensure that entities which are compliant and apply better practice are not disadvantaged.	Short term

Headline strategy 1

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

This comprehensive strategy brings together the [WasteSorted toolkit](#) with the community-facing 'Be a GREAT Sort' behaviour change communications campaign and aligns with other high-profile waste programs.

The WasteSorted toolkit is available free of charge for local governments and other relevant organisations. A suite of community resources is available on the [WasteSorted website](#) to encourage the community to 'Be a GREAT Sort and do better than the landfill bin.' The toolkit also includes changes to MSW kerbside bin collections to incorporate the three-bin FOGO system and aims to reduce contamination levels in all three bins.

The Be a GREAT Sort campaign will contribute to improving MSW recovery rates to 70 per cent by 2030. Behavioural changes in the community are intended to reduce waste generation, improve the amount of materials separated at the source, reduce contamination rates and enable higher-quality waste materials for reuse.

The campaign takes a staged approach where once one positive behaviour is normalised, only then will other behaviours be targeted. Consistent communications are critical to build knowledge about waste and encourage positive behaviour in reuse and recycling to reduce waste contamination. Improvements in community behaviours will have a direct impact on the amount of waste materials recovered. Higher-quality waste materials will be available for reuse, reprocessing and recycling.

Definition of success

Improving household waste sorting behaviour will lead to improvements in the amount of materials recovered through:

- MSW materials being separated correctly at the source. MSW recovery rates increasing from 32 per cent (variable across different local governments) to 70 per cent by 2030 because of a reduction in contamination.

- Contamination rates being reduced. Increased availability of high-quality uncontaminated waste materials demonstrates community uptake of communications.

Indicators of success:

The WasteSorted evaluation will identify the:

- proportion of local governments using the WasteSorted toolkit or Be a GREAT Sort campaign materials
- percentage increase of householders who sort high-impact waste items correctly
- reduction in kerbside bin contamination rates
- reduction in MSW waste sent to landfill by local governments.

Interdependencies:

The campaign is supported by the WasteSorted toolkit and aligned messaging from other communications platforms, such as those managed by the local governments, including the Western Australian Local Government Association's (WALGA) work on bin-tagging, HHW and waste-related conferences. Other opportunities to promote the key messages are through the Containers for Change container deposit scheme, the WasteSorted Schools program (formerly Waste Wise Schools program), the WasteSorted Awards, the implementation of the State Government's Plan for Plastics, the Keep Australia Beautiful Council [Litter Prevention Strategy for Western Australians 2020–25](#), Plastic Free July and events such as National Recycling Week.

Challenges/risks:

- Local government support is essential, although the uptake of consistent communication materials is voluntary.
- Differences in local government contracts can confuse residents about which materials belong in which bins.
- Lack of consistency in the style, language and content of the various local government waste communications and education materials provided to residents.
- Lack of verifiable data on contamination rates at a local government level to measure the effectiveness of waste separation.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER and Waste Authority	<p>1.1 Deliver the WasteSorted ‘Be a GREAT Sort’ behaviour change campaign and WasteSorted local government communications toolkit Continue to deliver the WasteSorted behaviour change campaign using a range of communication strategies. Build on the campaign using a staged approach, which is informed by behaviour change insights and can respond to emerging priorities. This includes expanding the WasteSorted toolkit and providing support for consistent local government messaging for householders to enable better practice kerbside recycling, reduce bin contamination and support FOGO implementation in Perth and Peel.</p> <p>As part of the overall behaviour change campaign, the following programs and components will be supported:</p> <p>1.1.1 WasteSorted Bin-Tagging program: Continue to provide funding support to WALGA for the bin-tagging program to educate householders and gather data on the effectiveness of community education and behaviour change efforts.</p> <p>1.1.2 WasteSorted Grants – community education stream: Maintain the WasteSorted grants program for a community education stream to raise awareness and support positive waste behaviour.</p> <p>1.1.3 WasteSorted Schools (WSS): Continue to deliver the WSS program including developing more online resources, restructuring and delivering the WSS grant program, engaging more schools to become accredited and aligning with the suite of WasteSorted programs. Develop stronger links between WSS program and the Department of Education, linking resources to the Department of Education’s sustainability framework and national curriculum.</p> <p>1.1.4 WasteSorted Awards: Support the annual WasteSorted Awards program to recognise and celebrate achievements in waste avoidance, resource recovery and environmental protection.</p>	Ongoing	✓	✓	✓	✓
			1	11	24	42
			4	12		43
			5			
			6			

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER and Waste Authority	<p>1.1.5 Promotional opportunities including National Recycling Week and the Waste and Recycle Conference: Support the Waste and Recycle Conference and other events that contribute to consistent messaging on waste avoidance, resource recovery and appropriate waste disposal behaviour. Deliver targeted messages to stakeholders, with media partners The West Australian, who have been identified as important to the achievement of the waste strategy. Publish editorials during National Recycling Week and upon the achievement of significant milestones in the Waste Authority's program of work.</p> <p>1.1.6 Keep Australia Beautiful Council (KABC) litter strategy: Support KABC in its implementation of the litter strategy to reduce littering and manage its impacts.</p> <p>1.1.7 Plastic Free Foundation: Provide funding under the existing contract to support the Plastic Free Foundation in its community education work, including a year-round behaviour change program and the Plastic Free July event challenge to reduce consumption of plastics and increase recycling.</p>	Ongoing	✓	✓	✓	✓
			1	11	24	42
			4	12	32	43
			5			
			6			
Waste Authority	<p>1.2 Provide guidance and support to the Household Hazardous Waste (HHW) program Support the HHW program through the multi-year funding agreement with WALGA. In consultation with key stakeholders, review, update and publish guidance for the design and operation of premises accepting HHW. HHW guidance will be incorporated into DWER's better practice guidelines for waste storage and treatment.</p>	Ongoing	✓	✓	✓	✓
	<p>1.3 Update Waste Authority position statements as relevant Review all Waste Authority position statements by December 2021 to identify if revisions or further statements are required.</p>	Short term	2	10	26	42
	<p>1.4 Support better practice local government waste services and uptake Continue to implement better practice kerbside services through the Better practice FOGO kerbside collection guidelines supported by the Better Bins Plus: Go FOGO program. Trial the Waste Authority's <i>Guidelines for local government vergeside and drop-off services: better practice principles</i>.</p>	Short term	5	12	30	
				13		
Department of Local Government, Sport and Cultural Industries (DLGSC)	<p>1.5 Review the Local Government Act 1995 to enable improved waste services Investigate measures including legislative reform to enable local government to deliver improved waste services through a review of the <i>Local Government Act 1995</i>.</p>	Medium term				✓ 48 49

