City of Nedlands

Waste Plan

Part 1 - Services and performance

2.0 Integrated planning and reporting

All local governments plan for the future[1] through the development of strategic community plans and corporate business plans. Waste plans form part of local government integrated planning and reporting as an issue-specific informing strategy.

Table 1: Links between plan for the future and waste management *(Please complete the table, even if the answer is "waste isn't mentioned in our SCP or CBP")*

Strategic Community Plan	
Title:	City of Nedlands Strategic Community Plan 2028
Came into force:	2018
Date of next review:	2028
Waste-related priorities:	No.
Corporate Business Plan	
Title:	City of Nedlands Corporate Business Plan 2013-2017 (Currently using existing plan)
Came into force:	2013
Date of next review:	2017 (Amended plan currently under review)
Waste-related priorities:	No.

[1] 'Plan for the future' means a plan made under section 5.56 of the *Local Government Act 1995* and Division 1 and 3 of Part 5 of the Local Government (Administration) Regulations 1996.

Part 1 - Services and performance

3.0 Avoid

Avoidance of waste generation is the preferred waste management option in the waste hierarchy. This section looks at waste generation rates and the reduction required to contribute to the state's waste generation reduction targets - **2025**: Reduction in MSW generation per capita by 5%, **2030:** Reduction in MSW generation per capita by 10%.

Reviewing this data is a critical element of waste planning as it can show how waste generation has changed, identify potential reasons for changes and indicate areas to target in *Part 2 – Implementation plan* (Table 21).

Table 2: City of Nedlands population, households and waste generation compared with state averages and targets for 2025 and 2030
(Local government to review prefilled data)

	Actual					Targets	
	2014-15 (baseline)	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2024-25**	**2029-30**
Population [1]	23,246	22,250	22,258	22,266		23,562	25,272
Households [1]	8,302	7,946	7,949	7,952		8,415	9,026
Total domestic waste generated [2]	11,301	10,612	11,771	11,164			
Waste generation per capita/year (kg) [2]	486	477	529	501	#DIV/0!	462	438

(1) Source (except 2014-15): Western Australia Tomorrow Population Report No. 11 https://www.dplh.wa.gov.au/information-and-services/land-supply-and-demography/western-australia-tomorrow-population-forecasts. Population for 2014-15 from Western Australia Tomorrow Population Report No. 10. Population for intercensal years extrapolated. Households estimated using 'Average people per households' from 2016 ABS Census Quickstats.

(2) Source: Local Government Census data - domestic waste

Additional comments *(local government to insert any additional comments that may be applicable)*

Part 1 - Services and performance

4.0 Recover

Where waste generation is unavoidable, efforts should be made to maintain the circulation of materials within the economy. Table 3 gives the overall recovery rate for your local government compared to Waste Strategy targets and the state average. This is broken down into the proportion of the recovery which was materials recovery (reuse, reprocessing or recycling) or energy recovery. The Waste Strategy includes a target that from **2020,** energy should only be recovered from residual waste (see *Guidance Document – Table 1* , for more information).

Table 3: City of Nedlands population, households and recovery rate compared with state averages and targets for 2020, 2025 and 2030

(LG to review the pre-filled data and amend/update if necessary. Add additional comments if necessary.)

	2014-15	2015-16	2016-17	2017-18	*2020 target*	*2025 target*	*2030 target*
Population[1]	23,246	22,250	22,258	22,266			
Households[1]	8,302	7,946	7,949	7,952			
Overall recovery (%)[2]	53%	50%	54%	52%	***65%***	***67%***	***70%***
Materials recovery	53%	50%	54%	52%	***>80%***	***>80%***	***>80%***
Energy recovery	0%	0%	0%	0%	***<20%***	***<20%***	***<20%***
Perth metro average[3]	36%	38%	40%	41%			

(1) Source (except 2014-15): Western Australia Tomorrow Population Report No. 11 https://www.dplh.wa.gov.au/information-and-services/land-supply-and-demography/western-australia-tomorrow-population-forecasts. Population for 2014-15 from Western Australia Tomorrow Population Report No. 10. Population for intercensal years extrapolated. Households estimated using 'Average people per households' from 2016 ABS Census Quickstats.

(2) Source: Local Government Census data - domestic

(3) Source: Waste Authority data fact sheets http://www.wasteauthority.wa.gov.au/programs/data/data-fact-sheets/

Additional comments *(local government to insert any additional comments that may be applicable)*

Part 1 - Services and performance

5.0 Protect

Objective 3 of the Waste Strategy is to protect the environment by managing waste responsibly, with targets for achieving better practice, reducing litter and illegal dumping. **By 2030 all waste is managed by and/or disposed to better practice facilities, by 2030 move towards zero illegal dumping and zero littering**.

5.1 Better practice

Adoption of better practice approaches to waste management is an important way in which local government can better protect the environment from the impacts of waste, and contribute to achievement of the targets under objective 3 of the Waste Strategy. See *Guidance Document - 5.0 Better practice, Table 4* for a summary of the Waste Authority's current and planned better practice guidelines.

Table 4: Better practice approaches and programs adopted by the City of Nedlands *(LG to complete the table)*

Waste management activity/service	Waste Authority better practice guideline or program	Date of adoption/ implementation	Comment
Implementation of the 3 bin system	Waste Authority better practice guideline	2006	Implementation of the 240L greenwaste bin achieved. There is a 48%-49% recovery rate compared by 28%-30% recovery from the two bin system prior to 2006.
Implementation of e-waste and mattress recovery	City of Nedlands resource recovery initiative	2010	Resource recovery at source achieves approx 12-15 tonnes of e-waste and mattresses per year from landfill.
Implementation of Hardwaste recovery (through the bulk rubbish collection)	City of Nedlands /Waste Authority program	2015	New bulk collection disposal arrangements have managed to achieve 79%-85% recovery with comparison to 48% recovery rate from landfill (previously the City's hardwaste was landfilled). Further, this arrangement resulted in a decrease of more than 160 tonnes of waste to landfill and a significant reduction in collection and disposal costs.

5.2 Litter

The data in Table 5 was reported by the your local government in the 2017-18 local government census. Additional information to be provided by the local government in Table 6 if available.

Table 5: 2017-18 litter data *(LG to review prefilled and complete the table)*

	Response and comments	
Litter hotspot used on a regular basis for littering in 17-18	Brockway Transfer Station / Brockway Road, Mt Claremont	
What are the main items littered at these hotspots?	General rubbish (blown from transfer station)	
Current measures aimed at contributing towards the zero littering target	City has requested litter management procedure and frequent collection by Transfer Station.	
Estimated cost of cleanup (due to collection, disposal, education, infrastructure and enforcement)	Unknown	(carried out by WMRC)

Source: Local government Census data 2017-18

Additional comments *(local government to insert any additional comments that may be applicable)*
City's annual littering complaints recorded as low.

