INDEX OF APPENDICES

APPENDICES

Ordinary Council Meeting – 19 January 2015

Financial Statements for the period ended 30 November 2014

Item 9.1	APPENDIX NO. 1	Item 9.1

MANAGEMENT FINANCIAL STATEMENTS

FOR THE MONTH ENDED 30 NOVEMBER 2014

APPENDIX NO. 1

Mindari Regional Council

INCOME STATEMENT BY NATURE AND TYPE

For the month ended 30 November 2014

Description	Adopted Budget	YTD Budget	YTD Actual	$ Variance	% Variance	Note
Revenue from Ordinary Activities						
Member User Charges						
User Charges - City of Perth	1,844,010	741,472	656,247			
User Charges - City of Wanneroo	10,464,350	4,209,060	4,173,953			
User Charges - City of Joondalup	8,532,855	3,447,636	3,292,204			
User Charges - City of Stirling	14,750,147	5,952,048	5,291,961			
User Charges - Town of Cambridge	1,043,108	420,616	397,820			
User Charges - City of Vincent	1,997,658	805,852	733,502			
User Charges - Town of Victoria Park	2,023,153	815,248	663,950			
User Charges - RRF Residues	6,254,524	2,227,414	2,487,504			
	46,909,805	**18,619,346**	**17,697,140**	**(922,206)**	**(4.95%)**	1
Non Member User Charges						
User Charges - Casual Tipping Fees	5,553,022	2,136,193	1,326,784	(809,409)	(37.89%)	2
	5,553,022	**2,136,193**	**1,326,784**	**(809,409)**	**(37.89%)**	
Total User Charges	**52,462,827**	**20,755,539**	**19,023,924**	**(1,731,615)**	**(8.34%)**	
Other Charges						
Service Charges						
Carbon Price	-	-	-	-		
Sale of Recyclable Materials	680,000	283,331	321,271	37,940	13.39%	
Gas Power Generation Sales	505,000	218,000	214,409	(3,591)	(1.65%)	
Contributions, Reimbursements & Donations	5,000	5,000	29,287	24,287	485.75%	
Interest Earnings	700,900	292,040	301,224	9,184	3.14%	
Other Revenue	396,000	128,125	156,536	28,411	22.17%	
Total Other Charges	**2,286,900**	**926,496**	**1,022,728**	**96,232**	**10.39%**	
Total Revenue from Ordinary Activities	**54,749,727**	**21,682,035**	**20,046,652**	**(1,635,383)**	**(7.54%)**	
Expenses from Ordinary Activities						
Employee Costs	5,187,509	2,119,335	1,853,329	266,006	12.55%	
Materials and Contracts						
Consultants and Contract Labour	486,500	202,706	60,627	142,079	70.09%	
Communications and Public Consultation	392,500	156,449	43,609	112,840	72.13%	
Landfill Expenses	1,226,930	487,635	257,882	229,753	47.12%	
Office Expenses	218,650	83,264	74,572	8,692	10.44%	
Information System Expenses	218,050	55,524	82,637	(27,113)	(48.83%)	
Building Maintenance	156,500	28,550	48,968	(20,418)	(71.52%)	
Plant and Equipment Operating & Hire	1,169,400	378,174	393,699	(15,525)	(4.11%)	
RRF Other Operating Expenses	23,048,800	9,126,853	9,405,298	(278,445)	(3.05%)	3
Utilities	182,300	75,949	81,147	(5,198)	(6.84%)	
Depreciation	1,155,400	481,398	480,905	493	0.10%	
Borrowing Costs	906,300	388,544	261,721	126,823	32.64%	
Insurances	348,430	114,573	78,928	35,645	31.11%	
DEP Landfill Levy	11,643,900	3,565,874	3,046,001	519,873	14.58%	4
Land Lease/Rental	758,500	311,333	283,066	28,267	9.08%	
Other Expenditure						
Members Costs	241,950	20,000	20,782	(782)	(3.91%)	
Administration Expenses	217,500	68,908	40,993	27,915	40.51%	
Carbon Price	-	-	-	-		
Amortisation for Cell Development	3,654,900	1,615,413	1,379,924	235,489	14.58%	5
Amortisation for Decommissioning Asset	846,100	352,544	352,544	-	0.00%	
Capping Accretion Expense	258,469	107,695	107,695	-	0.00%	
Post Closure Accretion Expense	212,728	88,639	88,639	-	0.00%	
RRF Amortisation	540,200	225,081	225,081	-	0.00%	
Total Expenses	**53,071,516**	**20,054,441**	**18,668,047**	**1,386,394**	**6.91%**	
Profit on Sale of Assets	7,722	-	3,372	3,372		
Loss on Sale of Assets	8,781	5,898	9,158	(3,260)	55.27%	
	(1,059)	**(5,898)**	**(5,786)**	**112**	**(1.90%)**	
Changes in Net Assets Resulting from Operations	**1,677,152**	**1,621,696**	**1,372,819**	**(248,877)**	**(15.35%)**	

APPENDIX NO. 1

NOTES FOR VARIATIONS - INCOME STATEMENT BY NATURE AND TYPE

Note #	Description of Item	Nature of Unfavourable variance where actual is 10% and $10,000 from YTD Budget
1	User Charges - Members	Member user charges is lower mainly due to lower tonnages delivered than it was budgeted.
2	Casual Tipping Fees	Casual tipping fees is lower due lower tonnages received than it was anticipated in the phased forecast tonnes.
3	RRF Other Operating Expenses	RRF Operating Cost is higher than the budgeted due to increased tonnes processed through the RRF.

APPENDIX NO. 1

Mindarie Regional Council
INCOME STATEMENT BY DEPARTMENT
For the month ended 30 November 2014

Description	Adopted Budget	YTD Budget	YTD Actual	$ Variance	% Variance
Revenues from Ordinary Activities					
Operating Revenues					
General Purpose Funding	54,749,727	21,682,035	20,046,652	1,635,383	7.54%
Community Amenities	-	-	-	-	
Resource Recovery Facility	-	-	-	-	
	54,749,727	**21,682,035**	**20,046,652**	**1,635,383**	**7.54%**
Profit on Disposal of Assets					
Governance	-	-	3,372	(3,372)	
Community Amenities	7,722	-	-	-	
Resource Recovery Facility	-	-	-	-	
	7,722	**-**	**3,372**	**(3,372)**	
Total Revenue	**54,757,449**	**21,682,035**	**20,050,024**	**1,632,011**	**7.53%**
Expenses from Ordinary Activities					
Operating Expenditure					
Governance	4,192,051	1,508,882	1,382,203	126,679	8.40%
Community Amenities	24,258,865	8,757,257	7,372,784	1,384,472	15.81%
Resource Recovery Facility	23,714,300	9,399,758	9,651,338	(251,580)	(2.68%)
	52,165,216	**19,665,897**	**18,406,326**	**1,259,571**	**6.40%**
Loss on Sale of Assets					
Governance	5,898	5,898	9,158	(3,260)	(55.27%)
Community Amenities	2,883	-	-	-	
Resource Recovery Facility	-	-	-	-	
	8,781	**5,898**	**9,158**	**(3,260)**	
Cost of Borrowings					
Community Amenities	530,100	226,897	152,343	74,554	32.86%
Resource Recovery Facility	376,200	161,647	109,378	52,269	32.34%
	906,300	**388,544**	**261,721**	**126,823**	**32.64%**
Total Expenditure	**53,080,297**	**20,060,339**	**18,677,205**	**1,383,134**	**6.89%**
Changes in Net Assets Resulting from Operations	**1,677,152**	**1,621,696**	**1,372,819**	**248,877**	**15.35%**

APPENDIX NO. 1

Mindarie Regional Council

Balance Sheet
For the month ended 30 November 2014

Description	ACTUAL 2014/2015	Movement	ACTUAL 2013/2014
CURRENT ASSETS			
Cash	1,872,675	(683,132)	2,555,806
Investments	21,032,717	384,975	20,647,743
MRC Security (Guarrantee) Account	593,733	8,607	585,126
Debtors	4,091,300	955,536	3,135,764
Stock	13,706	1,426	12,280
Prepayments	355,090	239,953	115,136
Accrued Income	97,739	13,461	84,279
Work In Progress - Infrastructure	9,982	9,982	-
Other Current Assets	268,149	(52,178)	320,326
TOTAL CURRENT ASSETS	**29,322,648**	**1,866,188**	**27,456,461**
NON-CURRENT ASSETS			
Land	7,000,000	-	7,000,000
Buildings & Improvements	1,400,274	(78,449)	1,478,722
Furniture & Equipment	57,126	(14,882)	72,008
Computing Equipment	66,439	(16,244)	82,682
Plant & Equipment	2,983,972	(263,076)	3,247,048
Infrastructure - Other	1,646,304	(32,637)	1,678,941
Infrastructure - Excavation	13,674,006	(1,379,924)	15,053,930
Infrastructure - RRF	6,349,180	(181,456)	6,530,636
Decommissioning Asset	4,960,942	(222,713)	5,183,655
Post Closure	3,297,729	(129,831)	3,427,560
Pre-operating RRF	1,525,971	(43,625)	1,569,596
TOTAL NON-CURRENT ASSETS	**42,961,943**	**(2,362,836)**	**45,324,779**
TOTAL ASSETS	**72,284,591**	**(496,648)**	**72,781,240**
CURRENT LIABILITIES			
Creditors	2,924,218	(1,880,704)	4,804,922
Provisions for Leave	415,886	(24,450)	440,336
Current Loans	1,579,035	(1,100,740)	2,679,776
Accruals	1,351,037	903,021	448,016
Other Current Liabilities	-	-	-
TOTAL CURRENT LIABILITIES	**6,270,177**	**(2,102,873)**	**8,373,050**
NON CURRENT LIABILITIES			
Provisions for Leave	301,633	28,465	273,167
Non Current Loans	9,169,239	-	9,169,239
Decommission Provision for Capping	14,242,580	196,334	14,046,246
Other Non Current Liabilities	4,030,981	8,607	4,022,375
TOTAL NON CURRENT LIABILITIES	**27,744,433**	**233,406**	**27,511,027**
TOTAL LIABILITIES	**34,014,610**	**(1,869,467)**	**35,884,077**
NET ASSETS	**38,269,981**	**1,372,819**	**36,897,163**
EQUITY			
Retained Surplus	13,655,912	714,318	12,941,595
Reserves (Cash Back)	15,794,604	658,501	15,136,103
Reserves (Non Cash Back)	5,613,019	-	5,613,019
Council Contribution	3,206,446	-	3,206,446
TOTAL EQUITY	**38,269,981**	**1,372,819**	**36,897,163**