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Department of Biodiversity, Conservation and Attractions (DBCA) – Zoological Parks Authority	1.6 Implement waste avoidance and recycling communications strategies at Perth Zoo Perth Zoo will implement waste avoidance and recycling communications strategies, including: <ul style="list-style-type: none"> • updating visitor messaging regarding recycling opportunities at Perth Zoo • investigating becoming a collection point for the container deposit scheme and a recycling point for RedCycle plastics • sharing conservation messaging, including waste avoidance and recycling, with school students through the discovery and learning programs. 	Short term	✓ 1 5	✓ 12		✓ 42
DBCA - Rottnest Island Authority (RIA)	1.7 Deliver waste communications on Rottnest Island RIA will: <ul style="list-style-type: none"> • Develop and implement a public engagement plan for waste management • Review and redesign public waste materials and signage • Deliver targeted waste education campaigns to improve waste avoidance and recycling outcomes. 	Short term				



Gift to charity, swap or sell.



Recycle only these five things.



Earth-Cycle food scraps and garden waste into compost.



Avoid excess packaging.



Take special waste to drop-off points.

Headline strategy 2

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

Implementing this headline strategy requires Perth and Peel local governments to provide a better practice three-bin kerbside service which includes a separate FOGO service. A separate FOGO service enables household organics to be processed into value products such as compost.

A three-bin service that includes FOGO can achieve recovery rates of about 65 per cent (or higher if residual waste undergoes further treatment for recovery) and can make the single biggest contribution to achieving the waste strategy material recovery targets for MSW.

The Waste Authority's [FOGO position statement](#) provides details about FOGO collection systems and explains the role of high-performing FOGO services in supporting the objectives and targets of the waste strategy.

The Waste Authority's FOGO Reference Group supports the development and implementation of an annual [FOGO rollout plan](#). The plan contains actions to support market development, processing, local government services and engagement and education.

Definition of success:

- All local governments in the Perth and Peel regions provide a consistent better practice three-bin FOGO kerbside collection system by 2025.
- Services achieve a recovery rate of 65 per cent by 2030.
- FOGO rollout plan delivered each year.

Indicators of success:

- Annual data collection through local government waste plan progress reports.
- Number of Perth and Peel local governments that provide FOGO collection.
- Proportion of organics recovered.

Interdependencies:

A successful FOGO rollout is dependent on:

- effective engagement and education supported by WasteSorted toolkit and Be a GREAT Sort campaign (headline strategy 1)
- strong markets for FOGO-derived products supported by government commitments to procure recycled products (headline strategy 3)
- suitable processing infrastructure supported by the waste infrastructure plan (headline strategy 6)
- support for local governments to provide services through, for example, the Better Bins Plus: Go FOGO program.

Challenges/risks:

- Resistance by some local governments to providing FOGO services, due to perceived costs and/or pre-existing contractual commitments such as waste-to-energy contracts.
- Requirement for suitable FOGO processing facilities (and suitably sited facilities) which conform with better practice guidance and have the capacity to provide a marketable end product.
- The need to ensure strong markets for FOGO-derived products.
- Provision of services to multi-unit dwellings, particularly with a shift towards higher-density dwellings.
- Contamination management.



Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Waste Authority and DWER	<p>Food organics and garden organics (FOGO) rollout support The Waste Authority, supported by the FOGO Reference Group, develops and implements a FOGO rollout plan which contains actions relating to market development, engagement and education, local government services and processing. The actions related to this are to:</p> <p>2.1 Progress market development: A market development strategy for FOGO-derived materials was completed in 2020-21. Priority market development actions, informed by the strategy, will be implemented in 2021-22.</p> <p>2.2 Continue engagement and education: Continue to develop FOGO materials as part of the WasteSorted communications toolkit, to help local governments communicate their waste and recycling services to residents and support consistent and effective communications across local governments.</p> <p>2.3 Support local government services: Continue to provide funding under original Better Bins agreements for implementing the three-bin infrastructure, and deliver the Better Bins Plus: Go FOGO funding program to support local governments to introduce better practice FOGO kerbside collection systems. Provide guidance through the better practice FOGO kerbside collection guidelines and develop resources to support local governments to plan and implement FOGO services.</p> <p>2.4 Guide processing: Develop and implement DWER composting guidelines and better practice guidelines for solid waste treatment and storage facilities. Provide FOGO-related inputs into the strategic review of WA's waste infrastructure. Support the composting industry with regulatory processes such as works approval and licence applications.</p>	Ongoing		✓ 10 12 13 18		

Headline strategy 3

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

A successful recycling system – or material recovery system – relies on strong markets for recycled materials to help ‘close the loop’.