Table 6: Additional litter information *(LG to complete the table where information is available)*

Is littering increasing or decreasing in your local government authority?	Records show that the number of littering complaints is decreasing.
How were the costs associated with cleaning up litter calculated? Employee time? Dollar value? Both?	Dollar value (contracted out to third party)
Does the city have a litter strategy? If not, what is the ETA for completing one?	No - the City may consider strategy implementation in the future.
Have any of the city's compliance and waste education officers undergone training on litter prevention? If so, what training?	No
What current policies and guidelines does your council enact to prevent litter? E.g. Event planning guidelines on the use of balloons in council facilities and the release of helium balloons; no cigarettes on the beach; no single use plastics at events.	City of Nedlands event Guidelines. Tobacco Products Control Act 2006.
How does your local government measure the effectiveness and impact of programs designed to reduce littering and illegal dumping?	This is measured by the number of complaints received.
Which division/unit/section of your organisation is responsible for litter management/prevention? Waste services? Compliance (e.g. Rangers)? Infrastructure?	Litter management/prevention - Waste Services. Compliance - Rangers
How important is litter management to your organisation? (1 - Not at all important; 5 - Highly important).	It is very important, however City does not have major concerns or issues in relation to littering or illegal dumping on the City's boundary.

5.3 Illegal dumping

The data in Table 7 was reported by your local government in the 2017-18 local government census. Additional information to be provided by the local government in Table 8 if available.

Table 7: 2017-18 Illegal dumping data (LG to review prefilled data and complete the table)

	Response and Comments	
Cost of cleaning up illegally dumped waste during 2017-18	$ 4,286	approx
Sites used on a regular basis for illegal dumping in 2017-18. Where possible, please provide site address/es	(41 complaints received). Addresses are random.	
What are the main items dumped at these sites?	household items and car tyres, mattresses	
Current measures aimed at contributing towards the zero illegal dumping target	Frequent patrolling and investigation of illegal dumping by the City's Rangers in targeted areas.	

Source: Local government Census data 2017-18

Additional comments *(local government to insert any additional comments that may be applicable)*
The City's annual illegal dumping and litter cases are low and are not considered a major concern.

Table 8: Additional illegal dumping information (LG to complete the table where data is available)

Is illegal dumping increasing or decreasing in your local government authority?	Decreasing
How does your local government measure the effectiveness and impact of programs designed to reduce illegal dumping?	By number of complaints
Which division/unit/section of your organization is responsible for illegal dumping management/prevention? Waste services? Compliance (e.g. Rangers)? Infrastructure?	Management/prevention - Waste Services. Compliance - Rangers

Table 9 indicates the type of detailed data local governments may collect to enable better targeted monitoring and enforcement of illegal dumping. Please provide this information here, if available.

Table 9: Detailed illegal dumping data collection by the City of Nedlands *(LG to complete the table if data available)*

Date of data collection:

Waste Type	**# of incidents**	**Total approximate Weight (tonnes)**	**Change from previous year**	**Regulatory notices issued**
C&I				
C&D				
E-waste				
Household waste				
Mulch & green waste				
Scrap metal				
Soil & excavated material				
Hazardous/problem waste				
Other				
TOTAL				

Cleaned up by	**% of total incidents**	**Cleanup costs ($)**
Local government		
Land owner		
Offender		
TOTAL		

Part 1 - Services and performance

6.0 Waste management tools

6.1 Waste services

Local government data relating to the waste collected, recovered and landfilled is presented in Table 10. It is important to review this data when developing*Part 2 – Implementation Plan* , as it can:

- provide an understanding of how different systems are performing (e.g. recovery levels)
- highlight the need for any new collection systems or infrastructure
- identify the timing and capacity of any new collection systems or facilities required to meet the changing needs of local governments.

In working towards alignment with the Waste Strategy, the local government should focus on the materials resources with the greatest potential to support the objectives and targets of the Waste Strategy.

NB: DWER is currently developing a range of better practice guidelines. Better practice rates will need to be updated as the guidelines are released.

Table 10: Significant sources and generators of waste in 2017-18 (LG to review pre-filled data and amend/update if necessary. Add additional comments if necessary)

Service/Sources		Tonnes collected	Tonnes recovered	Recovery rate	Better Practice rate	Target rate 2025	Target rate 2030
Kerbside	mixed waste	4,818	-	45%	%	55% major regional centres 67% Perth and Peel	60% major regional centres 70% Perth and Peel
	comingled recyclables	2,050	1,665				
	green waste	2,674	2,648				
	FOGO	-	-				
Verge side	green waste	798	798	93%	%		
	hard waste	824	710				
Drop-off	mixed waste	-	-	#DIV/0!	%		
	dry recyclables	-	-				
	green waste	-	-				
	hard waste	-	-				
	hazardous waste						
Public place	mixed waste	-	-	#DIV/0!	%		
	comingled recyclables	-	-				
Special event	mixed waste	-	-	#DIV/0!	%		
	comingled recyclables	-	-				
Commercial	mixed waste	963	963	94%	n/a		
	comingled recyclables	512	420				
	paper/cardboard	-	-				
Local government waste	Illegal dumping clean up	2	0	86%	%		
	street sweepings	1000	250				
	roadworks	4815	4724				
	other C&D activities						
	roadside pruning						
	other	230	212				
TOTAL		18,686	12,390	66%			

Source: Local Government Census Data 2017/18

Additional comments *(local government to insert any additional comments that may be applicable)*
Please note illegal dumping clean up is an approximate figure.

Table 11 provides space for the local government to include bin audit information for kerbside waste services, if available. Bin audits can help local governments understand the material composition in kerbside bins, highlight where additional efforts are required to increase performance and assist in planning for future service options such as FOGO collection. **See Appendix for full breakdown of composition categories**

Table 11: Compositional audit data for kerbside waste services (Complete if data is available. Add additional comments if necessary).

General waste bin	
Yield per household (kg/hhl/week)	**9.66**
Per capita (kg/per capita/week)	**3.58**
Audit year	**2018/19**
Composition	**Total %**
Recyclables (paper, cardboard, plastics, steel, aluminium, glass)	10.29
Organics (organics, wood/timber, textiles, earth)	51.07
Hazardous (medical, sanitary/ hygiene, nappies, chemicals, paint, batteries, fluorescent tubes, light bulbs, oil, building material)	4.54
Other (electronic waste, miscellaneous)	34.1

Recycling bin	
Yield per household (kg/hhl/week)	**6.66**
Per capita (kg/per capita/week)	**2.47**
Audit year	**2018/19**
Composition	**Total %**
Recyclables (paper, cardboard, plastics, steel, aluminium, glass)	87.81
Organics (organics, wood/timber, textiles, earth)	1.33
Hazardous (medical, sanitary/ hygiene, nappies, chemicals, paint, batteries, fluorescent tubes, light bulbs, oil, building material)	0
Other (electronic waste, miscellaneous)	10.86

Garden organics or FOGO bin	
Yield per household (kg/hhl/week)	**6.48**
Per capita (kg/per capita/week)	**2.4**
Audit year	**2018/19**
Composition	**Total %**
Recyclables (paper, cardboard, plastics, steel, aluminium, glass)	0.1
Organics (organics, wood/timber, textiles, earth)	99.46
Hazardous (medical, sanitary/ hygiene, nappies, chemicals, paint, batteries, fluorescent tubes, light bulbs, oil, building material)	0
Other (electronic waste, miscellaneous)	0.44

Part 1 - Services and performance

6.0 Waste management tools

6.2 Waste infrastructure

The number, type, capacity and location of key existing local government owned and/or operated waste and resource recovery infrastructure is required to understand the future need for different facility types. **This section is not relevant to local governments that do not own/operate waste facilities.**

Table 12: Current waste and resource recovery infrastructure operated by the local government (LG to complete the table)

Facility name (and licence number if applicable)	Facility Type	Location	Managed by	Licence category and approved production or design capacity	Material type	Service/activity	Remaining Capacity (if applicable)	Anticipated Closure (year)
Other								

Table 13 provides space for local governments to provide information about planned waste and resource recovery infrastructure, if relevant.