APPENDIX NO. 1

Mindarie Regional Council

STATEMENT OF RESERVES

For the month ended 30 November 2014

Description	ACTUAL 2013/2014
Opening Balance - 1 July 2013	
Site Rehabilitation	8,237,996
Capital Expenditure	1,500,841
Participants Surplus Reserve	2,000,000
RRF Operational Requirement	-
Carbon Price	3,397,266
	15,136,103
Interest on Investments	
Site Rehabilitation	-
Capital Expenditure	-
Participants Surplus Reserve	-
RRF Operational Requirement	-
Carbon Price	-
	-
Transfer from Operating Surplus	
Site Rehabilitation	196,150
Capital Expenditure	625,000
Participants Surplus Reserve	-
Carbon Price	-
	821,150
Total Transfer from Operations	**821,150**
Transfer from Balance Sheet Provisions	
Site Rehabilitation	-
	-
Transfer to Operating Surplus	
Site Rehabilitation	-
Capital Expenditure	162,649
RRF Operational Requirement	-
Carbon Price	-
	162,649
Closing Balance	
Site Rehabilitation	8,434,146
Capital Expenditure	1,963,193
Participants Surplus Reserve	2,000,000
RRF Operational Requirement	-
Carbon Price	3,397,266
	15,794,604

APPENDIX NO. 1

Mindarie Regional Council
STATEMENT OF INVESTING ACTIVITIES
For the month ended 30 November 2014

Description	Adopted Budget	YTD Actual	% to Adopted Budget	Note
PLANT, VEHICLES AND MACHINERIES				
Plant and Vehicles				
Replacement of Hino Bin Truck (Plant61)	190,000	-		
Replacement of Bomag Landfill Compactor (Plant65)	1,500,000	-		
Replacement of Navara RXD40 (Plant69)	40,000	-		
Replacement of Kia Grand Carnival (Plant84)	47,000	-		
Replacement of Land Rover Defender (Plant81)	48,000	47,576		
Replacement of Ford MKII G6E (Plant82)	52,000	47,695		
Replacement of Cat247 MTL (Plant74)	105,000	-		
Replacement of Nissan Pathfinder (Plant75)	45,000	-		
Replacement of Kubota Lawnmowere (Plant77)	5,000	-		
Replace Caterpillar Forklift (Plant59) - budgeted 2013/2014	-	24,500		
	2,032,000	**119,772**	**5.89%**	
Machinery and Equipment				
2x Hook Lift Bins	40,000	-		
Hook Lift Body	85,000	-		
2way Radio System (Radio Repeater)	60,000	-		
4x Tarpomatic Tarps	60,000	-		
	245,000	**-**		
TOTAL PLANT, VEHICLES AND MACHINERIES	**2,277,000**	**119,772**	**5.26%**	
FURNITURE AND EQUIPMENT				
Furniture and Fittings				
Furniture and Fittings (Miscellaneous Replacements)	5,000	-		
Airconditioning Units to Various Locations	22,000	-		
	27,000	**-**	**0.00%**	
Office Equipment				
Replacement of PABX System	15,000	-		
	15,000	**-**	**0.00%**	
TOTAL FURNITURE AND EQUIPMENT	**42,000**	**-**		
COMPUTING EQUIPMENT				
Computing Equipment				
Replacement of Laptop - Management Accountant	2,500	1,790	71.60%	
Replacement of Laptop - Waste Education Manager	2,500	1,790	71.60%	
Replacement of Laptop - Director Corporate Services	2,500	1,790	71.60%	
Replacement of Desktop - HR/Payroll Officer	1,200	1,165	97.08%	
Replacement of Desktop - Technical Officer	1,200	1,165	97.08%	
Replacement of Desktop - Weatherman	1,200	1,165	97.08%	
Replacement of Desktop - Finance Accounts Receivable	1,200	1,165	97.08%	
Replacement of Desktop - Waste Education Assistant	1,200	1,165	97.08%	
Replacement of Desktop - Receptionist	1,200	1,165	97.08%	
Replacement of Desktop - Landfill Manager	1,200	1,165	97.08%	
Replacement of Desktop - Environmental Supervisor	1,200	1,165	97.08%	
Replacement of Desktop - Waste Education Officer	1,200	1,165	97.08%	
Replacement of Servers (Tamala and Neerabup)	48,000	1,790	3.73%	
	66,300	**17,645**	**26.61%**	
TOTAL COMPUTING EQUIPMENT	**66,300**	**17,645**	**26.61%**	
LAND AND BUILDINGS				
Building				
Recycling Centre Renovation and Alignment	60,000	-		
brought forward item:				
Administration Office Renovation	60,000	-		
Recycling Centre Toilet	15,000	-		
Education Centre Toilet	15,000	-		
Sorting Shed	4,000,000	-		
	4,150,000	**-**		
Land				
Land Purchase (New Landfill Site)	6,000,000	-		
	6,000,000	**-**		
TOTAL LAND AND BUILDINGS	**10,150,000**	**-**		

APPENDIX NO. 1

Mindarie Regional Council
STATEMENT OF INVESTING ACTIVITIES
For the month ended 30 November 2014

Description	Adopted Budget	YTD Actual	% to Adopted Budget	Note
INFRASTRUCTURE				
Operations				
Landfill Gas Well Installations	25,000	-		
	25,000	**-**		
Landfill Infrastructure Phase3				
Cell Development - Lining (inc. c/f)	3,800,000	987,557	25.99%	
	3,800,000	**987,557**	**25.99%**	
TOTAL INFRASTRUCTURE	**3,825,000**	**987,557**	**25.82%**	

APPENDIX NO. 1

INFORMATION ON BORROWINGS

(a) Loan Schedule and Interest Expense

Actual	Value of Loan Approved	Matures	Interest Rates	Principal 01/07/2014	Principal Drawn Down to 30/06/2015	Principal Repayments Actual to 30/11/2014	Principal Outstanding Actual to 30/11/2014	Interest Repayments Actual to 30/11/2014	Note
Community Amenities									
Tamala Park Landfill									
Loan 12 - Construction Stage 2 Phase 2	15,000,000	Mar-16	5.98%	3,895,785	-	590,275	3,305,510	85,298	
Loan 13 - Development of Cell for Phase 3	5,630,000	Jun-19	6.71%	1,800,000	-	75,606	1,724,394	53,295	
Loan 14 - Purchase of Land for the New Landfill	6,000,000			-	-	-	-	-	2
Loan 15 - Shed Project	4,000,000			-	-	-	-	-	
Regional Resource Recovery Facility									
Loan 11 - RRF Land Purchase	3,500,000	Aug-17	5.97%	879,281	-	124,075	755,206	20,107	
Loan 10a - RRF Infrastructure	2,000,000	Apr-25	6.16%	1,380,822	-	45,600	1,335,222	35,038	
Loan 10b - RRF Infrastructure (Variable Interest Rate)	2,600,000	Sep-22	Variable	2,115,000	-	80,000	2,035,000	19,492	1
Loan 10c - RRF Infrastructure	4,000,000	Jun-18	3.97%	1,777,780	-	185,185	1,592,595	27,921	
TOTAL	42,730,000			11,848,668	-	1,100,740	10,747,928	241,150	
						Facility Fee		20,572	
						Total Borrowing Costs		**261,721**	

Note 1: Loan 10b has a variable rate of 3.27% for the quarter of July 2013 to October 2013.
Note 2: Council approval will be obtained when Land is identified.

APPENDIX NO. 1

Financial Statements for the period ended 31 December 2014

Item 9.1	APPENDIX NO. 2	Item 9.1

MANAGEMENT FINANCIAL STATEMENTS

FOR THE MONTH ENDED 31 DECEMBER 2014

APPENDIX NO. 2

Mindari Regional Council

INCOME STATEMENT BY NATURE AND TYPE

For the month ended 31 December 2014

Description	Adopted Budget	YTD Budget	YTD Actual	$ Variance	% Variance	Note
Revenue from Ordinary Activities						
Member User Charges						
User Charges - City of Perth	1,844,010	903,872	795,917			
User Charges - City of Wanneroo	10,464,350	5,128,940	4,935,039			
User Charges - City of Joondalup	8,532,855	4,206,392	3,972,542			
User Charges - City of Stirling	14,750,147	7,267,629	6,457,600			
User Charges - Town of Cambridge	1,043,108	513,068	470,974			
User Charges - City of Vincent	1,997,658	982,868	879,540			
User Charges - Town of Victoria Park	2,023,153	994,236	793,550			
User Charges - RRF Residues	6,254,524	2,722,395	2,960,604			
	46,909,805	**22,719,400**	**21,265,766**	**(1,453,634)**	**(6.40%)**	1
Non Member User Charges						
User Charges - Casual Tipping Fees	5,553,022	2,631,326	1,619,677	(1,011,649)	(38.45%)	2
	5,553,022	**2,631,326**	**1,619,677**	**(1,011,649)**	**(38.45%)**	
Total User Charges	**52,462,827**	**25,350,726**	**22,885,443**	**(2,465,283)**	**(9.72%)**	
Other Charges						
Service Charges						
Carbon Price	-	-	-	-		
Sale of Recyclable Materials	680,000	339,998	341,583	1,585	0.47%	
Gas Power Generation Sales	505,000	260,000	254,766	(5,234)	(2.01%)	
Contributions, Reimbursements & Donations	5,000	5,000	29,287	24,287	485.75%	
Interest Earnings	700,900	350,448	358,897	8,449	2.41%	
Other Revenue	396,000	153,750	181,590	27,840	18.11%	
Total Other Charges	**2,286,900**	**1,109,196**	**1,166,124**	**56,928**	**5.13%**	
Total Revenue from Ordinary Activities	**54,749,727**	**26,459,922**	**24,051,567**	**(2,408,355)**	**(9.10%)**	
Expenses from Ordinary Activities						
Employee Costs	5,187,509	2,521,095	2,179,061	342,034	13.57%	
Materials and Contracts						
Consultants and Contract Labour	486,500	243,248	101,244	142,004	58.38%	
Communications and Public Consultation	392,500	204,742	48,840	155,902	76.15%	
Landfill Expenses	1,226,930	589,660	302,249	287,411	48.74%	
Office Expenses	218,650	105,894	95,733	10,161	9.60%	
Information System Expenses	218,050	66,628	102,246	(35,618)	(53.46%)	
Building Maintenance	156,500	42,200	58,248	(16,048)	(38.03%)	
Plant and Equipment Operating & Hire	1,169,400	431,292	452,565	(21,273)	(4.93%)	
RRF Other Operating Expenses	23,048,800	11,155,262	11,372,235	(216,973)	(1.95%)	3
Utilities	182,300	91,142	79,848	11,294	12.39%	
Depreciation	1,155,400	577,684	575,544	2,140	0.37%	
Borrowing Costs	906,300	470,499	310,134	160,365	34.08%	
Insurances	348,430	130,648	92,940	37,708	28.86%	
DEP Landfill Levy	11,643,900	4,359,384	3,671,524	687,860	15.78%	4
Land Lease/Rental	758,500	373,600	339,680	33,920	9.08%	
Other Expenditure						
Members Costs	241,950	100,375	104,089	(3,714)	(3.70%)	
Administration Expenses	217,500	82,779	48,492	34,287	41.42%	
Carbon Price	-	-	-	-		
Amortisation for Cell Development	3,654,900	1,974,890	1,663,303	311,587	15.78%	5
Amortisation for Decommissioning Asset	846,100	423,052	423,052	-	0.00%	
Capping Accretion Expense	258,469	129,234	129,234	-	0.00%	
Post Closure Accretion Expense	212,728	106,366	106,366	-	0.00%	
RRF Amortisation	540,200	270,098	270,098	-	0.00%	
Total Expenses	**53,071,516**	**24,449,772**	**22,526,722**	**1,923,050**	**7.87%**	
Profit on Sale of Assets	7,722	-	3,372	3,372		
Loss on Sale of Assets	8,781	5,898	31,127	(25,229)	427.76%	
	(1,059)	**(5,898)**	**(27,755)**	**(21,857)**	**370.59%**	
Changes in Net Assets Resulting from Operations	**1,677,152**	**2,004,252**	**1,497,089**	**(507,163)**	**(25.30%)**	

