



Ordinary Council Meeting 15/12/20

Item 12.3 refers

Attachment 5

**Auditor General's Report Waste
Management – Service Delivery
Report 3: 2020-2021**

Western Australian Auditor General's Report



Waste Management – Service Delivery



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The Office of the Auditor General 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.

Cover image: Broome Waste Management Facility

WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

Waste Management – Service Delivery



**THE PRESIDENT
LEGISLATIVE COUNCIL**

**THE SPEAKER
LEGISLATIVE ASSEMBLY**

WASTE MANAGEMENT – SERVICE DELIVERY

This report has been prepared for submission to Parliament under the provisions of section 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of my Office's overall program of audit and assurance for Parliament. They seek to provide Parliament and the people of WA with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

This audit assessed whether local government (LG) entities plan and deliver effective waste services to their communities. We also assessed whether the State Government provided adequate support to LG entities for local waste planning and service delivery.

I wish to acknowledge the entities' staff for their cooperation with this audit.

A handwritten signature in black ink, appearing to read 'C Spencer'.

CAROLINE SPENCER
AUDITOR GENERAL
20 August 2020

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Auditor General's overview

The sustainable management of waste is an important issue for the community. There are many examples across the world of the dire consequences to human health and the environment when waste is poorly managed. Community expectation regarding waste management is high and there is a strong desire to understand how State and local government (LG) entities manage waste, what goes in each of our household bins and where our recyclable materials will end up.



This audit assessed whether LG entities plan and deliver effective waste services to their communities. We also assessed whether the State Government provided adequate support to LG entities for local waste planning and service delivery. We last audited the State Government's role in waste management in 2016 in our report, *Western Australian Waste Strategy: Rethinking Waste*.

The State Government's *Waste Avoidance and Resource Recovery Strategy 2030* clearly outlines the actions the government, industry and the community need to take to meet community expectation. The strategy set ambitious targets, including recovering 65% of municipal solid waste from households in the Perth and Peel regions and 50% in major regional centres, by 2020. LG entities collect and process this waste stream, often with the support of the private operators they contract.

While the Department of Water and Environmental Regulation (DWER) and the Waste Authority have substantially improved their support to LG entities in the last 5 years, the proportion of waste that is recycled in Western Australia has not changed, and the State's performance sits below the national average. High rates of contamination in recycling bins, inconsistent and irregular waste education, limited local recycling infrastructure and markets for recycled commodities, are issues that prevent wider adoption of better practice waste management techniques. As a result, few LG entities are on track to meet the 2020 targets.

It is pleasing to see the many examples of better practice waste management from LG entities, but only a handful were consistently using them. For example, organic material typically accounts for half of household waste, and is therefore our single biggest opportunity to recycle. Using green waste collected from households to produce mulch for community parks and gardens, or composting food and garden organics to develop fertilisers, can significantly increase waste recovery. In addition, separating and recycling bulk rubbish is another simple way for LG entities to recover more waste and contribute to meeting the State's waste targets.

The audit found that local, regional and statewide waste planning is inadequate. Few LG entities had waste plans but DWER has been working closely with entities to help them develop individual plans. The Waste Authority flagged State infrastructure planning as essential back in 2012, but little progress has been made. It remains a key initiative that government, industry and the community need to progress to ensure waste truly becomes a valued resource. Given recent international export bans on recyclable materials, the planning and development of local recycling facilities within the state is becoming increasingly urgent to help provide certainty to stakeholders, create opportunities for local recycling industries, and protect our local environments and public health.

I encourage all LG entities to consider the findings in this report. Making a concerted effort to use available practices to avoid and recover more waste is the key to continuing to improve the State's waste and recycling performance.

Executive summary

Introduction

This audit assessed whether local government (LG) entities plan and deliver effective waste management services to their communities.

We focused on LG waste management and progress towards achieving targets and objectives set in the first *Western Australian Waste Strategy: Creating the Right Environment* (Waste Strategy 2012) and subsequent *Waste Avoidance and Resource Recovery Strategy 2030* (Waste Strategy 2030). The audit also assessed State Government support for LG entities and followed up on recommendations to State government entities from OAG's *Western Australian Waste Strategy: Rethinking Waste* audit completed in 2016.

Background

Waste management challenges

Poorly managed waste poses a threat to human health and the environment. However, if managed well, it can become a valuable material that can be reused, reprocessed or recycled. Solid waste is typically managed as 1 of 3 streams:

- municipal solid waste (MSW or waste¹) – waste from households and public places collected by LG entities or their contractors
- commercial and industrial – waste originating from commercial and/or industrial activities (e.g. metals, paper, cardboard, plastic, food organics, glass, timber)
- construction and demolition – waste material generated from commercial, government or residential building and demolition sites.

In 2017-18, Western Australian (WA) households produced over 1.5 million tonnes, or about 600 kilograms (kg) per person, of waste.² The amount of waste households generated decreased by a reported 26 kg per person from 2014-15 to 2017-18², as did the amount sent to landfill. However, the proportion of waste recovered had not changed. The State's total waste recycling rate of 53% in 2016-17 for all waste streams was still below the national average of 58%.

Factors such as population growth, environmental concerns and changes in technology and international markets for recycled materials have continued to increase the need for sustainable waste management.

In 2018, China announced it would stop importing contaminated recyclable materials as part of its *National Sword* policy. This placed additional pressure on LG entities, who had to find alternative solutions for managing recyclable materials. Other countries such as Malaysia, Thailand and Vietnam also declared restrictions on importing waste. In response, the Council of Australian Governments (COAG) agreed to a phased ban on the export of waste plastic, paper, glass and tyres. This will commence in January 2021.

Waste management is a shared responsibility. All levels of government, business, industry and the community generate waste, and all have a role to play in adopting best practice

¹ MSW is collected from households and LG entities through waste and recycling collections, but can also include some commercial waste.

² ASK Waste Management (2019). *Recycling Activity in Western Australia 2017-18*.

approaches to manage that waste. The State Government oversees and guides the waste and recycling system in WA (Table 1).

Entity	Responsibilities
Waste Authority	<ul style="list-style-type: none"> provides strategic and policy advice to the State Government implements policies and programs consistent with the waste strategy applies funding from the Waste Avoidance and Resource Recovery Account (WARR Account) to strategic initiatives collates waste and recycling data from LG entities to produce the annual <i>Census of Western Australian Local Government Waste and Recycling</i> (LG Census)
Department of Water and Environmental Regulation (DWER)	<ul style="list-style-type: none"> supports the Waste Authority is responsible for waste legislation, policy, planning, and licencing and regulation
Department of Local Government, Sport and Cultural Industries (DLGSC)	<ul style="list-style-type: none"> provides support and advisory services to LG entities, including helping them improve waste management planning

Table 1: Responsibilities of State government entities

LG entities play a critical role in managing MSW, which makes up 34% of the State's waste.³ Many LG entities deliver these waste services 'in-house', while others use private contractors. Some LG entities have joined to form regional councils as a way of sharing waste management. LG entities can provide a range of waste, recycling and organic material collection services; drop-off facilities; and waste education and behaviour change programs to their communities.

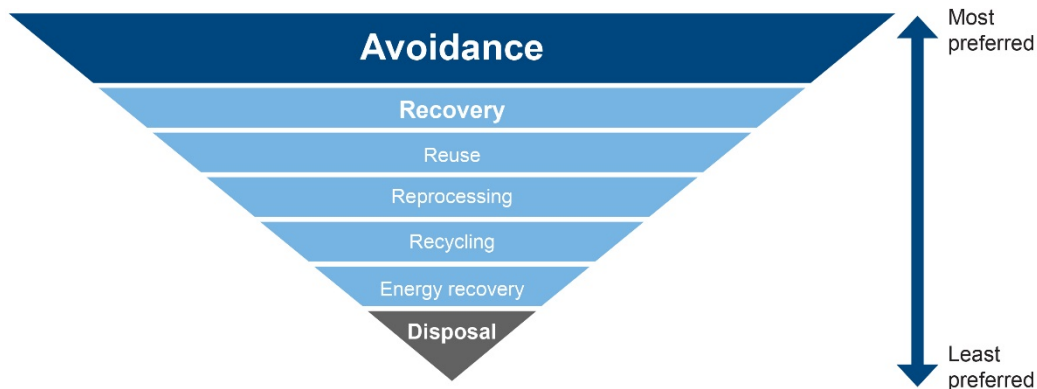
Legislation and waste strategies

The *Waste Avoidance and Resource Recovery Act 2007* (WARR Act) is the principal legislation for waste management in the State. The WARR Act aligns with the key principles of the *National Waste Policy 2018: Less Waste, More Resources*. It also contributes to Australia's international commitments, such as the United Nations' Sustainable Development Goals, adopted by world leaders in 2015. One of these goals focuses on 'responsible consumption and production' and another 8 of the 17 relate to improving resource recovery and waste management.⁴

The WARR Act establishes the role of LG entities to provide waste services in line with the waste hierarchy (Figure 1). It also requires the Waste Authority prepare a waste strategy and provides the Chief Executive Officer of DWER with the power to require LG entities prepare waste plans. These plans aim to align LG entities' waste planning processes with the State's waste strategy, and to protect human health and the environment. DWER has requested Perth and Peel LG entities prepare waste plans by March 2021.

³ ASK Waste Management (2019). *Recycling Activity in Western Australia 2017-18*.

⁴ <https://sustainabledevelopment.un.org/sdgs>



Source: OAG adapted from the Waste Authority

Figure 1: Waste hierarchy based on the WARR Act

The Waste Strategy 2012 was the first statewide plan developed for WA. It described the cooperative effort needed to reduce waste disposed in landfill and increase resource recovery. It set targets to divert 65% of metropolitan MSW from landfill by 2020 and 50% for major regional centres (MRC). Improving the way we manage waste in WA relies heavily on the choices that individuals make in buying and using products and how they dispose of them.

In February 2019, the State Government released the Waste Strategy 2030. It set targets for the community and waste managers. This strategy was developed in consultation with government, industry and the community. It set a new benchmark for community expectation, shifting the State's approach to waste management to focus on avoiding and recovering waste, and protecting the environment.

The Waste Strategy 2030 also introduced the 'circular economy' model where energy and materials are retained for as long as possible. Instead of 'waste', materials became 'resources'. This was a move away from a linear 'take, make, use and dispose' economic model. The *Waste Avoidance and Resource Recovery Action Plan (Action Plan)* supported the Waste Strategy 2030, outlining 8 headline strategies and 57 actions.

Audit conclusion

In WA, kerbside waste collection at the LG level is largely effective. However, local, regional and statewide waste planning, and tailored support for LG entities, is inadequate. This has limited the effectiveness of waste management and the State's ability to meet its long-term targets.

Most LG entities deliver waste collection and drop-off services that are highly valued by their communities. However, many LG entities are not effectively encouraging waste avoidance, nor maximising the recovery of waste by reusing, reprocessing and recycling. As a result, few are on track to help the State meet its Waste Strategy 2030 targets for 2020 to increase waste recovery to 65% in the Perth and Peel region, and 50% in major regional centres (MRC).

Waste planning by LG entities is inadequate and inconsistent, as most do not have their own up-to-date waste plans. Nearly 80% of LG entities contract out their kerbside waste collection services. However, they do not directly impose waste recovery targets on the private waste contractors, who typically focus on collecting waste. Preparing waste plans and contracts that clearly align to the Waste Strategy 2030 and address risks is an important step to help LG entities meet waste targets.

We found examples of good practice in recovering waste across the sector, but LG entities have not consistently adopted these. They include regular and consistent education,

incentives for the community to avoid and reduce waste, and efforts to recover a greater proportion of organic waste and bulk wastes, such as white goods, mattresses and timber. If LG entities are to progress the State's vision to become a sustainable, low-waste society, such initiatives need to be widely implemented.

The Waste Authority and Department of Water and Environmental Regulation (DWER) have substantially improved their support to LG entities since our last audit in 2016. However, both can do more to assist LG entities, particularly those in regional areas. A lack of infrastructure planning and accurate waste and recycling data, along with guidance on better practice waste recovery, has left LG entities to plan and manage community waste based on their own local needs and available infrastructure, which may not be consistent with the State's plans and objectives.

Key findings

LG entities deliver essential waste collection and drop-off services but few are likely to meet State and community expectations to avoid and recover waste

LG entities and their contractors provide regular waste collection and drop-off services that are valued by their community. We reviewed 20 community scorecards, which surveyed community feedback on LG performance between 2017 and 2019. Three quarters of the responses ranked waste collection services as the highest performing area for the LG entities, who received an average positive rating of 92% for weekly waste collection services. These results show that the community and other stakeholders are confident that LG entities will regularly collect and dispose of their household waste.

Most LG entities are unlikely to meet State and community targets to increase waste recovery by 2020 and 2025, and do not always provide public information on their progress. In 2017-18, the waste recovery rate for the Perth and Peel region was 41%, and for the MRCs, 28%. This was well short of the targets of 65% for Perth and Peel, and 50% for MRCs. At the time, none of the 33 Perth and Peel LG entities and only 1 of the 5 MRC LG entities (City of Bunbury) had met the targets. LG entities need to do more to manage waste in line with current community and State expectations, to avoid and recover more waste, and contribute to a circular economy.

State and local waste planning and data capture is inadequate

State planning for significant risks, including recycling, has been poor. Key State government entities have been aware of the potential impact of insufficient waste processing infrastructure since 2012. However, the required planning and proactive response to mitigate the risks, such as reduced access to international markets and limited local waste facilities, has not been timely, nor adequate. This had increased the amount of waste that ends up in landfill, which is contrary to the State's objective to protect the environment.

There is still no State waste infrastructure plan, despite the Waste Authority identifying this as a priority in 2012 in the first Waste Strategy. As a result, there is limited guidance on the location and type of waste infrastructure. This is evident with the approval of 2 proposed waste-to-energy facilities located within 5 km of one another in the south of Perth (Appendix 1). The 2 operating material recovery facilities are also in the south metropolitan area. This imbalance in the location of waste infrastructure further increases the risk that waste facilities may not meet the long-term needs of their communities and the State.

LG waste management planning is also inadequate and not all plans are easily accessible to the community. We found that only 7% of LG entities across the State had a waste plan on their website to provide transparency on their waste activities. Further review of our sampled LG entities showed that none had public waste plans and only 3 of 7 had a waste plan for their LG or region that met WARR Act recommendations. Without good plans that are

publicly available, the community and other stakeholders cannot hold LG entities accountable, nor can they ensure that waste management activities align with the State's strategic direction.