Procurement is a key mechanism available to government to help develop markets for recycled materials. Infrastructure projects, including those for transport, present opportunities to use significant quantities of recycled products, including C&D materials, glass, organics, tyre/rubber and plastics. The government continues to target the use of these materials in construction projects.

Government procurement can directly and immediately drive demand for recycled products and can also provide confidence within other sectors. For example, the use of recycled C&D materials by Main Roads WA (MRWA) saved significant costs, inspiring other local governments and contractors to use recycled materials too.

Focus must remain on the high waste generation streams of organics and C&D materials, with improved supply and demand leading to increased recovery rates.

State and local government has significant buying power and government purchasing decisions can directly support market development for recycled materials and also stimulate demand by providing confidence in the use of recycled products. This can be driven through implementation of the State Sustainable Procurement Policy, review of common use arrangements and promotion of opportunities to purchase low-waste and recycled products, including a longer-term review of government construction projects.

MRWA has shown leadership in using recycled products. In 2019–20, with support from the Waste Authority and DWER, MRWA finalised the Roads to Reuse pilot which successfully used over 25,000 tonnes of recycled C&D products on the Kwinana Freeway Northbound Widening Project from Russell Road to Roe Highway. MRWA has committed to increasing the use of recycled products (including C&D materials and rubber) in future projects.

Definition of success:

Success will be achieved by 2030 if:

- a strong and sustainable market exists for locally produced recycled products
- governments preference the use of recycled products (where available, and fit-for-purpose) over virgin raw materials.

Indicators of success:

- Number of government agencies that preference the use of recycled products.
- Change in the proportion of recycled products purchased by government agencies.
- The number (tonnes) and type of recycled products purchased.

Interdependencies: Procurement will stimulate market development; however, it is recognised that the local market for locally produced recycled materials and products is currently limited, and there will be a short- to medium-term period where the demand for recycled products and the supply of suitable products will not always be balanced. Over the next four years, there will be significant investment by industry, together with grant funding from the State and Federal Governments, in new reprocessing capacity, particularly for paper and cardboard, plastics, tyres and e-waste. Interdependencies also exist with the FOGO market development work underway, the Roads to Reuse program and wider public sector procurement reforms led by the Department of Finance.

Challenges/risks: Procurement decisions based purely on cost factors will not always provide the most effective, environmentally sustainable outcomes. Available locally produced recycled products may not meet all quantity or quality requirements until the market matures and this requires procurement commitments from state and local governments.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER	3.1 Support government agencies to procure and use recycled products Support government agencies, with a focus on agencies that have commitments in this action plan, to use recycled products in specific projects/construction applications.	Short term	✓	✓		
	3.2 Support the reforms in government procurement to reduce waste Continue to support collaboration between State Government agencies and industry for improved sustainable procurement practices to reduce waste generation, improve the recovery of materials and encourage the purchase of locally produced recycled products.	Short-medium term	3	9 14 20 22		
Waste Authority	3.3 Continue to deliver the Roads to Reuse program (to increase use of C&D materials) Continue to implement the Roads to Reuse program to support the use of recycled C&D products in civil applications such as road construction.	Ongoing				
Department of Finance (DoF)	3.4 Develop a better practice procurement framework Develop a better practice procurement framework by: <ul style="list-style-type: none"> working with DWER to ensure sustainability and waste avoidance strategies are reflected in the state's new procurement guidelines finalising and releasing the Western Australian procurement rules, including a social procurement framework, to respond to issues of sustainability and good environmental stewardship supporting agencies to apply the updated procurement rules. 	Short-medium term	✓	✓		
	3.5 Update common use arrangements (CUAs) Continue to assess new or redeveloped CUAs to identify opportunities to include waste reduction/sustainability provisions in both reporting and qualitative criteria, and collaborate with CUA stakeholders and DWER on opportunities to provide leadership on reducing or recycling waste.	Short-medium term	3	9 14 22		
	3.6 Review mandatory requirements: government construction projects Work with DWER to review current practices for recycled content use, including the recycling of DoF C&D waste, and undertake research to establish a baseline and set appropriate targets.	Long term				
	3.7 Develop reporting protocol: whole-of-government goods and services reporting Work with DWER to establish reporting protocols, which may include thresholds for reuse, recycling, recovery and disposal.	Medium term				

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Department of Communities (DoC)	3.8 Establish DoC construction project targets Work with industry to establish targets (to be determined) for recycling and for the inclusion of recycled materials in construction projects over certain thresholds.	Short-medium term	✓ 3	✓ 9		
	3.9 Review DoC project tendering Include provisions for consideration of waste avoidance and resource recovery in tender documentation.	Short-medium term	6	14		
DLGSC	3.10 Report on DLGSC recycled content in building projects Require reporting on the use of recycled content for building projects over \$100 million delivered by the state, and in all agreements for grants over \$5 million.	Short term	✓ 3 6			
Main Roads WA (MRWA)	3.11 Increase the use of recycled materials in construction, which involves: <ul style="list-style-type: none"> Using recycled C&D in 2021–22: Subject to ongoing independent audit testing by DWER or the Waste Authority, MRWA/Office of Major Transport Infrastructure Delivery to use over 200,000 tonnes of crushed recycled concrete on selected projects. Using recycled C&D beyond 2022: MRWA continue to work closely with DWER, the Waste Authority, and local and State Government agencies to aim to double these targets, while ensuring that independent audit testing and firm action achieve full compliance with maximum permissible limits of contaminants. Using crumbed scrap tyre rubber for asphalt projects: MRWA to develop and implement alternative crumbed scrap tyre rubber bituminous binders for use by MRWA and local governments, and raise overall usage of crumbed rubber to over 1,200 tonnes (per year) by 2021–22. Expanding the use of crumbed scrap rubber in spray seals and asphalt: MRWA to work with WALGA to transfer knowledge and implement crumb rubber technology onto the local government road network where beneficial to extending service life. Developing alternate construction materials: MRWA to develop and trial use of alternate construction materials derived from waste, such as delithiated beta spodumene, recycled plastics and FOGO. 	Short-medium term	✓ 3 6	✓ 14 20 22		
		Long term				

