Regional council waste plan Eastern Metropolitan Regional Council

Part 1 - services and performance 1.0 Introduction

Part 1 of the Eastern Metropolitan Regional Council waste plan establishes a waste profile and baseline information in relation to the objectives and targets set out in the *Waste Avoidance and Resource Recovery Strategy 2030* (Waste Strategy):

Avoid¹ - Western Australians generate less waste.

Recover - Western Australians recover more value and resources from waste.

Protect - Western Australians protect the environment by managing waste responsibly.

NB: Regional local government² (commonly referred to as regional councils) waste plans are designed to cover the myriad of different operational/education/service functions offered. As a result, some sections of regional council waste plan templates may/may not be applicable to a regional council.

Where data was available, the Department of Water and Environmental Regulation (DWER) has pre-filled sections of Part 1. If any of the pre-filled information is incorrect, please amend accordingly and advise of the changes.

Please take the time to ensure that you complete each section, where relevant. In some tabs, you may need to scroll down to ensure that you have not missed any sections.

¹ As explained in tab 'P1 - 3 Avoid', baseline information relating to the 'avoid' strategy is not required from regional councils at this stage.

² The definition in section 3(1) of the *Waste Avoidance and Resource Recovery Act 2007* of local government includes "a regional local government established for the purpose of providing waste services". A regional local government is established under section 3.61 of the *Local Government Act 1995*, which provides in section 3.61(1):

Two or more local governments (referred to in this Division as the participants) may, with the Minister's approval, establish a regional local government to do things, for the participants, for any purpose for which a local government can do things under this Act or any other Act.

:

Part 1 - Services and performance 2.0 Integrated planning and reporting

All local governments, including Regional Councils, plan for the future¹ through the development of strategic community plans and corporate busine government integrated planning and reporting as an issue-specific informing strategy.

Strategic Community Plan	
Title:	10 Year Strategic Plan 2017 to 2027
Came into force:	1/07/2017
Date of next review:	1/07/2021
Waste-related priorities:	 To provide sustainable waste disposal operations To improve regional waste management To provide resource recovery and recycling solutions in partnership with member councils To Investigate leading edge waste management practices
Corporate Business Plan	
Title:	Corporate Business Plan 2020/2021 - 2024/2025
Came into force:	1/07/2020
Date of next review:	1/06/2021
Waste-related priorities:	 Minimise the environmental impact of waste management operations Provide a waste disposal service at Redhill waste management facility Review and implement the Redhill Development Plan Operate Member Councils transfer station where applicable To improve regional waste management in the collection, management and disposal of problematic waste in the reference of the waste education program and align this to new operations and resource recovery Provide a waste management advisory service To provide resource recovery and recycling solutions in partnership with Member Councils Develop the Hazelmere Resource Recovery Park Identify markets and develop resource recovery products in order to reduce waste going to landfill To investigate leading edge waste management practices and undertake research into Integrated Waste Manager Provide leadership in the development of waste policy and practices Identify, investigate and develop new waste management practices and services

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 your SCP or CBP")

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.

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Part 1 - Services and performance 3.0 Avoid

Avoidance of waste generation is the preferred waste management option in the waste hierarchy. The state's waste generation reduction targets from the baseline year of 2014-15 are - **2025**: Reduction in MSW generation per capita by 5%, and **2030**: Reduction in MSW generation per capita by 10%.

At this stage, Regional Councils are not required to provide baseline information related to the 'avoid' targets. However, if there is specific information collected by your regional council that provides a baseline for future waste planning and is related to the 'avoid' strategy and targets, please provide this in the "Additional comments" box below. For example, a regional council may be part of a committee/group that focuses on waste avoidance; or may implement programs that encourage community behaviour change in terms of waste generation. Such information may indicate how waste generation has changed, identify potential reasons for change and indicate areas to target in *Part 2 - Implementation plan (Table 17)*.

Additional comments (regional council to insert any additional comments that may be applicable)

The EMRC Waste Education team prioritise initiatives that mostly focus on the upper tiers of the waste hierarchy - in particular, waste avoidance, reuse, reprocessing and recycling. Programs vary depending upon the audience and are updated to reflect changes in waste management practices as well as local government, the community and schools' needs. Long-term, ongoing programs include:

- Battery Collection Program for Public Places and Schools: The EMRC monitors monthly collection volumes at each drop-off point to identify changes in yields and then ascertains the cause of these changes. Schools are also encouraged to reach out when they are seeking additional assistance in enacting behaviour change in their school community;

- Earth Carers Program: Earth Carers are a community of like minded people that help promote waste minimisation and learn practical ways of reducing waste at home and in the community. The Earth Carers course consists of six sessions over four weeks, and includes: guided tours, making your own green cleaning products, composting and worm farming demonstrations, learning what can be recycled in the community and tips to encourage others to reduce waste. Additional events are hosted to keep Earth Carers up-to-date with new issues and to maintain group motivation.;

- Excursions to the Red Hill WMF and Environmental Education Centre: The region's community and school groups can visit the facility at no charge. During the tour in which visitors can view the tip face, emphasis is placed on the impacts of landfilling, and tour notes are updated regularly to reflect waste volumes and alternatives to landfill. Similarly, at the Education Centre, displays are updated regularly to capture new information and approaches. Waste audits and other activities are conducted with students that draw direct parallels between their behaviour and the associated consequences;

- Schools present a unique opportunity for behaviour change programs in that both young people and adults can be targeted. The EMRC assist schools with planning, their Waste Wise Schools initiatives, at school sustainability events, and through tailored presentations and learning materials.

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. The overall recovery rate of each facility operated by Eastern Metropolitan Regional Council should be provided in Table 2 and compared with the overall recovery target rate contained in the Waste Strategy.

Table 2: Overall recovery rate (%) of each facility operated by Eastern Metropolitan Regional Council compared with targets for 2020, 2025 and 2030 (RC to complete the table. Add additional comments if required.)

	2014-15	2015-16	2016-17	2017-18	2020 target	2025 target	2030 target
Red Hill WMF	3.5	3.29	4.12	10.1	Perth and Peel: 65%	Perth and Peel: 67%	Perth and Peel: 70%
Hazelmere RRP			72	77	Major regional	Major regional	Major regional
Mathieson Road T/S	83	83	63	58	centres: 50%	centres: 55%	centres: 60%
Coppin Road T/S	78	81	84	83			

The Waste Strategy includes a target that from **2020**, energy should only be recovered from residual waste. Regional councils should explain how they plan to meet this target in *Part 2 - Implementation plan* (Table 17).

Table 3. shows the recovery rate of waste services provided by Eastern Metropolitan Regional Council directly to households that **do not result in the waste being transported** to or processed by a facility operated by Eastern Metropolitan Regional Council.

For example, a regional council may engage a contractor to collect specific household waste (e.g. mattresses) on behalf of member councils. The waste is then sent to another facility for disposal or recovery. The recovery rate from this service will not be reflected in Table 2 above, and should be displayed in Table 3 below. The "Comments" column should be used to describe the type of service provided.

Table 3: Overall recovery rate (%) from services provided directly to households by Eastern Metropolitan Regional Council compared with targets for 2020, 2025 and 2030 (RC to complete the table if these services are provided and information is available. Add aditional comments if required.)

	2014-15	2015-16	2016-17	2017-18	Comments	2020 target	2025 target	2030 target
Service X						Perth and Peel: 65%	Perth and Peel: 67%	Perth and Peel: 70%
Service Y						Major regional	Major regional	Major regional
Service Z						centres: 50%	centres: 55%	centres: 60%

Additional comments (regional council to insert any additional comments that may be applicable)

Red Hill WMF - Predominately a Landfill facility. Recovery of materials comes from green waste inputs and recyclables from the on-site transfer station. We have also included asbestos and Polyfluoroalkyl Substances contaminated soils (accepted and treated from 2018) within our recovery calculation as, presently, these wastes cannot be diverted from landfill and we are offering and providing the best regional environmental option for the safe controlled disposal of these wastes.

Hazelmere RRP was commissioned in October 2016 - annual reporting data is from 1st of November to the 30th of October each year. The recovery figures above are calculated from these annual reports.

The recovery figures for Coppin Road and Mathieson Road Transfer Stations are calculated from the annual reports, which cover the Calender year and not the financial year. The figures are calculated from reports 2015 to 2018.

Mathieson Road Transfer Station began accepting large volumes of Putrescible Culvert Debris in 2017, which accounts for the reductions in recovery rates for 2017 & 2018.



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 based on better practice, 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 Regional Councils 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 Eastern Metropolitan Regional Council (RC to complete the table)

Waste management activity/service	Waste Authority better practice guideline or program	Date of adoption/ implementation	Comment
Waste Education Webpage (Rgang) & creation of Member Council annual Waste & Recycling Guides	WALGA Consistantant Communications Collective (CCC)	May-19	Since the inception of the CCC the EMRC has incorporated the messaging in its waste educational (R Gang) webpage and the annual Waste & Recycling guides generated on behalf of the member councils.
Kerbside waste services (FOGO)	Better bins kerbside collection guidelines	Apr-15	In October 2019 the EMRC, on behalf of its member councils, undertook a representative audit of the contents of their general waste kerbside bins. The resulting data is being used to facilitate the rollouts of the 3-bin FOGO kerbside system.
Kerbside waste services (FOGO)	Better bins Plus kerbside collection guidelines	Jun-20	EMRC assisting member councils in completing grant funding applications.
Kerbside waste services (FOGO)	Better bins kerbside collection guidelines Better bins Plus kerbside collection guidelines	Jun-20	The EMRC provided its Waste Educational Department staff as a dedicated resource to the Town of Bassendean to facilitate the rollout and ongoing success of their FOGO operations
Household Hazardous Waste collection & controlled recovery/disposal	Household Hazardous Waste program	2008	In 2018 the EMRC signed a 5-year Memorandum of Understanding with WALGA, its purpose to outline the roles and responsibilities of the Parties in relation to their involvement in the HHW program, to enhance cooperation between the Parties and facilitate the successful running of the Program.
Behaviour Change Programs & Initiatives	Waste Sorted Communications Toolkit	Sep-19	The EMRC's Waste Education Team Was instrumental in assisting DWER to develop the FOGO Waste Sorted Toolkit. The toolkit icons and nomenclature are Incorporated into Waste & Recycling guides, FOGO rollouts and school/community group presentations and events.

5.2 Litter

Information on littering within Eastern Metropolitan Regional Council should be detailed in Table 5 where available.

Table 5: Litter information (RC to complete the table if relevant and information is available.)

	Response and comments	Additional comments (regional council to insert any additional comments that may be applicable)
Current measures aimed at contributing towards the zero littering target	Red Hill Waste Management Facility (RHWMF) EMS to ISO 14001:2015 Standard has an Environmental Management Plan which minimises the potential for litter to impact on the surrounding environment	1.1.7 Matheison Road License: The Licensee shall take all reasonable and practical measures to ensure that no wind-blown waste escapes from the Premises and that wind-blown waste is collected on at least a weekly basis and returned to the tipping area or appropriately contained.
How, if at all, does your Regional Council measure the effectiveness and impact of programs designed to reduce littering?	Annual review of RHWMF EMP to ensure the optimum control of litter.	1.2.5 Coppin Road Licence: The Licensee shall take all reasonable and practical measures to ensures that no windblown waste escapes from the Premises and that windblown waste is collected on at least a weekly basis and appropriately contained.
How high a priority is litter management to your organisation? (1 - Not important at all; 5 - Highly important). If you have additional comments in relation to this rating, include these.	5 - Highly Important. Current measures the EMRC utilizes to facilitate the reduction/elimination of littering includes: the ongoing operation of the Red Hill Education Centre which, amongst other thigs, educates the visitor (site user, general public, school children etc) in the effect litter has on the environment and the current measures they can adopt and the government implements to protect it; Litter Letters: large caged letters supplied to member councils that they can use to spell out a message with collected litter placed in them to exemplify the issue; Clean Up Australia Day: the EMRC strongly promotes this initiative and provides guidance, advertising and event organisation to member councils and it's employees; staffs an event trailer to promote increased recycling and litter reduction; EMRC Waste Education Officers create, organise and attend programs (including topics on litter issues) aimed at schools and community groups.	 Table 1.2.7 Waste processing Hazelmere RRP Licence: Product (wood fines and wood chip) stockpiles shall be maintained in a damp state to prevent dust lift off. Shredded mattress product shall be stored in skip bins pending disposal to an authorised facility. The operational areas of the RHWMF are surrounded by litter control fencing which is routinely inspected and maintained. The facility also employs 2 permanent litter pickers to further control and prevent litter leaving the site. The EMRC is a fervid advocate of the Container Deposit Scheme (CDS), a state initiative designed to reduce litter. The EMRC is providing a dedicated Waste Education Officer and facility staff to ensure the Shire of Mundaring can successfully participate.

5.3 Illegal dumping

Information on illegal dumping within Eastern Metropolitan Regional Council should be detailed in Table 6 where available.

Table 6: Illegal dumping data (RC to complete the table if relevant and information is available.)