APPENDIX NO. 2

NOTES FOR VARIATIONS - INCOME STATEMENT BY NATURE AND TYPE

Note #	Description of Item	Nature of Unfavourable variance where actual is 10% and $10,000 from YTD Budget
1	User Charges - Members	Member user charges is lower mainly due to lower tonnages delivered than it was budgeted.
2	Casual Tipping Fees	Casual tipping fees is lower due lower tonnages received than it was anticipated in the phased forecast tonnes.

APPENDIX NO. 2

Mindarie Regional Council
INCOME STATEMENT BY DEPARTMENT
For the month ended 31 December 2014

Description	Adopted Budget	YTD Budget	YTD Actual	$ Variance	% Variance
Revenues from Ordinary Activities					
Operating Revenues					
General Purpose Funding	54,749,727	26,459,922	24,051,567	2,408,355	9.10%
Community Amenities	-	-	-	-	
Resource Recovery Facility	-	-	-	-	
	54,749,727	**26,459,922**	**24,051,567**	**2,408,355**	**9.10%**
Profit on Disposal of Assets					
Governance	-	-	3,372	(3,372)	
Community Amenities	7,722	-	-	-	
Resource Recovery Facility	-	-	-	-	
	7,722	**-**	**3,372**	**(3,372)**	
Total Revenue	**54,757,449**	**26,459,922**	**24,054,939**	**2,404,983**	**9.09%**
Expenses from Ordinary Activities					
Operating Expenditure					
Governance	4,192,051	1,894,338	1,727,474	166,864	8.81%
Community Amenities	24,258,865	10,600,383	8,820,023	1,780,360	16.80%
Resource Recovery Facility	23,714,300	11,484,552	11,669,092	(184,540)	(1.61%)
	52,165,216	**23,979,273**	**22,216,588**	**1,762,685**	**7.35%**
Loss on Sale of Assets					
Governance	5,898	5,898	9,158	(3,260)	(55.27%)
Community Amenities	2,883	-	21,969	(21,969)	
Resource Recovery Facility	-	-	-	-	
	8,781	**5,898**	**31,127**	**(25,229)**	
Cost of Borrowings					
Community Amenities	530,100	275,658	177,421	98,237	35.64%
Resource Recovery Facility	376,200	194,841	132,712	62,129	31.89%
	906,300	**470,499**	**310,134**	**160,365**	**34.08%**
Total Expenditure	**53,080,297**	**24,455,670**	**22,557,849**	**1,897,821**	**7.76%**
Changes in Net Assets Resulting from Operations	**1,677,152**	**2,004,252**	**1,497,089**	**507,162**	**25.30%**

APPENDIX NO. 2

Mindarie Regional Council

Balance Sheet
For the month ended 31 December 2014

Description	ACTUAL 2014/2015	Movement	ACTUAL 2013/2014
CURRENT ASSETS			
Cash	4,634,305	2,078,499	2,555,806
Investments	20,090,229	(557,513)	20,647,743
MRC Security (Guarrantee) Account	595,440	10,314	585,126
Debtors	3,417,279	281,514	3,135,764
Stock	11,500	(780)	12,280
Prepayments	355,351	240,215	115,136
Accrued Income	97,385	13,107	84,279
Work In Progress - Infrastructure	18,015	18,015	-
Other Current Assets	558,311	237,985	320,326
TOTAL CURRENT ASSETS	**31,327,277**	**3,870,816**	**27,456,461**
NON-CURRENT ASSETS			
Land	7,000,000	-	7,000,000
Buildings & Improvements	1,384,584	(94,139)	1,478,722
Furniture & Equipment	54,396	(17,611)	72,008
Computing Equipment	59,211	(23,472)	82,682
Plant & Equipment	2,969,539	(277,509)	3,247,048
Infrastructure - Other	1,639,777	(39,164)	1,678,941
Infrastructure - Excavation	13,390,627	(1,663,303)	15,053,930
Infrastructure - RRF	6,312,888	(217,748)	6,530,636
Decommissioning Asset	4,916,401	(267,254)	5,183,655
Post Closure	3,271,762	(155,798)	3,427,560
Pre-operating RRF	1,517,246	(52,350)	1,569,596
TOTAL NON-CURRENT ASSETS	**42,516,432**	**(2,808,347)**	**45,324,779**
TOTAL ASSETS	**73,843,709**	**1,062,469**	**72,781,240**
CURRENT LIABILITIES			
Creditors	5,822,456	1,017,534	4,804,922
Provisions for Leave	412,419	(27,917)	440,336
Current Loans	1,346,080	(1,333,696)	2,679,776
Accruals	78,029	(369,987)	448,016
Other Current Liabilities	-	-	-
TOTAL CURRENT LIABILITIES	**7,658,984**	**(714,066)**	**8,373,050**
NON CURRENT LIABILITIES			
Provisions for Leave	306,699	33,532	273,167
Non Current Loans	9,169,239	-	9,169,239
Decommission Provision for Capping	14,281,846	235,600	14,046,246
Other Non Current Liabilities	4,032,689	10,314	4,022,375
TOTAL NON CURRENT LIABILITIES	**27,790,472**	**279,445**	**27,511,027**
TOTAL LIABILITIES	**35,449,456**	**(434,621)**	**35,884,077**
NET ASSETS	**38,394,252**	**1,497,090**	**36,897,163**
EQUITY			
Retained Surplus	13,615,953	674,358	12,941,595
Reserves (Cash Back)	15,958,834	822,731	15,136,103
Reserves (Non Cash Back)	5,613,019	-	5,613,019
Council Contribution	3,206,446	-	3,206,446
TOTAL EQUITY	**38,394,252**	**1,497,090**	**36,897,163**

APPENDIX NO. 2

Mindarie Regional Council

STATEMENT OF RESERVES

For the month ended 31 December 2014

Description	ACTUAL 2013/2014
Opening Balance - 1 July 2013	
Site Rehabilitation	8,237,996
Capital Expenditure	1,500,841
Participants Surplus Reserve	2,000,000
RRF Operational Requirement	-
Carbon Price	3,397,266
	15,136,103
Interest on Investments	
Site Rehabilitation	-
Capital Expenditure	-
Participants Surplus Reserve	-
RRF Operational Requirement	-
Carbon Price	-
	-
Transfer from Operating Surplus	
Site Rehabilitation	235,380
Capital Expenditure	750,000
Participants Surplus Reserve	-
Carbon Price	-
	985,380
Total Transfer from Operations	**985,380**
Transfer from Balance Sheet Provisions	
Site Rehabilitation	-
	-
Transfer to Operating Surplus	
Site Rehabilitation	-
Capital Expenditure	162,649
RRF Operational Requirement	-
Carbon Price	-
	162,649
Closing Balance	
Site Rehabilitation	8,473,376
Capital Expenditure	2,088,193
Participants Surplus Reserve	2,000,000
RRF Operational Requirement	-
Carbon Price	3,397,266
	15,958,834

APPENDIX NO. 2

Mindarie Regional Council
STATEMENT OF INVESTING ACTIVITIES
For the month ended 31 December 2014