Nearly 80% of LG entities contract out kerbside waste collection services but they have not required their contractors to help meet the State's waste recovery targets. Our review of the main contracts from our sampled LG entities showed that none had obligations or targets for contractors to improve rates of waste recycling or reprocessing. Services focused mainly on timely waste collection and transport. This is a missed opportunity for LG entities to ensure contractors are also contributing to State recovery targets.

Limited guidance from DWER on how LG entities classify and allocate waste costs means that the full cost to deliver waste and recovery services is unknown. LG entities reported that they spent \$297 million in 2017-18 on waste services. However, because there was no clear or consistent approach to how LG entities allocate these costs, the potential for variation in reporting is high. Improved consistency in allocating and reporting the cost of waste services will allow LG entities to choose waste services that provide value for money, improve waste recovery and meet community expectations.

The LG Census relies on data that LG entities self-report and there are limited controls to check its accuracy. We found examples of LG entities reporting the same tonnes of waste collected in multiple years, as well as variation in the way LG entities categorise and record waste streams.

However, State government entities have recognised that the poor quality waste and recovery data reported by LG entities means that government and industry are limited in their ability to monitor progress and make informed decisions. DWER and LG entities have improved data capture in the last 3 years, and the Waste Authority outlined further improvements in a *Waste Data Strategy* released in November 2019. This should allow LG entities to better monitor the efficiency and effectiveness of the waste services they deliver.

Wider uptake of existing better practice waste management methods could be key to improving waste recovery

LG entities are not all using a range of well-known and available practices that can improve waste recovery. The most significant of these are community waste education and behaviour change programs. LG entities, their private waste contractors and others in the sector all produce slightly different waste education materials. Bin tagging programs that reduce contamination are available to all LG entities and their contractors, but are not widely used. Inconsistent messaging and limited use of behaviour change programs increases the risk of bin contamination and contributes to recyclable materials ending up in landfill.

There is poor uptake of the State's waste messaging programs to encourage waste avoidance and recovery by LG entities. The Waste Authority first produced a WasteSorted toolkit in 2018 to help LG entities communicate with their residents. However, the 7 audited LG entities do not use it. Each prefer to use their own or their contractors' graphics and messages, some of which were developed prior to 2018. It is important for all entities to provide regular and consistent community messaging about waste avoidance and recovery to households, industry and government.

Results from LG entities that have adopted the 3-bin food organics and garden organics (FOGO) collection system have been positive, yet uptake has been limited. The Cities of Melville and Bunbury reported annual waste recovery rates of over 60% from 2016-17 to 2018-19, which was much better than the State average of 25% in 2017-18. Each had adopted a 3-bin FOGO system or used alternative waste treatment to separate and process organic waste, and provided regular and consistent waste education. This approach to waste avoidance and recovery was not evident at the other LG entities we sampled, though these

LG entities reported constraints that prevented them from adopting a 3-bin FOGO system. Separating and reprocessing FOGO, which is typically over a third of MSW, can significantly increase waste recovery rates. For those LG entities already using a 3-bin system to collect garden organics (GO), the transition to FOGO may require a change in processing infrastructure, along with associated approvals and licensing by DWER.

Financial incentives for households to avoid or reduce waste are rare but can be effective in facilitating behaviour change. We identified only 2 LG entities that offered financial rewards to residents for reducing their waste. Bunbury charges ratepayers less for smaller size waste bins and the Town of Cambridge does not charge for the yellow-lid recycling bins. These simple, cost effective incentives can help change behaviours and reduce the amount of waste disposed to landfill.

Bulk verge waste can be recycled but often ends up in landfill. All 33 Perth and Peel LG entities and all 5 MRC LG entities, offered verge collections or bulk bins in 2017-18. Around two-thirds of smaller regional LG entities provided drop-off facilities instead. For the Perth and Peel LG entities:

- 6 sent all bulk waste to landfill in 2017-18
- only 4 recycled 50% or more
- the remaining 23 recycled an average of 20%.

Recycling bulk waste offers effective recovery of a range of commonly disposed items such as metal, cardboard, wood and mattresses.

The State Government has made good progress since 2016, but LG entities need more support to address local challenges

The State Government has implemented many of the recommendations from our 2016 audit (Appendix 2). But WA's waste recycling rate of 53% in 2016-17 was still 5% below the national average.⁵ The DWER and Waste Authority have addressed 13 of our 16 audit recommendations. They are currently addressing the remaining 3, however 2 critical recommendations to prepare a State waste infrastructure plan and comprehensive better practice guidance are not complete. Implementing these outstanding recommendations is crucial to help LG entities plan and deliver waste services for their communities, and improve the State's waste recovery.

A combination of local challenges and a lack of tailored support from State government entities prevents LG entities from recovering more waste. LG entities indicated that there was limited opportunity to interact directly with the State government entities that provide waste management guidance. LG entities may also prioritise local issues, such as managing litter or illegal dumping, above Waste Strategy 2030 headline strategies. Without engaging with individual LG entities, particularly in more remote areas, State government entities are unlikely to understand fully the challenges each LG faces, nor offer the support needed for them to recover more waste.

There is unspent landfill levy funds that the Waste Authority can effectively use to progress the State's waste management objectives. The unspent balance of the WARR Account had grown from \$30 million in 2015-16 to \$40 million in 2018-19. The purpose of the funds is to promote programs for the management, reduction, reuse, recycling, monitoring or measurement of waste. These reserves can help to better support a range of Waste Strategy 2030 initiatives.

⁵ National Waste Report 2018

Recommendations

The Waste Authority and Department of Water and Environmental Regulation (DWER) should work together to:

- 1. provide support to LG entities by:**
 - a. preparing a State waste infrastructure plan to ensure alignment with the State planning framework
 - b. identifying local Perth, Peel and regional reprocessing facility requirements and markets for recyclable materials, particularly for organic materials
 - c. continuing to develop better practice guidance for LG entities to manage key waste streams and problematic wastes
 - d. engaging with individual Perth, Peel and regional LG entities to help understand, identify and address their local challenges, risks and waste management requirements
- 2. support LG entities to improve the accuracy of their waste and recycling data in line with the Waste Data Strategy by:**
 - a. providing additional training and guidance for LG entities on data collection, reporting and quality control requirements
 - b. developing and implementing appropriate controls to minimise the risk of inaccurate data supplied by contractors
- 3. provide LG entities with materials that explain the cost and environmental benefits of adopting a 3-bin FOGO system**
- 4. engage with LG entities to develop consistent and regular statewide messages, education and behaviour change programs for all LG entities and contractors that align with Waste Strategy 2030 targets.**

Waste Authority response: Recommendations supported

DWER response: Recommendations supported

LG response: LG entities in our sample supported the recommendations for the Waste Authority and DWER. Full responses from LG entities for each of the recommendations, where provided, are included in Appendix 3

Implementation timeframe: December 2021

The Department of Local Government, Sport and Cultural Industries (DLGSC), Waste Authority and DWER should work together to:

- 5. provide guidance for LG entities to collect and publicly report consistent waste and recovery financial and performance data.**

DLGSC response: Recommendation supported

Waste Authority response: Recommendation supported

DWER response: Recommendation supported

LG response: LG entities in our sample supported the recommendations for the Waste Authority and DWER. Full responses from LG entities for each of the recommendations, where provided, are included in Appendix 3

Implementation timeframe: progressively through to December 2022

LG entities should:

6. **provide regular community updates on efforts to recover waste and meet Waste Strategy 2030 targets and seek community feedback where appropriate**
7. **consider preparing waste plans, which demonstrate how the LG will contribute to relevant Waste Strategy 2030 headline strategies. These plans should be publicly available**
8. **include performance measures in contracts with service providers to recover more waste without adding significant costs**
9. **consider providing incentives for the community to minimise waste production.**

LG response: LG entities in our sample generally agreed with the recommendations and indicated that they were preparing waste plans and considering initiatives to improve waste management and help achieve Waste Strategy 2030 targets. Full responses from LG entities for each of the recommendations are included in Appendix 3.

Implementation timeframe: December 2021

Under section 7.12A of the *Local Government Act 1995*, all audited entities are required to prepare an action plan addressing significant matters relevant to their entity for submission to the Minister for Local Government within 3 months of this report being tabled in Parliament and for publication on the entity's website. This action plan should address the points above, to the extent that they are relevant to their entity, as indicated in this report.

Response from entities

The Waste Authority, Department of Water and Environmental Regulation, Department of Local Government, Sport and Cultural Industries and the 7 audited LG entities generally supported the audit findings and accepted our recommendations.

Appendix 3 includes the full responses.

Audit focus and scope

The audit objective was to determine whether local government (LG) entities plan and deliver effective waste management services to their communities.

We based our audit on the following criteria:

- Are waste services planned to minimise waste and meet community expectations?
- Do LG entities deliver effective waste services?
- Does the State Government provide adequate support for local waste planning and service delivery?

The audit focused on waste services delivered by LG entities to progress towards achieving targets and objectives set in the first *Western Australian Waste Strategy: Rethinking Waste* (Waste Strategy 2012) and subsequent *Waste Avoidance and Resource Recovery Strategy 2030* (Waste Strategy 2030). We assessed 3 Perth and Peel and 3 regional LG entities of varying sizes:

- City of Belmont (Belmont)
- City of Bunbury (Bunbury)
- City of Kalgoorlie-Boulder (Kalgoorlie-Boulder)
- City of Kwinana (Kwinana)
- City of Melville (Melville)
- Shire of Broome (Broome).

We audited Mindarie Regional Council, but did not assess their management of specific waste streams or waste and recycling data.

The audit also assessed State Government support for LG entities and followed up on recommendations to State government entities from OAG's *Western Australian Waste Strategy: Rethinking Waste* audit completed in 2016. This included auditing the following State government entities:

- Waste Authority
- Department of Water and Environmental Regulation (DWER)
- Department of Local Government, Sport and Cultural Industries (DLGSC).

We did not look at actions by the private sector waste industry, or the management of construction and demolition waste, commercial and industrial waste, controlled waste, liquid waste, mining waste and waste water.

In undertaking the audit we:

- reviewed plans, policies, strategies, guidelines, budgets and financial statements, industry and LG waste and recovery data, meeting minutes and other documents from the Waste Authority, DWER, the 7 audited LG entities and publicly available documents on statewide LG websites
- analysed DWER's LG Census waste and recovery data from July 2016 to June 2018, including assessment of how LG entities were tracking to meet Waste Strategy 2030 community and waste manager targets, and contributing to State targets (Table 3)

Note: there are limitations in the use of the available data. Not all LG entities reported waste and recycling data. Because DWER did not validate the data, we could not guarantee its accuracy. This issue is discussed later in the report

- analysed LG Census waste and recovery data from July 2018 to June 2019 for the 6 audited LG entities (excluding Mindarie Regional Council)
- reviewed DLGSC's MyCouncil waste and recovery data for LG entities for 2016-17 and 2017-18
- interviewed staff from the Waste Authority, DWER, DLGSC and the 7 audited LG entities
- interviewed Perth, Peel and regional stakeholders, community members, private waste operators, LG entities and key agencies with a role in managing waste in WA, including WA Local Government Association (WALGA), Waste Management and Resource Recovery Association Australia (WMRR), Bunbury-Harvey Regional Council, Eastern Metropolitan Regional Council, Southern Metropolitan Regional Council (SMRC), Suez, Cleanaway and ASK Waste Management
- reviewed published national and international literature on waste management, including national waste reporting
- attended 3 presentations on waste management organised by WALGA and LG Professionals
- conducted site visits to 3 Perth and Peel and 5 regional waste facilities, which included landfills, material recovery facilities (MRF), waste transfer stations and organics processing facilities
- reviewed submissions from LG entities and industry stakeholders.

This was a performance audit, conducted under Section 18 of the *Auditor General Act 2006*, in accordance with Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*. We complied with the independence and other ethical requirements related to assurance engagements. Performance audits focus primarily on the effective management and operations of entity programs and activities. The approximate cost of undertaking the audit and reporting was \$450,500.

Audit findings

LG entities deliver essential waste collection services but few are likely to meet State targets to recover more waste

Communities value their LG waste collection and drop-off services

LG entities collect and dispose of their community's waste. Almost all of the State's LG entities that reported waste and recycling data (132 of 139) offer a weekly or fortnightly kerbside waste collection service and drop-off facilities (Table 2). Only 19 LG entities reported using a third kerbside bin to collect GO or FOGO. Regional LG entities collect kerbside waste, however only 65% collect kerbside recycling. These essential services help to protect community health and the environment.⁶

Waste service	Perth & Peel (33 LG entities)	Major regional centre (5)	Smaller regional (94)	Total % (132)
Kerbside waste	33	5	93	99% (131)
Kerbside recycling	33	4	60	73% (97)
Kerbside garden organics (GO)	9	2	3	11% (14)
Kerbside food organics and garden organics (FOGO)	1	1	3	4% (5)
Vergeside bulk waste	33	4	30	51% (67)
Vergeside green waste	31	3	27	46% (61)
Drop-off	32*	5	93	98% (130)

Source: OAG from DWER LG Census data

Table 2: LG waste services reported in the 2016-17 and 2017-18 LG Census.⁷ *Most Perth and Peel LG entities use regional council drop-off facilities

Communities are generally satisfied with LG waste collection and drop-off services. We reviewed 20 community scorecards, which provided feedback on the performance of LG service delivery between 2017 and 2019. Respondents gave the LG entities an average positive rating of 92% for weekly waste collection services. They also ranked these services as high performing or significant areas of strength for the majority (75%) of LG entities. Our sample of scorecards, including half from regional and half from Perth and Peel LG entities, showed a strong positive rating. This reflected community satisfaction across the state.

Most LG entities are not on track to meet waste recovery targets

Community and State expectations for waste management have changed over the last 8 years. The inaugural Waste Strategy 2012 set clear targets to increase the amount of waste diverted from landfill. The Waste Strategy 2030 shifted the focus to both avoid and recover waste, by setting targets to recover 65% of MSW in the Perth and Peel region and 50% for MRCs by 2020, increasing to 70% and 60% respectively, by 2030 (Table 3). These strategies were developed in consultation with the community, industry and government, and show the shift in State and community expectations, from solely focusing on waste collection

⁶ We have only provided data for the 33 Perth and Peel LGs and 5 MRC LGs defined in the current Waste Strategy 2030. The *Waste Strategy 2012* referred to 31 metropolitan LGs, which excluded Mandurah and Waroona, and defined MRCs as 'Avon, Greater Bunbury, Albany, Geraldton, Kalgoorlie, Karratha, Peel and Busselton'.