Ke	Response and Comments	Additional comments (regional council to insert any additional comments that may be applicable)
Current measures aimed at contributing towards the zero illegal dumping target Ot ed	The EMRC is an ardent supporter of the WALGA Reduce Illegal Dumping (RID) initiative and attends the quarterly working groups to assist the Member Councils and other attendees in developing greater and more effective communication and information exchange, resulting in a collective approach to combat illegal dumping on a local and regional scale. Dther Initiatives include the creation and dissemination of pamphlets aimed to educate the reader in the causes and consequences of illegal dumping.	
How does your Regional Council measure the effectiveness and impact of solution programs designed to reduce illegal dumping?	RID membership aims:- Share Tools - Share successful and unsuccessful approaches, processes and tools o address illegal dumping. Identify gaps – Identify any regulatory, policy, service, infrastructure or program gaps hat members of the Working Group can address.	
5. How high a priority is illegal dumping management to your organisation? (1 - Not important at all; 5 - Highly important). If you have additional comments in relation to this rating, include these.	5. Highly important Key Result Area 1 of the EMRC's 10 Year Strategic Plan is environment sustainability. One of the aims is to deliver a range of environmental services that enable the region and member councils to meet their responsibilities and community expectations for sustainable and adaptive environmental initiatives, and to maintain and enhance the natural assets of the region.	



	% Paper	% Cardboard	% Plastics	% Glass	% Aluminium	% Steel	% Organic	% Earth	% Textiles	% Medical	% Pathogenic Infectious	% Hazardous	% Electronic Waste	% Miscellaneous
Bassendean	6.12	2.84	8.11	3.02	0.90	1.64	63.50	4.81	2.60	0.06	4.04	1.06	0.59	0.68
Bayswater	11.10	4.38	10.60	4.38	1.44	1.37	51.40	3.68	2.60	0.22	4.16	0.10	1.55	2.95
Belmont	11.00	2.89	7.87	3.19	0.79	1.57	56.60	5.74	2.50	0.25	3.84	0.68	0.83	1.99
Kalamunda	5.82	3.47	8.52	4.11	1.07	3.26	56.20	2.81	7.85	0.23	4.83	0.74	0.52	0.60
Mundaring	8.72	2.66	10.60	4.36	0.97	2.10	50.10	3.72	4.20	0.68	5.58	3.67	1.27	1.35
Swan	8.10	3.32	8.55	3.05	0.80	1.70	51.70	2.71	3.49	0.08	5.53	0.32	0.18	10.40
All councils	8.35	3.23	8.88	3.61	0.97	1.98	55.10	3.88	3.97	0.23	4.69	1.05	0.74	3.32

Part 1 - Services and performance 6.0 Waste management tools

6.1 Waste services

Regional council data relating to the waste collected, recovered and landfilled should be presented in Table 7. These figures reflect the waste that is received at all facilities operated by Eastern Metropolitan Regional Council, apart from "Special household services"¹. It is important to review this data when developing *Part 2 - Implementation Plan* (Table 17), 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 council 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 7: Significant sources and generators of waste in 2017-18 (RC to complete table. Add additional comments if necessary.)

Se	ervice/Sources	Tonnes Received	Tonnes recovered	Recovery rate	Better Practice rate	Target rate 2025	Target rate 2030
	mixed waste	166,383.55	10,792.92				
	dry recyclables	4,014.22	4,014.22			1	
Drop-off	green waste	20,594.60	14,446.21			55% major	60% major
	hard waste	0	0			regional centres	regional centres
	hazardous waste	76.22	76.22				
	mixed waste					1	
Public place	comingled recyclables]	
Special event	mixed waste					CTV/ Denth and	70% Death and
Special event	comingled recyclables					67% Perth and Peel	70% Perth and Peel
	Asbestos	2770.05	2770.05				
	PFAS contaminated land	9,549	9,549				
Special services	specific product collection (e.g. e-waste, mattresses, white goods)				n/a		
TOTAL		203,387.64	41648.62	20.47%			

¹ The figures for special household services should reflect services provided directly to households by the Regional Council on behalf of member councils that do not result in that waste being transported to or processed by a facility operated by the regional facility.

Additional comments (*Regional Council to insert any additional comments that may be applicable*) Recovery rate calculation above shown in Rocovery rate Calc 2017-18 tab.

We have altered the heading in Table 7 from Tonnes Collected to Tonnes Received to more accurately portray our services i.e. we do not collect wastes. We have again included asbestos and PFAS contaminated material as recovered wastes, as this reflects our commitment in providing our region with the optimum environmental solution for their treatment and disposal.

See Tab Waste Audit Data which details the compositional data of 100 general waste bins from each member council - audit October 19.

The yield of 14.6 is the average of all member councils. 100 general waste kerbside bins were audited from each Member Council.

Table 8 provides space for the Regional Council to include bin audit information for kerbside waste services, if available. Bin audits can help councils 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 8: Compositional audit data for kerbside waste services (RC to complete table if data is available. Add additional comments if necessary.)

General waste bin	
Yield per household (kg/hhl/week)	14.6
Per capita (kg/per capita/week)	
Audit year	2019
Composition	Total %
Recyclables (paper, cardboard, plastics, steel, aluminium, glass)	27.02
Organics (organics, wood/timber, textiles, earth)	62.95
Hazardous (medical, sanitary/ hygiene, nappies, chemicals, paint, batteries,fluorescent tubes, light bulbs, pil, building material)	5.97
Other (electronic waste, miscellaneous)	4.06

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

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

Regional council data relating to the waste collected, recovered and landfilled in 2017/2018

Waste Type	Red Hill Tonnes Received	Red Hill Tonnes Recovered	Hazelmere Tonnes Received	Hazelmere Tonnes Recovered	Coppin Rd Tonnes Received	Coppin Road Tonnes Recovered	Mathieson Rd Tonnes Received	Mathieson Rd Tonnes Recovered
Mixed Waste	148,086.10		14,017.53	10,792.92	660.8	0	3,619.12	0
Dry Recyclables	511	511			531.53	531.53	2,971.69	2,971.69
Green Waste	10,479.60	4,331.21			6 <i>,</i> 885.00	6,885.00	3230	3230
Hard Waste	0	0			0	0	0	0
Hazardous Waste					47.38	47.38	28.84	28.84
Asbestos	2,770.05	2,770.05						
PFAS contaminated soils	9,549	9,549						
	171,395.75	17,161.26	14,107.53	10,792.92	8,124.71	7,463.91	9,849.65	6,230.53



Total Recovery Rate =

20.47%

Information below extracted from Annual Monitoring Reports (Jan-Dec 2017 & 2018)

Coppin Road	paper/card	Glass	plastics	metals	green waste	HHW	tyres	other (clothing)	Inert Type 1	Putrescible
Jul-17	4.76	0	0	41.09	400	4.46	0.89	0.16	0	133.82
Aug-17	10.14	0	0.08	49.37	360	8.17	0	0.16	0	167.7
Sep-17	5	0	0.16	21.24	500	0.01	0	0.16	0	56.02
Oct-17	9.36	8	0.16	28.85	0	7.45	0	0.16	0	92.1
Nov-17	7.4	0	0.16	28.27	800	2.93	0	0.16	0	95.62
Dec-17	9.36	0	0.08	21.59	660	4.81	0	0.16	0	115.54
Jan-18	14.96	8	0.16	48.95	1104	2.29	0	2	0	0
Feb-18	9.82	0	0.16	32.57	0	3.08	1	0.23	0	0
Mar-18	1.2	0	0.16	26.82	1062	2.49	0	0.16	0	0
Apr-18	6.56	0	0.16	41.94	1062	3.36	0	0.32	0	0
May-18	9.24	8	0.16	31.58	0	3.11	0	0.32	0	0
Jun-18	9.45	0	0.16	32.26	937	3.33	0	0.16	0	0
TOTAL	97.25	24	1.6	404.53	6,885.00	45.49	1.89	4.15	0	660.8

										Putrescible	
Mathieson Rd	paper/card	Glass	plastics	metals	green waste	HHW	tyres	other (clothing)	Inert Type 1	Culvert	Putrescible
										Debris	
Jul-17	5.76	6.78	0	28.36	0	3.42	0	0.2	0		69.42
Aug-17	6.12	0	0.08	26.45	0	2.43	0	0.2	0		105.52
Sep-17	0.8	0	0.16	32.95	340	0	0	0.2	566		44.38
Oct-17	4.6	0	0.16	12.83	0	7.45	0	0.2	0		43.44
Nov-17	4.84	0	0.16	10.26	0	0.01	1.15	0.2	0		50.48
Dec-17	11.19	0	0.08	26.54	600	2.08	0	0.2	548		74.88
Jan-18	8.72	0	0.16	21.14	541	3.15	0	0.2	0		0
Feb-18	7.94	0	0.16	18.41	416	0.24	0	0.2	0		0
Mar-18	0.8	0	0.16	22.96	750	2.06	0	0.2	830		0
Apr-18	5.3	6.86	0.16	24.24	583	2.25	0	0.2	0		0
May-18	4.46	0	0.16	20.02	0	2.34	0	0.2	0		0
Jun-18	2	0	0.16	23.36	0	2.26	0	0.2	680		0
TOTAL	62.53	13.64	1.6	267.52	3230	27.69	1.15	2.4	2624	3231	388.12

Part 1 - Services and performance 6.0 Waste management tools

6.2 Waste infrastructure

The number, type, capacity and location of key existing regional council owned and/or operated waste and resource recovery infrastructure is required to understand the future need for different facility types. The range of infrastructure used by Eastern Metropolitan Regional Council to manage waste is detailed in Table 9.

Table 9: Current waste and resource recovery infrastructure operated by the regional council (RC to review and 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)																										
					Prutrecible waste	Landfill																												
					Class III	Drop-off Facility																												
				Category 12: 50,000	Class IV																													
				Category 62: 10 000	Asbestos																													
Red Hill Waste	Landfill, green waste processing		Eastern	tonnes per annual period	Green Waste																													
Management	facility, FOGO trial processing	1094 Toodyay Road, Red	Metropolitan	etropolitan Category 64: 350,000 C	Commercial/Industrial																													
Facility	facility		Regional Council	tonnes per annual period Category 65: N/A	Household Hazardous Waste																													
				Category 67A: 50,000																														
				tornes per annual period																														
					Mattresses	Drop-off Facility																												
Hazelmere		77 Lakas Daad	Eastern	Category 61A: 50,000	C&I																													
Resource Recovery	Materials recovery facility	77 Lakes Road, Hazelmere 6055	Metropolitan	Category 62: 50,000	Wood																													
Park			Regional Council Eastern Metropolitan Regional Council	Regional Council	tonnes per annual period																													
					Prutrecible waste	Drop-off Facility																												
Commin Dood		Allina Deed		Eastern Metropolitan Regional Council	Eastern Metropolitan	Eastern Metropolitan	Eastern Metropolitan	astern	Eastern	0-1	HHW																							
Coppin Road	Transfer Station	Atkins Road, Mundaring 6073						Category 62: 10,000	Tyres																									
					jional Council	Green Waste		_																										
					Prutrecible waste	Drop-off Facility																												
				Category 62: 5 000	HHW																													
Mathieson Road	Turne for Ote firm	Sime Road,	Eastern	tonnes per annual period	Green Waste		-																											
Transfer Station	I ransfer Station	Chidlow 6556	Metropolitan Regional Council	Category 63: 5,000	Inert Waste (Type 1)																													
			Regional Council	tonnes per annual period																														
					Inert Waste (Type 1&2)																													
					Prutrecible waste																													
Bayswater Transfer Station	Transfer Station	271 Collier Road, Bayswater WA 6053	Eastern Metropolitan Regional Council	Category 62: 110,000 tonnes per annual period	HHW (oil, batteries, gas bottles and empty oil containers only)	Drop-off Facility																												
Other																																		

Table 10 provides space for regional councils to provide information about planned waste and resource recovery infrastructure, if relevant.

Table 10: Planned waste and resource recovery infrastructure (RC to complete the table)

Location	Managed by	Licence category and approved production or design capacity (if known)	Waste type	Service/activity	Estimated operation star date
Red Hill	EMRC	67A	FOGO	Temporary FOGO processing Facility	Augsut 2020
Red Hill	EMRC		FOGO	Permanent FOGO processing Plant	Early 2023
Red Hill	EMRC		Liquid wastes and industrial sludges	Liquid Waste Facility - fixation/stabilisation for landfill disposal	Mid 2021
Red Hill	EMRC		Residual plastics, cardboard, paper and waste timber that would usually go to landfill or Waste to Energy	Processed Engineered Fuel Processing plant - a practical and sustainable alternative to the use of fossil fuels in cement kilns.	late 2023
Red Hill	EMRC		Poly Fluroalkyl Substances	Poly Fluroalkyl Substances Stabilisation processing and Monocel disposal	Early 2021
Hazelmere RRP	EMRC	60 & 37	Processed wood waste chips	Wood waste to energy facility	Dec-20
East Rockingham RRF	HZI		General mixed and residual waste	WTE Plant	2022/2023
	EMRC		Used power poles	Wood processing and recovery	Early 2021

Part 1 - services and performance

6.0 Waste management tools

6.3 Policy and procurement

6.3.1 Contracts

Information on Eastern Metropolitan Regional Council's existing waste contracts should be detailed in Table 11. 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 11: Existing waste management contracts (RC to complete the table)

Contractor	Services	Contract commencement and expiry	Notes/comments
Soft Landings	Mattress processing and recycling	Jun-20	We are utilizing their services but no formal agreement has been signed
Energy Developments LTD	Operation of the Red Hill landfill gas to energy plant	01/1993 - 01/2023	

6.3.2 Waste local laws and policies

Information on Eastern Metropolitan Regional Council'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 12.

Table 12: Existing waste-related local laws, strategies and policies (RC to complete the table)

Type of local law, strateg policy	y or Name of local law, strategy or policy	Came into force	Due for review	Comments
Waste Local Law	EMRC Waste Facilities Local Law 2020	In progress		Power to provide waste services at the Redhill WMF and the Hazelmere WRP and to implement appropriate fees/charges, operational directives and enforcement penalties.