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Public Transport Authority (PTA)	3.12 Review sustainable procurement clauses in tender documentation Review sustainable procurement clauses in current PTA tender documentation for alignment with the waste strategy and identify improvement actions. Incorporate specific waste minimisation requirements into the tender and contract templates for major projects.	Short-medium term	✓ 9	✓ 22		

Headline strategy 4

Support the implementation of local government waste plans, which align local government waste planning processes with the waste strategy

Local governments are the primary managers of MSW waste generated in WA. Improving local government waste management practices will make a significant impact on material recovery rates.

DWER developed [waste plan resources](#) to assist local governments to develop waste plans that are consistent with the waste strategy. Forty-three local governments, located in the Perth and Peel regions and major regional centres, are required to include a waste plan within their plans for the future.

These plans will allow the mapping of current performance and align local government waste management activities with the waste strategy. Final waste plans were due by March 2021, and the first annual report on their implementation is required by 1 October 2022.

Definition of success: Success will be achieved when all relevant local government waste management plans are aligned with the objectives and targets of the waste strategy, and plans are appropriately implemented to achieve effective outcomes, including increasing material recovery rates and reducing MSW landfill volumes.

Interdependencies: Development and implementation of local government waste plans is part of the local government integrated planning framework. There are also interdependencies between the *Planning and Development Act 2005*, the *Local Government Act 1995*, the WARR Act and the EP Act. Any reviews of these Acts and their associated Regulations will require respective legislative teams and the Parliamentary Counsel's Office to work collaboratively to ensure consistent, positive impacts on local government waste management responsibilities.

Challenges/risks:

The challenges and risks regarding effective local government waste plans include:

- ensuring the provisions in the WARR Act and the *Local Government Act 1995* can be applied to require local governments to implement services consistent with the waste strategy
- recognising that pre-existing contracts which are inconsistent with the waste hierarchy and the waste strategy may impact meeting waste strategy targets.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER and DLGSC	4.1 Support local governments to meet waste plan requirements Provide local governments with assistance to meet their ongoing waste plan implementation and reporting requirements.	Ongoing				✓
DWER	4.2 Implement waste plan reporting requirements Implement waste plan reporting requirements and guidance to enable local governments to report annually on the progress of their five-year waste plan, with the first annual report due to DWER by 1 October 2022.	Short term				48



Headline strategy 5

Review the scope and application of the waste levy to ensure it meets the objectives of the waste strategy and establish a schedule of future waste levy rates, with the initial schedule providing a minimum five-year horizon

The *Waste Avoidance and Resource Recovery Levy Act 2007* (WARR Levy Act) and *Waste Avoidance and Resource Recovery Levy Regulations 2008* (WARR Levy Regulations) provide for a landfill levy for waste received at landfill premises in the metropolitan region, and for waste collected in the metropolitan region and received at landfill premises outside the metropolitan region. The waste levy is an economic instrument that aims to reduce waste to landfill by increasing the price of landfill disposal and generating funds for a range of waste and environmental purposes.

In January 2015, the waste levy increased from \$28 per tonne to \$55 per tonne for putrescible waste and from \$8 per tonne to \$40 per tonne for inert waste. There were incremental increases in the intervening years. The levy in 2020–21 was \$70 per tonne for both putrescible and inert waste sent to landfill.

A portion of the funds raised through the waste levy are allocated annually to the WARR Account. In accordance with the WARR Levy Act, each year the Minister for Environment must allocate not less than 25 per cent of the forecast levy amount to the WARR Account to support the Waste Authority in pursuit of the waste strategy and action plan. Funding is allocated and managed in line with the business plan, which includes the annual budget for improved waste policy and programs. The hypothecated amount allocated to the Waste Authority was \$20.75 million in 2020–21 and the same amount is allocated in 2021–22. A range of services are delivered by DWER under a service-level agreement, and the balance of the funding is allocated to various waste programs.

A review and consultation process on the waste levy was undertaken by DWER in 2019–20 and 2020–21. The waste levy will be considered by the State Government in 2021–22 and a five-year schedule of levy rates will be determined.

Definition of success: A waste levy that acts effectively to reduce the volume of material lost to landfill and encourages increased material recovery of all waste generated in WA to at least 75 per cent by 2030.

Indicators of success: The scope and application of the waste levy ensures it meets the objectives of the waste strategy and a new five-year schedule of waste levy rates is established.

Interdependencies:

- Those who dispose of waste at metropolitan landfill sites are subject to the waste levy.
- The waste levy aims to reduce waste to landfill by increasing the price it costs to dispose of waste via landfill.
- At least 25 per cent of the annual waste levy revenue must be allocated to the WARR Account, administered by the Waste Authority.
- The WARR Account funds a variety of waste reduction, recycling and environmental protection programs and initiatives, specified in the annual business plan approved by the Minister for Environment.
- The success of WARR Account funded actions should eventually lead to a reduction in the revenues from the waste levy and therefore a reduction in funding available for further programs.