Table 13: Planned waste and resource recovery infrastructure (LG to complete the table)

Location	Managed by	Licence category and approved production or design capacity (if known)	Waste type	Service/activity	Estimated operation start date

Additional comments *(local government to insert any additional comments that may be applicable)*
The City of Nedlands does not own or operate any waste infrastructure and no new infrastructure is planned for the foreseeable future.

Part 1 - Services and performance

6.0 Waste management tools

6.3 Policy and procurement

6.3.1 Contracts

Information on your local government's existing waste contracts should be detailed in Table 14. When reviewing services, it is a good opportunity to evaluate how they are performing, opportunities for regional collaboration and to identify any opportunities for improvement, review or renegotiation.

Table 14: Existing waste management contracts (LG to complete the table)

Contractor	Services	Notes/comments
SUEZ	Kerbside waste collection and disposal	Collection and disposal contracts are due to expire on the 2 December 2020. Under the new contract scope and specifications, FOGO collection, processing options and residual disposal option for AWT will be included.
	Kerbside Recycling collection and disposal	
	Kerbside greenwaste collection and disposal	
Westip Management	Bulk collection and disposal - Hardwaste	The City's bulk collection and disposal contract minimum recovery rate for hardwaste stream is 79% (from landfill). Also the City's statistics confirms 100% recovery on the greenwaste stream, 98% e-waste recovery (Processor - total green recycling) and mattresses recovery approximately 65% (EMRC). Further reducing the collection period from eight to six weeks has significantly decreased the opportunity for illegal dumping which has been reflected in the reduced tonnages collected and consequently a reduced cost.
	Bulk collection and disposal - greenwaste, e-waste and mattress	

6.3.2 Waste local laws and policies

Information on your local government's existing local laws, strategies or policies that may complement/support this waste plan and contribute to the Waste Strategy objectives should be detailed in Table 15.

Table 15: Existing waste-related local laws, strategies and policies (LG to complete the table)

Type of local law, strategy or policy	Name of local law, strategy or policy	Came into force	Comments
City of Waste Local Law 2016		2016	City of Nedlands Local Law is the compliance tool to enforce certain action plans in the City's Waste Minimisation Strategy ie contamination using different receptacles for different waste streams.

6.3.3 Land use planning instruments

Information on your local government's existing local planning instruments which contribute to the management of waste should be detailed in Table 16.

Table 16: Existing waste-related land use planning instruments related to waste management (LG to complete the table)

Local Planning Strategy	TITLE:	Local Planning Strategy	
	ENDORSED BY WAPC:	26 September 2017	
	NEXT REVIEW DUE:	2027	
	Is waste considered and reflected in the Local Planning Strategy?		NO
			Please provide details below:
	Does the Local Planning Strategy identify current and future waste facility sites?		**NO**
			Please provide details below: The City of Nedlands does not own or operate any waste infrastructure and no new infrastructure is planned for the foreseeable future.
	Does the Local Planning Strategy identify buffers around existing and/or future sites to avoid land use conflict?		Yes
			City of Nedlands Local Planning Scheme 3 (LPS 3)

Local Planning Scheme	TITLE:	Local Planning Scheme 3 (LPS 3)	
	GAZETTED:	16-Apr-19	
	NEXT REVIEW DUE:	5-10 years	
	Are resource recovery facilities, waste disposal facility and waste storage facility defined as land uses (as per *Planning and Development (Local Planning Schemes) Regulations 2015*) and included in the council Local Planning Scheme zoning table, with either a P/I/D/A/X permissibility?	YES **NO**	**If NO please provide comments below:** Resource recovery centre is defined. Waste disposal facility and waste storage facility are not.
	If these land uses are not defined and not in the zoning table, how does the Scheme deal with such land uses (i.e. is an alternative definition used to that in the *Regulations 2015*? Or are these land uses zoned as "Use not listed")?	**Please provide details below:** These uses would be dealt with as a 'use not listed' if an application was to be placed with the City.	
	Does the Local Planning Scheme identify statutory buffers as Special Control Areas for strategic waste infrastructure facilities to avoid encroachment by incompatible land uses?	**YES** NO **If NO please provide comments below:** A Special Control Area is used for the Subiaco Strategic Water Resource Precinct. Other buffers would be applied if a waste facility was applied for in line with State Planning Policies.	
Local planning policies	TITLE:	Local Planning Scheme 3 - Draft Local Planning Policy Waste Management and Guidelines	
	ADOPTED BY COUNCIL:	TBC	
	RELATIONSHIP TO WASTE STRATEGY OBJECTIVES:	This policy refers to waste management policy for multi dwelling (mixed use) developments. Refer to https://www.nedlands.wa.gov.au/sites/default/files/2019%20PD%20Reports%20-%20PD48.19%20-%20PD56.19%20-%2017%20December.pdf	
	Does the local government have any local policies which relate to the objectives of the Waste Strategy (reduce generation, increase recovery, protect the environment)?	**YES** City of Nedlands Waste Minimisation Strategy and Action Plan 2017-2020 **If YES please provide comments:** The policy details the requirements for waste management and minimisation which are to be considered in the design of any proposed development. The below actions will achieve the City's and state's objectives:- 1. Provide for waste management and minimisation in a manner that protects the environment, with a greater emphasis on higher levels of resource recovery and increased recycling. 2. To minimise the impacts of waste storage and collection facilities on the streetscape, public realm, building entries and the amenity for residents. 3. To allow for occupants to have convenient, safe and equitable access to both waste and recycling facilities on site. 4. To ensure industry best practice waste management design and operation for consistently high quality developments. City of Nedlands Waste Minimisation Strategy action plan refers to improved infrastructure for resource recovery (objective 1 on page 27). Refer to https://www.nedlands.wa.gov.au/sites/default/files/City%20of%20Nedlands%20Wate%20Strategy%202017%20-%202020.pdf.	
Other	TITLE:		
	ADOPTED BY COUNCIL:		
	RELATIONSHIP TO WASTE STRATEGY OBJECTIVES:		

6.3.4 Sustainable procurement

Local governments can be significant consumers whose purchasing decisions and procurement policies can have positive impacts. This section reviews activities relating to procurement of infrastructure, goods and services that avoid waste, promote resource recovery or encourage greater use of recyclable and recycled products. Information on existing sustainable procurement policies or practices that may contribute to the Waste Strategy objectives should be detailed in Table 17.