Description	Adopted Budget	YTD Actual	% to Adopted Budget	Note
PLANT, VEHICLES AND MACHINERIES				
Plant and Vehicles				
Replacement of Hino Bin Truck (Plant61)	190,000	-		
Replacement of Bomag Landfill Compactor (Plant65)	1,500,000	-		
Replacement of Navara RXD40 (Plant69)	40,000	-		
Replacement of Kia Grand Carnival (Plant84)	47,000	-		
Replacement of Land Rover Defender (Plant81)	48,000	47,576		
Replacement of Ford MKII G6E (Plant82)	52,000	47,695		
Replacement of Cat247 MTL (Plant74)	105,000	88,000		
Replacement of Nissan Pathfinder (Plant75)	45,000	-		
Replacement of Kubota Lawnmowere (Plant77)	5,000	-		
Replace Caterpillar Forklift (Plant59) - budgeted 2013/2014	-	24,500		
	2,032,000	**207,772**	**10.22%**	
Machinery and Equipment				
2x Hook Lift Bins	40,000	-		
Hook Lift Body	85,000	-		
2way Radio System (Radio Repeater)	60,000	-		
4x Tarpomatic Tarps	60,000	-		
	245,000	**-**		
TOTAL PLANT, VEHICLES AND MACHINERIES	**2,277,000**	**207,772**	**9.12%**	
FURNITURE AND EQUIPMENT				
Furniture and Fittings				
Furniture and Fittings (Miscellaneous Replacements)	5,000	-		
Airconditioning Units to Various Locations	22,000	-		
	27,000	**-**	**0.00%**	
Office Equipment				
Replacement of PABX System	15,000	-		
	15,000	**-**	**0.00%**	
TOTAL FURNITURE AND EQUIPMENT	**42,000**	**-**		
COMPUTING EQUIPMENT				
Computing Equipment				
Replacement of Laptop - Management Accountant	2,500	1,790	71.60%	
Replacement of Laptop - Waste Education Manager	2,500	1,790	71.60%	
Replacement of Laptop - Director Corporate Services	2,500	1,790	71.60%	
Replacement of Desktop - HR/Payroll Officer	1,200	1,165	97.08%	
Replacement of Desktop - Technical Officer	1,200	1,165	97.08%	
Replacement of Desktop - Weatherman	1,200	1,165	97.08%	
Replacement of Desktop - Finance Accounts Receivable	1,200	1,165	97.08%	
Replacement of Desktop - Waste Education Assistant	1,200	1,165	97.08%	
Replacement of Desktop - Receptionist	1,200	1,165	97.08%	
Replacement of Desktop - Landfill Manager	1,200	1,165	97.08%	
Replacement of Desktop - Environmental Supervisor	1,200	1,165	97.08%	
Replacement of Desktop - Waste Education Officer	1,200	1,165	97.08%	
Replacement of Servers (Tamala and Neerabup)	48,000	1,790	3.73%	
	66,300	**17,645**	**26.61%**	
TOTAL COMPUTING EQUIPMENT	**66,300**	**17,645**	**26.61%**	
LAND AND BUILDINGS				
Building				
Recycling Centre Renovation and Alignment	60,000	-		
brought forward item:				
Administration Office Renovation	60,000	-		
Recycling Centre Toilet	15,000	-		
Education Centre Toilet	15,000	-		
Sorting Shed	4,000,000	-		
	4,150,000	**-**		
Land				
Land Purchase (New Landfill Site)	6,000,000	-		
	6,000,000	**-**		
TOTAL LAND AND BUILDINGS	**10,150,000**	**-**		

APPENDIX NO. 2

Mindarie Regional Council
STATEMENT OF INVESTING ACTIVITIES
For the month ended 31 December 2014

Description	Adopted Budget	YTD Actual	% to Adopted Budget	Note
INFRASTRUCTURE				
Operations				
Landfill Gas Well Installations	25,000	-		
	25,000	**-**		
Landfill Infrastructure Phase3				
Cell Development - Lining (inc. c/f)	3,800,000	1,012,107	26.63%	
	3,800,000	**1,012,107**	**26.63%**	
TOTAL INFRASTRUCTURE	**3,825,000**	**1,012,107**	**26.46%**	

APPENDIX NO. 2

INFORMATION ON BORROWINGS

(a) Loan Schedule and Interest Expense

Actual	Value of Loan Approved	Matures	Interest Rates	Principal 01/07/2014	Principal Drawn Down to 30/06/2015	Principal Repayments Actual to 31/12/2014	Principal Outstanding Actual to 31/12/2014	Interest Repayments Actual to 31/12/2014	Note
Community Amenities									
Tamala Park Landfill									
Loan 12 - Construction Stage 2 Phase 2	15,000,000	Mar-16	5.98%	3,895,785	-	708,330	3,187,455	100,542	
Loan 13 - Development of Cell for Phase 3	5,630,000	Jun-19	6.71%	1,800,000	-	153,469	1,646,531	62,979	
Loan 14 - Purchase of Land for the New Landfill	6,000,000			-	-	-	-	-	2
Loan 15 - Shed Project	4,000,000			-	-	-	-	-	
Regional Resource Recovery Facility									
Loan 11 - RRF Land Purchase	3,500,000	Aug-17	5.97%	879,281	-	124,075	755,206	24,479	
Loan 10a - RRF Infrastructure	2,000,000	Apr-25	6.16%	1,380,822	-	45,600	1,335,222	42,023	
Loan 10b - RRF Infrastructure (Variable Interest Rate)	2,600,000	Sep-22	Variable	2,115,000	-	80,000	2,035,000	25,622	1
Loan 10c - RRF Infrastructure	4,000,000	Jun-18	3.97%	1,777,780	-	222,222	1,555,558	33,616	
TOTAL	42,730,000			11,848,668	-	1,333,696	10,514,972	289,262	
						Facility Fee		20,872	
						Total Borrowing Costs		**310,134**	

Note 1: Loan 10b has a variable rate of 3.27% for the quarter of July 2013 to October 2013.
Note 2: Council approval will be obtained when Land is identified.

Tonnage Report for the year to 31 December 2014

Item 9.1	APPENDIX NO. 3	Item 9.1

Waste to Landfill Tonnages Report for the year to 31 December 2014

Members

The Member Councils' Processable waste for financial year to date is 9.3% or 12,058 tonnes lower than the financial year forecast. The non processable waste for the financial year is 9.6% or 4,103 tonnes below the financial forecast.

These variances are largely as a result of timing differences in the forecasting of waste deliveries, coupled with the closure of the Wanneroo Materials Recovery Facility.

RRF

The Resource Recovery Facility residue tonnes are 1,951 tonnes higher than forecast as a result of increased throughput at the facility during the year-to-date.

Trade & Casual

The Casual and Trade tonnes are 7,742 tonnes (42.3%) lower than the full financial forecast, primarily as a result of the lower than budgeted tonnes from commercial operators. A significant commercial customer opened a waste facility in July and since then has been diverting all its waste to that facility.

Overall for the six month period to December 2014, the tonnes received are 21,034 tonnes below what was budgeted.

APPENDIX NO. 3

APPENDIX NO. 3

Information relating to landfill, resource recovery & recycling tonnages year to date 2014/15 **Month: Dec-14**

	TONNAGE								REVENUE				
	RRF Actual	Landfill Actual	Total Tonnage	Budget 2014/15	Target % Year to Date	Note	Actual % Year to Date	Year to date Tonnage previous year	Actual G/L $	Budget 2014/15	Target % Year to Date	Note	Actual % Year to Date
MEMBERS													
Processable													
Cambridge	1,044	2,430	3,474	3,847	53.4%		90.3%	3,807	$ 403,041	446,252	53.4%		90.3%
Joondalup	20,110	7,219	27,329	29,388	53.4%		93.0%	27,742	$ 3,170,181	3,409,008	53.4%		93.0%
Perth	-	6,776	6,776	7,751	53.4%		87.4%	7,201	$ 786,014	899,116	53.4%		87.4%
Stirling	-	38,682	38,682	43,280	53.4%	1	89.4%	34,128	$ 4,206,819	4,692,850	53.4%	1	89.6%
Victoria Park	3,748	2,891	6,639	7,747	53.4%		85.7%	6,470	$ 770,145	898,652	53.4%		85.7%
Vincent	4,020	2,692	6,712	7,373	53.4%		91.0%	6,786	$ 778,630	855,268	53.4%		91.0%
Wanneroo	24,494	4,062	28,556	30,841	53.4%		92.6%	27,645	$ 3,313,733	3,577,556	53.4%		92.6%
Sub Total Processable	**53,417**	**64,752**	**118,169**	**130,227**	**53.4%**		**90.7%**	**113,780**	**$ 13,428,563**	**$ 14,778,702**	**53.4%**		**90.9%**
Non-Processable													
Cambridge		585	585	576	55.0%		101.6%	673	$ 67,933	66,816	55.0%		101.7%
Joondalup		6,912	6,912	6,874	55.0%		100.6%	6,586	$ 802,360	797,384	55.0%		100.6%
Perth		85	85	41	55.0%		208.2%	75	$ 9,903	4,756	55.0%		208.2%
Stirling		20,731	20,731	23,746	55.0%	1	87.3%	18,805	$ 2,250,782	2,574,779	55.0%	1	87.4%
Victoria Park		202	202	824	55.0%		24.5%	607	$ 23,405	95,584	55.0%		24.5%
Vincent		870	870	1,100	55.0%		79.1%	816	$ 100,910	127,600	55.0%		79.1%
Wanneroo		9,197	9,197	9,524	55.0%		96.6%	10,874	$ 1,068,220	1,104,784	55.0%		96.7%
Sub Total Non-Processable	**-**	**38,582**	**38,582**	**42,685**	**55.0%**		**90.4%**	**38,436**	**$ 4,323,513**	**$ 4,771,703**	**55.0%**		**90.6%**
Other													
Sita Biovision Residues		25,522	25,522	23,571	50.0%		108.3%	21,225	$ 2,960,604	2,734,213	50.0%		108.3%
Wanneroo WRC		4,768	4,768	3,850	48.4%	1	123.8%	3,871	$ 553,086	446,600	48.4%	1	123.8%
Sub Total Other	**-**	**30,290**	**30,290**	**27,421**				**25,096**	**$ 3,513,690**	**$ 3,180,813**			**110.5%**
SUB TOTAL MEMBERS	**53,417**	**133,625**	**187,042**	**200,333**			**93.4%**	**177,311**	**$ 21,265,766**	**$ 22,731,218**			**0.0%**
CASUALS													
Trade		3,146	3,146	11,165	51.7%	1	28.2%	9,779	$ 471,884	1,603,294	51.7%		29.4%
Cash		7,435	7,435	7,159	51.7%	1	103.9%	7,244	$ 1,147,793	1,028,032	51.7%	3	111.6%
Sub Total Casuals	**-**	**10,582**	**10,582**	**18,324**	**51.7%**		**57.7%**	**17,024**	**$ 1,619,677**	**$ 2,631,326**	**51.7%**		**61.6%**
TOTAL	**53,417**	**144,207**	**197,623**	**218,657**				**194,334**	**$ 22,885,443**	**$ 25,362,544**			
RECYCLING													
Recycling centre sales									$ 341,583	606,000	25.0%		56.4%