⁷ Note: we used data from the 2016-17 LG Census for LG entities that did not report waste services in the 2017-18 LG Census.

and disposal from households, to waste recovery and waste minimisation. As a result, both the State and local communities expect LG entities to recover more materials that would otherwise have ended up in landfill or stockpiled.

Objectives	Avoid – generate less waste	Recover – recover more value and resources from waste	Protect – protect the environment by managing waste responsibly
State targets	2025 – 10% reduction in waste generation per capita 2030 – 20% reduction in waste generation per capita	2025 – increase material recovery to 70% 2030 – increase material recovery to 75% 2025 – all LG entities in the Perth and Peel region provide consistent 3-bin kerbside collection systems that include separation of food organics and garden organics (FOGO) from other waste categories From 2020 – recover energy only from residual waste	2030 – no more than 15% of Perth and Peel regions' waste is landfilled 2030 – all waste is managed and/or disposed to better practice facilities
Community targets	2025 – reduction in MSW generation per capita by 5% 2030 – reduction in MSW generation per capita by 10%	2020 – increase MSW material recovery to 65% in the Perth and Peel regions and 50% in MRCs 2025 – 67% for Perth and Peel and 55% for MRCs 2030 – 70% for Perth and Peel and 60% for MRCs	2030 – move towards zero illegal dumping 2030 – move towards zero littering
Waste manager targets	2030 – all waste is managed and/or disposed using better practice approaches	All waste facilities adopt resource recovery better practice	2030 – no more than 15% of Perth and Peel regions' waste is disposed to landfill 2030 – all waste facilities adopt environmental protection better practice facilities

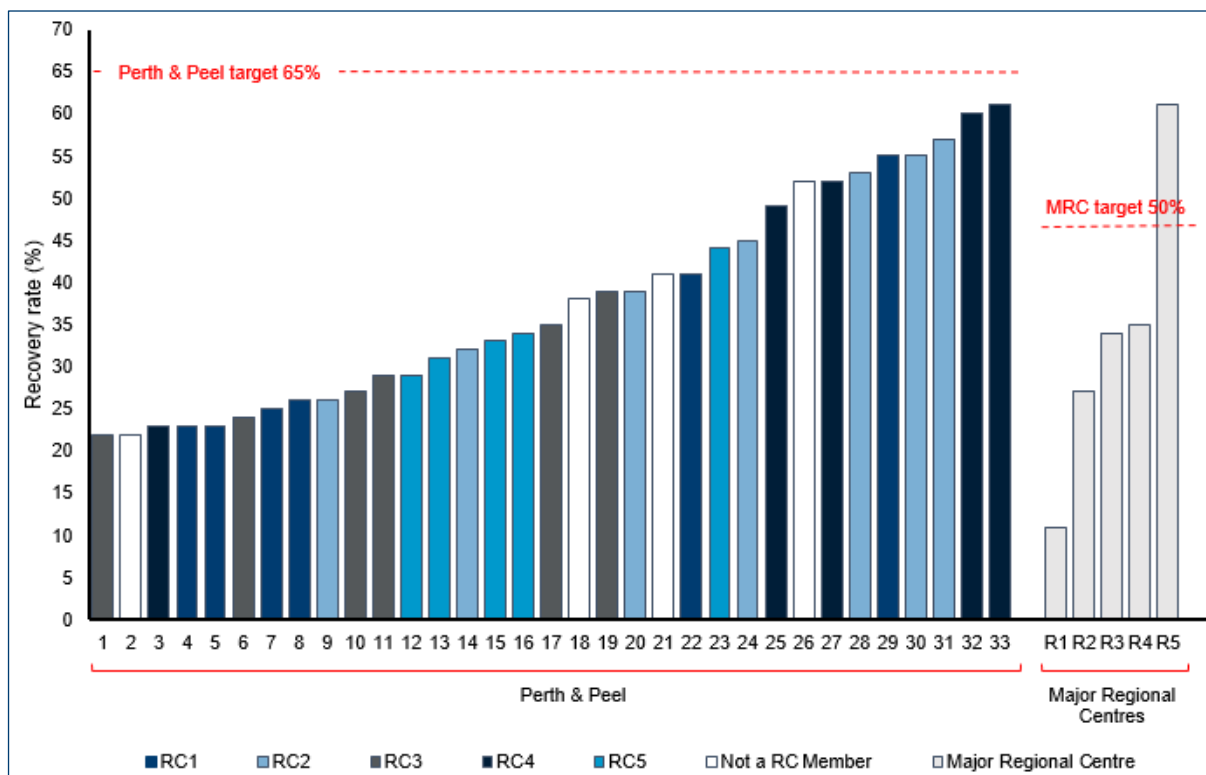
Source: OAG from WA's Waste Strategy 2030

Table 3: Waste Strategy 2030 objectives and State and community targets that relate to this audit⁸

The majority of LG entities are unlikely to meet the State's waste recovery goals. In our analysis of reported 2017-18 data, the combined Perth and Peel LG entities recovered only 41% of their waste. This fell short of the target to divert 65% of metropolitan waste from landfill by 2020. The 5 MRCs of Albany, Busselton, Bunbury, Greater Geraldton and Kalgoorlie-Boulder recovered 28% of their waste, which was also well below their 50% target.

⁸ Additional targets are outlined in the [Waste Strategy 2030](#)

Just 4 of the State's 132 LG entities that reported waste and recycling data had met the State's targets to increase the amount of resources recovered from waste by 2017-18. None of the Perth and Peel LG entities had reached the waste recovery target of 65% (Figure 2). Of the 5 MRCs, only Bunbury had met the recovery target of 50%, recovering 61% of its waste (Figure 2). Neither the Waste Strategy 2012 nor the Waste Strategy 2030 provided targets for smaller regional LG entities. However, a further 3 smaller regional LG entities reported recovery rates of 51-58%. Each sent all kerbside waste and recycling to landfill, but recovered a significant portion of drop-off waste delivered direct to a waste facility by residents. The low recovery rates mean that recyclable materials still end up in landfill, contrary to State and community expectations.



Source: OAG analysis of DWER LG Census data

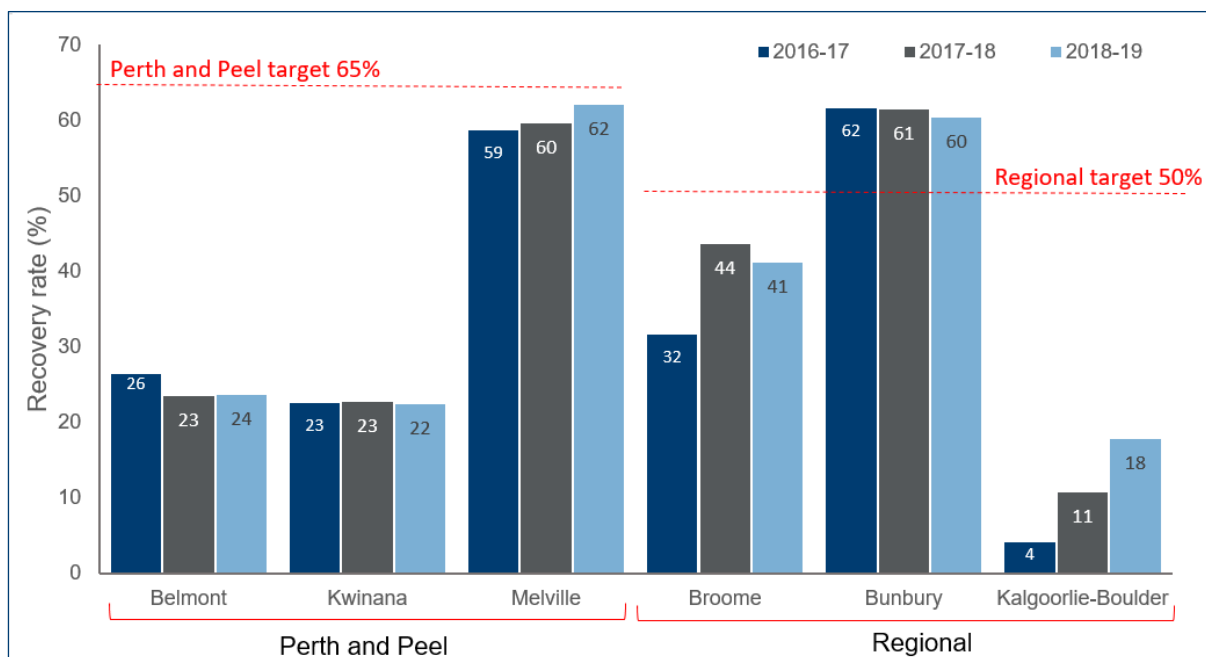
Figure 2: LG entity recovery rates reported in 2017-18 compared to the Waste Strategy 2012 and Waste Strategy 2030 targets of 65% for Perth and Peel RCs and 50% for MRCs

Of the 6 LG entities sampled during our audit, only Melville and Bunbury are on track to meet the Waste Strategy 2030 targets. Both had waste recovery rates of about 60% for 3 years from 2016-17 to 2018-19 (Figure 3). Bunbury was the first LG to introduce the 3-bin FOGO system in 2013 and has shown consistently high performance over a 3 year period. Bunbury and Melville share some characteristics:

- a 3-bin FOGO system or alternative waste treatment to separate organic waste
- in-house kerbside collection services conducted by the LG
- significant investment in regular community education.

The remaining 4 LG entities showed limited signs of improving their waste recovery performance to the extent needed to meet the State's recovery targets. However, 1 LG entity had an agreement to supply residual waste to a waste to energy plant, which it advised would allow it to meet the State's 65% recovery target. This arrangement aligned with the previous Waste Strategy 2012, which aimed to divert waste from landfill. At the time of our audit, LG entities had limited time to accommodate the change in approach of the new Waste

Strategy 2030, which aligns with the waste hierarchy (Figure 1) and supports adoption of a 3-bin FOGO system.



Source: DWER and OAG with data supplied by the LG entities

Figure 3: Reported recovery rates for the 6 audited LG entities from 2016-17 to 2018-19 showing progress towards meeting Waste Strategy 2030 community recovery targets for 2020. Note: regional target applies to MRCs only

LG entities do not provide sufficient public information on their waste recovery targets or their progress to meet these targets. Only 2 of the 6 LG entities sampled in our audit provided this information on their websites or in annual reports. DLGSC's MyCouncil website allows the community to view and compare LG information on services such as waste. It reports tonnes of waste and recycling collected, but does not provide recovery rates for each LG entity. This lack of transparency means that the community has limited visibility of what LG entities are doing to improve waste management outcomes or if they are on track to achieve them.

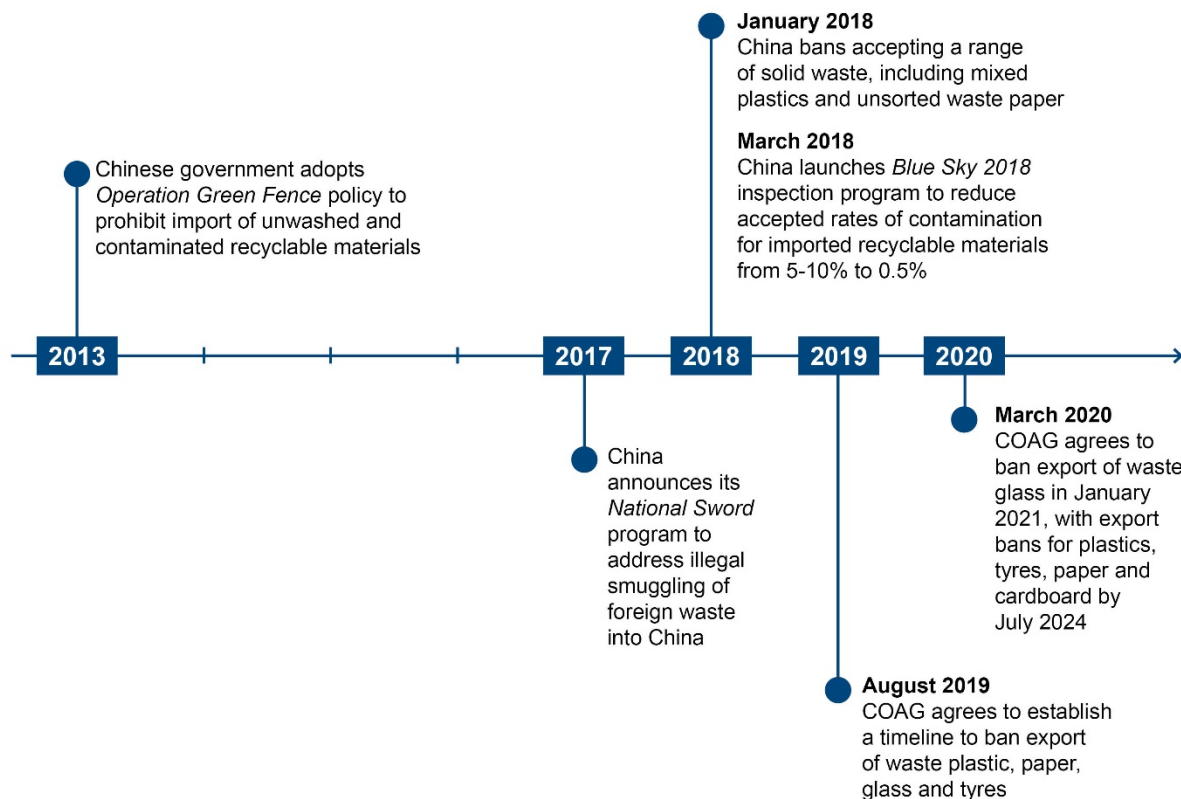
State and local waste planning is inadequate

State planning for significant risks, including recycling, has been poor

State entities have not adequately managed key waste management risks. The planning and development of sufficient waste infrastructure and markets for recyclable materials has been slow, despite the Waste Authority identifying these challenges in 2012. This has led to some significant problems, which the State now needs to manage closely to avoid incurring further costs to recycle waste or increasing the amount of recyclable materials that end up in landfill.

For over a decade, WA has relied heavily on China and other international markets to sell recycled materials, and made little effort to search for alternate markets or reduce contamination levels, despite early warning signs that China would no longer purchase contaminated materials. For example, China's *Operation Green Fence* policy first introduced import bans on contaminated waste in 2013 (Figure 4). It progressively tightened inspection efforts to reduce the amount of this waste entering the country, and in January 2018, further restricted waste imports under its *National Sword* policy. In 2017-18, WA exported around 180,000 tonnes of plastic, paper and cardboard. In 2018-19, the Australian Bureau of

Statistics reported a decline in exports from WA, down to 93,120 tonnes.⁹ The reduction of international markets led to significant increases in the costs for LG entities and MRFs to manage kerbside recycling. Given the early signs of China's market changes, the Waste Authority and DWER could have better prepared for the long-term impact on the State's recycling industry.