6.3.3 Sustainable procurement

Regional councils 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 13.

Table 13: Existing sustainable procurement policies and practices (RC 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
EMRC management Policies - 3.5: Purchasing Policy	6/12/2018	The EMRC will consider the environmental impact in the procurement process when undertaking the purchase of goods and services and disposal of goods. The governing principle for goods and services procurement is the achievement of value for money. In determining value for money, whole of life costs will be considered inclusive of the environmental impact of the goods being purchased and their ultimate disposal.	
Additional comments (Regional Cou	ncil to insert any additional commer	nts that may be applicable)	



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 underpin 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 Regional Councils 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 17).

Information on Eastern Metropolitan Regional Council's existing waste behaviour change programs or initiatives should be detailed in Table 14. This may include participation in Waste Authority funded programs, or programs/initiatives run by Eastern Metropolitan Regional Council.

	Regional Council program/initiative	Description	Details of evaluation method e.g. qualitative/quantitative assessment	What's worked/not worked	Suggested improvements
1	Battery Collection Program	This program was started 17 years ago when an alternative waste treatment was first suggested. The program collects about 18 tonnes per year (by the EMRC Battery Collection Officer). There are numerous collection points in both schools and public places in the region.	The batteries are taken to the Red Hill WMFand each drop-off point's yields are weighed prior to their collection for recycling. At the end of every financial year, appreciation letters and certificates are posted out to participating public places to inform them of their performance. All participating schools are entered into a categorised competition and prizes awarded.	Works well and receives good feedback from participating schools. Minor contamination of battery collection bins at public drop off points.	A review on the battery collection procedure to reduce manual handling issues. A review of drop-off locations to ensure a sufficient and well- distributed network is in place.
2	Compact Fluorescent Light (CFL) Collection Program	The CFL collection program runs alongside the Battery Collection Program but is not offered to schools due to safety issues. Drop-off locations include council offices, shopping centres and libraries, which are supplied collection boxes for the CFLs by EMRC. The program feeds into the WALGA HHW program which is paid for through the State Government. The Battery Collection Officer collects the globes from the drop off points together with the batteries.	The CFL's are taken to Red Hill and weighed/stored prior to collection for recycling. At the end of the financial year, appreciation letters and certificates are posted out to participating public places to inform them of their performance.	Works well. No reported issues.	To monitor, no changes.
3	Litter Letters	Litter Letters are a highly visual 3D messaging system to raise awareness about the impact of litter on our environment and in our community. Litter letters are maintained by the EMRC and are loaned out to the Member Councils, schools and community groups. The letters are constructed out of wire mesh and rebar and designed to act as cages, to safely hold and display litter collected.	Response from local community through social media and member council assessment on litter reduction.	Well received.	To monitor, no changes.
4	Loan Resources	The EMRC has a selection of equipment packaged up in loan boxes ready for use. Resources include a party equipment loan box, paper making and waste audit equipment. Schools and community groups can hire the activity loan boxes for up to three weeks. Hire is free of charge for schools and community groups within the catchment of the Member Councils. Also available to loan is a mobile wash-up station and reusable crockery kit for use at events as a way to reduce the prevalance of single-use plastics and litter.	Completion of the application form will denote the type of box(es) required. The boxes contain infromation and activities aimed at targetting all ages (espcailly school children) in the methods they can apply and the importance of reuse and recycling.	Works well.	To create a feedback form.
5	Regional Waste Education Steering Group	Bi-monthly meeting convened by the EMRC Waste Education department with representatives from the six Member Councils.	Direct correspondence with RWESG stakeholders via report distribution, email and phone correspondence.	Works well, sometimes poor attendance	EMRC to instigate an agreed procedure for member councils to ensure representation at meetings. Seek to have a special presenter or presentation at each meeting.
6	Waste Management Community Reference Group	The Group comprises of up to 15 community members and holds quarterley/as required meetings at the EMRC (Ascot Place). Its principle aim is to provide feedback to assist the EMRC with issues relating to the requirements for the Community Waste Education Program, resource recovery technologies and work with the environmental, social and economic sectors. This is undertaken in an inclusive manner to achieve balanced outcomes for future waste management in the region.	Members are required to complete an application substantiated by their suitability. The meeting is chaired and minutes taken are disseminated by the EMRC.	Has had member participation issues in the past resulting in cancelled meetings. Some new members are also involved with the Earth Cares program which is fostering a more holistic and proactive approach.	Member commitment to meeting attendance and to utilise the group more for waste avoidance and reduction programs.
7	Advocacy and Networking Groups	Educators and representatives from government agencies, schools, businesses and community organisations meet on a regular basis as part of groups such as the Consistent Communication Collection (CCC), Waste Educators Networking Group (WENG), Reducing Illegal Dumping (RID) and Australian Association for Environmental Education (AAEE) to discuss and share ideas and information on a range of topics such as community enquiries, contamination and behaviour change initiatives.	Varies depending on the group; the CCC, WENG and RID meetings are minuted and comments/action items reported to all stakeholders who attended. The AAEE for example focuses on supporting professional development and building strong local networks that facilitate collaboration.	Works well. No reported issues.	To monitor, no changes.
8	Red Hill Community Liason Group	Quarterly meeting convened at Red Hill landfill site to discuss present and future operational issues. Attendees: key stakeholders and members of the general public.	The meeting is minuted and comments/action items reported to EMRC Directorate and Council	Works well but can be poorly attended by residents	To review advertising media for group meetings
9	Earth Carers	The Earth Carers program is a community education course that is run twice a year by the EMRC Waste Education department. The Earth Carers course is designed to help build participant knowledge who then are encouraged to spread the correct waste messages throughout the community.	Once participants have completed the course they are invited to participate in events and volunteering for drives and initiatives. The Waste Education Team send out an email to each Earth Carer to request feedback on participation outcomes and provide information on current and future waste and environmental issues.	Feedback suggests overall satisfaction with the course is high, with expectations met or exceeded. Lots of interest in the program with a waitlist for enrolment. On-going engagement with graduates is maintained, with past Earth Carer's volunteering to help at Council events.	A full review of current course content and potential restructure in response to changing behaviour change priorities and regional circumstances.

Table 14: Behaviour change programs and initiatives, including Waste Authority programs and other Regional Council initiatives (RC to complete the table)

10	Tours of Red Hill & Education Centre	The tours are pre-booked and aimed at schools and community groups. The site is toured by bus with a representative of the EMRC Waste Education department describing operational activities and answering questions. Those attending the Education Centre (predominately school children) are given activities to complete aimed to further advise and educate on Red Hill's role in the regions waste management, and other issues concerning waste generation, reuse and recycling.	Notes from each tour are taken, stored and circulated within the EMRC Sustainability & Waste Education Department and other stakeholders.	Works well and receives good feedback from schools and community groups.	To develop a similar tour for the Hazelemere RRP. Virtual tour for Red Hill currently being developed.
11	EMRC Waste Education Website (R Gang)	This website is created and maintained by the EMRC and aimed at providing training, guidance and information to schools, community groups and individual's regarding all aspects of waste and environmental issues locally, regionally and nationally. This website also provides links to EMRC Member Councils specific waste information and promotes waste education through the "R Gang" initiative: animated robot characters which promote waste issues regarding waste reduction, reuse, recycling and recovery.	The website content is continually reviewed by all stakeholders and the information & legislative guidance provided is updated accordingly. It also allows for feedback from 3rd parties and the portal for registering for site tours or other initiatives	Very useful community portal.	To be reviewed and overhauled. Updated on an annual basis.
12	Waste Education assistance to Schools & Community Groups	The intention of this initiative is to assist member Councils or other organisations to deliver talks, workshops and activities to school children of all ages and a broad range of local community groups. Members of the Waste Education team actively engage with the public to promote waste avoidance and correct disposal by displaying a range of brochures, pull up banners and infrastructure such as worm farms and the City of Swan Events Trailer to draw people in and start conversations. Activities such as a bin sort game and the Waste and Ladders floor game is used to gauge the waste and recycling knowledge of participants and used as an opportunity to discuss items they may be unsure how to dispose of. Prizes are sometimes given for answering questions about recycling and waste avoidance.	Direct feedback during special events, waste audits, email and phone correspondence.	Participants enjoy the activities. Sometimes event attendees expect prizes without engaging.	To monitor, no changes.
13	Loan trailer with mobile wash-up station, reusable crockery and water dispenser	This trailer maintaind by the EMRC is loaned out to member Councils, schools and community groups. It includes coffee cups, latte glasses, cutlery, trestle tables, wash basins, dish racks, cloths, detergent and sanitiser rinse, a marquee and a self-contained hot water system. Groups can elect to utilise the portable water dispenser to further promote the avoidance of single-use drinking vessels.	Users are required to undertake an induction process that outlines the set up of the station and safe utilisation of the hot water system. Users to provide feedback relating to the uptake of the reusable cup service and share the results with their communities.	New initiative still under analysis.	Expand reusable crockery to include plates and bowls. Incorporate more behaviour change material into the initiative.
14	Home Composting & Worm Farming	The EMRC's Waste Education website promotes home composting and worm farming. The site provides detailed information on how to achieve success by providing pamphlets and expert do's and don'ts. Furthermore, many other regional activities include the promotion and use of home composting systems.	Requests for information from residents and shared success stories.	Waste Education factsheets have had very positive feedback and immediate officer assistance to enquires has been extremely beneficial to successes.	Waste Education Team to develop Educational videos for the "Rgang" webpage.
15	Waste & Recycling Guides	An annual guide circulated by the Member Councils to their residents advising them of local waste services, when and where they are provided, and other applicable waste and environmental issues. EMRC Waste Education liaises with each Member Council to facilitate a conceptual model, then creates the guide and, when approved, has them printed and provided to the Member Council for distribution.	At all stages of the process, from design to content, the EMRC regularly liaises with each Member Council and printers to ensure the guide is accurate, informative and delivered on schedule.	Encourages regional consistent communication by the Member Councils. Overhauled to reflect future 3 bin kerbside collections	Annualy reviewed.
16	FOGO	In conjunction with DWER the EMRC developed 2 templates to facilitate the rollout of the 3 bin system by the Member Councils.	4 dedicated Waste Education Officers employed by the EMRC for FOGO rollouts.	Has worked very well in assiting the member councils.	Improve the quality of response times when information requested from member councils.
17	Bin Tagging	The EMRC, using the WALGA Better Practice Guidelines and has formulated a team to conduct a Bin Tagging programs for the Member Councils.	Data is circulated to member councils allowing poorly conforming residents to be identified and educated.	Delayed start due to Covid-19. First campaign to commence in October 20.	Methodology to be reviewed following first program.
18	Container Deposit Scheme (CDS)	The EMRC provides advice to it's member Councils regarding the development and operation of container Refund Points which are a part of the State Government's Container Deposit Scheme. EMRC's waste educators provide information about the 'Containers for Change' scheme to individuals, community groups and others, including information regarding eligible or ineligible containers, and other preferential behaviours that will encourage participation and correct practices. Two EMRC staff travelled to Queensland in September 2019 for a CDS study tour which yielded valuable insights, both in terms of development of Refund Points and optimising customer engagemnt and compliance.	Evidence from Australian States in which a CDS operates suggests that the implementation of customer- focused service and waste education support at Refund Points is integral to the long- term success of Refund points and the Scheme as a whole.	Face-to-face interaction with both member Council stakeholders and with community members has thus far yielded the most effective results in terms of conveying the intracacies of the scheme, and in promoting positive behaviours.	When the various educational tools become available via 'Containers for Change' (the Scheme Coordinator's brand), EMRC waste educators will integrate this into posts on social media, the Earth Carers course, and into school and community presentations. The EMRC can assist its member Councils who have Refund Points in identifying and improving gaps in behaviour and provide ongoing support to Refund Point workers.
19	Waste/FOGO "health check" multi criteria analysis	Consultancy service offered by the EMRC to local governments, which provides and in-depth assessment of their current waste operations/parameters and identifies issues to facilitate a desired or improved venture.	Ongoing consultation, draft report feedback and client completion of a comprehensive data request form	To be reviewed	To be reviewed
20	Shire of Mundaring Community Recycling Centre Grab'n'Go facilities	Shire of Mundaring residents are encouraged to use the EMRC operated Community Recycling Centre 'Grag n Go' facilities as a way to support waste avoidance and reuse principles. Residents can drop- off good condition household items to the "Reuse Shop" and other patrons allowed to take them at no cost. There are Grab n Gos at Coppin Road and Matheison Road Community Recycling Centres	Turnover of goods Resident Feedback	System works well and is popular.	Investigate operating a similar facility at the Baywaste Transfer Station.
21	Drummuster	The EMRC promotes the scheme through its Webpage, advising that all farm chemical users within Perth's Eastern Region are encouraged to bring their empty, properly cleaned, non-returnable, steel and plastic farm chemical containers to the Red Hill facility for inspection and ongoing collection by drumMUSTER (provides Australian agricultural users with a recycling pathway for eligible empty containers).	Report from Drum Muster post collection on type and quantity of drums and levels of contamination(if any).	Works well. No reported issues.	Annualy reviewed.