Challenges/risks:

- The waste levy requires effective waste data collection and reporting mechanisms, revenue collection and compliance and enforcement processes.
- Each of these processes involve various challenges and risks associated with compliance, resourcing, efficient systems for levy calculation, payment, management and reporting.
- There are some parts of the waste management sector that seek to minimise the levy amounts payable through either avoidance or evasion techniques.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER	5.1 Implement findings from waste levy review Implement the decisions resulting from the review of the scope and application of the waste levy.	Short term				
	5.2 Establish a schedule of levy rates Establish a schedule of future waste levy rates that provides a minimum five-year projection.	Short term				✓
	5.3 Amend WARR Levy Regulations Update the WARR Levy Regulations 2008 to reflect any changes to the scope and application of the waste levy.	Short term				46

Headline strategy 6

Undertake a strategic review of WA's waste infrastructure (including landfills) to guide future infrastructure development

Planning for future waste infrastructure development is crucial to achieving the waste strategy target that at least 75 per cent of waste generated in WA is reused or recycled by 2030.

Local reprocessing infrastructure will be enhanced through industry and government investment, particularly over the next four years as WA joins the rest of the nation in progressively phasing out waste exports of glass, mixed plastics, tyres, paper and cardboard. Additional measures will be required to support the development of better practice landfills and other resource recovery infrastructure, including processing for C&D materials and organics processing capacity for FOGO.

The establishment of two significant waste-to-energy facilities in Kwinana and East Rockingham is a major development in waste infrastructure, with the first to be operational by 2022.

A waste infrastructure audit and needs analysis undertaken in 2020–21 will form the basis of the state waste infrastructure plan, which will provide a long-term framework to guide decision-making for the planning and development of waste infrastructure in WA.

Department of Planning, Lands and Heritage (DPLH) and DWER are also working together to prepare an appropriate planning instrument for waste infrastructure.

Definition of success: Sufficient waste infrastructure is available to cater for WA's needs, meet waste strategy targets and move WA towards a circular economy.

Indicators of success:

- The state waste infrastructure plan effectively guides planning and decision-making for waste infrastructure.
- Planning activities include existing infrastructure which meets better practice standards, and the additional measures and infrastructure required to achieve waste strategy targets.

- A land-use planning instrument for waste infrastructure that informs planning decisions is established for use by the State Government, local government and industry.
- Stakeholders – including DPLH, the waste and recycling industry and local governments – are consulted to ensure their views are considered in the planning process.
- Well-sited landfills and other waste facilities, which meet better practice standards (where applicable) and have reduced environmental and social impacts, are developed.

Interdependencies:

- The EP Act contains provisions for the approval, licensing and ongoing regulation of prescribed premises (including landfills and other waste facilities) and seeks to ensure that these premises do not present an unacceptable risk to the environment or public health.
- The objectives of the waste strategy and DPLH's State Planning Strategy 2050 should align to ensure that DWER and DPLH continue to work together effectively to achieve shared desired outcomes.
- Headline strategy 6 aligns with initiatives that may be undertaken as part of the emergency waste management project being delivered by DWER and the State Emergency Management Committee.
- Mechanisms, including funding agreements, should be established to support investments in local resource recovery infrastructure.

Challenges/risks:

- The viability of resource recovery infrastructure is dependent on the existence of strong markets for recycled products.
- Poorly managed and inadequate capacity of waste infrastructure and services increase the risk of negative impacts on human health and the environment.
- Communications to influence recycling behaviour are vital to reducing contamination, increasing recycling and encouraging future local infrastructure development.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER	6.1 Develop state waste infrastructure plan In consultation with State Government agencies, local government and the waste industry, develop the state waste infrastructure plan.	Short term				
	6.2 Develop guidance for waste infrastructure planning Work with DPLH to develop the necessary planning instruments and guidance for local government and developers to facilitate appropriate siting and design of waste facilities (including landfills).	Short term		✓	✓	✓
	6.3 Explore options for improving waste infrastructure planning Investigate options for developing a needs-based approach to planning and environmental and licensing approval of new landfills and other waste infrastructure which supports a state waste infrastructure plan, in consultation with DPLH.	Medium-long term		16	27	44 49 50
Department of Planning, Lands and Heritage (DPLH)	6.4 Support DWER in developing guidance for waste infrastructure planning and investigating options for improving waste infrastructure planning Continue to provide support to DWER to develop the infrastructure planning instrument and the required guidance and planning necessary for the forthcoming state waste infrastructure plan.	Medium-long term				

Headline strategy 7

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

Data provides a foundation for the better management of waste in WA. It is essential in evaluating the state's performance, identifying issues and opportunities and enabling evidence-based decisions and actions. A large amount of data related to waste generation, recovery and disposal in WA is currently collected, reported, analysed and used by a wide range of stakeholders, including State Government agencies, local governments, regional councils and community groups.

Under regulation 18C of the WARR Regulations, liable persons are defined as those who provide waste services (including local governments); waste recyclers who treat, process or sort at least 1,000 tonnes of reprocessed, recycled or recovered material in a financial year; and landfills located outside of the metropolitan region which receive at least 20,000 tonnes of solid waste in a financial year. Liable persons are required to report the required data on an annual basis. The data collected is used to track progress against waste strategy targets.

The [Waste Data Strategy](#) is available on the Waste Authority's website.

Definition of success: Performance against the waste strategy targets can be assessed accurately and in a timely manner. The management of data ensures that the delivery of the waste strategy is better informed and more likely to succeed.

Indicators of success:

- Relevant, quality and timely waste and recycling data is collected.
- The management of waste data meets legislative requirements, supports the delivery of the waste strategy and meets the needs of waste data stakeholders.
- Liable persons required to report waste and recycling data are able to do so in an efficient manner.

Interdependencies: Timely and reliable data underpins the development and maintenance of effective waste management legislation, licensing, policy, programs and the waste levy. Improved data will enhance the measurement and evaluation of waste management programs and initiatives and ensure funding and other resources are directed where they can be most effective.