Source: OAG

Figure 4: Timeline of events affecting Australia's ability to export recyclable materials

This reliance on international markets, lack of local waste processing infrastructure and limited local markets for the sale of recycled materials, prevents LG entities from recycling more waste without large increases in cost. COAG's August 2019 decision to progressively ban waste exports from Australia from January 2021 has further reduced LG entities' options to recover recyclable materials such as glass, mixed plastic, cardboard and paper. The limited WA recycling industry and local markets for recycled products increases the risk that more materials that are recyclable will end up in landfills or stockpiled inappropriately.

The Waste Authority's Community and Industry Engagement Program provided \$3.46 million in 2019 to support general projects and recycling infrastructure projects that improve recovery and reuse of materials identified in the Waste Strategy 2030. In July 2020, the State Government also announced \$15 million to support local plastic and tyre processing in the north of WA, and access to industrial zoned land valued at \$5 million for processing infrastructure. This may eventually provide LG entities with local alternative options to manage recyclable materials.

⁹ COAG (2020). *Phasing Out Exports of Waste Plastic, Paper, Glass and Tyres. Response Strategy to Implement the August 2019 Agreement of the Council of Australian Governments.*

WA does not have adequate infrastructure to support a local recycling industry. This is particularly evident when facilities become unavailable. For example, in November 2019, a fire in 1 of Perth's 3 MRFs caused 20 LG entities to send recyclable materials to landfill for over 3 months while they sourced alternative processing options. Information had not been released about the cause of the fire at the time of our audit. Similar fires occurred at large recycling facilities in Victoria between 2017 and 2019. A Victorian parliamentary committee attributed these fires to insufficient facilities to store and dispose of waste, over-stockpiling and a reduction in markets for recycled goods. Without adequate waste infrastructure, the State risks further losses of recyclable materials in fires or to landfill.

There is no State waste infrastructure plan even though the State identified it as a priority in 2012

There is no overarching plan to support the strategic development of waste infrastructure in WA. In 2012, the Waste Authority identified the need for a State waste infrastructure plan as a priority but it has not yet been developed. LG entities therefore lack guidance to support strategic decision-making and to develop suitable waste infrastructure to meet the long-term needs of their communities and the State.

Under the Waste Strategy 2030 and the supporting Action Plan, DWER is responsible for the development of the State's waste infrastructure plan in consultation with other stakeholders. The timeline for delivering the plan is unclear, though the Action Plan noted it could take from 3 to 5 years. Without an infrastructure plan, LG entities are left to make local waste management decisions that may leave some facilities unable to adhere to the waste hierarchy, under-utilised or redundant. Some examples of these are:

- regional council 1 – has sent its members' waste to a resource recovery facility to extract and reprocess organic waste since 2009. However, if its members adopt a 3-bin FOGO system, the facility will no longer be needed to process the organic component of the waste, making it obsolete
- regional council 2 – invested in an alternative waste treatment facility in 2007 to separate and process organic waste. The technology was successfully trialled, but ongoing technical challenges resulted in financial difficulties and voluntary administration of the group of private companies that owned and operated the facility in 2016. It briefly restarted operating in 2017, but continued problems caused it to cease receiving waste in February 2018. This means the regional council has to seek other waste treatment options for its members
- regional council 3 – has successfully used organic waste from its members who use a 3-bin FOGO system to produce a compost, which complies with Australian standards. However sourcing regular markets for the product is an ongoing challenge due to production and transport costs, and farmers' historic reliance on synthetic fertilisers
- furthermore, at least 12 of the 33 Perth and Peel LG entities have committed to provide residual waste to waste-to-energy facilities under construction in Kwinana and East Rockingham. However, 1 LG has agreed to supply all its kerbside waste for 20 years. This means the organic materials that could be used to produce mulch and compost will not be available. This approach does not align with the Waste Strategy 2030 objectives to adhere to the waste hierarchy and adopt a circular economy.

Waste facilities for the Perth and Peel region are not well located for LG entities managing waste across the north, south and east. In 2015, the Minister for Environment approved the construction of 2 waste-to-energy facilities in WA, which will be located within 5 km of one another in the south only, and the 2 operating MRFs are also in the south (Appendix 1). The lack of local access to key waste facilities means LG entities have to transport waste longer distances across the Perth and Peel region.

There has been some progress on land use planning for waste infrastructure, as DWER has begun working with the Department of Planning, Lands and Heritage (DPLH). In December 2019, they began preparing a ‘planning instrument’ to agree on an approach, which will guide decision-making for authorities involved in developing waste management infrastructure.

Local waste management planning is inadequate

LG entities have not sufficiently planned their overall and long-term waste management strategies, and do not generally share plans with their communities. We found that only 7% of LG entities had a publicly available waste plan on their websites. There was no evidence that these plans were updated to align with the new Waste Strategy 2030.

Waste plans had not been a requirement under the WARR Act. However, DWER developed waste plan templates and guidance for LG entities in 2019. All Perth, Peel and MRC LG entities are required to produce their own individual waste plan by March 2021. For our 7 sampled LG entities, none had public waste plans. However, 3 had a waste plan for their LG or region that included key elements recommended in the WARR Act. For example, Kwinana developed its *City of Kwinana Waste Management Strategy* in 2017 that included an assessment of:

- the significant sources, quantities and generators of waste
- the markets and facilities for waste received by the LG
- options and strategies to reduce, manage and dispose of waste
- programs that identify required actions, timeframes, resources and responsibilities for achieving the strategies and targets.

Without transparent local planning that aligns with the WARR Act and Waste Strategy 2030, the State and the community are unable to hold LG entities accountable for delivering effective waste services.

Regional LG entities are not required to develop individual plans, but they could benefit from having an individual plan to address local issues. For example, Broome’s landfill is nearing its end of life. The *Regional Waste Management Plan* for the Kimberley Region identified this risk in 2013. Lack of adequate planning for a new landfill site, due in part to Native Title considerations, means that within the next 2 years they will likely need to transport waste lengthy distances to an alternative landfill. This could increase costs for waste disposal. Planning and approval for new landfills can take up to 8 years. Preparing standardised waste plans would help LG entities effectively plan and monitor performance, and address key risks in a timely manner.

There are no obligations for private waste contractors to meet recovery targets

Nearly 80% of LG entities contract out kerbside waste collection services, yet the contractors have no targets for the quantity of waste they reprocess, recycle or reuse. We reviewed the main contracts from our 6 sampled LG entities and found that the contractual arrangements focused on the timely collection and transport of waste, and the provision of bins. None included obligations to divert more waste from landfill and increase material recovery. Without performance measures for waste recovery, contractors may not be incentivised to divert more waste from landfill. While performance measures for waste contractors may help improve waste recovery, it does not negate the need for households to correctly separate and dispose of waste to reduce contamination in the first instance.

A number of Perth and Peel LG entities have agreed to use alternative waste treatment and waste-to-energy facilities, some of which no longer align with the new Waste Strategy 2030 objectives. LG entities can enter into long-term contracts, which they can extend if they have

not allowed sufficient time to prepare a new contract. Extending contracts without considering the regular changes in the waste and recycling industry, increases the risk that LG entities fail to maximise waste recovery to meet their recovery targets.

The New South Wales Environmental Protection Authority¹⁰ offers an example of better practice tendering guidance for LG entities to engage waste contractors that could benefit WA's LG entities. It includes contract specifications for LG waste services that show how the contractor is liable for aspects such as:

- preparing and implementing a contamination management strategy
- recyclable materials collected that are rejected due to high levels of contamination
- annual waste audits on recyclable materials.

DWER's limited guidance on how LG entities should classify and allocate waste costs means that the true costs to manage waste are unknown

Limited guidance from DWER on how LG entities should classify, allocate and report waste costs means that the full costs to deliver waste and recycling services are not known. DWER asks LG entities to provide annual costs for collecting, processing and disposing of waste. However, they do not provide LG entities with a detailed methodology or guidance on how to calculate the costs. In 2017-18, 118 of the State's 132 LG entities that reported, spent a total of \$297 million on waste services. The remainder did not report total waste costs in the LG Census. With no clear or consistent approach to how LG entities allocate these costs, the potential for variation in reporting is high, making the data less meaningful for analysis.

Some waste-related expenditure may not be included in the total waste costs reported by all LG entities. For example, 1 of our sampled LG entities stated that they did not include overheads for staff associated with waste activities or payments to their regional council for waste education services in their total waste costs. Improved understanding of the cost of waste services and consistency in reporting is required. This would allow LG entities to choose the right mix of waste services to improve waste recovery, provide value for money and meet community expectations.

Despite some improvement, there were limited controls to ensure data from LG entities is accurate

LG entities have improved their collection of waste and recovery data since 2016. DWER provide an electronic template with explanatory notes and guidance for LG entities on how to report their waste and recycling data. LG entities that use weighbridges and DWER's approved procedures to calculate or estimate waste and recycling data further help to improve data quality. The Waste Authority has more confidence when using this data to prepare the annual LG Census and to share it with the Commonwealth Government for national benchmarks.

Limited controls affect the consistency and accuracy of the data LG entities provide to DWER. LG entities and their contractors do not routinely audit waste and recovery data, and DWER does not analyse the raw data. The Waste Authority also stated in its 2017-18 LG Census that the data was not validated. Consequently, the Waste Authority cannot guarantee the accuracy of the estimates provided by LG entities. Sixteen percent of LG entities self-reported low confidence in their 2016-17 data and 11% in their 2017-18 data. We interviewed stakeholders, reviewed the data from these 2 financial years, and found potential errors and issues that affect its reliability. For example:

¹⁰ New South Wales Environmental Protection Authority (2015). Model Waste and Recycling Collection Contracts User Guide for Councils <https://www.epa.nsw.gov.au/your-environment/waste/local-council-operations/resources-for-local-councils>

- DWER advised that measurement of waste sent to landfill can vary by up to 300% because some LG entities used truck counts and visual estimates to calculate their waste in the absence of weighbridges:
 - Perth and Peel LG entities and larger regional LG entities such as Albany, Broome, Karratha, Geraldton and Bunbury used weighbridges, which are more accurate
 - 1 regional landfill only uses its weighbridge for commercial waste, but it does not use it to measure ad-hoc domestic waste drop-offs from residents
 - 2 small regional LG entities reported estimating waste tonnage using historic waste audit data and observations at the landfill because there is no weighbridge.
- There are variations in the way LG entities categorise and record waste streams, which means the data for each waste type is not always comparable. One LG entity did not report any FOGO waste collected in 2016-17 as DWER's template did not include FOGO that year, instead recording it as kerbside green waste. Another LG entity had not separated household and commercial waste streams, stating that both types of premises used the same size and colour bins, which the LG entity collected on the same day.
- At least 3 LG entities located close to each other reported the same recovery rate of 83%. MRFs can receive recyclable materials from a number of LG entities at the same time. When this occurs, they only provide an average for the combined LG entities. This means that recovery data for kerbside recycling bins supplied by each LG entity may not represent their individual recovery performance.

The data limitations meant that LG entities cannot accurately monitor how effective and efficient their existing waste management programs and services are. Unreliable information also limits the State entities' ability to use the data to understand the nature and volume of waste types, the fate of recyclable materials and to report progress towards Waste Strategy 2030 targets. Waste data collection is a shared responsibility among LG entities, waste contractors and the State, but DWER is responsible for statewide coordination and reporting.

After changes made in 2019, LG entities are required to report waste and recycling data annually to DWER. The Waste Avoidance and Resource Recovery Regulations 2008 (WARR Regulations) were amended in June 2019. The amendments aim to improve the accuracy, timeliness and completeness of waste and recycling data. The Waste Authority also published a *Waste Data Strategy* in November 2019. It details actions for the Waste Authority and DWER to improve data collection, verification and reporting and aims to achieve:

- more statewide consistency and guidance in data collection and reporting, with standardised data measures, terminology and waste classifications
- better resourcing for data collection, auditing and verification processes to increase data reliability for all stakeholders.

Wider uptake of existing better practice waste management methods could be key to improving waste recovery

Across WA, LG entities do not use consistent and regular waste education and behaviour change programs to encourage the community to reduce waste

There is no regular and consistent messaging by LG entities on waste avoidance, resource recovery and appropriate waste disposal behaviours across WA. LG entities and other waste

managers in the sector have produced a variety of waste education materials, often with slightly different messages. For example, in our sampled LG entities:

- Bunbury provide annual waste and recycling guides with detailed images and text on bin usage. This includes removing lids from plastic bottles and glass jars, and ensuring they are clean before placing in recycling bins.
- Broome provides limited guidance on their website, which does not include graphics or any directions to remove lids or wash containers.

Inconsistent messaging across the State may have contributed to a poor understanding of how to dispose of waste correctly, increasing the risk of contamination and causing more recyclable materials to end up in landfill. Using regular and consistent waste education, with clear messages, is key to improving waste recovery.

Bin tagging behaviour change programs to encourage correct waste disposal are readily available, but few of the State's approximately 100 LG entities that offer kerbside recycling services use them. In September 2019, WALGA advised that only 11 Perth and Peel and 10 regional LG entities had used its Waste Authority funded bin tagging program, which is available to all LG entities and is a simple method used across Australia to improve waste disposal behaviour. WALGA advised that additional LG entities have expressed interest in using the program, subject to funding availability. A comprehensive bin tagging program includes a combination of bin tags (Figure 5) to provide direct feedback on the content of waste, recycling and organic bins, information about what should go in each bin, on-site bin audits, and incentives and enforcement actions to reduce bin contamination. WALGA's bin tagging program in a sample of 3 LG entities over a 6-week period in 2016 showed some positive results:

- through bin audits, 2 LG entities with 2-bin systems showed an increase in the proportion of households that used their recycling bins correctly, from 44% to 64%, and 64% to 76%
- the other LG entity had a 3-bin system and recorded a smaller increase in the correct use of both recycling and organic waste bins, rising from 84% to 91%
- routinely using behaviour change programs such as bin tagging, can improve community understanding of appropriate waste disposal.