Additional comments (Regional Council to insert any additional comments that may be applicable)

6.5 Data

Table 15 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 15: Assessment of waste data (RC to complete the table)

	Plea	ase ✓	
	YES	NO	Comment
Does the Regional Council have access to adequate waste data to complete Part 1 of the waste plan?	✓		
Does the Regional Council use waste data when undertaking planning activities for waste projects/programs?	\checkmark		
Does the Regional Council have access to adequate waste data for this purpose?	\checkmark		
Does the Regional Council use waste data when monitoring or assessing waste projects/programs?	\checkmark		
Does the Regional Council have access to adequate waste data for this purpose?	\checkmark		
Does the Regional Council use adequate waste data to measure progress toward the targets and objectives of the Waste Strategy?	~		
Does the Regional Council have access to adequate waste data for this purpose?	\checkmark		
Does the Regional Council have access to adequate waste data to fulfil annual data reporting obligations under the WARR Regulations? (previously undertaken through the Waste and Recycling Census)	~		
Are there any types of waste data that the Regional Council does not currently collect or have access to that would be helpful/useful?	~		We are providing our member councils with a bin tagging service to assist them in their pre and post FOGO roll out programs.
Are there any ways which Regional Council waste data collection, storage or use could be improved?	\checkmark		We will be training our records officers to capture and collate compliance data/information to ensure it is readily available and accessible to all relevant personnel.

Is the data collected by the Regional Council accurate? Are any new strategies needed to improve accuracy?	\checkmark	
Does the pre-filled data provided in this template align with the data the Regional Council has? i.e. is this pre-filled data accurate?	\checkmark	
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 16. 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 17).

Table 16: Assessment of waste management performance and prioritisation of future actions (RC to complete the table)

 Operation of the only Class IV Landfill in the Perth Metropolitan Area Attained ISO14001:2015 standard for the Red Hill Environmental Management System Only Mattress processing facility in WA at the Hazelmere RRP Consistently improved 3rd party participation in the EMRC's waste battery and CFL collection programs since its inception 17 years ago Successful collaboration with the Town Of Bassendean in providing Complementary Measures to assist in their FOGO rollout Creation and Implimentation of the EMRC Waste Education Strategy 2019-2030 And Action Plan Creation and implementation of the Red Hill Development Plan 2020 Provided a dedicated Waste Plans Officer to assist the member councils with the generation of their Waste Plans Construction of the Interim FOGO waste processing facility at Red Hill for Bassendean waste Successful collaboration with member councils in generating their waste and recycling guides, by maintaining individuality whilst employing consistent communication and Waste Sorted messaging Since 2009 the EMRC has provided a HHW deposition and transfer service at the Red Hill Waste Management Facility
Nil at this stage
 Continue to implement the HHW program Continue with our battery and fluoro tube collection program Continue to operate the Shire of Mundaring and Bayswater Community Recycling Centres Investigate markets for FOGO derived compost Establish a contract with Western Power Assisting our member councils with the generation of their Waste plans Operate the Interim FOGO processing plant at Red Hill WMF Waste Education Officer secondments to our member councils to facilitate successful FOGO rollouts Assist the Shire of Mundaring with their CDS Rollout
 Short term (within the next 1-2 years) Construct and operate a liquid waste processing facility at Red Hill WMF Construct and operate a PFAS processing & storage facility at Red Hill WMF Construct a commercial transfer station and community recycling centre at Hazelmere RRP Construct and operate a permanent FOGO processing facility at Red Hill WMF Commission and operate a new wood waste to energy plant at Hazelmere RRP Undertake bin tagging programs for our member councils Review and implement the Waste Education Strategy
 Providing a "waste health check" and FOGO modelling service for WA Local Governments Medium term (within the next 3-5 years) Expansion of the landfill gas power station at Red Hill WWF to capture gas produced from the permanent FOGO processing plant

		Waste Management Tool	Waste Management Tool	Waste Management Tool	Waste Management Tool	Waste Management Tool	
		Waste Services	Waste Infrastructure	Polices and Procurement	Data	Behaviour Change Programs and initiatives	Other
Actions	1	Continue to implement the Waste Authority HHW program	Construct and operate the interim FOGO processing plant at Red Hill for Bayswater and Bassendean wastes	Develop and sign off on a new Broiler Growers contract	Waste Operations Records Officer to collate all compliance reports generated at EMRC operated waste management facilities and upload into EMRC's records management system	Ongoing provision of the Waste Management Community Reference Group	
Actions	2	Continue to implement the Battery & Fluoro tube collection programs	Construct and operate a new FOGO processing facility for all member councils and approved sources	Develop stakeholder Relationship Plan	Develop and oversee the Red Hill Development Plan and Hazelmere Development Plan	Ongoing development and provision of the Waste Recycling Guide to Member Councils	
Actions	3	Undertake contaminated sites investigations & provide environmental consultantcy service to member Councils and other clients	Construct a Waste Wood to Energy Facility at the Hazelmere RRP	Investigate markets for FOGO derived compost	Undertake kerbside bin tagging on behalf of member councils to assist in FOGO rollouts and contamination issues	Develop and deliver waste education resources and tools at workshops and events to support behaviour change	
Actions	4	Continue to operate the Shire of Mundaring Transfer Stations	Investigate options for resource recovery and environmental technologies at the Red Hill Waste Management Facility including a Processed Engineered Fuel Processing plant.	Develop and implement programs to increase sales of Red Hill compost/mulch by-products:	Audit Environmental Management System ISO 14001:2015 and implement improvements (where required)	Review and implement the Waste Education Strategy	
Actions	5	Construct and operate a new liquid waste processing facility at Red Hill	Investigate expansion of the landfill gas power station at Red Hill in conjunction with the new FOGO facility	Develop and implement programs to increase sales of Hazelmere by-products: mulch & Biochar	Develop a new Advocacy Strategy 2021- 2025	Promote and co-ordinate Education Tours	
Actions	6	Undertake waste plastics sorting and recovery trials at the Hazelmere RRP	Investigate and develop a commercial waste transfer station at Hazelmere RRP	Investigate opportunities for a contract with Western Power	Utilization of the BCI Platform to enhance EMRC's business opportunities	Assist in the promotion of and facilitate the success of the FOGO roll-out process for all member councills	
Actions	7	Ensure resource recovery operations at the Hazelmere RRP are undertaken in conjunction with Better Practice guidelines	Investigate and develop a community recycling centre at Hazelmere RRP		Provision of a waste "health check" consultancy service to Local Governments	review, evolve and facilitate the Earth Carers training course	
Actions	8	Continue to successfully provide the Drum Muster scheme at Red Hill			EMRC instigated role of Waste Plans Officer to develop, facilitate and produce Waste Plans in conjunction with WARR Act and DWER requirements	Provide Ongoing coordination of the Regional Waste Education Steering Group (RWESG)	
Actions	9	Continue to successfully provide the Paint Back scheme at Red Hill					
Actions	10	Construct and operate a PFAS processing/storage facility at Red Hill					
Actions	11						
Actions	12						
Actions	13						
	14						

		Part 2 - Implementation plan												
Waste Manage	ement Tool	Action (OR link to existing local government plan/document that details this activity)	ls the action new or existing?	Detailed actions/sub-actions (OR link to existing local government plan/document that details this activity)	Hyperlinks to Web Page Information	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 V Avoid	Waste Strateg Recover	y Objective/s Protect	Responsibility for implementation (branch, team or officer title, not the names of	n Identified risks f (Impact/consequences and mitiga
1 Wa	/aste rvices	Continue to implement the Waste Authority HHW program	Existing	 Continue to provide a Waste Authority funded facility at Red Hill - follow hyperlink for more details. Feasibility study to develop a Community Recycling Centre (CRC) at Hazelmere RRP. Approach WALGA and nominate the Hazelmere CRC to incorporate a funded HHW Facility. WALGA Approval. Present a business case identifying preferred service and processing options, implementation timeline and strategy to council. CRC and HHW facility constructed and operational. Annual compliance audit. 	<u>Red Hill HHW</u>	 HHW Facility at Red Hill to operate in conjunction with WALGA directives - ongoing. Stakeholder consultation, feasibility study generated and business case produced. Dec 19. WALGA approval sought and granted - March 20. New facility proposed to council for approval - mid 2020. Facility commissioned mid to late 2021. Annual compliance audit undertaken - mid to late 2022. 	By the end of 2021 the EMRC will be operating a second WALGA funded and approved HHW facility at Hazelmere RRP .	End 2021	Y		*	¥	Chief Operating Officer	Risks : Poor stakeholder participation and model generated; failure to act on recommunacceptable problematic wastes; health impacts. Mitigation: Dedicated project managem action items are implemented in prescribe accurate reports generated/disseminated staff follow SOP and deal with issues con materials; annual compliance audits with t actioned.
2 Waste	services	Continue to implement the Battery & Fluorescent light collection programs	Existing	 EMRC Waste Education team to continue to administer and advocate for the collection and recycling of batteries at schools and public places, and fluoro tubes at public places in conjunction with Industry standards & best practice. EMRC to continue to provide Waste Education Officers to facilitate the success of the programs - follow hyperlinks for more details on programs. EMRC to provide a battery/fluoro tube collection officer to ensure the safe collection and transport of batteries to the EMRC storage facility. EMRC to investigate and procure 3rd party services promoting and delivering the best practice recycling solutions for waste batteries. 	EMRC Battery Collection Program for Schools EMRC Battery Collection Program for Public Places	 EMRC Waste Education Department reviews current practices and aligns them to Better Practice guidelines (where appropriate), Industry Standards and recommended improvements – As required. Programs to be in line with the Strategic Development Plan and Corporate Business Plan – Tracked Annually. 	Services reviewed constantly and consistently at Monthly Waste team Department Meeting and any issues appropriatey delegated and actioned	Ongoing	Y		*	V	Chief Sustainability Officer	Risks: Programs not adhering to Better innovative standards or current consistent messaging; wastes inappropriately segre- collection points. Mitigation : EMRC Waste Education Dep appropriately educated and very informed run and maintain the programs; EMRC su receptacles and signage for the delineate Battery Collection Officer liaises with each optimum service porvision.
3 Wa ser	/aste rvices	Undertake contaminated sites investigations and provide environmental consultantcy service to member Councils and other clients	Existing	 Key Result Area 1.2 of the Corporate Business Plan is to improve regional waste management by providing a Waste Management Advisory Service - Follow hyperlink to Corporate Business Plan. A Key Action of the Waste Advisory Service is to undertake contaminated site investigations and provide environmental consultancy (where required). Dedicated EMRC department, Waste Environmental Operations, to include the provision of these services. Expand services offered, including landfill gas emission investigations. Develop marketing and advertising strategy to increase market share. Expand department accordingly in response to demand for services 	EMRC Plans for the Future	 Stakeholder meeting with Communications and Marketing department to include the service provisions - end 2020. Expected expantion of department to begin - mid 2021. 	The end of 2021 will see the EMRC become a market leader in the provision of contaminated land investigations and environmental consultancy.	Mid 2021	Y			~	Chief Projects Officer	Risks : Department not developed to its f generated are inaccurate or below compa- standard. Mitigation : Positive and consistent enga stakeholders and to develop a realistic an timeframe for growth, in conjunction with obligations; staff employed to undertake s generate reports are suitably trained, qua leading tools to remain a desirable resour
4 Wa Ser	/aste rvices	Continue to operate the Shire of Mundaring Community Recycling Centres and Baywaste	f Existing	 A Key Result Area Objective 1.1 in the Corporate Business Plan is to Operate Member Council Community Recycling Centres and Transfer Stations (where applicable). EMRC existing contractual agreements with the Shire of Mundaring and the City of Bayswater to provide all services, plant, equipment and man power for all site operations, including waste transport and disposal - Follow hyperlink for Community Recycling Centre details. Ongoing consistent communication and consultation betweer the EMRC and Mundaring or Bayswater to ensure the facilities are operating safely, efficiently and as required by the Member Councils and the local residents. Ongoing review of operations by the EMRC to ensure they are performing according to their KPI's, Best Practice and license conditions. 	Regional Community Recycling Centres and Transfer Stations	 Facility operations and service provision performance meetings to stakeholders – ongoing. Compliance reporting submitted to DWER – annual. 	Service provision and expectations to be mutually advantageous to facilitate consistent strong positive relationships ongoing until facility closure or dissolution of contractual agreement.	S . Ongoing until contract dissolution agreement	Y	✓	✓	✓	Chief Operating Officer	Risks: Facilities operating outside of their EMRC and/or Mundaring not providing the the contract; waste input/output data not of compliance reports not submitted to DWE Mitigation : EMRC provides trained comp the facility under the supervision of experi EMRC and Mundaring to regularly common operational/contractual concerns and ensi- resolution; EMRC's SOP of the facility ma- capture to facilitate the completion and pri- reports to applicable departments, with co- EMRC records management database.
5 Wa Sev	/aste evices	Undertake wast plastics sorting and recovery trial at the Hazelmere RRP	New	 Stakeholder meeting to discuss and ascertain which plastics are presently recyclable/non-recyclable and to establish respective markets for the segregated materials. Calculate the footprint and infrastrcuture required for plastics waste recovery/processing. Generate Safe Operating Procedures for site staff to follow to allow the recovery of suitable waste plastics. Stakeholder meeting to discuss the new SOP's and list of acceptable plastics for recovery and implementation timeline. Commission plastics recovery. Generate a report on volumes recovered, contamination issues and plastic market acceptance. 		 Plastics recycling and market evaluation - June 2020. Footprint and infrastructure calculation – September 2020. Stakeholder meeting to discuss new SOP's and project implementation timeline – November 2020. Commission plastics recovery – January 2021. Stakeholder meeting to discuss issues and market responses to recovered plastics removed off-site – Mid 2021. 	Following Council approval, by the middle of 2021 the EMRC will be viable recovering hard plastics with a strong market acceptance approval.	ly Mid 2021	Y		*		Chief Projects Officer	Risks: Inappropriate footprint and infrast processing; waste too contaminated for co- insufficient market for recovered plastics. Mitigation : Dedicated project managen engage plastics market and also to ensur- meaningful data is captured reported and site staff trained to follow SOP's.
6 Waste	Services	Ensure resource recovery operations at the Hazelmere RRP are undertaken in conjunction with Better Practice guidelines	New	 Stakeholder contributions produces a Hazelmere Development Plan. Existing and future operations contributing to the plan to include a review against Waste Authority/WALGA Better Practice Guidelines. Better Practice aligned to operations Annual review of all operations to ensure they are adhering to current Better Practice guidelines 		 Existing operations reviewed and future operations established and Hazelmere Development Plan generated – end 2020. Better Practice guidelines aligned to operations – end 2020 to present. Annual review of operations and Better Practices to commence - 2021. 	Hazelmere RRP will, where appropriate, begin to align its operations to Waste Authority Better Practice guidelines by the end of 2020). End 2020	Y		*	√	Chief Operating Officer	Risks: Resource recovery operations do possible/applicable, align with Better Prace Mitigation: Project and facility manager facilitates strong and effective stakeholde ensuring the Development Plan includes a collective adherence to Better Practices.
7 Waste	Services	Continue to successfully provide the Drum Muster scheme at Red Hill	Existing	 Site Manger liaises with Drummuster to coordinate collection days with local resident drop-off days and to ensure procedures align with their current safe operational practices . Local resident drop off days, together with Drummuster container acceptance requirements published on EMRC webpage – follow Hyperlink for further information. 	<u>Red Hill Drum Muster</u>	 1.Drummuster operation included in Red Hill Development Plan - April 2020. 2. Drummuster reports received following the collection of containers Ongoing. 3. EMRC Stakeholder engagement on current and any future process changes - annual 	EMRC to continue to promote and provide a Drummuster service at the - Red Hill Waste Management Facility .	Ongoing	Y		*	✓	Chief Operating Officer	Risks : Contaminated/hazardous contain residents unaware of service or designate EMRC not adhering to current Drummust processes. Mitigation : Drums/containers inspected they are acceptable; EMRC to ensure tha current and correct with regards to Drum ongoing consistent and effective commun
8 Waste	Services	Continue to successfully provide the Paint Back scheme at Red Hill	Existing	 Red Hill HHW facility accepts paint waste as per Paint Back scheme directives follow hyperlink for futher information. Red Hill consolidates the paint into temporary storage vessels/stillages. Paint Back collects the paint for treatment/disposal. 	<u>HHW & Paint Back</u>	 Waste paint acceptance (through the HHW scheme) and Paint Back operation included in Red H Development Plan - April 2020. Paint Back reports received following the collection of containers - ongoing. EMRC Stakeholder engagement on current and any future process changes - annual. 	EMRC to continue to promote and ill provide a Wste Paint drop off service at the Red Hill Waste Management Facility - Ongoing	Ongoing	Y		*	~	Chief Operating Officer	Risks : Non-conforming paints accepted paints inappropriately decanted/stored pr EMRC not conforming to Paint Back direct Mitigation: All paints accepted into Red the HHW site attendant; RED Hill Safe W employed to decant and store paints; effe engagement with Paint Back.
9 Waste	Services	Construct and operate a Polyfluoroalkyl Substanes (PFAS) processing & storage facility at Red Hill	New	 Business Plan. Infrastructure assessment and mono-cell design. CEO endorsement. Council approval. Licence Amendment Application. Licence Amendment approval. RFT and Tender awarded Processing plant and mono-cell constructed. Mono-cell CQA Approval. Plant commissioned, processed waste analysed for compliance and mono-celled. 		 Business case & Infrastructure Assessment/mono- cell design – 2016. CEO & Council approval – 2016. Licence Amendment application - mid 2017. Licence Amendment approval – September 2017. Tender process undertaken and contract awarded 2018 Plant and Mono-cell constructed mid to end 2020. Mono-cell CQA approvals – end 2020. Plant commissioned early 2021. 	 Fully functional PFAS processing and storage operations by mid 2021 - 	Early to mid 2021	Y		~	✓	Chief Projects Officer Chief Operating Officer	Risks : Mono-cell not engineered to class unable to process waste for Class III disp waste for continued economic viability. Mitigation: Mono-cell constructed as per requirements and engineered to applicab Plant design proven to treat PFAS materi state for Class III/Mono-cell acceptance; in business case captures present, emergin practices giving rise to PFAS waste gene ensures ongoing positive relationships wit competitive for continued enterprise.
10 Waste	Services	Construct and operate a new liquid waste processing facility a Red Hill	New t	 Cross directorate project group develops a business plan. CEO approval. Council approval. Statutory Approvals. Plant design evaluation Request for Tender. Award Tender. Construct Facility. Commence operations. 		 Business Plan developed – 2018. CEO & Council approvals – 2018. Statutory Approvals – 2018/2019. Plant design evaluated mid 2019. Tender Process completed -2019. Facility constructed mid to end 2020. Operations commence early 2021. 	Fully functional Liquid Waste Plant operating by mid 2021	Early to mid 2021	Y			V	Chief Projects Officer Chief Operating Officer	Risks : Community concern; exceeded co project timelines not met; market compet issues; personal health issues. Mitigation : Stakeholder Management Pl planning; dedicated project manager; ong and personal health monitoring.