Notes **1* Based on historic tonnages (3 years Ave)**

APPENDIX NO. 3

List of Payments for the month ended 30 November 2014

Item 9.2	APPENDIX NO. 4	Item 9.2

APPENDIX NO. 4

Schedule of Payment for November 2014
Council Meeting - 19 February 2015

Cheque Posting Date	Document No.	Vendor Name	Description	Cheque Amount
4/11/2014	10532	**Petty Cash**	Reimbursement of petty cash expenses	$992.10
11/11/2014	10533	**Petty Cash**	Reimbursement of petty cash expenses	$907.35
14/11/2014	10534	**Car Care (WA) - Mindarie**	Detailing of Kia Carnival (PLANT86)	$340.00
14/11/2014	10535	**Telstra**	Telephone Expenses	$1,121.12
20/11/2014	10536	**Reliance Petroleum**	Distillate	$65,746.89
20/11/2014	10537	**Telstra**	Telephone Expenses	$1,274.88
20/11/2014	10538	**Department of Transport**	Vehicle registration	$81.40
20/11/2014	10539	**Mindarie Regional Council Staff Lotto Account**	Staff lotto - Deducted from staff salary	$220.00
25/11/2014	10540	**Ocean Keys Family Practice**	Pre-employment medical	$110.00
28/11/2014	10541	**Australian Services Union**	Union membership fee deducted from staff salary	$50.20
28/11/2014	10542	**Child Support**	Child Support Allowance payment - Deduction made from staff salary	$1,648.20
28/11/2014	10543	**Health Insurance Fund of WA**	Health Insurance premium deducted from staff salary	$314.80
28/11/2014	10544	**Mindarie Regional Council Staff Lotto Account**	Staff lotto - Deducted from staff salary	$220.00
28/11/2014	10545	**Petty Cash**	Reimbursement of petty cash expenses	$396.15
28/11/2014	10546	**Airefrig Australia Pty Ltd**	Annual Service of gas units	$726.00
28/11/2014	10547	**Australian Communications and Media Authority**	Corporate Membership	$409.00
		Total Cheque Payments		**$74,558.09**
21/11/2014	DP-01148	**Australian Taxation Office**	BAS October 2014	$285,137.00
3/11/2014	DP-01149	**Iinet Ltd**	VOIP Services	$9.95
10/11/2014	DP-01150	**National Australia Bank**	Loan 11 Repayment	$74,937.85
28/11/2014	DP-01151	**National Australia Bank**	Account Keeping Fees	$60.20
17/11/2014	DP-01152	**National Australia Bank**	Loan 12 Repayment	$137,822.36
17/11/2014	DP-01153	**National Australia Bank**	Loan 12 Bill Drawdown Fee	$150.00
28/11/2014	DP-01154	**National Australia Bank**	Loan 10C Repayment	$42,732.89
28/11/2014	DP-01155	**National Australia Bank**	Loan 10C Bill Drawdown Fee	$150.00
21/11/2014	DP-01156	**National Australia Bank**	NAB Connect Fee	$5.00
		Total Direct Payments		**$541,005.25**
3/11/2014	EFT-00900	**MRC**	Payroll Employee Wages	$1,597.06
5/11/2014	EFT-00901	**AMP FLEXIBLE SUPER**	Superannuation Premium	$1,555.25
5/11/2014	EFT-00901	**Aon Master Trust - Personal Super**	Superannuation Premium	$2,036.28
5/11/2014	EFT-00901	**Australian Super Administration**	Superannuation Premium	$1,714.32
5/11/2014	EFT-00901	**BT Super for Life - SG**	Superannuation Premium	$1,519.87
5/11/2014	EFT-00901	**CBUS**	Superannuation Premium	$2,976.73
5/11/2014	EFT-00901	**Colonial First State**	Superannuation Premium	$5,791.36
5/11/2014	EFT-00901	**HOSTPLUS**	Superannuation Premium	$2,195.23
5/11/2014	EFT-00901	**Plum Superannuation Fund**	Superannuation Premium	$487.34
5/11/2014	EFT-00901	**Spectrum Super**	Superannuation Premium	$1,109.17

APPENDIX NO. 4

5/11/2014	EFT-00901	**WALGS PLAN PTY LTD**	Superannuation Premium	$85,614.22
6/11/2014	EFT-00902	**Animal Ark P/L**	Snake Handling kits	$1,530.00
6/11/2014	EFT-00902	**The West Australian**	Advertising expenses - Recycling week feature	$4,070.00
6/11/2014	EFT-00903	**WASTE MANAGEMENT ASSN OF AUST LTD**	Conference expenses	$14,130.00
10/11/2014	EFT-00904	**Airwell Group Pty Ltd**	Bubbler Test Installation	$19,447.09
10/11/2014	EFT-00904	**Belridge Bus Charter**	Waste Education bus tours	$1,056.00
10/11/2014	EFT-00904	**BOC Limited**	Gas & cylinder for workshop usage	$579.15
10/11/2014	EFT-00904	**Bunnings**	Site operating expenses	$449.62
10/11/2014	EFT-00904	**Cabcharge Australia Ltd**	Travelling expenses - Conference	$1,174.58
10/11/2014	EFT-00904	**Castle Security & Electrical Pty**	Quaterly monitoring & call out charges	$681.29
10/11/2014	EFT-00904	**CHUBB FIRE SAFETY LTD**	Fire extinguisher service - Tamala Park	$5,482.51
10/11/2014	EFT-00904	**COVS Parts Pty Ltd**	Repair & maintenance for New Holland Tractor (PLANT76)	$1,239.48
10/11/2014	EFT-00904	**Creative Catering**	Catering for Shire of Gingin & DER tours & CEAG meeting	$1,149.80
10/11/2014	EFT-00904	**DAVID GRAY & CO P/L**	Show bins - Waste Education	$902.00
10/11/2014	EFT-00904	**Domain Catering**	Catering for Royal Show debrief	$227.50
10/11/2014	EFT-00904	**DRAGE SIGNS**	Disclaimer signs for Recycling	$572.00
10/11/2014	EFT-00904	**ECO Spill**	Fencing and Gate Maintenance	$100.76
10/11/2014	EFT-00904	**Fuji Xerox Australia Pty Ltd**	Photocopier Lease fees	$566.50
10/11/2014	EFT-00904	**GCM Enviro Pty Ltd**	Repair & maintenance for Tana Compactor (PLANT78)	$9,623.35
10/11/2014	EFT-00904	**Hyperactive Digital P/L**	MRC website support & maintenance	$577.50
10/11/2014	EFT-00904	**Jessica Harbour**	Contract Labour - Waste Education fairs	$187.50
10/11/2014	EFT-00904	**Joondalup Office National**	Stationery and Printing	$1,163.48
10/11/2014	EFT-00904	**L & T Venables**	Snaps hooks for tarps	$184.80
10/11/2014	EFT-00904	**Midalia Steel**	Steel plate for metal bins	$399.63
10/11/2014	EFT-00904	**Neverfail Springwater Ltd**	Staff Amenities	$368.70
10/11/2014	EFT-00904	**Olivers Lawn & Landscaping Pty Ltd**	Landscaping and Gardens - RRF	$297.00
10/11/2014	EFT-00904	**PIRTEK (MALAGA) PTY LTD**	Repair & maintenance for Komatsu Digger (PLANT78)	$2,717.03
10/11/2014	EFT-00904	**Spider Waste Collection Services P/L**	Collection of mattresses from transfer station	$14,304.00
10/11/2014	EFT-00904	**Staff Link Group**	Contract labour hire - relief mechanic & recycle centre	$4,334.68
10/11/2014	EFT-00904	**Staples Australia P/L**	Stationery and Printing	$561.51
10/11/2014	EFT-00904	**Stephen Michael Terenciuk**	Puncture repairs for Hino Bin Truck (PLANT83)	$855.00
10/11/2014	EFT-00904	**Town of Victoria Park**	Reimbursement of Catering expenses	$915.00
10/11/2014	EFT-00904	**United Equipment**	Replacement of tyres for Caterpillar Forklift (PLANT59)	$484.00
10/11/2014	EFT-00904	**WA HINO SALES & SERVICE**	Repair & maintenance for Hino Bin Truck (PLANT83)	$427.41
10/11/2014	EFT-00904	**WILSON SECURITY P/L**	Building Security	$3,528.30
12/11/2014	EFT-00905	**Slim Jim Enterprises**	Band for Staff Christmas party	$555.00
12/11/2014	EFT-00906	**Cancelled**	Cancelled	$0.00
14/11/2014	EFT-00907	**MRC**	Payroll Employee Wages	$98,147.80
14/11/2014	EFT-00908	**Cancelled**	Cancelled	$0.00
14/11/2014	EFT-00909	**BOBJANE TMART**	Tube repairs for Fire Ute (PLANT71)	$45.00
14/11/2014	EFT-00909	**CALTEX AUSTRALIA PETROLEUM PTY**	Plant - Fuel and Oil	$844.49
14/11/2014	EFT-00909	**Data#3**	Microsoft Office Professional assurance & purchase of replacement computer equipment	$28,805.28
14/11/2014	EFT-00909	**Earthwise Community Association**	Waste Management Education venue hire	$50.00
14/11/2014	EFT-00909	**Gavin Burgess**	Battery collection program	$1,333.60