Source: WALGA

Figure 5: Examples of bin tags for FOGO bins

Community members put many things in their bins, including hazardous wastes such as batteries, paint and gas bottles. One of our sampled LG entities advised that its waste contractor had experienced 6 incidents of fire in their trucks in a 6-month period due to hazardous waste contamination. This highlights the importance of bin tagging or similar behaviour change programs, along with easy to access disposal options for household hazardous waste and regular and consistent education to effectively decrease bin contamination and prevent harm to the public or environment.

Uptake of the State's messaging to promote consistent waste education is poor

The Waste Authority first produced its WasteSorted toolkit in 2018 to help all LG entities communicate consistently with their residents on how to dispose of waste correctly and decrease bin contamination. However, the 7 LG entities audited do not use it. They advised that the toolkit, which the Waste Authority updated in 2019, lacked useful detail households need to reduce bin contamination. Instead, the LG entities developed their own education

materials (Table 4) or used those supplied by their regional councils or private waste contractors, some of which were developed prior to 2018. LG entities require flexibility to develop educational materials, but maintaining consistency in messaging can help avoid confusion to ensure the community disposes waste correctly. The Waste Authority advised that 14 LG entities that applied for Better Bins Plus: Go FOGO funding in 2020 have indicated that they will use elements of the WasteSorted toolkit. The Waste Authority also plans to launch a state-wide waste campaign in August 2020, targeting waste avoidance, and improved recycling and recovery.

Source	Examples of waste education materials
<p>Waste Authority's WasteSorted toolkit for LG entities</p>	 <p>The toolkit includes three bin types: a 360L bin with a yellow top for Recyclables, a 240L bin with a green top for FOGO (Food Organics and Garden Organics), and a 140L bin with a red top for General waste. Below the bins are three rows of icons: a yellow row for Recyclables, a green row for Food Organics and Garden Organics, and a red row for General Waste.</p>
<p>LG entity in partnership with a private waste contractor</p>	 <p>The sign features a yellow bin icon and the text: "YELLOW-TOP RECYCLING BIN Collected fortnightly". A warning states: "No plastic bags or greenwaste in your recycling bin". Below, it says "Place these items in your yellow-top bin:" and lists five categories with images and checkmarks: <ul style="list-style-type: none"> GLASS BOTTLES & JARS (remove lids) STEEL & ALUMINIUM CANS PAPER, NEWSPAPER, MAGAZINES & CARDBOARD PLASTIC BOTTLES & CONTAINERS (remove lids) MILK & JUICE CARTONS (no silver-lined UHT) </p>

Sources: Waste Authority, LG entity

Table 4: A sample of waste and recycling bin education materials

To help address the inconsistent messaging from LG entities, WALGA formed the Consistent Communication Collective in 2019. The group provides an avenue for State and LG entities to work with industry partners. It aims to produce clear and consistent messages in education campaigns. LG entities have scope to tailor the WasteSorted toolkit to meet their local community's needs. However, the State still has a key role to play to ensure that entities work together to produce consistent, evidence-based and regular waste communications throughout WA, and to promote a shared responsibility to avoid and recover more waste.

LG adoption of the 3-bin FOGO system is limited, even though reprocessing organic material can significantly increase waste recovery

Few LG entities had the capacity to quickly adopt a 3-bin FOGO system to improve organic waste recovery following the introduction of the Waste Strategy 2030. In Australia, around 50% of household waste is food and garden organic materials, which presents an opportunity to recover a substantial proportion of waste. Only 3 of the 33 Perth and Peel LG entities were using the 3-bin FOGO system by the end of 2019. Another 8 had an existing 2-bin waste and recycling system but agreed to adopt the 3-bin FOGO system in 2020. The Waste Strategy 2030 identified using the better practice 3-bin FOGO system as a priority for Perth and Peel LG entities to increase the recovery of household waste.

According to a combination of WALGA and LG entity feedback, and media reports, over half of the Perth and Peel LG entities were unlikely to swap to the 3-bin FOGO system in 2020. Of these LG entities:

- 7 already provided a 3-bin garden organic (GO) system but did not collect food scraps, which can contribute around 35% of household waste. Many of these LG entities used State funding from the Better Bins program from 2014 to 2019, which offered a contribution of \$30 per household to LG entities to purchase a new third bin for either GO or FOGO. The transition from GO to FOGO does not require purchase of an additional kerbside bin, although it is likely to require a change in processing system for the organic waste, including to manage additional odour and leachate. In addition, LG entities may need to apply to DWER for a change in waste facility licensing
- the remaining 15 had a 2-bin system, but preferred to use an alternative waste treatment facility to remove organic waste from the waste bin or had plans to send waste to a waste-to-energy facility when commissioned. For example:
 - a Perth and Peel LG entity advised us it chose to retain a 2-bin system, instead investing in behaviour change to reduce bin contamination and encourage home composting, and would eventually use a waste-to-energy facility to dispose of residual waste, consistent with the previous waste strategy. The LG entity indicated that it can take 2 to 5 years to review an existing approach, engage with the community on options that consider environmental, social and economic outcomes, conduct technical assessments, and prioritise resources for significant investment in infrastructure and community education
 - a MRC LG entity stated that it would retain a 2-bin system, as landfill was cheaper, compared to the high costs to implement a 3-bin FOGO system and transport materials to recycling markets (including compost to potential agricultural markets that are rare in their region).

Some of these LG entities raised additional concerns about swapping to the 3-bin FOGO system, which included:

- limited ability to produce compost that meets Australian Standards due to high levels of contamination

- high costs to ratepayers for bin roll-out and ongoing education as the State's contribution does not fully cover these costs
- lack of space for additional bins in commercial areas and multiple unit dwellings
- future commitments to provide a set minimum annual tonnage of waste that includes recyclable organic material to a waste-to-energy facility.

Experience from other Australian states and within WA has shown that adoption of the 3-bin FOGO system increases the chance that LG entities will meet the Waste Strategy 2030 targets more easily.

The abundance of food and garden organic waste makes adoption of the 3-bin FOGO system an effective method to minimise waste and re-use valuable materials. In 2017, the Australian Government's *National Food Waste Strategy* estimated that \$20 billion was lost to the Australian economy each year through food waste. Australian households lost over \$2,200 a year by wasting food and the commercial and industrial sectors wasted 2.2 million tonnes of food each year. According to Sustainability Victoria¹¹, LG entities using a 3-bin GO system can recover 40-55% of waste while those using a 3-bin FOGO system can recover 60-70%.

Once suitable infrastructure for collection, transport and processing, and end markets are available, the recovery of FOGO will significantly reduce waste to landfill. It will also help further protect the environment by freeing up landfill space, and reducing landfill emissions of methane and carbon dioxide from decomposing organic waste. Using the 3-bin FOGO system to separate organic waste to produce compost can provide fertiliser to enrich the nutrient poor soils of WA and will keep valuable resources productive in the circular economy.

The State first encouraged LG entities to adopt a 3-bin system through its Better Bins pilot program in 2014. The program offered LG entities a total of \$7.5 million to contribute to the purchase of bins that met the State's *Better Bins Kerbside Collection Program Guidelines*, which included flexibility to collect GO or FOGO. However, LG entities applied for less than half the funds because they regarded the extra costs required to change as prohibitive. The State introduced the revised Better Bins Plus: Go FOGO program in 2020 following the launch of the Waste Strategy 2030, which contributes up to \$25 per household. It offers further funding of \$20 million over 6 years to encourage LG entities across WA to swap to the 3-bin FOGO system, separating both food and garden organics. This does not cover the full costs to support effective rollout of a 3-bin FOGO system.

¹¹ Sustainability Victoria (2017). Changing Behaviours to Improve the Rollout of a New Kerbside Organics Collection Service.

Case study 1 – Implementing the 3-bin FOGO system produces recovery rates of over 60%

In 2013, Bunbury adopted the 3-bin FOGO system. Bunbury recovered around 60% of their kerbside waste in 2016-17 to 2017-19 (Figure 3). This was much higher than the average recovery rate of 27% for all regional LG entities in 2017-18. It was also higher than the 48% average recovery rate for the 7 Perth and Peel LG entities using a 3-bin GO system in 2017-18.

The SMRC and one of its members, Melville, commenced a trial of the 3-bin FOGO system in October 2017 (Figure 6). Over 6,700 households received new rubbish and organic waste bins, and regular and consistent education materials across a range of media. Residents could also attend community information sessions and provide feedback about the new service. SMRC conducted 2 rounds of bin tagging in February-March and April-June 2018. Community Waste Education Officers inspected household bins each week for 6 weeks, recording bin contamination. Sampled bins received a 'happy' or 'sad' tag. This provided residents with feedback on their performance and how to improve (Figure 5).



Source: OAG

Figure 6: Melville's 3-bin FOGO system is publicised on their waste collection trucks

At the end of the trial:

- recycling bin contamination decreased from 25% to 14%
- organic bin contamination was 2.6%, which is similar to rates achieved in other states and low enough to consider composting options if the FOGO is pre-sorted to remove glass, plastic and other contaminants
- Melville reported a waste recovery rate of 64% in 2019, which came close to meeting the Waste Strategy 2030 target of 65%.

Following the successful trial, Melville and 2 other SMRC member LG entities – City of Fremantle and Town of East Fremantle – all introduced the 3-bin FOGO system in 2019.

LG entities rarely use financial incentives to avoid or reduce waste

Most LG entities charge fixed annual rates regardless of the amount and type of waste households and commercial premises produce, giving no financial incentives for individual households and commercial premises to reduce their waste. We identified only 2 examples

of LG entities that provide significant incentives for the community to minimise waste. Bunbury charges ratepayers less for smaller size bins and Cambridge does not charge for the yellow-lid recycling bins. Some LG entities offer other less significant incentives to avoid waste production, such as:

- subsidies for purchase of home compost buckets
- community workshops on sustainable living, composting and worm farming.

A Parliamentary inquiry into the *Waste and Recycling Industry in Australia* in 2018 noted that LG entities could introduce weight-based charging to allow ratepayers to reduce their rates. For example, South Korea introduced a weight-based 'pay-as-you-throw' charge on food waste in 2013. The country now recycles over 95% of its food waste, up from less than 2% in 1995. LG entities can consider financial incentives to increase waste recovery and further contribute to meeting the State's waste recovery targets.

Bulk waste can be recycled but often ends up in landfill

A large proportion of bulk vergeside waste is recyclable (Figure 7), yet LG entities often take it straight to landfill. We found variation across the LG entities, with some making significant efforts to recycle and some using landfill to dispose of all their bulk waste. For example, in 2018-19, Bunbury did not recycle its collected vergeside bulk waste. In the same year, Belmont reported recovering 31% of 3,562 tonnes of vergeside bulk waste by recycling steel, cardboard, wood, green waste and mattresses. Recycling these materials, along with timber and electronic goods, presents an opportunity for LG entities to increase their recovery rates and is better for the environment.



Source: OAG

Figure 7: Bulk bin and vergeside bulk waste collection by LG entities

In the absence of State guidance, WALGA developed *Better Practice Vergeside Collection Guidelines* and suggested that LG entities should aim to recycle 50% of collected bulk waste. All 33 Perth and Peel LG entities offered bulk vergeside or bulk bin waste collections in 2017-18. However of these:

- 6 sent all their bulk waste to landfill
- only 4 recycled 50% or more and met WALGA's target
- the remaining 23 recycled an average of 20% of collected bulk waste.

All 5 MRCs offered bulk waste collections and around two-thirds of the smaller regional LG entities offered drop-off facilities instead. Recycling bulk rubbish will assist all LG entities to

contribute to the Waste Strategy 2030 recovery targets and reduce the amount of waste that ends up in landfill.

The State has made good progress since 2016, but LG entities need more support to address local challenges

The State Government has implemented many of the recommendations from our 2016 waste audit but action in 2 critical areas is still required

The Waste Authority and DWER have addressed 13 of the 16 recommendations from our 2016 audit *Western Australian Waste Strategy: Rethinking Waste* (Appendix 2). However, 2 important recommendations, to prepare a State waste infrastructure plan, and better practice guidance for waste managers, have commenced but are not complete. There is 1 additional outstanding recommendation relating to unlicensed waste operators, which is outside the scope of this audit. LG entities require both infrastructure planning and comprehensive guidance if they are to deliver better practice waste management across the State.

Some of the 13 key recommendations from our 2016 audit (Appendix 2) that they have addressed include:

- clarifying State entity roles and responsibilities
- consulting with industry, government and the community to develop a new Waste Strategy 2030 and Action Plan, and waste reforms on proposed changes to legislation, waste derived materials and a waste levy review
- preparing a template and guidance for LG entities to prepare waste plans
- amending regulations to require LG entities to provide annual waste and recycling data
- establishing the Waste Reform Advisory Group as an avenue for DWER to share progress with industry stakeholders
- preparing a *Waste Data Strategy* to improve data collection, verification and reporting.

The State Government's Waste Strategy 2030 and associated Action Plan provide clarification of government, industry and community responsibilities to manage waste, improve resource recovery and protect the environment. They outline 8 headline strategies and the types of activities needed to achieve these targets. Six of these headline strategies are directly linked to our audit scope and involve the delivery of waste services by LG entities and their communities. The State has already made progress on many of these activities (Table 5).

	Headline strategy	Examples of activities complete or underway	Examples of actions delayed
1	Develop statewide communications to support consistent messaging on waste avoidance, resource recovery and appropriate waste disposal behaviours	WasteSorted toolkit for consistent messaging to support Perth and Peel LG entities to adopt a 3-bin FOGO system prepared Own Your Impact guidance on key waste strategy initiatives commenced and behaviour change campaign planned Preparation of Better Bins Plus FOGO guidelines	
2	LG adoption of a 3-bin kerbside waste	Waste Authority position statement on FOGO published	

Headline strategy		Examples of activities complete or underway	Examples of actions delayed
	collection system to separate FOGO	Funding contribution to encourage LG entities to adopt the 3-bin FOGO system	
3	Sustainable government procurement practices to encourage use of recycled products and support local market development	Options and priority actions to reduce waste through State government procurement identified	Not within the scope of this audit
4	LG waste plans	Waste plan template, support and guidance developed Supporting LG entities to meet waste plan requirements	
5	Review the scope and application of the waste levy	Consultation commenced for waste levy review Improvements to the regulatory framework for waste underway Illegal dumping strategies implemented	Not within the scope of this audit
6	Strategic review of WA's waste infrastructure by 2020	Early planning to develop guidance for waste infrastructure planning	State waste infrastructure audit State waste infrastructure plan
7	Review and update State and LG data collection and reporting systems	<i>Waste Data Strategy</i> published Developing an online system for mandatory reporting of waste and recycling data Annual MyCouncil waste data reporting publicly available	
8	Provide funding to promote the recovery of resources from waste	Funding program to support waste avoidance and recovery established	Reprocessing feasibility research

Source: OAG from information supplied by DWER

Table 5: Progress towards meeting headline strategies and examples of activities completed, underway or delayed as at December 2019

Local challenges and a lack of tailored support from State entities prevent LG entities from recovering more waste

Local challenges and lack of suitable support from State entities restricts LG entities' ability to improve waste recovery. Local waste infrastructure and markets for recycled products are inadequate, with paper and cardboard, glass and mixed plastics typically sent interstate or overseas for reprocessing. Even though there are some local facilities to process organic waste, producing and selling mulch and compost that meet Australian Standards is difficult due to high levels of contamination. Many of these issues can be resolved through understanding local environments, the consistent education previously outlined, and support to develop local reprocessing facilities and end markets that are willing to use recycled products. This can be as simple as LG entities re-using organic materials collected in their own parks and gardens.