Challenges/risks: As highlighted in the waste strategy, establishing baseline data is critical as there has been an historic lack of coordination between the entities which collect waste data. Inefficiencies remain in the way waste data is managed, including limited data sharing and no joint plan for addressing data gaps or opportunities for improvement. Continued improvements in consistency, guidance, coordination, resourcing, value and systems used to collect and store data will help address these inefficiencies, meet stakeholder needs and produce more accurate and quality data.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Waste Authority	7.1 Implement Waste Data Strategy Continue to implement the actions contained in the Waste Data Strategy to ensure that progress towards waste strategy targets can be appropriately monitored.	Ongoing				
DWER	7.2 Support local governments, recyclers and landfill operators in required waste and recycling data reporting Continue to provide support and guidance to local governments, recyclers and large non-metropolitan landfill operators to fulfil their obligation to report waste and recycling data annually.	Ongoing				
	7.3 Improve waste data (includes online reporting system, data collection, reporting and analysis) Maintain and update the online reporting system to enable liable entities to report the required waste and recycling data.	Ongoing				
METRONET	7.4 Report waste data during construction Accurately capture, track and report waste quantities and landfill diversion rates during the construction phase for projects.	Ongoing		✓ 15	✓ 23	✓ 37 38 41
DLGSC	7.5 MyCouncil: report waste data In collaboration with DWER, annually report local government waste data on the MyCouncil website to provide increased transparency around local government waste and recycling performance and encourage benchmarking and improved performance.	Ongoing				
PTA	7.6 Review waste data reporting Review and update the waste data reporting process to ensure data is captured, tracked and reported periodically.	Short-medium term				
Water Corporation	7.7 Collect and share waste data Improve collection and sharing of waste data and set material recovery targets.	Ongoing				
DBCA – RIA	7.8 Review data collection and reporting systems on Rottnest Island Review and update Rottnest Island waste data collection and reporting systems to improve accuracy, eliminate gaps and monitor progress towards achieving RIA waste objectives and targets.	Medium term				

Headline strategy 8

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

The state's capacity to reprocess, repurpose or reuse recyclable materials into new products will be significantly enhanced through the substantial investment by industry, and State and Australian Government grants for new infrastructure, which will be developed over the next four years. This follows the decision in 2019 by Council of Australian Governments to ban the export of certain waste materials. Waste glass, tyres, and mixed paper, cardboard and plastics which have not been processed into value-adding material are subject to the export ban:

- all waste glass by January 2021
- mixed waste plastics by July 2021/2022 (phases 1 and 2)
- all whole tyres including baled tyres by December 2021
- remaining waste products, including mixed paper and cardboard, by no later than 1 July 2024.

The [Recycling and Waste Reduction Act 2020](#) regulates the export of certain types of processed waste while building Australia's capacity to generate high-value recycled commodities and associated demand.

In February 2021, the Morrison and McGowan Governments announced \$70 million in joint funding to drive a \$174 million recycling boom in WA. \$20 million from the Recycling Modernisation Fund and \$15 million from the State Government will leverage investments in new projects annually processing approximately 140,000 tonnes plastic and tyre waste in WA. The plastics and tyres projects form part of the Perth City Deal initiative, which also requires other city deal projects to use recyclable materials wherever possible. The State Government remains committed to awarding \$5 million in industrial zoned land in the future. The following [nine projects](#) will receive significant financial support, subject to satisfactory financial due diligence and entering into a funding agreement:

Waste paper and cardboard processing project:

- A further \$15 million from the national Recycling Modernisation Fund and \$15 million from the State Government will go towards a new \$86.6 million Suez Recycling and Recovery/Auswaste pulp mill capable of processing 100,000 tonnes of waste paper and cardboard before the export ban on mixed paper comes into effect on 1 July 2024.

Plastics projects:

- A joint venture between the Pact Group Holdings and Cleanaway will receive over \$9.5 million for a plastics reprocessing facility in East Perth. It will process plastic waste into high-quality flakes which can be used to make food-grade and non-food grade recycled resin. The new facility will process 17,000 tonnes of waste plastic each year.
- Chairay Sustainable Plastic Company will receive over \$5.6 million for the construction of a new 15,000-tonne-per-year plastics reprocessing plant and 6,000-tonne-per-year sorting line in the Perth metropolitan region to recycle polyolefin and polyester plastics (such as PET, HDPE and polypropylene).
- D&M Waste Management will receive over \$800,000 to recover HDPE and PET waste plastics in Kwinana and HDPE in Karratha. The HDPE will be used to manufacture corrugated HDPE drainage pipes. The new facilities will process between 1,500 and 2,500 tonnes of waste plastics per year.

Tyre projects:

- Kariyarra-Tyrecycle Pty Ltd, a joint venture between Kariyarra Aboriginal Corporation and Tyrecycle based in Port Hedland, will receive over \$6.9 million to recycle mining tyres in the Pilbara Region. The recycled material will be sold overseas. The plant will process at least 27,000 tonnes of waste tyres per year.
- Tyrecycle Pty Ltd will receive almost \$5.2 million to invest in equipment to produce 42,000 tonnes of tyre shred and 3,000 tonnes of tyre crumb in the Perth metropolitan region.

- Complete Tyre Solutions Pty Ltd, a WA-owned corporation, will receive \$3.5 million to establish a turnkey tyre recycling plant to process waste tyres – including car, truck, construction and off-road tyres – into 3 mm crumb rubber for use in local road building. The annual processing capacity of the project is more than 9,000 tonnes.
- 4M Waste Pty Ltd will receive more than \$2.9 million to expand its operations at a new site to allow recycling of up to 12,000 tonnes of used tyres annually as a crumb rubber product for road construction.
- \$357,867 will be provided to Elan Energy Matrix Pty Ltd for a high-capacity shredder to use in a process line to turn tyres into products such as oil, carbon char and milled steel using thermal processing technology. The Welshpool facility proposes to increase recycled waste tyres by 40 per cent, raising the existing recycling capacity from 5,000 to a total of 7,000 waste tyres per day.