APPENDIX NO. 4

14/11/2014	EFT-00909	**LANDFILL GAS & POWER PTY LTD**	Electricity usage	$4,873.52
14/11/2014	EFT-00909	**LGISWA**	Insurance premiums	$147,686.66
14/11/2014	EFT-00909	**Northern Mowers & Chainsaws**	Chain saw for bushland management	$106.40
14/11/2014	EFT-00909	**PREPLAN**	vehicle movement bans- report	$4,266.63
14/11/2014	EFT-00909	**RCG TECHNOLOGIES**	Drop off of asbestos	$5,035.14
14/11/2014	EFT-00909	**REmida Perth Inc**	Corporate Membership	$286.00
14/11/2014	EFT-00909	**SURVEY GRAPHICS**	Investigation on waste settlement on Stage 1 - Tamala Park	$1,947.00
14/11/2014	EFT-00909	**The Valve Company P/L**	Repair & maintenance for Hino Bin Truck (PLANT14)	$847.00
14/11/2014	EFT-00909	**WA Local Government Association**	Staff Training	$1,320.00
14/11/2014	EFT-00909	**WesTrac Pty Ltd**	Engine & Hydraulic oil for various plants	$2,151.58
19/11/2014	EFT-00911	**Biovision 2020 Pty Ltd**	Contractor's Fees October 2014	$2,345,442.41
19/11/2014	EFT-00912	**MRC Credit Card**	MIG welder repairs	$224.40
19/11/2014	EFT-00912	**MRC Credit Card**	Repairs for fuel bowser	$290.40
19/11/2014	EFT-00912	**MRC Credit Card**	Pest control supplies	$374.55
19/11/2014	EFT-00912	**MRC Credit Card**	Staff Amenities	$2,145.28
21/11/2014	EFT-00913	**Air Liquide WA Pty Ltd**	Cylinder hire for workshop usage	$167.86
21/11/2014	EFT-00913	**AUSTRALIA POST - PERTH**	Postage & Freight	$154.65
21/11/2014	EFT-00913	**CJD Equipment P/L**	Scheduled service for Komatsu Dump truck (PLANT90)	$519.31
21/11/2014	EFT-00913	**Cloe's Workwear**	Staff Uniforms/Protective Clothing	$175.00
21/11/2014	EFT-00913	**Elan Energy Management P/L**	Collection of tyres from transfer station	$729.60
21/11/2014	EFT-00913	**Enviro Sweep**	Access road maintenance	$3,300.00
21/11/2014	EFT-00913	**Excel Carpet Cleaning WA**	Window cleaning - RRF & Tamala Park	$1,165.00
21/11/2014	EFT-00913	**Fennell Tyres International Pty Ltd**	Replacement of tyres for Komatsue Loader (PLANT96) & Komatsu Dump truck (PLANT90)	$6,178.26
21/11/2014	EFT-00913	**GREENWOOD LAWNMOWER CENTRE**	Pole saw for bushland management	$1,479.00
21/11/2014	EFT-00913	**Infoactiv Logistics Solutions P/L**	E waste recycling contractors	$91.20
21/11/2014	EFT-00913	**IW Projects**	Consultancy - Landfill projects	$3,328.05
21/11/2014	EFT-00913	**Performance Packaging**	Paper towels for admin office	$354.42
21/11/2014	EFT-00913	**R & J Mobile Car Detailing**	Car Detailing	$500.00
21/11/2014	EFT-00913	**The Pest Guys**	Building Maintenance - Pest Control	$165.00
21/11/2014	EFT-00913	**Toyota Material Handling P/L**	Repair & maintenance for Forklift (PLANT98)	$99.36
28/11/2014	EFT-00914	**MRC**	Payroll Employee Wages	$95,623.70
27/11/2014	EFT-00916	**ERTECH PTY LTD**	Landfill Phase 3 Development	$456,732.22
28/11/2014	EFT-00917	**Crossland & Hardy Pty Ltd**	Monthly volume survey - landfill	$3,555.20
28/11/2014	EFT-00917	**Department of Environment Regulation**	Controlled waste tracking form	$39.50
28/11/2014	EFT-00917	**EMRC**	Drp off of timber from recycle centre	$264.00
28/11/2014	EFT-00917	**FILTER SUPPLIES**	Replacement of pressure filters for Tana Compactor (PLANT78)	$500.50
28/11/2014	EFT-00917	**Flick Anticimex P/L**	Hygiene services	$169.83
28/11/2014	EFT-00917	**Fuelfix P/L**	Replacement fuel dispensing bowser	$4,133.51
28/11/2014	EFT-00917	**GHD PTY LTD**	Development of a Conceptual Site Model	$1,100.00
28/11/2014	EFT-00917	**Instant Products Group**	Portable toilet hire & servicing	$624.89
28/11/2014	EFT-00917	**Iron Mountain Australia Pty Ltd**	Data storage & collection	$39.29
28/11/2014	EFT-00917	**Kitec Electrical Services**	Repair broken red light on in bound drive way	$426.25
28/11/2014	EFT-00917	**Landsdale Gardens Adventist School**	Waste Education bus tours	$200.00
28/11/2014	EFT-00917	**MAGNETIC AUTOMATION PTY LTD**	Boom gate maintenance - Tamala park	$385.00

APPENDIX NO. 4

28/11/2014	EFT-00917	**Mission Impossible**	Cleaning of Buildings	$1,956.30
28/11/2014	EFT-00917	**MOBILE MASTERS**	Fit remote two-way speakers to various plant	$1,342.55
28/11/2014	EFT-00917	**ORS GROUP**	Staff Wellness	$481.25
28/11/2014	EFT-00917	**RESQ Pty Ltd**	Nable monitoring	$845.90
28/11/2014	EFT-00917	**SITA Australia Pty Ltd**	Confidentail bin collection	$49.50
28/11/2014	EFT-00917	**T & C Transport Services**	Courier Expenses	$856.64
28/11/2014	EFT-00917	**Tutt Bryant Equipment WA**	Scheduled service for Bomag Compactor (PLANT65)	$588.32
28/11/2014	EFT-00917	**ZURICH INSURANCE**	Excess payment for accident repairs	$300.00
		Total EFT Payments		**$3,436,283.20**

Summary Schedule of Payments

Cheque Payments

Cheque No. 10532 to 10547	**$74,558.09**
Electronic Payments:	
DP- 01148 to DP- 01156	**$541,005.25**
Inter-Account Transfers	**-**
EFT- 00900 to EFT- 00917	**$3,436,283.20**
Grand Total	**$4,051,846.54**

CERTIFICATE OF CHIEF EXECUTIVE OFFICER

This schedule of accounts which was passed for payment, covering vouchers as above which was submitted to each member of Council on 19 February 2015 has been checked and is fully supported by vouchers and invoices which are submitted herewith and which have been duly certified as to the receipt of goods and the rendition of services and as to prices, computations, and costing and the amounts due for payment.

APPENDIX NO. 4

List of Payments for the month ended 31 December 2014

Item 9.2	APPENDIX NO. 5	Item 9.2

APPENDIX NO. 5

Schedule of Payment for December 2014
Council Meeting - 19 February 2015

Cheque Posting Date	Document No.	Vendor Name	Description	Cheque Amount
12/12/2014	10548	**Telstra**	Telephone Expenses	$1,333.25
12/12/2014	10549	**Corinne MacRae**	Member Meeting Fees	$140.00
12/12/2014	10550	**Samantha Jenkinson**	Member Meeting Fees	$140.00
12/12/2014	10551	**Simon Withers**	Member Meeting Fees	$5,650.00
12/12/2014	10552	**Stephanie Proud**	Member Meeting Fees	$5,650.00
12/12/2014	10553	**Dot Newton**	Member Meeting Fees	$5,650.00
12/12/2014	10554	**Elizabeth Re**	Member Meeting Fees	$5,650.00
12/12/2014	10555	**Janet Davidson**	Member Meeting Fees	$5,650.00
12/12/2014	10556	**John Carey**	Member Meeting Fees	$5,650.00
12/12/2014	10557	**Karen Caddy**	Member Meeting Fees	$140.00
12/12/2014	10558	**Mike Norman**	Member Meeting Fees	$140.00
12/12/2014	10559	**Reece Harley**	Member Meeting Fees	$140.00
12/12/2014	10560	**Russell Driver**	Member Meeting Fees	$5,650.00
18/12/2014	10561	**Reliance Petroleum**	Distillate	$37,610.48
18/12/2014	10562	**Telstra**	Telephone Expenses	$1,276.25
18/12/2014	10563	**Department of Transport**	Vehicle search fees	$16.25
24/12/2014	10564	**Alinta Energy**	Gas Usage	$65.25
24/12/2014	10565	**Synergy**	Electricity usage	$31.60
24/12/2014	10566	**Water Corporation**	Water uage	$806.70
24/12/2014	10567	**Car Care (WA) - Mindarie**	Vehicle maintenance (PLANT84 & PLANT96)	$690.00
29/12/2014	10568	**Australian Services Union**	Union membership fee deducted from staff salary	$50.20
29/12/2014	10569	**Child Support**	Child Support Allowance payment - Deduction made from staff salary	$1,652.75
29/12/2014	10570	**Health Insurance Fund of WA**	Health Insurance premium deducted from staff salary	$314.80
29/12/2014	10571	**Mindarie Regional Council Staff Lotto Account**	Staff lotto - Deducted from staff salary	$460.00
		Total Cheque Payments		**$84,557.53**
1/12/2014	DP-01157 - 59	**Cancelled**	Cancelled	$0.00
1/12/2014	DP-01160	**National Australia Bank**	Merchant Fees	$948.32
1/12/2014	DP-01161	**National Australia Bank**	Merchant Fees	$117.09
1/12/2014	DP-01162	**National Australia Bank**	Merchant Fees	$81.80
15/12/2014	DP-01163	**National Australia Bank**	Loan 12 Facility Fee	$3,895.78
16/12/2014	DP-01164	**National Australia Bank**	Loan 12 Bill Drawdown Fee	$150.00
16/12/2014	DP-01165	**National Australia Bank**	Loan 12 Repayment	$118,055.00
16/12/2014	DP-01166	**National Australia Bank**	Loan 12 Interest payment	$15,222.38

APPENDIX NO. 5

22/12/2014	DP-01167	**National Australia Bank**	NAB Connect Fee	$5.00
22/12/2014	DP-01168	**Commonwealth Bank of Australia**	Loan 13 Repayment	$106,710.97
22/12/2014	DP-01169	**linet**	VOIP Services	$399.80
22/12/2014	DP-01170	**Cancelled**	Cancelled	$0.00
22/12/2014	DP-01171	**Australia Taxation Office**	BAS November 2014	$163,555.00
31/12/2014	DP-01172	**National Australia Bank**	Account Keeping Fees	$43.70
31/12/2014	DP-01173	**National Australia Bank**	Loan 10C Repayment	$42,096.30
31/12/2014	DP-01174	**National Australia Bank**	Loan 10C Bill Drawdown Fee	$150.00
		Total Direct Payments		**$451,431.14**
12/12/2014	Trf 1	**National Australia Bank**	Inter-account transfer	$2,000,000.00
		Total Inter account Transfers		**$2,000,000.00**
1/12/2014	EFT-00918	**City of Joondalup**	Lease Fees for December 2014	$10,379.10
1/12/2014	EFT-00918	**City of Perth**	Lease Fees for December 2014	$5,189.55
1/12/2014	EFT-00918	**City of Stirling**	Lease Fees for December 2014	$20,758.20
1/12/2014	EFT-00918	**City of Vincent**	Lease Fees for December 2014	$5,189.55
1/12/2014	EFT-00918	**City of Wanneroo**	Lease Fees for December 2014	$10,379.10
1/12/2014	EFT-00918	**Town of Cambridge**	Lease Fees for December 2014	$5,189.55
1/12/2014	EFT-00918	**Town of Victoria Park**	Lease Fees for December 2014	$5,189.55
2/12/2014	EFT-00919	**Reece Vellios**	Computer Systems Maintenance	$6,690.20
4/12/2014	EFT-00920	**Alance Newspaper & Magazine Delivery**	Periodicals/ Publications	$139.20
4/12/2014	EFT-00920	**Australian Institute of Management**	Staff Training	$1,180.00
4/12/2014	EFT-00920	**Bunnings**	Workshop consumables	$155.88
4/12/2014	EFT-00920	**Cabcharge Australia Ltd**	Travelling Expenses	$6.00
4/12/2014	EFT-00920	**Castledine Gregory**	Legal Expenses	$365.20
4/12/2014	EFT-00920	**COVS Parts Pty Ltd**	Fuchs Cargomax 10W for workshop usage	$2,083.11
4/12/2014	EFT-00920	**Fuji Xerox Australia Pty Ltd**	Photocopier Lease fees	$566.50
4/12/2014	EFT-00920	**GOLDER ASSOCIATES PTY LTD**	Landfill Phase 3 Development	$21,065.00
4/12/2014	EFT-00920	**Information Outlook Pty Ltd**	Navision system maintenance	$727.65
4/12/2014	EFT-00920	**Mineral Services P/L**	Hire equipment for Limestone crushing	$54,538.00
4/12/2014	EFT-00920	**Mining & Hydraulic Supplies**	Tools for workshop usage	$66.00
4/12/2014	EFT-00920	**MR POTHOLE**	Pot Hole repairs	$3,514.50
4/12/2014	EFT-00920	**Neverfail Springwater Ltd**	Staff Amenities	$52.45
4/12/2014	EFT-00920	**Performance Packaging**	Paper towels for admin & workshop	$589.93
4/12/2014	EFT-00920	**Plants & Garden Rentals**	Plants rental	$264.00
4/12/2014	EFT-00920	**Spider Waste Collection Services P/L**	Collection of mattresses from transfer station	$6,576.00
4/12/2014	EFT-00920	**Staff Link Group**	Contract Labour hire - Transfer station & recycling	$1,740.31