Individual LG entities look to the Waste Authority, DWER and DLGSC for guidance on waste management, and integrated planning and reporting, but described limited opportunity to interact with staff from these State entities. Each of the 7 LG entities audited provided positive feedback that DWER had requested more input from LG entities in the last 2 years. Specifically, their feedback was sought to develop the Waste Strategy 2030 and LG waste plan templates, and on a series of consultation papers to help reform waste management in WA. However, the LG entities suggested that State entities could:

- acquire a better understanding of local challenges by visiting individual LG entities
- offer additional guidance on how to deliver more effective and efficient services and construct better practice infrastructure to manage all types of waste
- help to plan and establish appropriate local reprocessing facilities and markets for recyclable materials.

Additional State support will give individual LG entities more confidence that their waste management decisions are better aligned to State recovery priorities and targets.

Some LG entities are not adhering to the State's waste management priorities, particularly those in regional areas. Some of the issues and challenges that prevent LG entities from adopting these priorities are highlighted by regional LG entities and stakeholders that provide waste services and include:

- managing littering with limited staff – 1 LG entity employs 4 full-time staff to collect litter and empty public bins within its main town site, but has only 1 person to attend to other waste-related work. Many regional LG entities may only have 1 part-time staff member responsible for managing waste
- lack of experienced staff and high staff turnover – 1 LG entity reported difficulties in attracting and retaining staff with appropriate technical knowledge. A waste contractor servicing another LG stated that they needed 3 to 5 staff to sort recycling, but had an extremely high turnover of 18 staff over a 6 month period in 2019
- no or limited local reprocessing industries – 1 waste contractor over 500 km from Perth advised us that it disposed of mixed plastics and glass to landfill, only sending separated plastics with recycling labels '1' (PET – polyethylene terephthalate, such as drink bottles) and '2' (HDPE – high density polyethylene, such as milk and shampoo containers) and paper and cardboard to Perth, from where it continues interstate or overseas
- lack of suitable local waste infrastructure – many landfills may lack suitable environmental controls and be unmanned with no ability to monitor waste dropped off or collect gate fees to help fund landfill management and eventual landfill closure and rehabilitation.

Without adequate engagement with individual LG entities, particularly in regional areas that generate 35% of the State's waste, State entities may not fully understand the local challenges LG entities face or be able to provide appropriate support.

Managing illegal dumping and disposing of tyres are 2 problems that most LG entities face. Illegal dumping requires valuable resources to collect and dispose of the waste, which can be hazardous (Figure 8). Even when the waste is dumped on private land or land managed by State entities, the LG entities can be left to collect and dispose of the waste. Tyres can be recycled but as they are costly to transport and recycle, they often ended up in landfill (Figure 9). LG entities require guidance on how best to manage these problematic wastes to prevent environmental harm and maximise resource recovery.



Source: OAG

Figure 8: Examples of illegal dumping of residential, and construction and demolition wastes that LG entities were responsible for collecting and delivering to landfill. Clockwise from top left in the Perth hills, Floreat, Broome and Kalgoorlie-Boulder

Case study 2 – Tyre stockpiling

All LG entities need to manage used tyres. While tyres can be recycled, they often end up in landfill. Until 2018, one regional landfill accepted tyres from local households for free and from commercial clients for a small charge of \$44/tonne for local waste.

However, this created a problem as the LG believed that many were brought in from outside the region to dispose at low cost. Despite recording most of the tyres as waste originating within their area, the LG noticed that the volume of tyres was too high based on the number of residents.



Source: LG entity

Figure 9: Tyre stockpile at the landfill

Due to tyres being disposed by locals and people from outside the region, a large tyre stockpile grew (Figure 9), creating a significant fire risk.

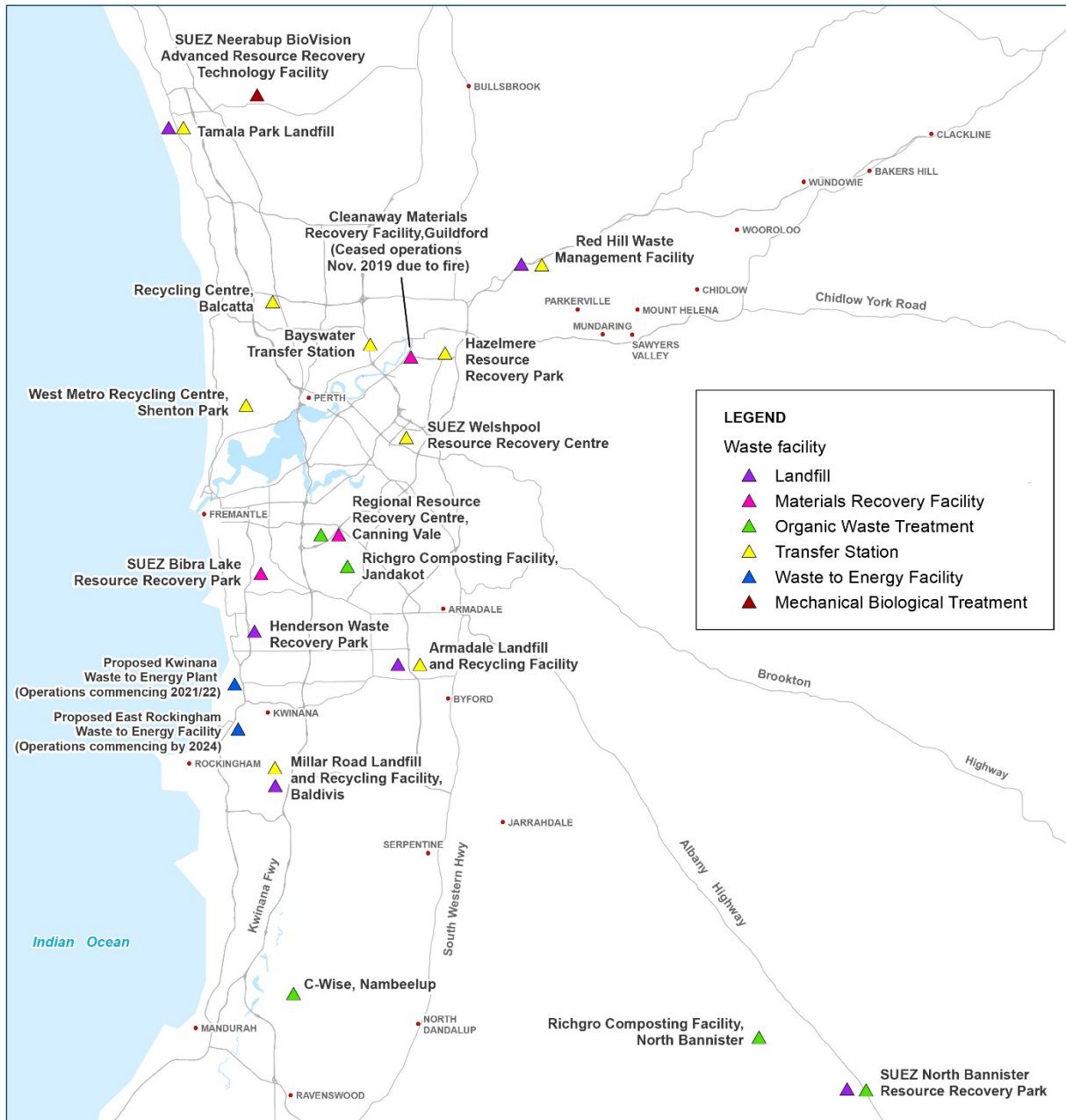
To address this risk, the LG prepared a *Tyre Management Plan* and put them in a separate area at the landfill. This newly constructed tyre 'monofil' will allow them to access the tyres if recycling becomes a viable option in the future. They also began tackling the problem by using a tyre declaration form to ask where tyres come from, increasing fees for all tyre disposal, whether local or not, and limiting the numbers of free tyres disposed per household each year.

Landfill levy funds can be used for waste related projects

The State and LG entities can use reserve landfill levy funds to progress waste management projects and programs. The WARR Account receives 25% of the landfill levy from metropolitan waste for use on waste avoidance and recovery activities. However, the amount of expenditure each year had been lower than the annual amount of receipts from the landfill levy. Consequently, the unspent balance had increased from \$30 million in June 2016 to \$40 million by June 2019. The Waste Authority can use the unspent WARR Account reserves to fund waste-related projects. DWER has advised (Appendix 3) its current approach to these funds includes an allocation to support the October 2020 implementation of the container deposit scheme.

The Waste Authority directs WARR Account funds to help implement the Action Plan and improve waste recovery. It funded Community and Industry Engagement grants to industry, government and the community for projects to better manage, reduce, reuse and recycle waste, and for monitoring or measuring waste. The Waste Authority advised us that it received 90 applications in May-June 2019, requesting over \$24 million for its \$2.3 million budget for these grants. The number of applications highlights the interest in developing local waste solutions.






Appendix 1: Map of key Perth and Peel waste infrastructure at December 2019



Source: DWER

Appendix 2: DWER and Waste Authority progress to address 2016 audit recommendations

Recommendation	Progress	Status
Clarify and communicate the roles of each agency	SLA, Governance Charter, Waste Strategy 2030 and Action Plan clarify agency roles	✓
Finalise a Service Level Agreement (SLA) and governance framework	SLA and Governance Charter finalised	✓
Develop business cases and implementation plans for all projects funded by the WARR Account	Business cases developed for all externally funded projects from 2016-17	✓
Provide regular and comprehensive progress reporting for all annual business plans, associated projects and financial expenditure to the Waste Authority board	Quarterly internal reporting between DWER and Waste Authority	✓
Promote key messages to the community that focus on waste avoidance and minimisation	WasteSorted toolkit prepared in 2018 and updated in 2019. Own Your Impact behaviour change website launched in 2018	<p>✓</p> <p>This audit identified additional action needed to encourage LG entities to promote consistent key messages</p>
Identify and agree on solutions that will enhance the accuracy of waste and recycling data to report against Waste Strategy targets	WARR Regulations amendments gazetted July 2019 to require LG entities that provide waste services to supply annual waste data to DWER. <i>Waste Data Strategy</i> released November 2019	<p>✓</p> <p>This audit identified additional action needed to address <i>Waste Data Strategy</i> recommendations</p>
Ensure data used to report against the major regional centre MSW target is representative of regional WA	MRCs defined in Waste Strategy 2030 and set a benchmark for smaller regional LG entities	✓
Publicly report annual progress towards achieving all metropolitan and regional Waste Strategy targets	Waste Authority annual report and business plan detail progress	✓
Improve accountability and transparency of WARR Account fund expenditure	Waste Authority and DWER established a Risk and Performance Committee to monitor WARR Account funded projects	✓
Improve ways to bring together metropolitan and regional agencies, LG, industry and community representatives to assist knowledge exchange and strategic waste planning	Waste Reform Advisory Group established, DWER public consultations to improve programs and strategies	✓

Recommendation	Progress	Status
Complete a State waste and recycling infrastructure plan to ensure alignment with the State planning framework	State Waste Infrastructure Plan not started. DWER progressing waste infrastructure planning with the DPLH	
Provide good practice guidance on waste avoidance and minimisation, managing problem wastes and managing waste and recycling facilities	Waste Strategy 2030 and Action Plan list developing guidance to improve waste management. Some guidance was prepared, for example: waste plans, FOGO, waste-to-energy position statement. However more are needed	 Action needed to produce guidance on problem wastes and managing waste facilities
Assess the need for the State Government to adopt a policy of using recycled products as a way of encouraging community use of recycled products	Assessment of need and opportunities for procurement to increase recycled product use conducted	
Ensure Waste Strategy implementation includes planning and projects to improve resource recovery in regional WA	Community and Industry Engagement Program grants provided to regional recipients. MRCs to prepare waste plans	 This audit identified additional action needed to support regional LG entities
Ensure licensed waste operators provide annual waste and recycling data	WARR Regulations amendments gazetted July 2019	
Conduct risk assessments of unlicensed waste operators and determine what steps need to be taken to ensure they conform with legislative requirements	Legislative reform proposed. DWER and Department of Fire and Emergency Services conducted aerial surveys in June 2019 to target industries that present environmental risks	 Action needed to assess unlicensed waste operators, monitor landfill levy avoidance and manage waste stockpiling

Source: OAG analysis of information supplied by DWER and Waste Authority

Appendix 3: Full responses from audited State and local government entities

Waste Authority

The Waste Authority is pleased to provide comments on this report. It has been working cooperatively with the Department of Water and Environmental Regulation (DWER) in the implementation of the *Waste Avoidance and Resource Recovery Strategy 2030* and the associated Action Plans and Business Plans, including supporting LG's waste services.

The Waste Authority, with support from DWER, is continuing to develop better practice guidance for LG entities to manage key waste streams and problematic wastes. This includes provision of updated position statements on kerbside waste collection, FOGO, the waste hierarchy and waste to energy as per Action 1.3. It also supports the Household Hazardous Waste Program (HHW) including funding and guidelines for the design and operation of HHW facilities.

The Waste Authority is undertaking further work on better practice guidance documents for FOGO, kerbside services, vergeside (bulk) waste collection and drop-off services to support LG entities to adopt better practice waste management.

Both the Waste Authority and DWER continue to engage on a frequent basis with individual metropolitan and regional LG entities to help understand, identify and address their local challenges, risks and waste management requirements.

The Waste Authority has developed and is implementing the *Waste Data Strategy*.

The Waste Authority is supporting LG entities with materials that explain the cost and environmental benefits of adopting a 3-bin FOGO system. A series of FOGO implementation forums were conducted in April – June 2020 to support LG entities in planning, community education and implementation of FOGO services and a FOGO Reference Group with LG and industry representatives is working with the Waste Authority and DWER to develop a practical FOGO Rollout Plan.