Table 17: Existing sustainable procurement policies and practices (LG to complete the table)

Sustainable procurement policy or practice	**Date adopted by council**	**Actions implemented** e.g. switching to recycled printer paper	**Alignment with Waste Strategy targets, objectives or focus materials**
Purchasing of Goods and Services - City policy and procedure	2016		The City of Nedlands is committed to sustainable development in the procurement of goods and services and will seek to minimise the social, environmental and economic impacts in procurement decision making.

Additional comments (*local government to insert any additional comments that may be applicable)*

Minimum requirements for all goods and services
1.All goods are environmentally sensitive in manufacture, use and disposal. Preference for products manufactured using minimum amounts of raw materials from a sustainable resource, free from toxic or polluting material, consume minimal energy during production stage, and are designed for ease of recycling, remanufacture or to minimize waste.
2.Preference will be given to locally sourced and/or recycled products, in the event that all other criteria are equal.

Product Specific Requirements:
Specific further requirements and minimum environmental standards have been set for Office Consumables, Office Equipment, Building Fittings and Whitegoods, Lighting, Vehicles, Horticultural, Landscape and Bushland Management and Services and Contracts. These are set out below:

Office Consumables:
Paper (including copier paper, stationery and externally printed publications)
Minimum Requirements:

•Minimum 50% Recycled Content (pre and/or post-consumer waste diverted from landfill), or made from a sustainable resource such as wheat pulp;
•Favour post-consumer recycled products over pre-consumer recycled products;
•Seek to use paper manufactured from Australian waste where cost comparable;
•Manufactured without chlorine bleaching. (Acceptable include Elemental Chlorine Free (ECF), Totally Chlorine Free (TCF) or Process Chlorine Free (PCF);
•Low Environmental Impact Packaging; and
•Paper must be able to be recycled at end of use.

Toilet Paper and Tissue
Minimum Requirements:
•Made from 100% recycled product;
•Made from minimum 50% post-consumer waste; and
•100% Australian made.

Kitchen products
Minimum Requirements:
•Tea and coffee, and related products should be purchased in bulk and involve minimal packaging;
•Fair-trade or Australian-made where appropriate; and
•Purchase of disposable plastic water bottles for use in council meetings is not allowed.

Cleaning Products

Minimum Requirements:
•100% phosphorous free;
•Australian made;
•Recyclable Packaging;
•No known or suspected carcinogens, mutagens or teratogens as listed by the National Industry Chemical Notification and Assessment Scheme (NICNAS);
•No volatile organic compounds; and
•No artificial colour dyes or perfumes.

Toner and Inks for Printing
Minimum Requirements:
•long-life printing drums and toner cartridges;
•Only remanufactured or refilled toner cartridges;
•Seek to use remanufactured or refilled ink cartridges; and
•Assurances from the suppliers of Remanufactured or refilled toner and ink cartridges have no adverse effect on the equipment in which they are used.

Office Equipment:
Computers and other computing equipment

Minimum Requirements:
•Must have energy management systems installed and activated before or on delivery;
•All equipment shall be Energy Star compliant (www.energystar.gov.au);
•Energy Star features must be enabled before or on delivery;
•Minimum 3 star rated against national Energy Star Rating System;
•Must have ability to be reused or recycled when not required by City of Nedlands;
•Seek to have low environmental impact packaging; and
•Seek to dispose of IT equipment in a sustainable manner.Other Office Equipment

Minimum Requirements:
•All equipment shall be Energy Star compliant (www.energystar.gov.au);
•Capacity to operate effectively using recycled paper;
•All equipment shall be double-sided printing capable excluding facsimiles;
•Capacity for photocopiers to scan paper printed on both sides;
•A guarantee that the use of remanufactured or refilled toner or ink cartridges will not void warrantees or decrease reliability of equipment;
•A guarantee that the use of recycled content paper will not void warrantees or decrease reliability of equipment; and
•Seek to have a seven-day clock that allows the equipment to be programmed so that turns off when it isn’t needed at the end of each work day and on weekends.

Horticultural, Landscape and Bushland Management:
Landscaping

Minimum Requirements:

•Plants shall not be purchased for use by the City of Nedlands that are listed as Declared weeds by the Department of Agriculture and Food, listed as Weeds of National Significance (WONS) or if they are on the National Environmental Alert List;
•Minimum 100% recycled content in mulch;
•Soils and Mulches are to be in accordance with Australian Standard 4454-2003: Composts, Soil Conditioners and Mulches; and
•Plants are to be purchased from Nursery and Garden Industry Association Accredited nurseries.

Part 1 - Services and performance

6.0 Waste management tools

6.4 Behaviour change programs and initiatives

Communication and engagement with waste generators and managers underpins many local government waste management activities, and are vital in driving behaviour change needed to achieve the objectives and targets of the Waste Strategy.

Behaviour change programs and initiatives refers to activities that increase awareness, skills and knowledge; provide consistent messaging; help people to use waste infrastructure; and encourage the adoption of specific, positive waste behaviours and attitudes.

Most local governments have existing behaviour change programs and initiatives and it is important to evaluate their effectiveness. This section includes an opportunity for a high level qualitative assessment process to understand what has worked and what has not. The results can be used to inform actions for *Part 2 – Implementation plan (Table 21).*

Information on the local government's existing waste behaviour change programs or initiatives should be detailed in Table 18. This may include participation in Waste Authority funded programs, or programs/initiatives run by the local government.

Table 18: Behaviour change programs and initiatives, including Waste Authority programs and other local government initiatives *(LG to complete the table)*

Local government program/initiative	Description	Outcomes achieved as a result of the program (Qualitative/quantitative)	Evaluation method	What's worked/not worked	Suggested improvements
Community Education - Waste Wise School Education Programme	Provide waste education program to primary schools across the City's boundary. Key objectives of this initiative is to:- 1. Provide an understanding about how waste management affects them and the City; 2. Provide a greater understanding about how to dispose of household waste correctly and the impact when waste is disposed of incorrectly; 3. Provide an understanding about what sustainability means and how they can actively be involved in sustainability (worm farm); and 4. Foster a working relationship between the City and the Schools.	The City of Nedlands is engaging with the younger generation to encourage residents to make recycling a way of life. 'Recycle Right' was the key message for Primary School students, engaging in a range of fun activities coordinated by the City. Full day workshops, Students from years 1 to 6 attended various recycling themed workshops, learning how to reduce waste and form positive habits around recycling practices. Taking part in short, interactive sessions gives students the opportunity to gain in-depth knowledge of effective recycling and waste disposal methods.	School feedback and questions at end of the each session.	Current waste education programme's topics/activities and structure received positive comments from teachers and parents.	Two day workshop instead one day workshop.
Public waste management and resource recovery data	Key objective is to encourage resident's participation in waste minimisation	The City conducts on-going media and publications through community newspapers, Your Voice, Facebook, and other communication channels and annual City's residential waste service brochure.	Census confirmed reduction in total tonnages to landfill.		