APPENDIX NO. 5

4/12/2014	EFT-00920	**Staples Australia P/L**	Staff Amenities	$310.36
4/12/2014	EFT-00920	**WA Local Government Association**	Advertisement expenses	$936.01
12/12/2014	EFT-00921	**MRC**	Payroll Employee Wages	$94,633.38
12/12/2014	EFT-00922	**Air Liquide WA Pty Ltd**	Cylinder hire charges	$159.48
12/12/2014	EFT-00922	**CAPS Australia Pty Ltd**	Generater maintenance	$946.53
12/12/2014	EFT-00922	**COVS Parts Pty Ltd**	2 x 20lt drum pumps	$483.50
12/12/2014	EFT-00922	**Enviro Sweep**	Access Road Maintenance	$825.00
12/12/2014	EFT-00922	**Fuji Xerox Australia Pty Ltd**	Photocopying Expenses	$544.93
12/12/2014	EFT-00922	**Glenmarri Pty Ltd**	Dieback Test on Dead Banksia at the RRF	$810.00
12/12/2014	EFT-00922	**Joondalup Office National**	Staff Amenities	$249.74
12/12/2014	EFT-00922	**MINDARIE BUS CHARTER**	Waste Education bus tours	$1,100.00
12/12/2014	EFT-00922	**Murdoch University**	Bandicoot Post mortem	$205.95
12/12/2014	EFT-00922	**Olivers Lawn & Landscaping Pty Ltd**	Landscaping and Gardens - RRF	$55.00
12/12/2014	EFT-00922	**PIRTEK (MALAGA) PTY LTD**	Hydraulic hose repairs for Skid Steer (PLANT92)	$357.97
12/12/2014	EFT-00922	**Security Specialists Australia Pty Ltd**	Cash collection charges	$350.90
12/12/2014	EFT-00922	**Spider Waste Collection Services P/L**	Collection of mattresses from transfer station	$1,632.00
12/12/2014	EFT-00922	**Staff Link Group**	Contract Labour hire - mechanic relief	$2,853.09
12/12/2014	EFT-00922	**Staples Australia P/L**	Staff Amenities	$335.78
12/12/2014	EFT-00922	**The Pest Guys**	Pest control	$286.00
12/12/2014	EFT-00922	**Town of Victoria Park**	Recoup of Rates for Tamala Park 2012/13,2013/14 & 2014/15	$29,614.27
12/12/2014	EFT-00922	**WANNEROO PLUMBING SERVICE**	Plumbing maintenance	$176.00
12/12/2014	EFT-00923	**Bill Stewart**	Member Meeting Fees	$8,096.50
12/12/2014	EFT-00923	**David Boothman**	Member Meeting Fees	$5,650.00
12/12/2014	EFT-00923	**Kerry Hollywood**	Member Meeting Fees	$5,650.00
12/12/2014	EFT-00923	**Russ Fishwick**	Member Meeting Fees	$18,010.00
17/12/2014	EFT-00924	**Reece Vellios**	Computer Systems Maintenance	$6,789.20
18/12/2014	EFT-00925	**Gunther Hoppe**	Reimbursement of petty cash expenses	$168.37
19/12/2014	EFT-00926	**Bunnings**	Bushland management supplies	$356.91
19/12/2014	EFT-00926	**CALTEX AUSTRALIA PETROLEUM PTY**	Plant - Fuel and Oil	$804.07
19/12/2014	EFT-00926	**CHUBB FIRE SAFETY LTD**	Maintenance of fire hose	$931.26
19/12/2014	EFT-00926	**DRIVE IN ELECTRICS**	Replacement batteries for New Holland Tractor (PLANT76)	$450.00
19/12/2014	EFT-00926	**ERTECH PTY LTD**	Staff Training	$302.50
19/12/2014	EFT-00926	**Gavin Burgess**	Battery collection program	$1,332.00
19/12/2014	EFT-00926	**GCM Enviro Pty Ltd**	Maintenance for Tanana Compactor (PLANT78)	$554.40
19/12/2014	EFT-00926	**IFAP**	Staff Training	$1,085.00
19/12/2014	EFT-00926	**Indoor Gardens Pty Ltd**	Plants rental	$437.24
19/12/2014	EFT-00926	**Joondalup Office National**	Stationery and Printing	$121.03
19/12/2014	EFT-00926	**Keith D'Sa**	Reimbursement of CPA Membership fee	$310.00

APPENDIX NO. 5

19/12/2014	EFT-00926	**L & T Venables**	Range of hard flat washers	$118.14
19/12/2014	EFT-00926	**LANDFILL GAS & POWER PTY LTD**	Electricity usage	$4,579.90
19/12/2014	EFT-00926	**LGISWA**	Insurance premium	$1,415.00
19/12/2014	EFT-00926	**MOBILE MASTERS**	Two way radio repairs for Skid Steer (PLANT92)	$393.80
19/12/2014	EFT-00926	**Neverfail Springwater Ltd**	Staff Amenities	$52.45
19/12/2014	EFT-00926	**Northside Bus Charter**	Waste Education bus tours	$220.00
19/12/2014	EFT-00926	**Olivers Lawn & Landscaping Pty Ltd**	Landscaping and Gardens - RRF	$662.00
19/12/2014	EFT-00926	**PIRTEK (MALAGA) PTY LTD**	Grapple hose & Elbow for Skid Steer (PLANT92)	$658.29
19/12/2014	EFT-00926	**Plants & Garden Rentals**	Plants rental	$264.00
19/12/2014	EFT-00926	**RCG TECHNOLOGIES**	Drop off of Asbestos	$4,048.04
19/12/2014	EFT-00926	**Staples Australia P/L**	Staff Amenities	$155.75
19/12/2014	EFT-00926	**Thermo Fisher Scientific**	Chemical to preserve ticks	$128.65
19/12/2014	EFT-00926	**Vibra Industrial Filtration**	Air filters for various plants	$228.25
19/12/2014	EFT-00926	**Wangara Kia**	Scheduled service for Kia Carnival (PLANT84)	$1,669.00
19/12/2014	EFT-00926	**WesTrac Pty Ltd**	Workshop consumable supplies	$530.13
23/12/2014	EFT-00927	**Biovision 2020 Pty Ltd**	Contractor's Fees	$1,567,166.47
23/12/2014	EFT-00928	**MRC Credit Card**	Employee Award vouchers	$1,122.80
23/12/2014	EFT-00928	**MRC Credit Card**	Aerial for vehicles	$1,950.50
23/12/2014	EFT-00928	**MRC Credit Card**	Radiator coolant	$190.00
23/12/2014	EFT-00929	**MRC**	Payroll Employee Wages	$100,585.05
24/12/2014	EFT-00930	**Lynda Nyssen**	Wellness Programs	$200.00
24/12/2014	EFT-00931	**Alance Newspaper & Magazine Delivery**	Periodicals/ Publications	$139.20
24/12/2014	EFT-00931	**Belridge Bus Charter**	Waste Education bus tours	$484.00
24/12/2014	EFT-00931	**BOC Limited**	Cylinder gas hire charges	$95.28
24/12/2014	EFT-00931	**BOULEVARD FLORIST**	Flowers for staff	$115.00
24/12/2014	EFT-00931	**Bowman & Associates P/L**	Landfill Phase 3 Development	$6,677.75
24/12/2014	EFT-00931	**Brand Success**	Waste Education give away Rulers (x1000)	$1,540.00
24/12/2014	EFT-00931	**Bunnings**	Building maintenance	$76.13
24/12/2014	EFT-00931	**CJD Equipment P/L**	Replacement tracks for Skid Steer (PLANT92)	$3,511.75
24/12/2014	EFT-00931	**COVS Parts Pty Ltd**	Engine oil & coolant supply for workshop	$824.68
24/12/2014	EFT-00931	**Department of Environment Regulation**	Controlled waste tracking form	$79.00
24/12/2014	EFT-00931	**Elan Energy Management P/L**	Collection of tyres from transfer station	$776.82
24/12/2014	EFT-00931	**EMRC**	Drop off of timber waste	$825.00
24/12/2014	EFT-00931	**Enviro Sweep**	Access Road Maintenance	$825.00
24/12/2014	EFT-00931	**ERTECH PTY LTD**	Landfill Phase 3 Development	$580,760.92
24/12/2014	EFT-00931	**Excel Carpet Cleaning WA**	Cleaning of Buildings - RRF	$1,205.00
24/12/2014	EFT-00931	**Flick Anticimex P/L**	Hygiene Services - Tamala Park & RRF	$830.69
24/12/2014	EFT-00931	**Fuji Xerox Australia Pty Ltd**	Photocopying Expenses	$773.75