The Waste Authority is supporting LG through the Better Bins program and Better Bins Plus: Go FOGO program with a combined investment of \$4.6 million in 2020-21 to support LG entities with the transition costs. This commitment to the Better Bins Plus: Go FOGO funding program will continue at a similar rate of investment over the next 5 years in alignment with the Waste Strategy's Headline Strategy 2 for a consistent 3-bin kerbside collection system, including FOGO, by all LG entities in the Perth and Peel region by 2025.

The Waste Authority and DWER are working closely together to engage with LG entities to develop consistent and regular statewide messages, education and behaviour change programs on waste avoidance, resource recovery and appropriate waste disposal behaviours in alignment with Waste Strategy targets. The Waste Authority's WasteSorted Toolkit provides LG entities with communications materials and is continually revised and updated to meet the various and developing needs of LG. In addition, the Waste Authority recognise the value of direct household education and feedback provided through a bin tagging program to improve household waste sorting behaviour and this program continues to receive Waste Authority funding.

Department of Water and Environmental Regulation

The Department of Water and Environmental Regulation (DWER) continues to work closely with the Waste Authority and key stakeholders in implementing the Waste Strategy 2030, including supporting LG waste services.

As committed to in the current business plan, DWER is undertaking a State waste infrastructure audit and needs analysis in 2020-21 to determine waste infrastructure required to meet the objectives of the Waste Strategy. Following this audit, State waste infrastructure planning will address infrastructure options and technologies to meet the Waste Strategy targets, land use planning objectives, and the approvals processes for environmental, planning and licence approvals. The overall objective is to guide infrastructure development to support the Waste Strategy targets, including that all waste should be managed or disposed of to better practice facilities by 2030.

DWER supports the Waste Authority to develop better practice guidance to manage key waste streams and problematic wastes. This has included the provision of updated position statements on kerbside waste collection, FOGO, the waste hierarchy, waste to energy and support for the HHW Program. Further work is underway to identify better practice guidance documents for FOGO, kerbside services, vergeside (bulk) waste collection and drop-off services to support LG entities to adopt better practice waste management. Market development research is being undertaken in 2020-21 for sustainable markets for products such as compost and soil conditioner derived from FOGO processing.

DWER has developed an online reporting system, training support and guidance to facilitate provision of required waste and recycling data. Improved data will better enable measurement and evaluation of waste management programs and initiatives, and ensure resources are directed where they are most effective.

The Waste Authority and DWER are working closely together to engage with LG entities to develop consistent and regular statewide messages, education and behaviour change programs on waste avoidance, resource recovery and appropriate waste disposal behaviours in alignment with Waste Strategy targets.

DWER is supporting LG to align their waste planning processes with the Waste Strategy. Plans are due 31 March 2021 and annual reporting will commence from 1 October 2022.

Combined Waste Authority and Department of Water and Environmental Regulation response

Specific responses to recommendations

Recommendation 1 a) – supported

The Waste Authority and DWER are working closely together and supporting LG in Western Australia.

DWER is undertaking a State waste infrastructure audit and needs analysis as per Action 6.1 in the current Waste Strategy Action Plan to determine the waste infrastructure required throughout the State to meet the objectives of the Waste Strategy. This will be undertaken in 2020-21. Following this audit, the State Waste infrastructure planning will be undertaken to develop a plan which addresses the different infrastructure options and technologies available to meet the Waste Strategy, land use planning objectives, and the approvals processes for environmental, planning and licence approvals. This is Action 6.3 in the current Action Plan.

This work will be followed by work (as per Action 6.4 and 6.5) with the Department for Planning, Lands and Heritage (DPLH) to develop the planning instruments and guidance for LG and developers for appropriate siting and design of waste facilities including landfills. This DWER work undertaken in consultation with DPLH, LG and the waste industry as part of Headline Strategy 6 in the Waste Strategy will ensure a State waste infrastructure plan in alignment with the State planning framework. The overall objective is to guide future

infrastructure development to support the Waste Strategy targets, including that all waste should be managed or disposed of to better practice facilities by 2030.

Recommendation 1 b) – supported

DWER is aware of the need and committed to identifying local metropolitan and regional reprocessing feasibility research, taking into account known standards, technologies, viabilities and potential barriers for facilities and markets for recyclable materials, particularly for organic materials. This is being undertaken as part of Action 6.2 in the current Action Plan. Specific market development research is being undertaken in 2020-21 for sustainable markets for the products such as compost and soil conditioner, derived from FOGO processing as per Action 2.1.3.

Recommendation 1 c) – supported

The Waste Authority, with support from DWER, is continuing to develop better practice guidance for LG entities to manage key waste streams and problematic wastes. This includes provision of updated position statements on kerbside waste collection, FOGO, the waste hierarchy and waste to energy as per Action 1.3. It also supports the Household Hazardous Waste Program through a funding agreement with WALGA and work is planned to review, update and publish guidelines for the design and operation of facilities for the acceptance and storage of HHW (Action 1.2). A social media education campaign targeting HHW disposal was implemented in 2020 using the WasteSorted toolkit in response to fire incidents. An intensive behaviour change campaign will launch in August 2020 targeting bin contamination and hazardous waste disposal.

The current Action Plan includes commitments for further work to identify better practice guidance documents for FOGO, kerbside services, vergeside (bulk) waste collection and drop-off services to support LG to adopt better practice waste management (Action 1.4) and to support LG entities to develop and implement LG waste plans that align with the Waste Strategy, as per Headline Strategy 4.

Recommendation 1 d) – supported

Both the Waste Authority and DWER continue to engage on a frequent basis with individual metropolitan and regional LG entities to help understand, identify and address their local challenges, risks and waste management requirements.

Recommendation 2 a) – supported

The Waste Authority has developed and is implementing the *Waste Data Strategy* (Action 7.1). DWER has developed an online reporting system (Action 7.2.2), available from 1 July 2020, to enable liable entities to report the required waste and recycling data, as per Regulation 18C of the WARR Regulations (Part 3A, introduced in June 2019). DWER is providing additional training support and guidance for all liable entities (including LG entities) on data collection, reporting and quality control requirements (Action 7.2.1) throughout 2020-21.

Recommendation 2 b) – supported

DWER is supporting LG entities in developing and implementing appropriate controls to minimise the risk of inaccurate data supplied by contractors by providing clear guidance on waste data reporting requirements through the gazettal of CEO notices and approved procedures, and publishing a range of guidance documents; providing additional training through webinars; and developing an annual audit program to review methods of collecting and calculating waste and recycling data.

Recommendation 3 – supported

The Waste Authority is supporting LG entities with materials that explain the cost and environmental benefits of adopting a 3-bin FOGO system. The Eastern Metropolitan Regional Council has developed a business modelling tool that has been made freely available to all LG entities to use, allowing them to change variables such as bin size, collection frequency and facilities available to model different costs and benefits of implementing the 3 bin FOGO system. A series of FOGO implementation forums were conducted in April – June 2020 to support LG entities in planning, community education, and implementation of FOGO services. A FOGO Reference Group with LG and industry representatives working with the Waste Authority and DWER in supporting a highly practical FOGO Rollout Plan (Action 2.2). Composting guidelines have been recently released by DWER for consultation.

The Waste Authority is supporting LG entities through the Better Bins program (Action 2.1.1) and Better Bins Plus: Go FOGO program (Action 2.1.2), with a combined investment of \$4.6 million in 2020-21 to support LG entities. Funding for the program in 2020-21 will see the delivery of FOGO to 323,780 (32%) households in Perth and Peel. This commitment Better Bins Plus: Go FOGO funding program will continue at a similar rate of investment over the next 5 years in alignment with the Waste Strategy's Headline Strategy 2 for a consistent 3-bin kerbside collection system, including FOGO, by all LG entities in the Perth and Peel region by 2025.

FOGO market research is underway in 2020-21 regarding the sustainability of the market for FOGO-derived materials including compost (Action 2.1.3).

Recommendation 4 – supported

The Waste Authority and DWER are working closely together to engage with LG entities to develop consistent and regular statewide messages, education and behaviour change programs on waste avoidance, resource recovery and appropriate waste disposal behaviours in alignment with Waste Strategy targets (Headline Strategy 1).

The Waste Authority's WasteSorted Toolkit was launched in 2018, and in 2 years has built up a substantial folio of branded artwork and templates freely available for use and co-branding by LG entities. The WasteSorted toolkit provides LG entities with a wide range of materials on appropriate waste disposal and is continually revised and updated to meet the various and developing needs of LG entities. Use of the WasteSorted toolkit is strongly encouraged to ensure consistent communications and funding agreements require local governments to use, or be in alignment with, the WasteSorted Toolkit. The most likely time for a LG entity to transition to the WasteSorted Toolkit is when communicating a change in services. Of the 19 local governments that have applied for Better Bins Plus: Go FOGO funding in 2020, 14 have indicated they will use WasteSorted Toolkit elements.

A State-wide behaviour campaign will launch in late August 2020 targeting waste avoidance, improved recycling outcomes and increased recovery. This will provide regular and consistent waste communications throughout WA. LG entities and regional councils will be provided with the campaign materials to help amplify the messages. DWER works closely with WALGA and stakeholders through the Consistent Communications Collective.

In addition, the Waste Authority recognise the value of direct household education and feedback provided through a bin tagging program to improve household waste sorting behaviour. This program (delivered by WALGA) receives Waste Authority funding and it will reach a minimum of 10,000 households in 2020-21.

Recommendation 5 – supported

The Waste Authority and DWER are working closely together and LG entities in WA by providing guidance for LG entities to collect and publicly report consistent waste and recovery financial and performance data.

The Waste Authority has developed and is implementing the *Waste Data Strategy* (Action 7.1). DWER has developed an online reporting system (Action 7.2.2), available from 1 July 2020, to enable liable entities to report the required waste and recycling data, as per Regulation 18C of the WARR Regulations (Part 3A, introduced in June 2019). These amendments aim to improve the accuracy, timeliness and completeness of waste and recycling data available to the community and all stakeholders. Improved data will better enable measurement and evaluation of waste management programs and initiatives, and ensure resources are directed where they can be most effective. DWER is providing additional training support and guidance for all liable entities (including LG entities) on data collection, reporting and quality control requirements (Action 7.2.1) throughout 2020-21.

In April 2019, DLGSC published waste data reported by LG on the MyCouncil website. It is intended this continue on an annual basis.

In addition, Headline Strategy 4 of the Waste Strategy focusses on LG waste plans to align LG waste planning processes with the Waste Strategy. DWER has led extensive consultative work with local governments, WALGA and the DLGSC on aligning LG waste planning processes with the Waste Strategy through waste plans. In consultation with these bodies, DWER developed a resource kit, including a template LG waste plan and guidance documents, to ensure consistency with the Waste Strategy. These templates have been completed and distributed. Following a November 2019 notice from the Director General of the DWER under section 40 of the WARR Act, LG entities and regional councils located in the Perth and Peel regions and major regional centres are now required to include a waste plan within their plans for the future, and submit waste plans to DWER by March 2021.

Response in relation to the WARR Account

The State Government must consider any expenditure from the WARR reserves as part of the State budget process. The Waste Authority itself is not able to determine use of WARR Account reserves.

Section 79(1) of the *Waste Avoidance and Resource Recovery Act 2007* establishes that a special account, namely the Waste Avoidance and Resource Recovery (WARR) Account, is to be established under the *Financial Management Act 2006*.

Section 79(3A) and 79(3B) of the WARR Act requires that the Minister is to credit not less than 25% of the forecast levy amount to the Department's operating account under section 73(4) as is specified by the Minister for that financial year. The operating budget associated with the WARR Account (also referred to as expense limit) is linked to the forecast levy amount for each financial year, as stated in the State's Budget Papers.

Section 80 of the WARR Act provides the Minister with powers to allocate funding to initiatives that are additional to those approved as part of the annual Business Plan prepared by the Waste Authority.

The Waste Authority business cases for expenditure are developed based on the Waste Strategy priorities, resource requirements and Minister's decisions under section 80, in line with the operating budget (or expense limit) for that financial year (in 2019-20 and in 2020-21, the expense limit was set at \$20.75 million and this is consistent for the next four out-years). It is not open to the Waste Authority to prepare a business plan in excess of the approved expense limit or to allocate funds unless part of through the business plan approved by the Minister.

The WARR Account reserve contains historic under-expenditure from previous years. It is not part of the WARR Account expense limit. In 2019-20, the expense limit expenditure was 99.8% of the approved budget. The WARR Account reserves are not accessible without approval from the Expenditure Review Committee through the State budget process.

The State Government committed the WARR Account reserve to underwrite the container deposit scheme commencing on 1 October 2020 and to provide investment in waste processing infrastructure to support COAG's decision to ban the export of certain wastes. An Expression of Interest process has recently been undertaken in July and August 2020 for paper and cardboard processing, and for processing plastics and tyres in WA.

Department of Local Government, Sport and Cultural Industries

The Local Government Act 1995

The *Local Government Act 1995* (the Act) has been under review. This comprehensive legislative reform is intended to create a modern Act that provides a framework for “agile, smart and inclusive” LG, delivering better for communities.

A review panel, chaired by David Michael MLA, met from November 2019 until May 2020, and drew on best practice models in Australia and overseas and closely considered the extensive feedback from the consultation conducted by DLGSC. The report can be found at <https://www.dlgsc.wa.gov.au/departments/publications/publication/local-governmentreview-panel-final-report>

A focal point for the reform is Integrated Planning and Reporting, as the central mechanism for aligning strategy and operations.

Western Australia Local Government: Community Wellbeing Indicators Study (yet to be released)

The above study has been undertaken in a timely manner to contribute to the review of the Act. The study provides the opportunity to consider not just the content of the community outcome indicators being used by LG entities, but also the quality of them. This aspect of the study will assist deliberations on how the Act can empower and support LG to better capture and measure the outcomes that matter to communities, as a core element of strategic planning.

This can include planning at locality (sub-district), district (City, Town, or Shire), and regional (multiple contiguous districts) levels, and also includes the potential to better link with desired State-wide outcomes.

Furthermore, improvements in measurement practice and State-local linkages are not just a matter for legislation. While the Act provides the overarching intent and framework, implementation will need to be supported through non-statutory means. To that end, the study can also shed light on the training, tools, and resources likely to be required to enable a successful and smooth transition to the new Act.

