

Morawa Waste Plan

|2024-2034

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Executive Overview

In December 2018 Australia's Environment Ministers and the President of the Australian Local Government Association in December 2018 agreed a National Waste Policy. The policy provides a framework for collective national action on waste management, recycling, and resource recovery to 2030.

This subsequently triggered State Governments to develop their own Waste Plans/Strategies and related targets with the WA State Government's Waste Avoidance and Resource Recovery Strategy 2030 (WA Waste Strategy) being released in February 2019. One key action point in the WA Waste Strategy is to "Implement local government waste plans which align local government waste planning processes with the waste strategy."

The Waste Avoidance and Resource Recovery Act 2007 gives the Chief Executive Officer of the Department of Water and Environmental Regulation powers to require local governments to include within its plan for the future a waste plan.

Phase 1 of the Waste Plan Roll Out targeted the Perth and Peel, and major regional centres. Phase 2 of the implementation may require all other local governments to develop Waste Plans. The Shire of Morawa is being proactive in developing its own waste plan, ahead of it being a legislative requirement.

The Morawa Waste Plan 2024-2034 aligns with the 2022 Shire of Morawa Strategic Community Plan. The two key aspirations that relate to the management of waste are "Occupy a Safe and Healthy Living Space" and "Be Future Focused In All We Do". There is also close alignment with the strategic focus on ensuring the Shire and its assets are well resourced and sustainable, and embracing recycling and renewable energy.

In order to achieve its Waste Objectives of the Waste Plan, the Shire has developed the following 5 key Focus Areas:

1. Reducing Food Waste
2. Reduce Packaging Waste
3. Boost Recycling
4. Managing the Refuse Facility
5. Waste Education

An action plan has been developed that identifies actions for each focus area, the resources needed and expected timelines.



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Background

The 2018 National Waste Policy: Less waste, more resources was agreed by Australia's Environment Ministers and the President of the Australian Local Government Association in December 2018. It set a new unified direction for waste and recycling in Australia. The policy provides a framework for collective, national action on waste management, recycling, and resource recovery to 2030.

The National Action Plan then presents targets and actions to implement the National Waste Policy and guide investment and national efforts to 2030 and beyond. This subsequently triggered State Governments to develop their own Waste Plans/Strategies and related targets.

The WA State Governments Waste Avoidance and Resource Recovery Strategy 2030 (WA Waste Strategy) was released on 10 February 2019 and sets ambitious targets for Western Australia to become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste.

One key action point in the WA Waste Strategy is to "Implement local government waste plans which align local government waste planning processes with the waste strategy."

Section 40(4) of the Waste Avoidance and Resource Recovery Act 2007 (WARR Act) gives the Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (the Department) powers to require local governments to include within its plan for the future a waste plan outlining how waste services provided by the local government will be managed to achieve consistency with the WA Waste Strategy in the protection of human health and the environment.

Waste plans will inform and be informed by the strategic planning activities which local governments undertake under the requirements of the Local Government Act 1995 (LG Act) (s.1.4). Waste plans are the mechanism through which local government and regional councils can strategically work towards achieving consistency with the objectives and targets of the WA Waste Strategy.

Phase 1 of the Waste Plan Roll Out targeted the Perth and Peel, and major regional centres. Phase 2 of the implementation may require all other local governments to develop Waste Plans by a currently unspecified date. As such the Shire of Morawa is being proactive in developing its own waste plan, ahead of it being a legislative requirement.

The Shire has had a variety of Waste Management reports undertaken in recent years:

- Morawa and Perenjori Regional Council Group Strategic Waste Management Plan 2014-2018 (Dallywater Consulting June 2014)
- Morawa and Perenjori Landfill Site Review and Assessment (ASK Waste Management Consultancy November 2016)
- Morawa and Perenjori Waste Action Plan 2018-2023 (Ask Waste Management Consultancy May 2017)
- Waste Management Review and Options Report (Talis Consultants January 2020)
- Landfill Post-Closure Plan (Talis Consultants October 2024)

Data and insights from these reports have been utilized to develop this Waste Management Plan



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Strategic Alignment

In 2022 the Shire of Morawa adopted its revised Strategic Community Plan with a revised vision accompanied by community aspirations and focus areas. The two key aspirations that align to the management of waste are “Occupy a Safe and Healthy Living Space” and “Be Future Focused In All We Do” with a particular close alignment with the strategic focus on ensuring the Shire and its assets are well resourced and sustainable, and embracing recycling and renewable energy.