gation strategies) nd inaccurate business nmendations; receipt of h & environmental ment to ensure agreed bed timeframes and

ed; well trained facility ncerning unacceptable n findings appropriately

Practice/Industry nt educational egated/stored at

epartment employees ed/experienced staff to supplies appropriate ted waste types and the ch facility to facilitate an

full potential; reports arable industry

agement with all and manageable a service delivery site investigations and alified and utilize market urce.

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nakes provision for data provision of regulatory copies stored in the

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d at Red Hill to ensure hat the Webpage is huster information;

unication between the d into the HHW facility; prior to off-site disposal; rectives.

d Hill are inspected by Working Method ffective and consistent

s III certification; Plant posal; insufficient PFAS

er SOP; legislative ble verified standards; rials to the required ; market research & ing and future industry reration, and EMRC with customers to remain

construction budget; tition; environmental

lan; robust fiscal going environmental

11	Waste infrastructure	Investigate and develop a commercial waste transfer station at Hazelmere RRP	New	 Cross directorate meetings to establish a detailed facility design and processes. Business case finalised and submitted to council for endorsement. Request for tenders for facility construction issued. Tenders evaluated and preferred candidate recommended. Facility constructed and commissioned. Commencement of Waste deliveries form the transfer station to the East Rockingham RRF 		 Facility operations and design details determined – November 2020 to January 2021. Business case submitted to council for approval – January 2021. Request for tenders - January 2021. Tenders evaluated – April/May 2021. Facility constructed and commissioned – June 2022. Deliveries of waste to East Rockingham RRF – December 2022 	From mid-2022 the EMRC will be operating a market leading facility, ensuring effective collaboration with its partners and positive relationships with the waste sector	Mid 2022	Y	*		Chief Projects Officer Chief Operating Officer	Risks : Inaccurate business model; Insuffic project rejected by Council; Inappropriate contractor(s); market not responding as an underutilized. Mitigation : Experienced project manager from the onset and ensure all stakeholders informed and provide accurate and meanin business model; well executed project imp delivery plan expertly disseminated to Cou approval; ongoing and effective facility man is operating within agreed parameters and partnerships positively maintained.
12	Waste infrastructure	Construct and operate the interim FOGO processing plant at Red Hill for Bayswater and Bassendean wastes	New	 Member Council engagement with EMRC to provide treatment and disposal options for their FOGO waste. Qualitative and quantitative assessment of anticipated waste inputs to establish type and size of Interim FOGO plant/facility required. Planning and license modification applications. Timeline for facility commencement of operations established. CAPEX approved with Invitations for tenders and assessment of facility designs. Decision on plant . Plant construction & commissioning . Waste input assessment and reporting - feedback on contamination levels Waste Education department liaises with member council to combat contamination 		 Following meetings with member councils FOGO waste assessments concluded - Jan 19. Intended plant operational size established and Licence amendment sought and approved - June 19. Operational timelines agreed and plant design/construction tenders sought & received - Dec 19. Plant constructed & commissioned - June 20. initial report to Member Councils on waste descriptions and processing issues - Oct 20. 	Plant operational to receive waste by July 2020 aiming for optimal efficiency through contamination reductions by the end of 2020.	Mid 2020	Y	¥		Chief Projects Officer Chief Operating Officer	Risks : Wrong plant design or insufficient of commissioning; too much contamination for end product. Mitigation: Well researched and accurate data; very effective ongoing communicatio stakeholders; waste input assessment rep member councils are appropriately actioned contamination reductions in resident waste
13	Waste infrastructure	Construct and operate a new permenant FOGO processing facility for all member councils and approved sources	New	 Undertake FOGO facility inspections and report findings. Assess plant capacity requirements from Member Councils and other sources via a participation FOGO supply agreement. Issue RFT for plant provision/construction. Finalise tender evaluation. Council decision. Works approval and referral to DWER Contract finalised. Statuary approvals received. Plant constructed. Plant commissioned. 		 Facility inspections - 2019. Participation FOGO Supply Agreements received and Plant capacity requirement established – end 2020. RFT and evaluations – early 2021. Council decision – early 2021. Approval referral to DWER – early 2021. Contract finalised – mid 2021. Approvals received – mid 2021. Plant constructed and commissioned - end 2022 to mid 2023 	By mid to 2023 the EMRC will have a fully operational facility to accept all participating member council FOGO wastes	End 2022	Y	*	¥	Chief Projects Officer Chief Operating Officer	Risks: Plant insufficient or undersubscribe not met; plant not operating correctly; pollu Mitigation : Participation FOGO supply ag comprehensive business model; dedicated management; expert 3rd party contractors operate plant; Environmental Impact Asses environmental monitoring.
14	Waste infrastructure	Investigate options for resource recovery and environmental technologies at the Red Hill Waste Management Facility including a Processed Engineered Fuel Processing plant	New	 Key Result Area 1.3 of the Corporate Business Plan is to provide resource recovery and recycling solutions in partnership with member Councils and one strategy is to Investigate options for resource recovery technologies at the Red Hill Waste Management Facility - follow hyperlink to Corporate Business Plan. Cross Directorate Project Group develops a business plan. Comparable technologies investigated for applicable plant design/process. Local businesses approached for participation agreements. Legislative requirement process undertaken including an EIA. Corporate proceedings actioned & resolved. Council approvals sought and received. Plant constructed & commissioned. Ongoing environmental monitoring. 	EMRC Plans For The Future	 Cross Directorate Project Group's research, assessment and business plan – 2020-2022. Local business participation agreement(s) 2021/2022/2023. Legislative, Corporate and Council process undertaken and completed – 2020-2023. Plant commissioned – 2023/2024. 	Local industry approached/consulted by 2021 with a fully operational plant producing PEF, subject to a business case approved by council, by 2024	2024	Y	¥	~	Chief Projects Officer	Risks : Unsuitable plant and or process, ne PEF. Mitigation: Develop an in-depth knowledg and carry out a detailed analysis of the residetermine its viability for conversion to PEI engagement with local industry to assist in and to facilitate future partnerships.
15	Waste infrastructure	Investigate the expansion of the landfill gas power station in conjunction with the new permanent FOGO facility	New	 Member Council FOGO waste assessment delineates permanent FOGO plant processing requirements and expected quantity of generated methane. Energy Developments Ltd (EDL), operating the Red Hill landfill gas power station, are requested to establish the plants gas intake capabilities and to calculate modification costs/timelines (if any) for the projected absorption of the FOGO methane. Fiscal and environmental report generated by Chief Project Officer for stakeholders & CEO. Funding request submitted to council for approval. Permanent FOGO facility constructed at Red Hill & commissioned. Planned modifications to power station completed. Power Station processes FOGO plant gas into electricity. 		 FOGO waste assessment from member council participation estimates – end 20220 EDL establish plant modification costs and timelines – early 2021. Reports submitted to Council and funding approved - late 2021. FOGO plant constructed and commissioned mid 2023. Power plant modifications completed and processing FOGO gas – end 2023. 	By aligning the modifications of the power plant to the construction and commissioning date of the FOGO plan will ensure gas emitted through FOGO processing will not be emitted to atmosphere.	t End 2023	Y		✓	Chief Projects Officer	Risks: FOGO plant generated gas emitte inability of power station to absorb FOGO power station modifications not completed exceed budget allocation. Mitigation : Project management; expert of effective ongoing stakeholder engagement timelines will ensure the power station will l processing the FOGO gas when required.
16	Waste infrastructure	Investigate and develop a community Recycling Centre at Hazelmere RRP	New	 Interdepartmental meetings to establish the facility design and processes. Business case generated and submitted to council for approval. Request for tenders for facility construction issued. Tenders evaluated and preferred candidate recommended. Facility constructed and commissioned. 		 Facility operations and design details evaluated – November 2020. Business case submitted to council for approval – December 2020. Request for tenders - February 2021. Tenders evaluated – April/May 2021. Facility constructed and commissioned – January 2022. 	From early-2022 the EMR will be operating a market leading facility and delivering a popular patronised community service.	Early 2022	Y	✓	¥	Chief Projects Officer	Risks : Inaccurate business model; Insuffic project rejected by Council; Inappropriate facility underutilized. Mitigation : Experienced project manager from inception to fruition, ensuring all stake engaged, informed and provide accurate a for the business model; well executed proj and delivery plan delivered to Council facili ongoing and effective facility management operating successfully, within agreed parage maintaining positively aligned 3rd party par
17	Waste infrastructure	Construct a Wood Waste to Energy Facility at the Hazelmere RRP	New	 Initial Council meeting to consider the proposed investigation into the feasibility of pyrolysing wood waste and other residuals at EMRC's Hazelmere site. Council approves expenditure for the second stage detailed engineering study into a pyrolysis plant at the Hazelmere site involving the specification of the plant, equipment required and an accurate cost estimate. Council approval to proceed with the Hazelmere Wood Waste Pyrolysis Project. Consultation and joint venture with Ansac (market leader in Waste pyrolysis) with funding approval from the Federal Government to Ansec under the Clean Technology Innovation Fund to build a 3MW plant. Environmental Impact Assessment undertaken by Ansec. Plant design and commissioning timeline established and submitted to the DER for Public Environmental Review in accordance with the EPA 1996. Presentation to Councillor briefing. Request for Tenders circulated for contract to operate and maintain the plant once commissioned. Contract awarded to Monadelphous. Waste Acceptance monitoring and management plan prepared for EMRC by Environmental consultants Strategen. Plant constructed and commissioned. 		 Final Council approval for Wood Waste to Energy Plant at Hazelmere - 2013. Joint venture, plant design and Federal Government funding received - 2013. Environmental Impact Assessment - 2014 . Public Environmental Review - 2014. Presentation to Council - 2014. Request for Tenders circulated, received and successful applicant accepted - 2017. Waste Acceptance Plan completed - 2017. Plant Commissioned late 2020. 	By the end of 2020 Hazelmere will be successfully operating a plant that achieves both technical and environmental standards/constraints	End 2020	Y			Chief Projects Officer	Risks: Inappropriate plant design; plant ne completed/commissioned on schedule; po not operated correctly; incorrect feedstock Mitigation: Effective and consistent proje ensure strict adherence to deadlines; stror engagement and communication with all si professionals consulted/employed for appi design/construction and to conduct Enviror Assessments pre and post plant commiss with licence compliance monitoring; comm operated by trained specialists; Standard (to include the use of feedstock approved b Acceptance & Monitoring Plan.
18	Policies and procurement	Investigate markets for FOGO compost	New	 Qualitative and quantitative assessment of anticipated waste. Investigation into FOGO treatment(s) to generate compost/mulch product to AS 4454. Consultation with the FOGO Reference Group & Investigate comparable national operation. Open dialogues to establish internal (member Councils) and external market opportunities for product. 		 Initial waste assessment concluded -Jan 19. Applicable FOGO treatment established in conjunction with approved plant design - May 19. Consultation with FOGO Reference Group and other applicable national professional bodies - June to Dec 19. Initial meeting held with potential clients – August, 2019 	Market/end use established for interim FOGO plant composited product established by June 20.	End 2020	Y	✓		Chief Projects Officer	Risks : Inaccurate assessment of waste q AS 4454 standard; no market for end proc Ongoing, consistent and well engaged con stakeholders; reports to waste generators contamination issues; ongoing effective co FOGO Reference Group and affiliated indu Governments to ensure a market share fo