Waste management tender documents and contracts	Key objective is to detail the City's commitments to waste minimisation and diversion from landfill	All new waste management contracts require to demonstration resource recovery and reduce waste to landfill.	This requirement is governed by KPI. For example with waste minimisation requirements included in the new bulk rubbish collection contract, hardwaste recovery has increased from 0% to 79%. Previously all hardwaste was landfilled.		FOGO/AWT specifications to be included on the City's upcoming tender.
Support the Keep Australia Beautiful Council	Key objective is to empowers the local schools to inspire an active role in conservation.	Annual school clean-up of City's reserves, parkland and bushland areas.	Collection data is recorded based on number of bags i.e waste and recycling.	This is a very successful event over a number of years.	

Additional comments *(local government to insert any additional comments that may be applicable)*
Please provide comment if your regional council is undertaking the waste education function for your local government.

6.5 Data

Table 19 provides an opportunity to assess existing waste data practices, identify strengths and gaps and consider the kinds of data activities which could be included in the *Part 2 – Implementation Plan* to improve the local government's waste data. It should be completed based on the data/information covered in *Part 1* of this document, as well as the individual experience of the officer/s responsible for collecting and using waste data.

Where 'no', please comment on:

- the kinds of data that is missing, where data gaps exist
- barriers to collecting or accessing adequate data
- the kinds of data collection, analysis or reporting practices that are not currently in place which would assist local government waste management functions.

Table 19: Assessment of waste data (LG to complete the table)

	Please ✓		
	YES	**NO**	**Comment**
Does the local government have access to adequate waste data to complete Part 1 of the waste plan?	**yes**		
Does the local government use waste data when undertaking planning activities for waste projects/programs?	**yes**		
Does the local government have access to adequate waste data for this purpose?	**yes**		

Does the local government use waste data when monitoring or assessing waste projects/programs?	**yes**		
Does the local government have access to adequate waste data for this purpose?	**yes**		
Does the local government use adequate waste data to measure progress toward the targets and objectives of the Waste Strategy?	**yes**		
Does the local government have access to adequate waste data for this purpose?	**yes**		
Does the local government have access to adequate waste data to fulfil annual data reporting obligations under the WARR Regulations? (previously undertaken through the Waste and Recycling Census)	**yes**		
Are there any types of waste data that the local government does not currently collect or have access to that would be helpful/useful?	**yes**		Waste tonnages for Keep Australia Beautiful event. The City intends to collect waste and recycling data statistics for this event in the future.
Are there any ways which local government waste data collection, storage or use could be improved?	**yes**		
Is the data collected by the local government accurate? Are any new strategies needed to improve accuracy?	**yes**		
Does the pre-filled data provided in this template align with the data the local government has? i.e. is this pre-filled data accurate?	**yes**		
Any additional comments?			

Part 1 - Services and performance

7.0 Summary

The purpose of *Part 1* of the waste plan is to consolidate information about current waste management practices, to enable you to assess and identify:
- current waste management performance
- alignment between current waste management practices and the Waste Strategy
- strengths and successes, as well as gaps and opportunities for improvement.

Table 20 provides space to analyse the data and information presented in *Part 1* , and should be used to determine waste management priorities for the short, medium and long term, and translate these priorities into actions in *Part 2 – Implementation plan (Table 21)* .

Table 20: Assessment of current waste management performance and prioritisation of future actions *(Completing this table is optional)*

Waste management achievements (for example, performance/achievement against Waste Strategy targets or objectives or where particular waste management objectives have already been met)	Waste management tender documents and contracts will detail the City's commitments to waste minimisation and diversion from landfill- 1) 3 bin system has been implemented - Kerbside waste, recycling and greenwaste 2) Hardwaste bulk collection recovery has been improved by implementation of new collection and disposal system 3) e-waste and mattresses recycling at source has been increased due to new recovery arrangements implemented - **Achievement** The City of Nedlands is a top waste minimiser (overall 53% recovery) in Western Australian with high diversion rates, low waste costs and strong customer satisfaction. The implementation of the City's Waste Minimisation Strategy and Action Plan has resulted in maintaining fees and charges to ratepayers at the same rate since 2013, despite a significant increase in the State Government's landfill levies. 4) Community engagement and education remains a priority and has resulted in increased diversion. Community perception surveys are undertaken every three to four years (2007, 2010, 2014 and 2016) rated the City's waste management services with a high to very high satisfaction rating (80 percent to 95 percent). A positive relationship with the community is important to the City so the community's contribution to the source separation of waste targets can be met.
Opportunities for improvement (for examples, where performance against Waste Strategy targets or objectives could be improved or where waste management objectives have not been met)	Upgrading the current greenwaste bin service into a food organic bin service and remaining residual waste processing at AWT will increase the City's recovery target over 90%. Our approach is to seek to implement industry practices that consider the most cost-effective outcome for ratepayers while also diverting the maximum percentage of waste from landfill. This initiative is subject to council endorsement.
Priority areas for action in Part 2 – Implementation plan	Ongoing (activities currently under way and/or continuously undertaken)- refer to Waste management achievements (section above).
	Short term (within the next 1-2 years) 1) Evaluating community feedback. 2) City to undertake tender process for the City's waste management services 3) Evaluate options so as to ascertain that residents are receiving the best value for money to sustain competitive waste charges 3) Provide recommendations to the Council for endorsement.
	Medium term (within the next 3-5 years). Upgrade the current greenwaste bin service into a food organic bin service subject to Council endorsement.
	Long term (more than five years) Waste recovery innovations The ability to reach the 65 percent recovery target by 2020 requires continuous improvement of existing waste services and introduction of new innovations. The City will seek a price schedule for FOGO and AWT (residual waste) in the upcoming Waste Management Services tender. The above initiatives will potentially achieve over 90% recovery targets.

Part 2 - Implementation plan

This implementation plan outlines the actions which your local government will take over the next 5+ years to contribute to the achievement of relevant Waste Strategy targets and objectives. It is where the priorities described in the summary (*Part 1 – 7.0 Summary, Table 20*) are