This focus on sustainability and embracing environmentally friendly options has triggered the Shire to develop a Waste Plan in alignment with the National Waste Policy, National Action Plan, and the State Governments Waste Avoidance and Resource Recovery Strategy 2030 (WA Waste Strategy). Although the Shire is not legislated to develop a Waste Plan at this stage, it is part of the Shire’s future focused mindset and a service delivery focus to ensure waste in the District is being well managed.

Given the State’s Waste Plan roll out does not currently extend to Morawa, the Shire is not obliged to use the Government templates and submit the adopted plan for endorsement by the Department CEO, however, to align with best practice the Shire has aligned this plan with the requirements of the Department and the Waste Strategy as far as practicable given its rural Local Government setting has yet to be well considered in State planning.

The National Waste Policy and the National Action Plan presents the below national targets to drive Australia towards its waste goals:

1. Ban the export of waste plastic, paper, glass and tyres, commencing in the second half of 2020
2. Reduce total waste generated in Australia by 10% per person by 2030
3. 80% average resource recovery rate from all waste streams following the waste hierarchy by 2030
4. Significantly increase the use of recycled content by governments and industry
5. Phase out problematic and unnecessary plastics by 2025
6. Halve the amount of organic waste sent to landfill by 2030
7. Make comprehensive, economy-wide and timely data publicly available to support better consumer, investment and policy decisions

These targets are supported by the establishment of an appropriate circular economy and associated principles. Across Australia for every 10,000 tonnes of waste recycled, 9.2 jobs are created and each year \$2.9 billion is raised through sales of recovered materials.

The circular economy principles for waste are:

1. Avoid waste
2. Improve resource recovery
3. Increase use of recycled material and build demand and markets for recycled products
4. Better manage material flows to benefit human health, the environment and the economy
5. Improve information to support innovation, guide investment and enable informed consumer decisions.



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In 2014-15, WA's recycling rate was 48 per cent, which was lower than other mainland states and on top of this figures also showed WA had the highest rate of waste generation. As such the WA Waste Strategy attempts to build on and update the first Western Australian Waste Strategy: Creating the Right Environment published in 2012, to make significant transformations aimed at driving Western Australia (WA) towards becoming a circular economy, with a greater focus on avoidance as well as moving to targets for material recovery and environmental protection in addition to landfill diversion. A circular economy means transitioning from the current take-make-use and dispose system to a material efficiency approach which aims to keep products, components and materials at their highest utility and value for as long as possible.

In order to achieve this goal the WA Waste Strategy has set out the below key strategic elements:

VISION

Western Australia will become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste.

OBJECTIVES AND TARGETS

Avoid

Western Australians generate less waste.

- 2025 – 10% reduction in waste generation per capita
- 2030 – 20% reduction in waste generation per capita

Recover

Western Australians recover more value and resources from waste.

- 2025 – Increase material recovery to 70%
- 2030 – Increase material recovery to 75%
- From 2020 – Recover energy only from residual waste

Protect

Western Australians protect the environment by managing waste responsibly.

- 2030 – No more than 15% of waste generated in Perth and Peel regions is landfilled.
- 2030 – All waste is managed and/or disposed to better practice facilities

Five key principles, aligned with legislation, guide the thinking behind the WA Waste Strategy and have been identified as key drivers of the State Governments future decision making, these are:

- *Shared Responsibility and Partnership – Owning Your Impact - The state's environmental resources belong to all Western Australians and we all have a role to play in protecting them.*
- *Innovation and Growth - Western Australia will encourage, embrace and celebrate innovation in all forms that enables and expands waste management capacity and know-how.*



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- *Better Practice - Western Australians will pursue better practice approaches in waste management that take into account the full costs, benefits and impacts of waste management decisions.*
- *Waste as a Resource - Western Australians will adopt and implement the waste hierarchy, avoiding the generation of waste where possible, maximising the recovery of waste that is generated, and protecting the environment from the impacts of disposal.*
- *Intergenerational Equity - Western Australians will make waste management decisions which ensure the health, diversity and productivity of our environment is maintained or enhanced for the benefit of future generations.*

When looking at the Avoid and Recover objective areas the State Government places emphasis on the waste materials that, by weight, currently make up more than 90 per cent of the waste Western Australian's generate:

- Construction and demolition materials: concrete, asphalt, rubble, bricks, sand and clean fill
- Organics: food organics and garden organics
- Metals: steel, non-ferrous metals, packaging, and containers
- Paper and cardboard: office paper, newspaper, and magazines
- Glass: packaging and containers
- Plastics: packaging and containers
- Textiles: clothing and other fabric-based materials.