ficient budget allocation; e choice of anticipated and facility er to drive the project lers are well engaged, aningful data for the plementation and ouncil to facilitate their nanagement to ensure it nd 3rd party nt capacity; delay in plant for desired compost ate project inception ition with all reports submitted to oned to ensure ongoing ste collections. bed; project timelines ollution impact. agreement; ted project ors to commission and sessment and ongoing no ongoing market for edge of the PEF industry residual waste to PEF; effective early t in the business model ted to atmosphere; O plant gas quantities; ed as scheduled and/or t consultation and nt with strict deliverable ill be capable of fficient budget allocation; e choice of contractor; er to drive the project akeholders are well te and meaningful data roject implementation cilitating their approval; ent to ensure it is rameters and is artnerships. . . . ollution impact; plant oject management to rong/effective stakeholders; specialist opropriate plant ronmental Impact issioning in conjunction mmissioned plant to be rd Operating Procedure ed by the Waste quantities; cannot meet roduct. *Mitigation*: consultation with all ors to mitigate communication with the ndustries/Local e for product.

19	Policies and procurement	Develop and sign off on a new Broiler Growers contract	Existing	 Key Action 1.3 of the Corporate Business Plan is to provide resource recovery and recycling solutions in partnership with member Councils and further develop and implement programs to increase sales of Hazelmere RRP by-products - follow hyperlink for more information on Hazlemere products. Directorate assess and confirms estimated production quantity of wood chip fines is contractually sufficient for Broiler Growers Association requirements. Facility manager ensures existing and future processes allow only the appropriate feedstock for material production. Representative chemical analysis of products is within contractual limits. Contractual agreement drawn up by the EMRC and signed- off. 	<u>Hazelmere RRP</u>	 Assessment of current processes and product feedstock together with chemical analysis data – Early 2020. Directorate draws up contractual agreement for CEO approval – July 2020. CEO and Broiler Growers Association contractual agreement sign-off – mid to late 2020. 	New 5 year contract sighned off prior to 2021	Jul-05	Y		*		Chief Projects Officer	<i>Risks</i> : Insufficient product; product not accepted of by the BGA. <i>Mitigation:</i> Contract provides mutually beneficial of allow for potential fluctuation in product quantity; So ongoing chemical analysis data ensures product co acceptability.
20	Policies and procurement	Develop Stakeholder Relationship Plan	New	 Stakeholder engagement is fundamental to the EMRC's role as a regional Council, responding to the needs of its six Member Councils and to the overall needs of the Region, which is a foundation of good governance. The EMRC embraces a culture and practice of meaningful engagement, leading to more sustainable and informed decision making. The EMRC recognises that Stakeholder engagement is the responsibility of the entire organisation and works hard to identify the most appropriate and effective engagement methods to suit the circumstance and to also work to continually enhance relationships and build greater collaboration and cohesiveness across the region. Draft Stakeholder Relationship Plan produced in accordance with Section 1.3 (2) of the Local Government Act 1995. and circulated to Directorates and CEO for comment. Draft amendment requirements actioned. Plan presented to Council for review. Plan endorsed and adopted. 		 EMRC CEO recognition of the requirement for a contemporaneous Stakeholder Engagement Plan – April 2020. Chief Sustainability Officer generates draft plan for circulation and feedback – May 2020. Finalised Plan submitted to Council for review – June 2020. Plan endorsed by Council and adopted by the EMRC - August 2020. 	Once endorsed the guiding principles in the new Stakeholder Relationship Plan will be disseminated throughout the organisation to facilitate positive & effective present and future relationships – mid to late 2020	End 2020	Y	✓	✓	~	Chief Sustainability Officer	<i>Risks</i> : EMRC has no consistent framework to ensist stakeholders affiliated with the organisation are appengaged. <i>Mitigation:</i> the generation and effective dissemina Plan will promote and generate robust, continuous, positive relationships.
21	Policies and procurement	Develop and implement programs to increase sales of Red Hill compost/mulch by- products	Existing	 Revaluation of product generated from composting operations. Market investigated and consulted to align composted material into a desired product Improved processing and sampling regime deliver two grades of marketable mulch. Improved advertising strategy and mulch packaging design which includes the wastes "journey" into compost/mulch, refencing circular economy principles. 		 Composting operations revaluated in conjunction with market research - January 2020. Processing and sampling of 2 grades of product – April 2020. Advertising, packaging and marketing strategies improvements – May to present 	By the end of 2020 the EMRC will be producing a recognised and sought- after product to an increasing customer base.	End 2020	Y		*		Chief Projects Officer	Risk : Products generated are not accepted by the Mitigation : Well researched and consistent market investigation ensures an ongoing customer base we to react and diversify as the market dictates.
22	Policies and procurement	Develop and implement programs to increase sales of Hazelmere by-products: mulch & Biochar	Existing	 Re-evaluation of current wood chipping operation. Instigation of Clear and improved KPI's to eliminate contamination issues, increase customer service and increase sales. Increased research to establish market requirements. 4. Four colours of mulch generated in response to market research. Multi-platform media targeted for advertising of products. Improved financial investment focussing on processing and contamination issues increases sales and facilitates a 4-year broiler growers contract. Biochar market research. Analysis of biochar, once generated, following commission of the wood waste to energy plant. Market approached with biochar product and corresponding analysis results 		 Wood chipping operation re-evaluated and new KPI's established – January 2020. Coloured mulch generated in response to market research – Early 2020. Increased advertising, waste processing and reduced contamination facilitates a 4-year broiler growers contract – July 2020. Biochar market research and sales following plant commissioning mid-2020 to early 2021. 	Improved KPI's', operational processes and customer service will see a continued increase in product quality, diversity and sales from mid-2020.	Ongoing	Y		*		Chief Projects Officer	Risks : Products not selling; quality reduction and or issues resulting in loss of broiler growers contract. Mitigation : KPI's; products from wastes processes followed according to the operating procedures; ma consistently tested and rapidly responded to; strong effective customer relationships.
23	Policies and procurement	Investigate opportunities for a contract with Western Power	New	 Business case developed to dispose, divert and recover suitable Western Power wooden pole waste from landfill. Licence amendment application to treat class 4 treated wooden poles at Hazelmere RRP. Stage 1 agreement with Wester Power to dispose of all of their wooden pole waste to Red Hill. Stage 2 agreement with Western Power to accept all waste at Hazelmere and split into recoverable and non-recoverable waste. Wood wastes chipped with treated timber going to Red Hill, untreated feeding the Wood waste to Energy plant and metals within the wood recovered for recycling. Obtain a Controlled Waste Carriers Licence to transport treated timber from Hazelmere to Red Hill 		 Business case established – January 2020. Licence amendment application approved – August 2020. Stage 1 agreement commences – June 2020. Stage 2 agreement commences – November 2020. Controlled Waste Carriers Licence obtained – November 2020. 		End 2020			*		Chief Projects Officer	Risk : Waste unsuitable for class 4 disposal/accep wood waste to energy plant; Class 4 cell oversubso pole waste and fills earlier than anticipated. Mitigation : Standard Operating Procedure establi followed to ensure wastes accepted are clearly ide segregated; ongoing analysis of waste to ensure re compliance and pyrolysis acceptability; treating/grin treated timber at Hazelmere will greatly reduce the waste and assist in ensuring landfill cell longevity.

ccepted or acceptable peneficial clauses to quantity; SOP and s product compliance and vork to ensure all on are appropriately dissemination of the ontinuous, apt and oted by the market. stent market er base with the ability ction and contamination contract. processes strictly edures; market ed to; strong and sal/acceptance into the oversubscribed with

ted. dure established and e clearly identified and to ensure regulatory treating/grinding the reduce the volume of