Table 21: Implementation plan

Waste Management Tool	**Action** (OR link to existing local government plan/document that details this activity)	**Is the action new or existing?**	**Detailed actions/sub-actions** (OR link to existing local government plan/document that details this activity)	**Milestones** (SMART - Specific, Measurable, Achievable, Relevant, Timed)	**Target (SMART)**	**Timeframe for delivery** (completion date)	**Cost of implementation incorporated into annual budget and Corporate Business Plan? Y/N** - (if not, why?)	**Aligns to Waste Strategy Objective/s**			**Responsibility for implementation** (branch, team or officer title, not the names of individual officers)	**Identified risks** (Impact/consequences and mitigation strategies)
								Avoid	**Recover**	**Protect**		
Waste services	**Introduction of FOGO (to existing kerbside collection service)**	New	1. Review State Government better practice guidance for 3 bin FOGO. 2. City conducted a feasibility study for FOGO which was presented to Council endorsing community survey (completed) 3. Community survey (completed). 4. Council Report is pending. 5. FOGO specification and price schedule to be included in upcoming Waste Management Service contract (due to expire on 2 December 2020). 6. Subject to Council approval implement FOGO (adding food waste to existing 240L greenwaste bin). The following collection structure is proposed for the City's three bin system:- - Weekly collection of 240L FOGO bin (currently lime green lid) - Fortnightly co-mingled 240L recycling bin (yellow lid) - Fortnightly 120L waste bin (currently dark green lid) Note: Subject to Council approval, the City will consider changing bin lid colours to be consistent with the Better Practice FOGO Kerbside Collection Guidelines. For the City's FOGO specifications, please refer to the attached document. 7. Undertake community educational program (6 months prior to implementation). 8. Monitor and evaluation of the FOGO implementation.	1. Better practice kerbside guidance has been reviewed as per the City of Nedlands Waste Minimisation Strategy and Action Plan 2017-2020,**pages 19 and 35** (completed) refer to https://www.nedlands.wa.gov.au/city-nedlands-waste-minimisation-strategy-and-action-plan-2017-2020. 2. Feasibility study on FOGO 2018 (completed). 3. Further to a community survey the City is to undertake community education to achieve a greater level of participation which will be conducted at least 6 months prior to implementation. 4. Subject to Council approval implement FOGO (adding food waste to existing 240L greenwaste bin). 5. Monitoring and evaluation to be completed 1 year after implementation.	90% of residents will have access to FOGO by 2025.	Prior to 3 December 2025.	Yes	**X**	**X**		Waste services and Communications	Risk:- 1. Community push back on FOGO implementation especially odour issues. 2. Cost implications on FOGO service including contamination may result in higher waste charges for residents. Mitigation:- 1. Undergo extensive community education program for pre/during and post roll out addressing key area including contamination and odour. 2. Address contamination and undertake competitive tender pricing analysing cost versus benefits on resource recovery options for the City.
	Waste Recovery Innovations (AWT)	New	1. Review the Waste Avoidance and Resource Recovery Strategy 2030 which reflects key objectives for this requirement (page 6). 2. Undertake tender process. 3. Subject to Council approval implement AWT for/residual non-recyclable waste which is currently being landfilled. 3. Monitor and evaluation.	1. City to explore waste to energy options, as per the City of Nedlands Waste Minimisation Strategy and Action Plan 2017-2020, pages 19 and 35 (completed). 2. Tender process to be undertaken by 2 December 2020 for the option of a alternative waste treatment facility (AWT) (completed). 3. Subject to Council approval, the City is to implement AWT option for non-recyclable/residual waste which is currently being landfilled. 4. Recovery dates to be reported to DWER under mandatory reporting arrangements under the Waste Avoidance and Resource Recovery Regulations 2008.	100% non-recyclable/residual waste to be converted using waste to energy technologies.	from 2020	Yes	**X**	**X**	**X**	Waste Services	Risk:- 1. Technology is in its infancy stages and there is minimum or no data supporting the recovery rates. 2. Potential environmental impacts such as pollution issues. 3. Cost implications on AWT service which may result in higher waste charges for residents. 4. Community attitudes towards waste to energy. Mitigation:- 1. Undergo extensive community education program for AWT. 2. Investigate experiences from other local governments regarding the implementation of AWT.
	Recoverable Materials in Bulk Waste Services	Existing	1. Review the Waste Avoidance and Resource Recovery Strategy 2030 priorities related to this initiative, that is to recover more value and resources from waste. 2. Undertaken tender process. 3. Bulk rubbish collection initiative implemented. 4. Monitor and evaluate.	1. City to manage and or dispose recoverable materials to better practice facility as per City of Nedlands Waste Minimisation Strategy and Action Plan 2017-2020, pages 18 and 28. Refer to https://www.nedlands.wa.gov.au/city-nedlands-waste-minimisation-strategy-and-action-plan-2017-2020. 2. Completed tender process. 3. Bulk rubbish collection initiative has been implemented. 4. Monitoring by recovery rates which are reported to DWER annually.	To maintain or improve on 85% recovery rate which has been achieved for the past 4 years.	Ongoing	Yes	**X**	**X**	**X**	Waste Services	Risk:- 1. Higher waste processing costs. 2. Commodity prices decline for recyclable products. Mitigation: 1. Offer flexibility on scope and price schedule.

Policies and procurement	**Waste Policy and Waste Management Guidelines for Multi Dwelling Units for mixed use developments**	New	1. Review Local Planning Scheme 3 guidelines. 2. Draft Waste Policy and Waste Management Guidelines. 3. Implementation of policy and guidelines.	1. Review Local Planning Scheme 3 (LPS3) (completed). 2. Waste Policy and Guidelines available for public comment as per Council resolution dated the 17 December 2019 (PD 53.19). Refer to https://www.nedlands.wa.gov.au/sites/default/files/2019%20PD%20Reports%20-%20PD48.19%20-%20PD56.19%20-%2017%20December.pdf. 3. Council adopted the City's Local Planning Policy Waste Management (LPP) & Waste Management Guidelines at its Ordinary Council Meeting on 31 March 2020. 4. The City's Planning Services Department have proposed amendments to this Policy which are due to be presented at 24 November 2020 Ordinary Council Meeting. These modifications were discussed with Council prior to advertising on 7 July 2020 Council Briefing and was advertised to the public shortly thereafter. Final Council resolution is pending.	All future multi unit for mixed use developments to comply with the City's policy and guidelines.	May-20	There is no cost implementation as this is a policy.	X	X	X	Waste services and planning.	Risks: 1. Supporting smaller truck usage may impact annual waste charges. 2. Occupational Health and Safety can be affected as a result of developers not providing sufficient truck accessibility to the site. 3. Lack of state regulations and policies. Mitigation: 1. Implement a policy and guideline to ensure the City's objectives have been met.
Behaviour change programs and initiatives	**Provide enhanced community education to increase recovery and ensure waste targets are met.**	Existing	1. Review State Government engagement and education resources, including Waste Sorted toolkit. 2. Develop and provide waste education to the community and primary schools. 3. Evaluation of the City community education program.	1. Review State Government Strategy engagement and education resources. 2. Continue to develop and provide community education initiatives as the City of Nedlands Waste Minimisation Strategy and Action Plan 2017-2020, pages 19 and pages 32 to 34 (ongoing). Refer to https://www.nedlands.wa.gov.au/city-nedlands-waste-minimisation-strategy-and-action-plan-2017-2020. 3 . Monitor achievements using DWER annual waste statistics reporting and community feedback surveys.	•Increase annual recycling tonnages and improve overall diversion targets in comparison with previous year's data. •Reduced contamination of recyclable materials in comparison with previous year's data.	Ongoing	Yes	X	X	X	Waste Services and Communications	Risk: 1. Lack of stakeholders commitment. 2. Lack of Councillor support. Mitigation : 1. Develop robust stakeholders communication plan. 2. Ensure clear communication of project objectives.
Data	Reaching the 65% recovery target	Existing	1. Establish a process for reporting accurate waste and recycling data to DWER and Council. 2. Prepare and submit annual Council report on the progress of the waste minimisation strategy 2017-2020 (page 20).	1. Recovery dates to be reported to DWER under mandatory reporting arrangements under the Waste Avoidance and Resource Recovery Regulations 2008. 2. Prepare and submit Annual Waste Report to Council in March/April of each year.	Monitor how the City's is progressing towards achieving its projected waste minimisation targets of 65% and any relevant targets established by the State Government including in the Waste Avoidance and Resource Recovery Strategy 2030.	2017 to 2020	No cost incurred for data collection and reporting.	X	X	X	Waste Services	Risk:- 1. Contractors providing inaccurate and/or inconsistent recovery data. 2. Lack of confidence by the community due to misconception. Mitigation: 1. Monitor and review data for inconsistencies. 2. Guiding contractors on the City's reporting process requirements through the contract management process.