A number of these items are relevant to the Shire and its Waste Management Plan and are prevalent across the District.

The implementation of the State Government's waste levy will continue to play a key function as a State legislative lever and provides a disincentive to dispose of waste and generates revenue to fund programs which support the WA Waste Strategy. Reflecting this, a key point in the WA Waste Strategy is for the scope and application of the waste levy to be reviewed to ensure it meets the outlined objectives and to establish a schedule of future waste levy rates. From a Shire perspective, there is some risk that the Waste Levy may expand to cover rural and regional landfills, which could have a significant cost impact on the Shire's operations.



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Current Situation

Morawa currently has a very basic level of maturity in terms of waste management with very little data recorded and most of the communities generated waste going direct to Landfill.

Morawa utilizes a single receptacle mixed waste townsite kerbside collection system generating an average of 333 tons of waste per annum over the last two financial years (2021/2022, 2022/2023) with a 0% landfill diversion rate.

The Jones Lake Landfill Facility (Morawa Landfill) is run by the Shire of Morawa with minimal waste monitoring and break down statistics but an estimated disposal rate of 200-250 tons of waste per annum with a waste recovery rate of approximately 2%.

The Morawa Landfill is approximately 4 hectares (ha) in size and 2.5km south of Morawa town centre. This Site is registered with the Department of water and Environmental Regulation (DWER) as a Category 89 prescribed premises under Part V of the Environment Protection Act 1986 (EP Act).

The Morawa Landfill was previously owned and operated by Main Roads WA and was landfilled with no particular plan. There are limited records available regarding the history of operations at the Site prior to the Shire's ownership. Therefore, it is uncertain if trenching or other excavation was undertaken prior to filling the landfill, or if the waste deposit is a land raise style of filling. Surrounding ground levels indicate that the waste deposit is currently relatively shallow increasing from ground level to approximately 4m thick in the southern part of the landfill.

Reviewing the Shire's recent domestic kerbside collection data, there has been minimal fluctuations across the financial years (2018/19: 350t, 2020/21: 328t, and 2021/22: 339t), indicating that the amount of waste landfilled has remained fairly consistent across this time period. The Shire's population in 2018 was considered to be 698 people, which equates to a waste generation rate of approximately 1.14t per person.

The Morawa Landfill Post Closure Plan (Appendix 1) models the remaining useful life of the Morawa Landfill based on resident population projections and the per capita waste generation rate as noted above, assuming there is no introduction of significant waste diversion programs that would diminish the tonnages delivered to Morawa Landfill for disposal.

It is estimated that there is approximately 13,000m³ of void space remaining at the Morawa Landfill, which is equivalent to approximately 8 years of landfill lifespan. Previous reporting within the Waste Management Review and Options Report (Talis, 2020) indicated that there was 6 years of remaining void space in 2020. This calculation assumed a higher rate of void consumption due to a higher population and subsequently higher waste projections. However, the Shire's population has dropped almost 13% from 2016 to 2021, and this is reflected in the updated waste projections. In addition, the most recent 2023 analysis was undertaken using a drone, providing a more accurate reflection of the existing landform.

Given the Shire and Community, wants to see population growth, the only viable mechanism to extend the life of the existing Morawa Landfill beyond 2030 is via the introduction of waste diversion programs to reduce the communities waste generation rate.



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Waste Action Plan

The Shire of Morawa's Waste Action Plan will be driven by the holistic vision of the State to become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste but given Morawa's remote location and minimal waste management activity in recent history, the Shire has developed three clear and realistic objectives to guide its focus areas and activities over the next 10 years.

Objective 1: A holistic reduction in kerbside waste generation by 20% by 2030 – reducing per capita waste generation to 0.912t per annum.

Objective 2: Increase the landfill diversion rate to 5% - implementing measures to ensure waste received at the landfill is transferred or recycled.

Objective 3: Extend the life of the Morawa Landfill to 2034.

In order to achieve its Waste Objectives the Shire will focus on 5 key areas:

1. Reducing Food Waste

A key factor in the Nation Waste Action Plan and the WA Waste Strategy's Avoid Objective is the improved management of Food Waste. With the Federal Government developing a National Food Waste Strategy, in 2017, committed to halving Australia's food waste by 2030.