A [State Government plan to ban e-waste](#) from landfill by 2024 will require policy development, regulations, compliance resources and grant administration support for improved e-waste recycling facilities.

WasteSorted grants will continue in 2021–22 and emphasis will remain on the recovery of focus materials, including C&D materials and organics.

Definition of success:

- Funding agreements are successfully established with the nine identified reprocessing projects for the state.
- WasteSorted grants maintain an emphasis on focus materials and support the recovery of more value and resources from waste.
- WA moves towards a more circular economy, with local markets buying locally produced recycled products made from locally generated waste.

Indicators of success:

- Projects funded and started within the financial year that funding is made available.
- Funding programs are well defined, with clear scope, objectives, targets and outcomes in line with the waste strategy's objectives and targets.
- Volume of material diverted from landfill and value of products derived from that material.

Interdependencies:

- Funding to promote the recovery of more value and resources from waste includes supporting existing product stewardship schemes, such as the Containers for Change container deposit scheme introduced in 2020.
- Recovered material must be processed to a standard that gives it value as a product with a viable market.
- There are further interdependencies with the national waste ban and subsequent implementation plan, the National Waste Policy and Action Plan and the Australian Packaging Covenant Organisation.

Challenges/risks:

- Commodity prices fluctuate and the industry needs agility to respond appropriately.
- Small-scale innovative practices may not appear competitive and may miss out on funding.
- Success is dependent on finalisation of funding agreements with all grant recipients, and subsequent milestone achievement and reporting.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER	8.1 Support Containers for Change (container deposit scheme) DWER will continue working with the scheme coordinator and stakeholders to maintain, promote and regulate the Containers for Change program.	Ongoing				
	8.2 Provide governance support to Containers for Change Oversee and evaluate the scheme coordinators' financial activities, annual report and annual business plan by June 2022.	Short term				
	8.3 Participate in national and cross-jurisdictional waste policy and program initiatives and decision-making processes Continue to actively participate in regular inter-jurisdictional meetings to support the Environment Ministers Meetings, heads of environmental protection agencies and Australian Government decision-making processes. Prepare briefing papers and support materials based on local research, desktop studies and industry consultation to further WA's position on national waste issues.	Ongoing	✓	✓	✓	✓
	8.4 Support product stewardship Continue to support aligned product stewardship schemes, including Containers for Change, the Australian Packaging Covenant, National Television and Computer Recycling Scheme, Tyre Product Stewardship Scheme, Paintback, Fluorocycle and the development of schemes for photovoltaic systems and batteries.	Ongoing	6 7	16 17 19 20	25 29 31	40 43 45
DWER and Waste Authority	8.5 Facilitate waste avoidance and recovery: Continue to identify current and future needs and support requirements for waste avoidance and improved material recovery, including:	Ongoing				
	8.5.1 Support for increasing WA's recycling and reprocessing capacity: Establish and manage the allocated State and Australian Government funding provided to increase WA's reprocessing and recycling capacity in plastics, tyres and mixed paper and cardboard. 8.5.2 Continuation of WasteSorted Grants – infrastructure support stream: Maintain the WasteSorted infrastructure support stream funding program for additional or enhanced recycling infrastructure.					

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DWER and Waste Authority	<p>8.5.3 Support for emerging and priority waste streams: Support the development of solutions to emerging and priority waste streams. Focus on the implementation of WA's Plan for Plastics, collaboration with the Sustainable Communities and Waste Hub as part of the Australian Government's National Environmental Science Program (NESP2), and emerging waste streams as a result of COVID-19 recovery and State Government priorities.</p> <p>8.5.4 Initial policy development for e-waste landfill ban: Prepare for planned 2024 e-waste landfill ban, including policy development, regulations, compliance requirements and grant administration for e-waste recycling facilities.</p> <p>8.5.5 Grant management software: Subscribe to annual grant management software to improve grant governance.</p>	Ongoing	✓	✓	✓	✓
			6	16	25	40
Waste Authority	<p>8.6 Implement Charitable Recyclers waste levy rebate Ensure eligible charities are not financially disadvantaged by providing a rebate to the waste levy incurred when disposing of unusable items to landfill.</p>	Ongoing	7	17	29	43
				19	31	45
			20			

Additional actions that support the delivery of the waste strategy

In addition to the actions that directly relate to the waste strategy's eight headline strategies, several State Government agencies are undertaking additional actions.

These actions demonstrate the important steps currently being taken by State Government to further the objectives of the waste strategy by avoiding waste, increasing recovery and protecting the environment.

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
DBCA – Botanic Gardens and Parks Authority (BGPA)	<p>9.1 Manage waste and improving recycling at BGPA sites Undertake the following actions to increase recycling and measure success:</p> <ul style="list-style-type: none"> continue to implement the award-winning Zero Green Waste project to process green waste generated from park operations and reuse the resulting mulch and compost in a closed-loop system within Kings Park commence periodic audits of the contents of public recycling bins in Kings Park and Botanic Garden and Bold Park to measure successes of the public place recycling program, and use the outcomes from audits to inform future public communication strategies on sorting waste commence recording of all waste disposal from BGPA-managed sites to establish baseline data for future performance measurement in waste reduction and resource recovery. 	Short term	✓ 6			✓ 37
Development WA	<p>9.2 Contribute to waste avoidance and recovery targets Contribute to waste strategy objectives by:</p> <ul style="list-style-type: none"> committing to at least a 75 per cent avoidance and/or recovery target, implementing the November 2020 minimum sustainability standards for DevelopmentWA metropolitan, regional and industrial programs with significant C&D activity working with DWER to establish waste and recycling targets and measurement approaches for all projects with significant C&D waste generation potential in business cases finalising and implementing updated tender and contractor management documentation so that all projects with demolition works over \$1 million and development projects over \$5 million will be required to produce a waste management plan targeting a minimum 75 per cent waste avoidance and resource recovery. 	Medium-long term		✓ 14		