Bin Audit Composition Category Details

Recyclable Components				
1	2	3	4	Descriptors
Recyclables	Paper	Recyclable Paper	Newspaper	Newspapers, Newspaper like pamphlets,
			Glossy Paper	magazines (glossy) pamphlets, present wrapping paper,
			Office Paper	A4 document paper, writing pads, letters, stationery papers, Print / Writing Paper, envelopes
			Coloured Paper	Coloured Paper
		Non-Recyclable Paper	Composite Paper	Composite paper items where the weight of the paper is estimated to be greater the weight of the other materials, envelopes with transparent windows
			Contaminated Paper	Paper towel, Paper Napkins, Contaminated Paper - soiled not recyclable
			Other Paper	Non-Recyclable Paper, greaseproof paper, paper with wax coating, high wet strength papers, telephone books
	Cardboard	Recyclable Cardboard	Corrugated Cardboard	Corrugated cardboard boxes,
			Packaged Flat Cardboard	packing boxes etc, cereal boxes, business cards, folding cartons
			Liquid Paper Board Foil Lined and Other	UHT / Long life milk, Soy Milk Cartons, some fruit juice cartons, Carbon barriers, Milk Cartons, Cardboard with wax coating, paper/disposable cups including biodegradable cups
		Non-Recyclable Cardboard	Composite cardboard	Composite cardboard items where the weight of the cardboard is estimated to be greater the weight of the other materials, e.g. pringle boxes etc,
			Contaminated Cardboard	Contaminated Cardboard e.g. pizza boxes
			Other Cardboard	Non-Recyclable Cardboard
	Plastics	Recyclable Plastics	PET #1	Soft drink bottles, juice bottles, some food & mouthwash containers (e.g. jam & sauce bottles, peanut butter jars) including coloured PET
			HDPE#2	Milk and cream bottles, shampoo and cleaner bottles, HDPE bottles, including coloured HDPE
			PVC#3	Cordial and juice bottles, blister packs, plumbing pipes and fittings, PVC labels
			LDPE#4	Ice cream container lids, cream bottle lids, squeeze bottles, lids, builder's black plastic, black mulch film, plant nursery bags
			Polypropylene#5	Ice cream containers, drinking straws, pot plant pots, some bottle caps, plastic garden settings, potato crisp bags, compost bins
			Polystyrene #6	Yoghurt / sour cream containers, hot drink cups, take away containers, plastic cutlery, video/CD boxes, packaging foam, any foam
			Plastic#7 Other	Tupperware, Mixed unidentifiable plastics, all other resins and multi-blend plastic materials
		Non-Recyclable Plastics	Plastic Bags	Plastics Shopping Bags, Plastic Produce/Food Bags, Resealable Plastic Bags, Bin liners, Garbage bin liners, Compostable Plastics Bags
			Plastic Film	Cling film
			Composite (Mostly Plastic)	Composite plastic items where the weight of the plastic is estimated to be greater than the other material items

Recyclables	Glass	Recyclable Glass (CDS Glass)	Glass Bottles	Beer/Cider Mixed Drinks, Soft drink bottles, not broken glass
		Recyclable Glass	Glass Other	wine bottles, food and sauce jars,
		Non-Recyclable Glass	Miscellaneous/Other Glass	Plate glass (window and windscreen), broken light globes glass, glass particles, Black or ceramic lined glass, Including broken glass that is recyclable more than 50mm in size
	Ferrous (Steel)	Steel	Steel Cans	Food cans, pet food cans, tins, empty paint tins,
			Steel Aerosols	Aerosol cans
			Composite Ferrous (Mostly Ferrous)	Composite ferrous items where the weight of the metal is estimated to be greater than the other material items
			Ferrous Other	Beer bottle tops, 100% ferrous items that are not cans / tins / packaging materials
	Non Ferrous (Aluminium)	Aluminium	Aluminium Cans	Beer and soft drink cans,
			Aluminium Aerosols	Aluminium aerosol cans
			Aluminium Foil	clean foil
			Composite Non-Ferrous (Mostly Non-Ferrous)	Composite non-ferrous metal items where the weight of the metal is estimated to be greater than the other material items
			Non-Ferrous Other	Copper / brass / bronze items, other metals (not ferrous / aluminium), Aluminium tamper proof seals
Contaminants/Non-Recyclable Components				
Organic	Organic	Organic	Food Waste	Vegetable scraps, meat scraps, animal food, leftover food, Food particles, Bones
			Green Waste	Grass clippings, tree trimmings / pruning's, flowers, tree wood
			Packaged Food Waste	(Liquid containers - quarter full or more) and (Food Waste in containers or bags)
			Other Putrescible	Animal excrement, mixed compostable items
	Other Organics	Other Organics	Wood/Timber	Milled wood / timber, wooden skewers
	Textiles	Textiles	Textiles	(Natural/Synthetic - Apparel/Bedding etc.), (Leather and Rubber)
			Other Textiles	Shoes, handbags, millinery etc
	Earth	Earth	Soil/Dust 'n' Dirt and Inert and Broken Glass, Ash/Coal	Vacuum bag contents, soil, rocks, dirt, grit, mud, Broken Glass less than 50mm in size
			Ceramics, Rocks/Stones, Bricks, Concrete	Bricks and stones, Cups, bowls, pottery items, concrete
Hazardous	Medical	Medical Waste	Pharmaceuticals	Unused prescription medicine, vitamins and Minerals
			Medical Waste	Band aids, Bandages, Used surgical gloves, Surgical Instruments, Medical aids/kits, Medical devices and radioactive materials, any solid waste generated from a diagnosis, treatment of humans or animals, /Medical Other
			Hypodermic Syringes	Hypodermic Syringes, Epi Pens
	Pathogenic Infectious	Pathogenic Infectious	Sanitary / Hygiene	used tissues (items with any bodily fluids), tampons/pads, cotton buds)
			Nappies	Adult and Child disposable nappies
	Hazardous	Hazardous	Chemicals	Bleach, Shampoo, Cleaning Products, (where the weight of the product is estimated to be greater than the weight of the container)
			Paint	Wet/Dry Paint
			Batteries Household	Batteries (Single Use and Rechargeable), Mobile phone battery
			Batteries Other	Vehicle Batteries e.g. Car/Boat, Industrial batteries e.g. Power Supply (UPS)
			Fluorescent Tubes/Light Bulbs	
			Oil Household, Motor & Other	
			Building Material	
			Hazardous Other	Uncategorized hazardous waste