Normalization Norm															
Image: Section of the section of t	24	Data	Undertake kerbside bin tagging on behalf of member councils to assist in FOGO rollouts and respond to contamination issues	Existing	 Member Council requests the EMRC undertake kerbside bin tagging on their behalf. Member Council provides EMRC Waste Education Department with the list of properties for the tagging program. EMRC Waste Education Department proceeds in conjunction with the WALGA bin tagging system. Report following the program produced by the EMRC and disseminated to the member councils. Data used to assist in the generation of community engagement education initiatives for ongoing reduction in contamination rates. 		 Initial Member Council request for bin tagging assistance - February 2020. First round of bin tagging postponed due to COVID-19 restrictions. Bin tagging program begins – October 2020. Bin Tagging report circulated to stakeholders - October 2020. 	By the end of 2020, data captured from Bin Tagging will have assisted in the continued improvement of FOGO rollouts and contribute in combating contamination issues.	Ongoing - 2025 +	Y	*	*	*	Chief Sustainability Officer	Risks : Inaccurate/meaningless/inconsiste training; stakeholder inaction following report Mitigation : EMRC to facilitate effective conservation of the stakeholders resulting in being used in a timely, effective and efficies ensure all field officers are adequately train guidelines and accurately record/report the
N Marked Ma	25	Data	Accountable EMRC staff, in conjuntion with the Records Officer to collate all compliance reports generated at EMRC operated waste management facilities and upload into EMRC's records management system	New	 Key Result Area Objective 1.1 of the Corporate Business Plan is to minimise the environmental impact of waste management operations and to facilitate this by preparing and submitting annual Monitoring and Compliance Reports. Stakeholder meeting to ascertain the present locations of hard and soft copies of facility Compliance Reports. Stakeholders identify present systems to keep and new systems to employ. Records Officer instructed to create – where applicable - new folders in the EMRC electronic records management system. Officer's role to ensure all facility compliance reports are collated and uploaded into the designated locations of the records management system. 		 Stakeholder meeting – August 2020 Records management system restructured – October 2020 Designated role of Waste Operations Records Officer – October/November 2020 	By the end of 2020 the EMRC will have a deignated officer collating all waste facility complaince reports	End 2020	Y		✓	*	Chief Projects Officer	Risks : Not all compliance reports are cap inconsistent submission of reports to Reco Officer stores reports in incorrect location. Directorate ensures all stakeholders well in and the method/timelines for submitting the Records Officer disseminated; Records Of provided with SOP for records capture and
2 See 1	26	Data	Develop and oversee the Red Hill & hazelemere Development Plans	New	 The Corporate Business Plan is informed by a suite of documents including Strategic High-Level Plans, one of which is the Red Hill Development Plan: The Development Plan 2020 identifies the future infrastructure requirements for the Red Hill Waste Management Facility (RHWMF) based on the current and anticipated future activities on the site. Cross directorate collaboration. Draft Plans generated and circulated for internal review. Review comments disseminated to all stakeholders. Development Plans inaugurated. Plans annually reviewed. 		 Red Hill draft generated - April 2020, Hazelmere draft - October 2020. Red Hill plan reviewed and inaugurated – August 2020, Hazelmere - December 2020. Red Hill annual review commences – August 2021 and Hazelmere - December 2021. 	New Development Plans becomes live referenced documents before the end of 2020	End 2020	Y		✓	*	Chief Operating Officer	Risks: Ineffective stakeholder engagement capture and interpretation resulting in an unuusable Plans. Mitigation : Experienced, effective and con- management from inception to fruition to e stakeholders participate and provide the de- information; Development Plans regularly consulted/appropriately refered resulting items/processes being effectively aligned a agreed timeframes.
Image: Source of the second	27	Data	Audit Environmental Management System ISO 14001:2015 and implement improvements (where required)	Existing	 A Key Result Area 1.1 objective of the Corporate Business Plan is to audit the Environmental Management System ISO14001:2015 - follow hyperlink for more details. EMS attained to ISO14001:2014. Internal audit program implemented to ensure compliance to operational procedures & EMS. Annual external (3rd party consultant) surveillance Audits for ongoing accreditation. Audit report produced & circulated. Non-conformances identified in the report are internally delegated for action and outcomes. recorded/closed-out. 	<u>Red Hill Environmental Management</u> <u>System</u>	 Red Hill EMS attained ISO14001:2015 Standard - 2018. Annual external surveillance audits – commenced 2019. 	Ongoing internal and external auditing to ensure the EMRC has continued compliance to the EMS and maintains the ISO accreditation	Ongoing	Y			¥	Chief Operating Officer	Risks : Non-conformity to the EMS resultin operational systems and environmental ob ISO accreditation. Mitigation : Adherence to the Internal Aud annual accredited 3rd party surveillance au conformances identified in the audit are res
Bits Construction	28	Data	Develop a new Sustainability Strategy 2021-2025 incorporating advocacy and environmental actions	Existing	 Advocacy and relationship building is aimed at increasing awareness of Perth's Eastern Region and the role of the EMRC. It also provides an opportunity to identify and capitalise on future funding opportunities that support regional scale projects and activities. In addition, it facilitates other actions of regional relevance including applying for regional grants and providing regional representation on peak bodies and committees - follow hyperlink for further information and access to present Strategy. Draft Strategy prepared and circulated to stakeholders Strategy approved by CEO. Strategy submitted to council for review and adoption. Strategy adopted. 	<u>EMRC Regional Development &</u> <u>Advocacy</u>	 Sustainability planning meeting - late 2020. Draft Strategy approved by CEO – mid 2021. Draft submitted to council for review – mid 2021. Strategy Adopted – late 2021. 	New Sustainability Strategy adopted by late 2021	2021	Y	*	✓	*	Chief Sustainability Officer	 <i>Risks</i>: The region does not develop environe economically, socially or sustainably in a diadvantageous. <i>Mitigation</i>: Advocacy Strategy enables the regional and mutual all-inclusive direction for fosters a cohesive standpoint and collabora sustainability.
Bit Model and Section 2 model in the section of a work mean in the section of a work mean in the section 2 model i	29	Data	Utilization of the BCI Platform to enhance EMRC's business opportunities	New	 BCI serves as the prospecting arm as well as sales support for their clients, keeping them informed of new construction industry developments and connecting them with key decision makers. The products and services give product suppliers and manufacturers the opportunity to speak to the right people, at the right time, with the right information - follow hyperlink for further information. EMRC recognises the BCI platform as a very promising business and marketing tool as it identifies potential customers and associated projects that would benefit form its recovered waste generated products. EMRC invests in an annual subscription to BCI services. EMRC Sales and Marketing department analyses the platform to generate a further customer base. 	<u>BCI Australia</u>	 EMRC Sales & Marketing department generates a business case for the procurement of BCI services – April 2020. Business case submitted to Directorate and CEO for approval – May 2020. Approval granted and annual BCI subscription commences - June 2020. 	The end of 2020 will see an increase in the sale of waste generated products through the successful use of the BCI platform.	End 2020	Y		✓		Chief Projects Officer	Risks : Products generated through waste are not afforded a sufficient market share a markets/organisations not identified or suc Mitigation : Utilisation of BCI services will and regional commercial projects and app approach to facilitate the sale of applicable
 In UVER consultation with integrated olde of Wates In UVER consultation with integrate wates pain implementation and attribution indices to trans-September 270-98. In UVER consultation with integrate wates pain implementation and attribution indices to trans-September 270-98. In UVER consultation with integrate wates pain implementation and attribution indices to trans-September 270-98. In UVER consultation with integrate wates pain implementation and attribution indices to trans-September 270-98. In UVER consultation with integrate wates pain implementation and attribution indices to trans-September 270-98. In UVER consultation with integrate wates pain implementation and attribution indices to trans-September 270-98. In UVER consultation with integrate wates pain implementation and statistication integrates wates pain implementation and wates pain implementation and statistication integrates wates pain implementation a	30	Data	Provision of a waste "health check" consultancy service to Local Governments	New	 EMRC establishes a Scope of Works and associated costs. Consultancy service parameters circulated to potentially interested parties. Client engages the EMRC to undertake the health check model to satisfy their specific requirements, facilitated by completing the Data Request Form. Draft report completed and submitted to the client for feedback. Following consultation final report generated. 		 Interdepartmental meetings to establish health check modelling parameters – July 2020. Consultancy Service available - late 2020. 	By the last quarter of 2020, the EMRC will be providing a waste health check modelling service, providing a client an overview (cost consolidated and multi- criteria) of their current waste parameters and operations.	Mid to late 2020	Y	*	¥		Chief Sustainability Officer	Risks : Consultancy service not utilised, reinaccurate or meaningless. Mitigation : Services offered are advertised disseminated on all appropriate media plate effective communication from inception to expertise will ensure the industry standard satisfies every aspect of the clients' needs
	31	Data	EMRC instigated role of Waste Plans Officer to develop, facilitate and produce Waste Plans in conjunction with WARR Act and DWER requirements	Existing	 DWER consults with local & regional governments with respect waste plan implementation and submission timelines and potential resource requirements. DWER CEO gives written notices to local/regional governments to prepare their waste plans. EMRC and member councils identify the need for a dedicated officer to facilitate waste plan generation. Interviews held and successful candidate engaged 5. Officer liaises with member councils. A successful collaboration with member councils requiring assistance ensured draft waste plans were submitted to DWER prior to the initial deadline. DWER feedback on draft plans. Officer consulted on DWER feedback and waste plans finalised. Waste plans submitted to council for review and sanction. Waste plan adopted by council and endorsed by DWER. Officer produces waste plan annual report to DWER and aids member councils with theirs when requested. 		 DWER consultation with local and regional governments – June-September 2019. DWER gives written notice to prepare waste plans – November 2019. Role of Waste Plans Officer identified and filled – December/January 2020. Draft waste plans submitted to DWER – April 2020 (deadline for draft plan submission then extended to end of September 2020 due to Covid-19). Following feedback Kalamunda finalised their waste plan and submitted to council for approval in July 2020 and endorsed by DWER in September 2020. Draft EMRC plan submitted to council for review and approval – September 2020 Officer contributions to member councils provided and draft plans generated and submitted by end September 2020. EMRC waste plan approved and endorsed by end 2020. First waste plan annual reports submitted by deadline - 01 October 2022. 	By the 31st of March 2021, the EMRC and Waste Plans Officer will have ensured, where applicable, that they and the member councils have submitted viable and effective plans that are eagerly endorsed by DWER.	Mar-21	Y	*	•	•	Chief Sustainability Officer	Risks : Plan is not completed on time for or approval prior to the DWER deadline for se adequately completed or does not include that satisfies waste strategy objectives and Mitigation : A dedicated Waste Plans Offi accessible to all member councils to assist required/requested, in the successful gene plans and will facilitate/coordinate the prod plan.

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neration of their waste oduction of the EMRC

Г		Assist in the promotion of and	Existing	1. EMRC engages a contractor on behalf of Member Councils		1. Kerbside audit completed and report circulated to	By 2025 the EMRC will have ensured						Chief Sustainability Officer	Risks: lack of effective 2-way communication
32	Behaviour change programs and initiatives	facilitate the success of the FOGO roll-out process for participating member councils		 to conduct kerbside bin audits as a contribution to their FOGO preparation. 2. In response to Waste Strategy targets the EMRC employs 3 new Waste Education Officers to assist member Councils with their FOGO rollouts and provide educational matieral that aligns to the Consistent Communication Collective. 3. Assist Member Councils to ensure they have Best Practice Consistent Messaging on their Web Pages. 4. Create and constantly update the EMRC Waste Education Webpage regarding FOGO information. 5. In conjunction with WALGA Better Practice Guidelines, develop and provide 2 templates to facilitate the rollout of the 3-bin system by the Member Councils. 6. Secondment of EMRC Waste Education Officers to member council FOGO rollout teams to facilitate a successful execution and provided support in resolving resident issues. 7. Organise and manage the WALGA Bin Tagging Programs for Bayswater and Bassendean (and other Member Councils) and generate/circulate comprehensive reports on findings and recommendations. 		 Member Councils - May to December 19. 2. New Waste Education Officers employed - September 19 to February 20. 3. Member Council and EMRC Webpage information aligned to the CCC - September 19 to present. 4. Templates employing WALGA and Best Practice guidelines supplied to Member Councils - December 19. 5. Secondment of EMRC officers to facilitate Bassendean rollout – July 2020 and Bayswater – March 2021. 6. initial Bin Tagging conducted and reports circulated August to November 20. 	that the Member Councils have successfully implemented and maintained a viable FOGO service.	2025	Y		*			inaccurate/inconsistent educational informa Member Councils ill prepared or understaft commencement date; high levels of FOGO <i>Mitigation</i> : Ensure ongoing and effective support with all stakeholders; careful plann milestones; dedicated project managemer and meaningful data is captured reported a
33	Behaviour change programs and initiatives	Ongoing provision of the Waste Management Community Reference Group (WMCRG)	Existing	 The EMRC is committed to providing opportunities for public involvement in its resource recovery project for the Eastern metropolitan region. Public involvement in this process is multi faceted, typically incorporating a mix of educational, consultative and participatory methods. The purpose of the WMCRG is to provide ongoing input and feedback to Council through the Waste Advisory Committee (WAC) and work with the environmental, social and economic sectors in an inclusive manner to achieve balanced outcomes for future waste management in the region - follow hyperlink for further information. Membership is by invitation and based on Expressions of Interest. Members are appointed by the EMRC Ordinary meetings of the WMCRG are held at EMRC Ascot Place. Minutes are taken and disseminated to members and stakeholders. 	Waste Management Community Reference Group	 The WMCRG commenced - July 2002. Nominations reviewed by the EMRC - biannually Call for nominations initiated by the EMRC - 4 months prior to membership renewal date. Nominees confirmed by the EMRC - 1 month prior to membership renewal. Meetings held - quarterly/as required 	EMRC to continue to promote, advocate for and facilitate the ongoing success of the WMCRG	Ongoing	Y	✓	✓	✓	Chief Sustainability Officer	<i>Risks</i> : Inexperienced/inappropriate memb knowledge of the industry; poor attendance unproductive meetings. <i>Mitigation</i> : Elected members undergo an and advise on their suitability for considera can be adjusted to facilitate participation a ensures commitment to agendas and reco
34	Behaviour change programs and initiatives	Review and implement the Waste Education Strategy	Existing	 The EMRC's 10 Year Strategic Plan 2017 to 2027 includes the Key Result Areas of Environmental Sustainability, Economic Development and Good Governance. Waste education is regarded as a key component of EMRC's overall waste management strategy - follow hyperlink for Strategic Plan. The Waste Education Strategy has been developed by the Regional Waste Education Steering Group (RWESG), which comprises of representatives from each local government working in collaboration with the Eastern Metropolitan Regional Council's Waste Education Team. This Strategy aims to reduce harm to the environment through provision of educational programs and allied activities to support the region's communities to avoid or reduce generation of waste and provide guidance on recovery of resources from waste produced. The Strategy provides a direction for the EMRC's Waste Education Team and the Regional Waste Education Steering Group (RWESG) to engage with people in the region to assist with increasing knowledge and improving community waste management practices. Member Councils and the EMRC, formally endorsed the RWESG to guide the development and delivery of the Waste Education Strategy on a regional basis. 	EMRC Plans For The Future	 Member Councils and the EMRC formally endorsed the RWESG - 2004 Draft Waste Education Strategy internal review - 2020 Waste Education Strategy to be endorsed - 2020 Key objectives, strategies and initiatives actioned and delegated as agreed by the RWESG – ongoing RWESG meetings assess progress of Education Strategy delivery - quarterly 	This Strategy has been developed to provide a direction for waste education in the region and contains an action plan for an initial three-year period.	2030	Y	v	*	*	Chief Sustainability Officer	<i>Risks:</i> Actions within the Strategy are inap and/or uncompleted within agreed timefrar EMRC's Waste Education department and ensures, through regular meetings and con actions are diligently managed according to timeframes and delivering successful outco
35	Behaviour change programs and initiatives	Ongoing development and provision of the Waste & Recycling Guide to Member Councils	Existing	 A key action under Objective 1.2 of the Corporate Business Plan is to develop and distribute the annual Waste Recycling Guides to Member Councils. Annual process begins with the EMRC Waste Education team receiving print numbers from Member Councils and develops the initial guide with new pertinent information or specific council requests. Draft markups sent and received from designer circulated to stakeholders with approved changes actioned. Member Councils final sign off and authorisation to print. Request for Quote - print, production and delivery of the Guide. CEO Authorisation to proceed with successful quote submission. Designer provides final electronic copies of all guides to upload to Councils' websites and inclusion in local media. Printing completed and guides delivered to nominated drop off points - follow hyperlink for guide example. EMRC Waste Education Webpage updated with new information for each member council. 	Example Guide - Town of Bassendean	 EMRC notified by member council of guide numbers and initial markups created – Feb. Draft markups circulated and approved – March – April. Councils sign off on final draft – May. Successful quote approved and authorised by CEC – May. Electronic copies of guide circulated to member councils – May/June. Printing completed and guides delivered – June. EMRC webpages updated accordingly – June/July. 	EMRC to ensure the successful annual provision of the Waste Recycling Guides.	Ongoing	Y	~	✓	✓	Chief Sustainability Officer	<i>Risks:</i> Information contained in the guides required information excluded; approved g the designers/printers in time for printing/re <i>Mitigation</i> : EMRC Waste Education depa dedicated officer to project manage the wh effectively coordinates all stakeholders.
36	Behaviour change programs and initiatives	Develop and deliver waste education resources and tools at schools, community workshops and events to promote behaviour change	Existing	 A key Result Area under 1.2 of the Corporate Business Plan is to develop and deliver waste education resources and tools to support behaviour change. The EMRC has a number of programs and resources that community members and groups can utilize - for more information follow the hyperlink. EMRC Waste Education team continues to evolve its diversity of waste education resources in response to community requests/needs and in conjunction with Waste Strategy 2030 and legislative principles/directives. Regional Waste Education Steering Group meetings receive and contribute to issues relating to the EMRC's resources resulting in a collaborative program of actions and developments. Waste Education team Meetings convened by the CSO include agenda items relating to the allocation of waste educational resources and feedback from the Waste Education team and the community regarding successes and improvement strategies. WMCRG meetings are scheduled quarterly but convene as required 	EMRC Waste Educational Resources	 Regional Waste Education Steering Group meetings – Bi-monthly/as required Waste Education Team Meetings - Monthly. WMCRG meetings held as required 	EMRC to continue to invest in the successful provision of resources and engagement with stakeholder groups thereby contributing to the community waste education strategy.	Ongoing	Y	✓	*	•	Chief Sustainability Officer	Risks : Resources are inappropriate, ineffe underutilized. Mitigation: EMRC Waste Education Depa the resources reflect contemporary and, in issues that alignin to applicable legislation a Waste Education Department also commu coordinates promotions on social media, w newsletter - during key dates - to ensure th of available resources and conveys the bea links to educators to encourage bookings.