Local Government Waste Plans

The Waste Strategy focusses on LG waste plans to align LG waste planning processes with the Waste Strategy. LG entities are the primary managers of Municipal Solid Waste (MSW) generated in WA and improving LG waste management practices will make a significant impact on the amount of waste materials recovered.

DWER has led extensive consultative work with DLGSC, LG entities and WALGA on aligning LG waste planning processes with the Waste Strategy through waste plans.

Following this consultation, DWER developed and distributed a resource kit, including a template LG waste plan and guidance documents, to ensure consistency with the Waste Strategy.

Following a November 2019 notice from the Director General of the DWER under section 40 of the WARR Act, LG entities and regional councils located in the Perth and Peel regions and major regional centres are now required to include a waste plan within their plans for the future, and submit waste plans to DWER by March 2021.

Waste plans require LG entities to identify:

- how they are performing in relation to the Waste Strategy objectives
- the major waste management challenges for the LG entity
- strategic waste and resource recovery infrastructure needs.

DWER is supporting LG entities in preparing, reviewing, and reporting on their waste plans. LG entities will be required to report on the implementation of their waste plans on an annual basis.

DLGSC will continue to support DWER on the requirement to develop and submit local waste plans and will investigate incorporation within LG Integrated Planning and Reporting, under the Act.

WA State Local Government Partnership Agreement

Minister Stephan Dawson MLA attended the WA State Local Government Partnership Agreement - Leadership Group meeting on 30 October 2019 and discussed the *Waste Avoidance and Resource Recovery Strategy 2030*. An Agreement for waste is intended to sit under the Partnership.

Specific responses to recommendation 5

Supported. DLGSC notes and agrees that improvement to some LG waste management data is required. It supports:

- a) the Waste Authority's *Waste Data Strategy*, and
- b) DWER's online reporting system and the new mandatory reporting requirements together with training support and guidance for LG entities on data collection, reporting and quality control requirements that will increase accuracy, timeliness, and completeness of data over time.

In collaboration with DWER, LG waste data has been uploaded to the MyCouncil website to provide increased transparency around LG waste and recycling performance and encourage benchmarking and improved performance. The 2018-19 data has been uploaded and launched. DLGSC will continue to work with the Waste Authority and DWER in this area.

City of Belmont

The City of Belmont appreciated the opportunity to participate in and contribute to the audit and supports the outcomes and recommendations within it.

The identification of the need for a State waste infrastructure plan and further development in reprocessing facilities for recyclables and market opportunities for organic materials from FOGO processing are key areas of interest for the City, and we were pleased to see reference to these initiatives in the report.

The City is currently on track with the development of a draft Waste Plan, which will be endorsed by Council and submitted to the Chief Executive Officer of DWER by 31 March 2021. Identified within the implementation plan of the City's draft Waste Plan are the following tasks to improve the effective delivery of waste management services and meet the targets of the Waste Strategy 2030:

- introduction of a 3-bin kerbside collection system by 2025
- continue to improve data collection with an emphasis on illegal dumping
- improve awareness and the benefits of source separation for customers through behavioural change programs and consistent messaging.

The City is interested in participating in a future audit to assist with measuring the change and effectiveness of current initiatives underway.

City of Bunbury

The City of Bunbury accepts the findings and recommendations within the report.

City of Kalgoorlie-Boulder

The City of Kalgoorlie-Boulder's waste services are delivered effectively and meet our community's expectations, however we acknowledge that there is work to be done to meet the State's waste diversion targets. Although we support the principle of waste diversion, my primary responsibility as CEO is to deliver cost-effective waste services, which meet the needs of our community and local businesses.

The City broadly supports the recommendations of the audit and in particular the development of a State waste infrastructure plan. We believe this is vital in identifying market-based solutions to improve waste diversion at a regional scale. This is of particular significance to regional communities where population sizes and transport distances impede cost-effective resource recovery at a local level. With these necessary enabling arrangements in place, LG will be better placed to drive the waste diversion objectives sought by the State.

We look forward to working collaboratively with the State Government to improve our progress towards the State's waste diversion targets.

City of Kwinana

Overall, the City of Kwinana commends the report and its comprehensive assessment of LG waste management as it relates to an evolving and challenging state, national and international waste and recycling context.

Importantly, the report highlights the change in the State Waste Strategy from 2012 to 2019 and the slow response from LG to mobilise and respond accordingly. Whilst this may be the case in most LG authorities, this has not been the case with the City of Kwinana. The City is one of few LG authorities that prepared its own Waste Management Strategy based on a comprehensive multi criteria analysis, having regard to the State Waste Strategy 2012 targets and objectives, and should be commended for doing so. It is on this basis that the City entered into a legal agreement to supply a minimum tonnage of Municipal Solid Waste (MSW) to Energy from Waste.

Using this approach the City is forecast to meet the recovery targets of the State Waste Strategy 2012 by late 2021. In changing the [State's] approach as adopted in the State Waste Strategy 2030, the Audit fails to recognise that LG entities are not able to be as agile and responsive to changing strategic directions. The City of Kwinana, like all LG entities, is accountable to its ratepayers, and as such, needs to ensure that the community is not

financially disadvantaged by a conflict in timing between City of Kwinana contractual agreements and changes in State Government strategy. As advised in previous submissions to the Waste Strategy 2030, the City of Kwinana is of the view that the State has developed a one size fits all approach in its adopted Strategy. Whilst this has been done to drive a united vision for waste management in WA, it does not recognise the market conditions, industry context and the variability in the LG's capability and legal commitments with respect to delivering waste services to meet the needs of each local community.

The City of Kwinana is currently in the process of reviewing its current Waste Management Strategy to accord with the requirement to prepare and submit a Waste Plan by March 2021. It is proposed that considerations and actions arising for the City of Kwinana from the Audit findings be incorporated into the City's Waste Plan preparation. This will ensure that the City's approach is integrated, transparent and will enable more effective monitoring of actions.

It is agreed that a greater range of considerations is required by the State Government to foster, develop and support emerging best practice across Perth and its regions and within each LG entity. This comes in many forms and requires the State to allocate funding already collected from LG to be reinvested into meaningful industry wide solutions that would support the objective of the State Waste Strategy 2030. This is fundamental to achieving the objectives of the State Waste Strategy.

Specific responses to recommendations 1 to 4

The City of Kwinana supports the above recommendations but requests that the recommendations go further in terms of the State's transparency and accountability in regards to its funds. In order to achieve the objectives of the Waste Strategy 2030, investment in solutions to currently unviable recovery options, domestic reprocessing technology and infrastructure, and market development for recovered material products must be strategically prioritised and supported with the funding that has already been levied.

It is recommended that the approach that is prepared by the State seek to take a tailored approach where possible to ensure that there is some flexibility and adaptability for each LG entity without compromising the objectives.

Specific responses to recommendations 6 to 9

It should be noted that LG entities are required to prepare Waste Plans by March 2021. Once prepared, these are to be made publicly available for all to access and view. The City is currently in the process of undertaking its modelling of waste management options having regard to existing commitments and the Waste Strategy 2030 objectives and targets. This modelling will inform the preparation of the City's Waste Plan and in turn the existing contracts that are currently in place and subject to review over the next 5 years. It should be noted, that whilst consideration may be given to the inclusion of performance measures in contracts to recover waste, the State needs to be mindful that this will only be achieved at an additional cost, a cost that will be borne by residents. Consideration needs to be given to the rate of change and all the costs associated with the changes, across the waste service and in turn the impact on the community, particularly given the current COVID 19 crisis where the community is already impacted financially through loss of employment. The City needs to have regard to its ability to subsidise changes to the waste services and the additional cost burden of such changes over the short term and longer term.

The City is also in the process of appointing a consultant to prepare a Waste Education Plan to support the City's successful implementation of the Waste Plan, which will include consideration of a number of mechanisms to help the community make informed choices around consumables and waste creation. The City already offers incentives in the form of providing larger recycling bins at no cost to encourage greater recycling. Whilst there may be

further consideration of other options, this needs to be determined in the context of the total costs of providing the waste service.

City of Melville

Thank you for this opportunity to participate in the Performance Audit. The City of Melville was mentioned a number of times positively and the report highlighted some of the essential priorities required to meet the State's long term targets like the lack of local, regional and state-wide waste planning and infrastructure, tailored support for LG entities and the lack of consistency between LG entities of not adopting best practice waste management and resource recovery.

Specific responses to recommendations

Recommendation 1

Supported. These are the main concerns for most LG entities in WA and should be the priority of the state departments to ensure that best practice sustainable resource recovery options and the creation of local processing infrastructure and markets are available in the very near future. They will need to be at a reasonable rate and a realistic distance or valuable renewable material will end up in landfills or at an energy from waste facility at the detriment to the environment. The risks have been well known for a long time and will require a direct approach with enforcing producer responsibilities to reduce waste and include recyclable products in their manufacturing processes and final products.

Recommendation 2

Supported. Considering 80% of LG entities contract out their kerbside collections, amending the *Local Government Act 1995* to include compulsory reporting and validation of reportable figures will ensure contractors and LG entities are held accountable to recovery targets.

Recommendation 3

Supported. The cost of a best practise resource recovery system is high for many LG entities but it should not be if local markets and infrastructure are created and once a majority of LG entities move to a consistent collection, economies of scale are created. Those that opt for a consistent best practice should be further financially incentivised to do so and those choosing not to be subjected to higher landfill levies/gate fees. Historically LG entities have never been a collective and require either enforcement via the *Local Government Act 1995*, regulations or to be financially motivated to make a dramatic change.

Recommendation 4

Supported. The City utilised the well-known brand Recycle Right as a consistent source of information and messaging for both the 3-bin FOGO trial and rollout in 2019 and decided to continue to use it even after the WasteSorted Toolkit was developed to remain consistent. Unsure as to why another was created as the existing source of information should have been built on.

Recommendations 5 and 6

Supported. The City provides via its Annual Report these figures however agree more clarity, transparency and with increased frequencies of updates are required and the feedback is more than welcome to assist with improving our service delivery. Our DWER Waste Plans will be required to pass through Council and therefore become public knowledge however as above, will need to be on the City website as a minimum.

Recommendation 8

Supported. Best practise requires continuous improvement. Prior to the 2019 bulk verge collection, the City engaged a disposal contractor for their bulk verge waste and managed to divert 35% from landfill on top of the mattresses, e-Waste and fridges with no change to the gate fee. Environmental benefits of any Tender or Contract should always be ahead of price.

Recommendation 9

Supported. The City investigated financial incentives but as we were moving to a full City-wide FOGO rollout and the learnings from the trial, decided to offer non-financial incentives to ensure the 3-bin system was used effectively and contamination was reduced to those residents unable to manage their own waste with the bin sizes supplied. We offered a free 360L recycling bin upgrade, still collected fortnightly and a needs assessment for their red-lidded 140L general waste bin and if successful (no food waste or recycling, just a capacity issue) we swapped their smaller bin for a larger 240L red-lidded general waste bin that was also still collected fortnightly. Although contradictory to waste reduction and avoidance behaviour, it offered other options free of charge for the residents to correctly use the 3-bin system.

The City is also investigating a cloth nappy rebate scheme of 50% of the set up purchase price and cheaper FOGO bins for commercial properties in an attempt to reduce waste and food waste to landfill but these won't be in effect prior to the report. State government rebates on cloth nappies as well as compostable caddy liners for example or even incentives for producers to increase their availability and make them cheaper to purchase would also be of benefit to both LG entities and their residents. If a \$150 cloth nappy rebate is available and only 200 residents take up the option at the cost of \$20,000 for example, it will remove approximately 1,200,000 nappies from landfill.

A subsidised load of FOGO compost to the residents would be a classic example of closing the loop and a circular economy.

The Performance Audit has identified the main shortcomings in the WA waste industry. These shortcomings are required to be actioned quickly to maintain the current acute awareness of waste and to achieve a sustainable best practice resource recovery before it becomes cheaper and simpler to ignore all tiers on the waste hierarchy and move straight to disposal or energy recovery and if that occurs, it will be near impossible to re-educate the residents or get LG entities to change their direction.

Mindarie Regional Council

Many thanks for the opportunity to respond to the recommendations on the audit.

Shire of Broome

The Shire of Broome was pleased to be invited to participate in the audit. The Shire is at a critical point in relation to waste and recycling with the imminent closure of the local landfill facility and the conclusion of the kerbside collection contract. The audit report provides an excellent opportunity for improvement in the design and operation of the new facility and waste/ recycling operations in general. The findings within the report will assist with the production of the Shires Waste Strategy, which will inform the direction of operations.

The Shire of Broome is in the process of:

- developing a local waste strategy that will include both the Kimberley Regional Strategy and the State Waste Strategy 2012. Expected completion and release early 2021

- commencing the writing of a new kerbside collection contract. This may include the Kimberley regions. Expected implementation 2023-2024. It has been identified that the current contract is limited in KPI's for the contractor
- implementing an education programme to improve knowledge of recycling and the effects of illegal dumping. Timeframe ongoing
- commencing composting trials to determine product viability. Completion 2021
- discussing the 3-bin FOGO system. Green waste is already delivered to the site in vast quantities, mulched and when there is excess given to the public for free. Organic waste is being investigated although preliminary results are showing a limited market and high processing costs
- the Shire offers 2 weekends for free domestic drop off to the waste facility to encourage pre cyclone clean-up, pensioners are offered a skip bin delivered once a year to their property. Recycling is encouraged with these activities
- investigating reuse options for bulk recyclables within the Kimberley. Completion mid 2021
- areas of current bulk recycling include: concrete crushing, steel crushing and removal to Perth, tyre removal to Perth, mulching of green waste/wood. These bulk activities are costly.

Glossary

Action Plan	<i>Waste Avoidance and Resource Recovery Strategy 2030 Action Plan</i>
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environmental Regulation
FOGO	food organics and garden organics
GO	garden organics
HHW	household hazardous waste
LG	local government
MRC	major regional centre
MRF	material recovery facility
MSW	municipal solid waste
RC	regional council
SLA	service level agreement
WA	Western Australia
WALGA	Western Australian Local Government Association
WARR Account	Waste Avoidance and Resource Recovery Account
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2007</i>
WARR Regulations	Waste Avoidance and Resource Recovery Regulations 2008
Waste Strategy 2012	<i>Western Australian Waste Strategy – Creating the Right Environment</i>
Waste Strategy 2030	<i>Waste Avoidance and Resource Recovery Strategy 2030</i>

Auditor General's 2020-21 reports

Number	Title	Date tabled
2	Opinion on Ministerial Notification – Agriculture Digital Connectivity Report	30 July 2020
1	Working with Children Checks – Managing Compliance	15 July 2020

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