Other	**Electronic Waste**	**Electronic Waste**	**Toner Cartridges**	Toner Cartridges
			Computer Equipment	Computer Components, Peripheral Devices/Computer Printer or Photocopier/Printer
			Mobile Phones	Mobile phones
			Electrical Items	Electrical Products
	Miscellaneous	**Miscellaneous**	**Miscellaneous (Specify)**	Any items not applicable to other categories

GLOSSARY

Avoidance	Avoidance refers to the prevention or reduction of waste generation and is the most preferred option in the waste hierarchy.
Better practice	Better practice refers to practices and approaches that are considered by the Waste Authority to be outcomes-focussed, effective and high performing, which have been identified based on evidence and benchmarking against comparable jurisdictions
Commercial and industrial waste (C&I)	Solid waste generated by the business sector, State and Federal Government entities, schools and tertiary institutions.
Commercial waste services	• Refers to drop-off, kerbside, vergeside or other waste services provided by the local government to commercial premises. • Discretionary service, not offered by all local governments
Construction and demolition waste (C&D)	Solid waste produced by demolition and building activities, including road and rail construction and maintenance, and excavation of land associated with construction activities.
Disposal	• Disposal refers to the discharge of waste into the environment, either into landfill or another disposal route. • Disposal is the least preferred option in the waste hierarchy.
Drop-off facilities and services	• Drop-off collections are where reportable waste is delivered to the waste depot (drop-off facility) by the residents of the local government i.e. self-hauled waste. • Services are provided to collect waste or recyclable materials. • May be temporary or permanent standalone drop-off points for one or more materials, or may form part of other waste facilities (such as landfills or transfer stations). • **Note**: this does not include HHW drop-off points
Energy recovery	The process of extracting energy from a waste stream through re-use, reprocessing, recycling or recovering energy from waste
Household hazardous waste (HHW) facility	• Refers to facilities for the drop-off and storage of HHW • Includes consideration of the drop-off and storage procedures and infrastructure, staffing and resourcing, layout, operation and management HHW facilities, etc.

<table>
<tr><td rowspan="6">Illegal Dumping</td><td colspan="2">Illegal dumping is the unauthorised discharging or abandonment of waste and is an offence under Section 49A of the Environmental Protection Act 1986.

Illegally dumped waste is generally considered to have the following attributes:</td></tr>
<tr><td>Volume</td><td>> 1 cubic metre</td></tr>
<tr><td>Environmental impact</td><td>Contains items/substances that are potentially noxious or hazardous; potential for environmental harm if material leaks, spreads or degrades</td></tr>
<tr><td>Type of waste</td><td>Commercial or industrial waste; larger-scale household waste</td></tr>
<tr><td>Reason for offence</td><td>Premeditated decision; commercial benefit or avoidance of fee</td></tr>
<tr><td>Mode of deposition</td><td>Deposited using a vehicle</td></tr>
<tr><td>Kerbside waste services</td><td colspan="2">• A regular, containerised collection service (often a wheelie bin) where the waste or recycling is collected from outside a resident’s dwelling.
• Can apply to either recycling or general waste (and in a few instances green waste).</td></tr>
<tr><td>Landfill</td><td colspan="2">• Refers to inert or putrescible waste, registered or licenced landfills
• Activities related to the layout, operation, management and post closure of a landfill.
• Includes consideration of the technology and infrastructure on site, staffing and resourcing, and any other waste facilities or services at the landfill site (e.g. greenwaste or recycling drop off, mulching, tip shop, etc.)</td></tr>
<tr><td rowspan="6">Litter</td><td colspan="2">Litter is defined in the Litter Act 1979 as including:
• all kinds of rubbish, refuse, junk, garbage or scrap; and
• any articles or material abandoned or unwanted by the owner or the person in possession thereof,

but does not include dust, smoke or other like products emitted or produced during the normal operations of any mining, extractive, primary or manufacturing industry.

Litter is generally considered to have the following attributes:</td></tr>
<tr><td>Volume</td><td>< 1 cubic metre</td></tr>
<tr><td>Environmental impact</td><td>Nil or minor actual or potential environmental impact</td></tr>
<tr><td>Type of waste</td><td>Personal litter</td></tr>
<tr><td>Reason for offence</td><td>Unpremeditated, convenient disposal</td></tr>
<tr><td>Mode of deposition</td><td>Deposited by hand (includes dropping by hand from a vehicle)</td></tr>
</table>

Local government waste management	• Refers to waste generated by a local government in performing its functions • Includes materials such as construction and demolition waste from road and footpath building and maintenance; greenwaste from parks maintenance; waste generated at local government offices, depots, and facilities
Municipal solid waste (MSW)	Solid waste generated from domestic (residential) premises and local government activities
Peel region	The Peel region is the area defined by the Peel Region Scheme.
Perth metropolitan region	The Perth metropolitan region or the Perth region is the area defined by the Metropolitan Region Scheme.
Public place services	Public place waste services refers to permanent bins provided by local government in public places to collect waste and/or recycling.
Recovery	The process of extracting materials or energy from a waste stream through re-use, reprocessing, recycling or recovering energy from waste.
Reuse	Reuse refers to using a material or item again.
Reprocessing	Reprocessing refers to using an item or material that might otherwise become waste during the manufacturing or remanufacturing process.
Recycling	The process by which waste is collected, sorted, processed (including through composting), and converted into raw materials to be used in the production of new products.
Residual Waste	• Waste that remains after the application of a better practice source separation process and recycling system, consistent with the waste hierarchy as described in section 5 of the WARR Act. • Where better practice guidance is not available, an entity's material recovery performance will need to meet or exceed the relevant stream target (depending on its source - MSW, C&I or C&D) for the remaining non-recovered materials to be considered residual waste under this waste strategy.
Special event waste services	Special event waste management refers to temporary bins and/or waste collection services provided by local government to manage waste generated at events such as fireworks displays, music festivals, sports events, markets etc.
Sustainable procurement	Sustainable procurement involves meeting a need for goods and services in a way that achieves value for money and generates benefits not only to the organisation, but also to society and the economy, while minimising damage to the environment.
Transfer station	• Refers to facilities which undertake large scale consolidation of waste or recyclable materials for transfer to another facility for processing or disposal • Activities related to the layout, operation and management of a transfer station • Includes consideration of the technology and infrastructure on site, staffing and resourcing, and any other waste facilities or services available at the site (e.g. greenwaste or recycling drop off, mulching, tip shop, etc.)

Vergeside waste services	• Vergeside collection services are bulk, infrequent (~every 4-6 month or on demand) services. • Material is collected from residential 'vergesides' either non-containerised or in a skip provided by the local government. Vergeside services may relate to green waste or hard waste • Includes waste and/or recyclable materials that may be mixed or separated and the source and can include green waste or hard waste.
Waste services	Waste services are defined by the W*aste Avoidance and Resource Recovery Act 2007* as the: • the collection, transport, storage, treatment, processing, sorting, recycling or disposal of waste; or • the provision of receptacles for the temporary deposit of waste; or • the provision and management of waste facilities, machinery for the disposal of waste and processes for dealing with waste.