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Department of Education	9.3 Develop and implement Sustainable Schools WA Develop and implement a sustainability statement and framework applicable across all schools.	Short term				
	9.4 Implement a trial project with the Eastern Metropolitan Regional Council (EMRC) Work closely with EMRC and DWER to target waste avoidance strategies in selected schools as part of a trial project, to support the waste components of Sustainable Schools WA.	Short term	✓ 1			✓ 42
Department of Health	9.5 Review waste management and avoidance policies Partner with area health services and facilities to review, establish and implement waste management and avoidance policies under the <i>Health Services Act 2016</i> .	Medium term	✓ 6			
	9.6 Establish a waste reduction working group Establish a waste reduction working group to further waste avoidance and/or implement recovery actions for the divisions of the Department of Health located at 189 Royal Street, East Perth.	Short term	8			
Department of Justice	9.7 Implement waste avoidance and recovery measures in prisons Implement waste avoidance and recovery measures in prisons by: <ul style="list-style-type: none"> developing public/private relationships with industry for the processing (dismantling) of obsolete IT equipment within prisons, providing employment and training opportunities to inmates and the production of recycling products with commercial value identifying and incorporating safer, biodegradable alternatives to all forms of chemicals and plastics developing recycling industries in the long term in selected prisons for downline processing of prison and other waste. 	Medium-long term		✓ 14		
Department of Transport	9.8 Develop waste and recycling systems – Westport project Develop high-performing waste and recycling systems for the Westport Project which are consistent with the waste strategy and guidance by the Infrastructure Sustainability Council of Australia. The systems will be developed over the course of stage 3 of the program (2021–24) as part of the planning and design process. This work will include: <ul style="list-style-type: none"> developing a resource efficiency strategy for design, construction and operation of the project undertaking an assessment to identify program waste risks and measures to minimise waste during design, construction and operation. 	Short-medium term				✓ 49

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
METRONET	<p>9.9 Review resource recovery opportunities</p> <p>In collaboration with key stakeholders across the PTA and other relevant government agencies, METRONET will complete a resource recovery opportunities review in mid-2021 to assess:</p> <ul style="list-style-type: none"> projected waste streams and expected magnitude of quantities across the program available waste-derived materials, alternatives to basic raw materials and recycled products available in the WA market product schemes and market incentives available in the WA market to support use of waste-derived and recycled materials material specifications to identify potential opportunities for the use of C&D waste and recycled products international examples of successful use and performance of C&D wastes and recycled products on infrastructure projects (in particular rail projects) methods to encourage good waste management through procurement and supply chain management practical targets for METRONET to support the use of C&D waste and recycled products. 	Short-medium term		✓ 9 14		✓ 49
	<p>9.10 Implement infrastructure waste planning</p> <p>Identify the local infrastructure context and conduct a formal engineering assessment during station precinct planning to identify opportunities for waste management and recycling services, which are aligned to local government operations and include community-scale waste composting. Ensure operational waste management across station precincts integrates with local government operations to support sustainable waste management practices set out in the waste strategy.</p>	Medium term				
Water Corporation	<p>9.11 Reduce waste from wastewater management</p> <p>Continue research and implementation of better practice actions aimed at recovering resources and removing waste/pollutants from wastewater, including:</p> <ul style="list-style-type: none"> installing a gross pollutant trap, and safety screens/trash racks on Perth drains conducting research into recovery of struvite from wastewater and magnesium from seawater desalination brine conducting research into self-supply of carbon dioxide conducting research with Royal Melbourne Institute of Technology for microplastics analysis embedding a framework (including regulatory approach in collaboration with DWER) for treated waste water reuse assessing waste recovery opportunities, in particular from C&D activities, contaminated sites and vegetation clearing waste. 	Ongoing		✓ 26		

Lead	Actions	Timing	Waste strategy objective and strategy #			
			Avoid	Recover	Protect	Foundation
Aqwest Bunbury Water Corporation	9.12 Implement the Bunbury Water Resource Recovery Scheme (BWRRS) Implement the BWRRS, to enable wastewater which is currently discharged to the ocean to be beneficially reused on public open spaces and construction projects in Bunbury.	Short term			✓ 26	
Busselton Water	9.13 Improve material recovery Minimise waste to landfill, including cement and concrete, greenwaste, cardboard, scrap metal and wooden pallets.	Ongoing		✓ 9 15		
Synergy	9.14 Apply Synergy's waste strategy 2020–25 Implement the Synergy waste strategy 2020–25 through: <ul style="list-style-type: none"> developing and implementing site-specific waste management plans developing Synergy-wide communications to support consistent messaging on waste avoidance, resource recovery and appropriate waste disposal behaviours reviewing and updating waste data collection and reporting systems. 	Short term	✓ 1 6 7	✓ 20	✓ 35	✓ 37 42
Lotterywest Healthway	9.15 Implement the Lotterywest guide: Good practice for events, and Lotterywest's Sustainability Action Plan Continue to support the waste strategy objectives through "good practice for events guide", which encourages waste minimisation and recycling, and Lotterywest's internal Sustainability Action Plan.	Ongoing	✓ 1 7	✓ 20		