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39	Behaviour change programs and initiatives	Review, evolve and facilitate th Earth Carers training program	Existing	 A Key Action under section 1.2 of the Corporate Business Plan is to facilitate the Earth Carers training program. The Waste Education department is committed to sustainability in the region through waste reduction and community support. Coordination of the Earth Carers community training program is one way they increase waste awareness through the public arena and give others the opportunity to become leaders and local ambassadors. Earth Carers are members of the community who take part in the Earth Carers course to learn practical ways of reducing waste at home and in the community. Through the completion of the Earth Carers course, Earth Carers join a community of like-minded people and help promote waste minimisation in the local community The course consists of six sessions over four weeks, and includes: guided tours, miking your own green cleaning products, composting and work farming demonstrations, learning what can be recycled in the community and tips to encourage others to reduce waste - follow hyperlink for further information. Earth Carers requesed to participate in the EMRC's bin tagging program for member councils 	<i>Earth Carers</i>	 Review program content and implementation – late 2020 Update Waste Education Webpage with course structure, itinerary and application form – as required. Developing on-line learning to complement the Earth Carers course – ongoing. Update, as required, and issue the Earth Carers guide book "The Useful Book" to new participants - ongoing. Earth Carers progress reported to Regional Waste Education Steering Group - quarterly. Earth Carers asked to participate in educational messaging strategies (bin tagging etc) - ongoing 	Due to COVID-19 restrictions, both scheduled courses were postponed. The EMRC Waste Education team to facilitate a course following a full review of course content and delivery methods - June 2021	Ongoing	Y	✓	•	•	Chief Sustainability Officer	 <i>Risks</i> : The Earth Carers course does not participants and does not provide the net graduates to succussed or propagate the community. <i>Mitigation</i> : EMRC's experienced & cold Department ensures the Earth Carers of executed and the content reflects currer environmental initiatives, issues & legisla learning and communication are constal implementation in conjunction with const established by partnering with participat
38	Behaviour change programs and initiatives	Provide Ongoing coordination of the Regional Waste Education Steering Group (RWESG)	f Existing	 The Regional Waste Education Steering Group (RWESG) was created in 2006 and incorporates the following: - 1. The EMRC provides a forum for Member Council staff and stakeholders to coordinate and share consistent and streamlined waste education communications within Perth's Eastern Region. 2. Members of the Steering Group have the appropriate seniority, ability to make decisions regarding waste education and be endorsed to act as a conduit between their respective Member Councils and the EMRC. 3. To provide ongoing input to the implementation of the Regional Waste Education Strategy for Perth's Eastern Region. 4. Liaise and work with the environmental, social and economic sectors in an inclusive manner to achieve balanced outcomes for future waste management in Perth's Eastern Region. 5. To recommend to Council on policy and appropriate courses of action which promote a consistent, coordinated and streamlined waste education communication within Perth's Eastern Region. 		 Regional Waste Education Steering Group meetings – Bi-monthly Meeting minutes and pertinent information disseminated - Bi-monthly Agenda of subsequent meeting circulated to members - Bi-monthly 	The EMRC to continue to provide the forum for and a meaningful contribution to the RWESG.	Ongoing	Y	*	✓	•	Chief Sustainability Officer	<i>Risks</i> : Inconsistent messaging on wast Regional Waste Education Strategy targ Councils approach the aims and objecti Strategy independently to their detriment ineffectively engaged. <i>Mitigation:</i> The RWESG ensures a met regional requirements are met and a co taken to deliver what is paramount for P the forum is chaired and minutes taken appropriate delegated action.
37	Behaviour change programs and initiatives	Educational Site Tours	Existing	 A Key Action under section 1.2 of the Corporate Business Plan is to promote and coordinate waste education tours, including FOGO. Free tours of the Red Hill Waste Management Facility (RHWMF) are available for interested regional community groups and schools during weekdays. Booking is essential and groups must provide their own bus for the tour - follow hyperlink for further information. The tour is conducted by a member of the EMRC Waste Education team and provides an informative behind-the-scenes look at what is involved in managing waste for Perth's Eastern Region. The tour will take participants to areas not seen by the general public to observe waste diversion programs, the Landfill Gas & Power Station, the tip face, green waste recovery and the interim FOGO processing plant. Participants can also visit the Environmental Education Centre and learn what they can do at home to reduce, reuse and recycle. A post tour feedback form is sent out to the participating schools/community groups. 	Educational Tours	 Develop the tour content and expand the activities in the education centre in-line with relevant waste and recycling developments – As required. Focus on FOGO – Late 2020. 	EMRC to continue to promote and provide tours of the RHWMF and Education Centre - with at least one community tour departing from each local government area each year. (cost of bus hire and catering is already incorporated into budget). Commence tours that focus on FOGO processing and target residents of Councils that implement a FOGO collection system - October 2020	Ongoing	Y	*	✓	*	Chief Sustainability Officer	Hisks : Inacculate/inconsistent education the tour/in the Education Centre; Education poorly contrived; tour service is not utiliz Mitigation : Waste Education Department effective communication with all stakeho employees and educational groups, to so operations and national/state waste and tour feedback forms are reviewed, evalue adjusted accordingly; correspondance we advise on upcoming tours and coordinate media; websites and newsletters to ensu- informed and relay the benefits to school

I material provided on a Centre activities are or underutilized. ensures ongoing ers, including Red Hill y current with site cycling trends; post ed and tour activities a member councils to promotions on social e the community is to facilitate bookings.	
elated issues; s not met; Member s of the Waste ocal communities um exists so local and porative approach th's Eastern Region; d circulated for	
meet expectation by ssary tools for message to the wider ive Waste Education rse is consistently well vaste and on; new methods of v being researched for ent messaging councils.	

	1 2			4 Descriptors
			Newspaper	Newspapers, Newspaper like pamphlets,
			Glossy Paper	magazines (glossy) pamphlets, present wrapping paper,
		Recyclable Paper	Office Paper	A4 document paper, writing pads, letters, stationery papers, Print /
				Writing Paper, envelopes
			Coloured Paper	Coloured Paper
	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
		Non-Recyclable Paper	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
			Corrugated Cardboard	Corrugated cardboard boxes,
			Packaged Flat Cardboard	packing boxes etc, cereal boxes, business cards, folding cartons
	Cardboard	Recyclable Cardboard	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 Rocyclabla Cardhoard	Composite cardboard	Composite cardboard items where the weight of the cardboard is estimated to be greater the weight of the other materials, e.g. pringl boxes etc.
			Contaminated Cardboard	Contaminated Cardboard e.g. pizza boxes
			Other Cardboard	Non-Recyclable Cardboard
			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
		Recyclable Plastics	LDPE#4	Ice cream container lids, cream bottle lids, squeeze bottles, lids, builder's black plastic, black mulch film, plant nursery bags
Recyclables	Plastics		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 foar
			Plastic#7 Other	Tupperware, Mixed unidentifiable plastics, all other resins and multi- blend plastic materials
			Plastic Bags	Plastics Shopping Bags, Plastic Produce/Food Bags, Resealable Plastic Bags, Bin liners, Garbage bin liners, Compostable Plastics Bags
		Non-Recyclable Plastics	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
		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,
	Glass	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
			Steel Cans	Food cans, pet food cans, tins, empty paint tins,
			Steel Aerosols	Aerosol cans
	Ferrous (Steel)	Steel	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
			Aluminium Cans	Beer and soft drink cans,
			Aluminium Aerosols	Aluminium aerosol cans
			Aluminium Foil	clean foil
	Non Ferrous (Aluminiu	Aluminium	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
				Copper / brass / bronze items, other metals (not ferrous / aluminium
			Non-Ferrous Other	
				Aluminium tamper proof seals

			Food Waste	Vegetable scraps, meat scraps, animal food, leftover food, Food
			Food Waste	particles, Bones
	Organic	Organic	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
Organic	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 les than 50mm in size
			Ceramics, Rocks/Stones, Bricks, Concrete	Bricks and stones, Cups, bowls, pottery items, concrete
			Pharmaceuticals	Unused prescription medicine, vitamins and Minerals
	Medical	Medical Waste	Medical Waste	Band aids, Bandages, Used surgical gloves, Surgical Instruments, Medical aids/kits, Medical devices and radioactive materials, any waste generated from a diagnosis, treatment of humans or anim /Medical Other
			Hypodermic Syringes	Hypodermic Syringes, Epi Pens
	Pathogenic Infectious	Pathogenic Infectious	Sanitary / Hygiene	used tissues (items with any bodily fluids), tampons/pads, cottor buds)
			Nappies	Adult and Child disposable nappies
Hazardous			Chemicals	Bleach, Shampoo, Cleaning Products, (where the weight of the product is estimated to be greater than the weight of the contai
			Paint	Wet/Dry Paint
			Batteries Household	Batteries (Single Use and Rechargeable), Mobile phone battery
	Hazardous	Hazardous	Batteries Other	Vehicle Batteries e.g. Car/Boat, Industrial batteries e.g. Power S (UPS)
			Fluorescent Tubes/Light Bulbs	
			Oil Household, Motor & Other	
			Building Material	
			Hazardous Other	Uncategorized hazardous waste
			Toner Cartridges	Toner Cartridges
Other	Electronic Waste	Electronic Waste	Computer Equipment	Computer Components, Peripheral Devices/Computer Printer or Photocopier/Printer
Juler			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.		
	Illegal dumping is the unauthorised discharging or abandonment of waste and is an offence under Section 49A of the <i>Environmental Protection Act 1986</i> .		
	Illegally dumped waste is generally considered to have the following attributes:		
	Volume	> 1 cubic metre	
Illegal Dumping	Environmental impact	Contains items/substances that are potentially noxious or hazardous; potential for environmental harm if material leaks, spreads or degrades	
	Type of waste	Commercial or industrial waste; larger-scale household waste	
	Reason for offence	Premeditated decision; commercial benefit or avoidance of fee	
		Demosited weight a webield	
	Mode of deposition	Deposited using a venicle	
Karhsida wasta sarvicas	 Mode of deposition A regular, containerised correcycling is collected from our 	Deposited using a venicle ollection service (often a wheelie bin) where the waste or itside a resident's dwelling.	

	Refers to inert or putrescible waste, registered or licensed landfills		
Landfill	• 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.)		
Litter	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:		
	Volume	< 1 cubic metre	
	Environmental impact	Nil or minor actual or potential environmental impact	
	Type of waste	Personal litter	
	Reason for offence	Unpremeditated, convenient disposal	
	Mode of deposition	Deposited by hand (includes dropping by hand from a vehicle)	
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 Waste 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. 		