The strategy contributes toward global action on reducing food waste by aligning with Sustainable Development Goal 12—ensure sustainable consumption and production patterns—in the United Nations Transforming our world: 2030 Agenda for Sustainable Development. It also helps give effect to Australia's obligations under the United Nations.

2. Reduce Packaging Waste

While the use of recycled content in packaging is increasing, most packaging is still made from virgin materials and finite resources. A lot of recyclable packaging is still disposed of to landfill. This can have significant impacts on the environment.

According to the Australian Government's Department of Climate Change, Energy, the Environment and Water, in Australia in 2020–21:

- 6.74 million tonnes of packaging was placed on market (POM)
- 86% of packaging POM had good recyclability
- 35% of packaging had good recyclability but was not collected or reprocessed
- 44% of packaging POM was disposed to landfill.

If all landfilled packaging had been recycled in 2020–21, Australia could have reduced national greenhouse gas emissions by about 2.2 million tons. This is equal to removing 740,000 cars from the road per year.



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Even a small Shire district such as Morawa still utilizes a considerable amount of packaging, with packaging materials making up a considerable portion of the residential kerbside waste stream.

3. Boost Recycling

Whilst the introduction of kerbside recycling so far from a materials recovery facility, is unrealistic in terms of its cost impact, the community can find other methods to reuse and recycle items to maximise their usage and reduce the number of new items heading to landfill.

4. Managing the Refuse Facility

Through better management and future planning the Shire can extend the life of the Morawa Landfill, and also encourage better waste management practices by all users.

5. Waste Education

Good waste management practices help to create a more sustainable future. Informing the community, businesses, and other stakeholders on how best to manage their waste and reduce waste generation is essential to improving waste practices moving forward.



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Focus Area	Action Item	Objective	Cost	Resources	Timeframe	Partners
Manage Shire Refuse Facility	Introduce charges for problem waste types	3		Officer time and communications	Dec-24	
Reduce Packaging Waste	Implement targeted Cardboard recycling	1, 2, 3		Cardboard recycling bins, collection process	Jun-25	Avon Waste, Local Business
Reduce Food Waste	Educate the community in relation to meal planning and food waste reduction	1	\$5,000	Training and educational communications material	Jan-26	
Reduce Packaging Waste	Enforce legislated State bans on single use plastic and other items	1	\$5,000	Extra EHO visits for 2 years to enforce compliance	Jun-26	Local Businesses
Reduce Food Waste	Encourage on site composting	1	\$5,000	Run composting workshops, educate about good composting and provide starter kits	Jun-26	



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Focus Area	Action Item	Objective	Cost	Resources	Timeframe	Partners
Boost Recycling	Promote and support the Container Deposit Scheme	1, 2, 3	\$5,000	Provide bottle and can bins at more locations, support targeted pick up sites, run educational campaigns	Jun-26	Community Shed, Waste Authority
Manage Shire Refuse Facility	Install and manage usage of transfer bins with appropriate site layout and movements	2, 3	\$20,000	Consultant, equipment	Jun-26	
Reduce Food Waste	Champion worm farms	1	\$5,000	Run worm farming workshops, educate about benefits, and provide starter kits	Jun-27	
Manage Shire Refuse Facility	Install fencing around the dumping area to restrict public access to transfer bins	3	\$25,000	Contractor	Jun-27	
Manage Shire Refuse Facility	Undertake a regional		\$10,000		Jun-28	Other Local Governments



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Focus Area	Action Item	Objective	Cost	Resources	Timeframe	Partners
	discussion around the establishment of a regional waste facility and operational requirements					
Boost Recycling	Establish a repair and reuse centre	2	\$5,000	Support a local group or initiative to recycle or repair items that would otherwise go to Landfill	Jun-29	Community Shed
Reduce Packaging Waste	Work with local businesses to encourage procurement and sales that reduce packaging waste	1, 3	Nil		Ongoing	Local Business, Midwest Chamber of Commerce
Boost Recycling	Run annual youth repair clinics - bikes, toys, etc.	2	\$5,000	Bring skills and equipment to town to teach local youth how to repair and recycle	Ongoing	



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Focus Area	Action Item	Objective	Cost	Resources	Timeframe	Partners
Waste Education	Run annual campaigns to encourage better waste management	1, 2, 3	\$500	Communications material and officer time	Ongoing	WA Waste Authority