APPENDIX NO. 5

24/12/2014	EFT-00931	**Instant Products Group**	Education Centre toilet hire & servicing	$580.14
24/12/2014	EFT-00931	**Iron Mountain Australia Pty Ltd**	Data storage	$39.29
24/12/2014	EFT-00931	**KD Aire Mechanical and Electrical Services**	Air con repairs & maintenance	$621.50
24/12/2014	EFT-00931	**L & T Venables**	Jumbo metric spanner set	$416.74
24/12/2014	EFT-00931	**Macri Partners**	Audit Fees	$12,879.90
24/12/2014	EFT-00931	**Mission Impossible**	Cleaning of Buildings - Tamala Park	$1,956.30
24/12/2014	EFT-00931	**Neverfail Springwater Ltd**	Staff Amenities	$52.45
24/12/2014	EFT-00931	**Olivers Lawn & Landscaping Pty Ltd**	Landscaping and Gardens - RRF	$55.00
24/12/2014	EFT-00931	**ORS GROUP**	Wellness Programs	$471.65
24/12/2014	EFT-00931	**Perth Bus**	Waste Education bus tours	$198.00
24/12/2014	EFT-00931	**RCG TECHNOLOGIES**	Drop off of Asbestos	$2,550.27
24/12/2014	EFT-00931	**RESQ Pty Ltd**	Computer Systems Maintenance	$845.90
24/12/2014	EFT-00931	**Staff Link Group**	Contract Labour Hire - recycling	$216.60
24/12/2014	EFT-00931	**Staples Australia P/L**	Staff Amenities	$361.33
24/12/2014	EFT-00931	**Stephen Michael Terenciuk**	Puncture repairs for Hino Bin Truck (PLANT61)	$510.00
24/12/2014	EFT-00931	**T & C Transport Services**	Courier Expenses	$508.79
24/12/2014	EFT-00931	**WA HINO SALES & SERVICE**	Repair & maintenance for Hino Bin Truck (PLANT83)	$971.18
29/12/2014	EFT-00932	**AMP FLEXIBLE SUPER**	Superannuation Premium	$653.60
29/12/2014	EFT-00932	**Aon Master Trust - Personal Super**	Superannuation Premium	$815.40
29/12/2014	EFT-00932	**Australian Super Administration**	Superannuation Premium	$675.55
29/12/2014	EFT-00932	**BT Super for Life - SG**	Superannuation Premium	$623.56
29/12/2014	EFT-00932	**CBUS**	Superannuation Premium	$1,013.45
29/12/2014	EFT-00932	**Colonial First State**	Superannuation Premium	$2,322.28
29/12/2014	EFT-00932	**HOSTPLUS**	Superannuation Premium	$934.36
29/12/2014	EFT-00932	**Plum Superannuation Fund**	Superannuation Premium	$334.20
29/12/2014	EFT-00932	**Spectrum Super**	Superannuation Premium	$492.66
29/12/2014	EFT-00932	**WALGS PLAN PTY LTD**	Superannuation Premium	$34,225.87
		Total EFT Payments		**$2,701,713.06**

APPENDIX NO. 5

Summary Schedule of Payments

Cheque Payments

Cheque No. 10548 to 10571	**$84,557.53**
Electronic Payments:	
DP- 01157 to DP- 01174	**$451,431.14**
Inter-Account Transfers	**$2,000,000.00**
EFT- 00918 to EFT- 00932	**$2,701,713.06**
Grand Total	**$5,237,701.73**

CERTIFICATE OF CHIEF EXECUTIVE OFFICER

This schedule of accounts which was passed for payment, covering vouchers as above which was submitted to each member of Council on 19 February 2015 has been checked and is fully supported by vouchers and invoices which are submitted herewith and which have been duly certified as to the receipt of goods and the rendition of services and as to prices, computations, and costing and the amounts due for payment.

APPENDIX NO. 5

MRC Mid-Year Budget Financial Report 2015

Item 9.3	APPENDIX NO. 6	Item 9.3

Mindarie Regional Council

Budget Review
For the year ending
30 June 2015

Approved at the Ordinary Council Meeting - 19 February 2015

APPENDIX NO. 6

Mindarie Regional Council

INCOME STATEMENT BY NATURE AND TYPE
Estimated Actual for the year ending 30 June 2015
Midyear Budget Review

Description	Adopted Budget	YTD Actual November 2014	Estimated Actual 30 June 2015	$ Variance (Adopted vs Est Actual June 2015)	% Variance
Revenue form Ordinary Activities					
Member User Charges					
User Charges - City of Perth	1,844,010	656,247	1,782,594		
User Charges - City of Wanneroo	10,464,350	4,173,953	9,955,226		
User Charges - City of Joondalup	8,532,855	3,292,204	8,371,127		
User Charges - City of Stirling	14,750,147	5,291,961	12,436,215		
User Charges - Town of Cambridge	1,043,108	397,820	919,741		
User Charges - City of Vincent	1,997,658	733,502	1,906,899		
User Charges - Town of Victoria Park	2,023,153	663,950	2,062,078		
User Charges - RRF Residues	6,254,524	2,487,504	6,230,029		
	46,909,805	**17,697,141**	**43,663,910**	**(3,245,895)**	**(6.92%)**
Non Member User Charges					
User Charges - City of South Perth	-	-	-	-	
User Charges - Casual Tipping Fees	5,553,022	1,326,784	3,305,087	(2,247,935)	(40.48%)
	5,553,022	**1,326,784**	**3,305,087**	**(2,247,935)**	**(40.48%)**
Total User Charges	**52,462,827**	**19,023,925**	**46,968,998**	**(5,493,829)**	**(10.47%)**
Other Charges					
Service Charges					
Carbon Price	-	-	-	-	
Sale of Recyclable Materials	680,000	321,271	680,000	-	0.00%
Gas Power Generation Sales	505,000	214,409	505,000	-	0.00%
Grants & Subsidies	-	-	-	-	
Contributions, Reimbursments & Donations	5,000	29,287	29,287	24,287	485.74%
Interest Earnings	700,900	301,224	700,900	-	0.00%
Other Revenue	396,000	156,536	396,000	-	0.00%
Total Other Charges	**2,286,900**	**1,022,727**	**2,311,187**	**24,287**	**1.06%**
Total Revenue from Ordinary Activities	**54,749,727**	**20,046,652**	**49,280,185**	**(5,469,542)**	**(9.99%)**
Expenses from Ordinary Activities					
Employee Costs	5,187,509	1,853,329	4,928,509	259,000	4.99%
Materials and Contracts					
Consultants and Contract Labour	486,500	60,627	552,693	(66,193)	(13.61%)
Communications and Public Consultation	392,500	43,609	394,000	(1,500)	(0.38%)
Landfill Expenses	1,226,930	257,882	1,230,892	(3,962)	(0.32%)
Office Expenses	218,650	74,572	218,050	600	0.27%
Information Systems	218,050	82,637	218,050	-	0.00%
Building Maintenance	156,500	48,968	156,298	202	0.13%
Plant and Equipment Operating and Hire	1,169,400	393,699	1,170,056	(656)	(0.06%)
RRF Other Operationg Expenses	23,048,800	9,405,298	23,048,800	-	0.00%
Waste Minimisation	-	-	-	-	
Utilities	182,300	81,147	182,300	-	0.00%
Depreciation	1,155,400	480,905	1,157,556	(2,156)	(0.19%)
Borrowing Cost Expenses	906,300	261,721	806,300	100,000	11.03%
Insurance	348,430	78,928	348,430	-	0.00%
DEP Landfill Levy	11,643,900	3,046,001	10,101,906	1,541,994	13.24%
Land Lease/Rental	758,500	283,066	758,500	-	0.00%
Other Expenditure					
Member Costs	241,950	20,782	246,270	(4,320)	(1.79%)
Administration Expenses	217,500	40,993	217,500	-	0.00%
Carbon Price	-	-	-	-	
Amortisation-Cell Development	3,654,900	1,379,924	3,429,737	225,163	6.16%
Amortisation for Decommissioning Asset	846,100	352,544	846,100	-	0.00%
Capping Accretion Expense	258,469	107,695	258,469	-	0.00%
Post Closure Accretion Expense	212,728	88,639	212,728	-	0.00%
RRF Amortisation	540,200	225,081	540,200	-	0.00%
	53,071,516	**18,668,047**	**51,023,344**	**2,048,172**	**3.86%**
Profit on Sale of Assets	7,722	3,372	3,372	(4,350)	(56.33%)
Loss on Sale of Assets	8,781	9,158	31,127	(22,346)	(254.48%)
	(1,059)	**(5,786)**	**(27,755)**	**(26,696)**	
Changes in Net Assets Resulting from Operations	**1,677,152**	**1,372,819**	**(1,770,914)**	**(3,448,066)**	**(205.59%)**

APPENDIX NO. 6

Mindarie Regional Council

INCOME STATEMENT BY DEPARTMENT
Estimated Actual for the year ending 30 June 2015

Description	Adopted Budget 2014/2015	YTD Actual November 2014	Estimated Actual June 2015	$ Variance	% Variance
Revenues from Ordinary Activities					
Operating Revenues					
General Purpose Funding	54,749,727	20,046,652	49,280,185	(5,469,542)	(9.99%)
Community Amenities	-	-	-	-	
Resource Recovery Facility	-	-	-	-	
	54,749,727	**20,046,652**	**49,280,185**	**(5,469,542)**	**(9.99%)**
Profit on Disposal of Assets					
Governance	-	3,372	3,372	3,372	
Community Amenities	7,722	-	-	(7,722)	(100.00%)
Resource Recovery Facility	-	-	-	-	
	7,722	**3,372**	**3,372**	**(4,350)**	**(100.00%)**
Total Revenue	**54,757,449**	**20,050,024**	**49,283,557**	**(5,473,892)**	**(10.00%)**
Expenses from Ordinary Activities					
Operating Expenditure					
Governance	4,722,151	1,382,203	4,209,244	512,907	10.86%
Community Amenities	24,258,865	7,372,784	22,290,000	1,968,865	8.12%
Resource Recovery Facility	23,714,300	9,651,339	23,717,800	(3,500)	(0.01%)
	52,695,316	**18,406,326**	**50,217,044**	**2,478,272**	**4.70%**
Loss on Sale of Assets					
Governance	5,898	9,158	9,158	(3,260)	(55.27%)
Community Amenities	2,883	-	21,969	(19,086)	(662.02%)
Resource Recovery Facility	-	-	-	-	
	8,781	**9,158**	**31,127**	**(22,346)**	(254.48%)
Cost of Borrowings					
Governance	-	152,343	430,100	(430,100)	
Resource Recovery Facility	376,200	109,378	376,200	-	0.00%
	376,200	**261,721**	**806,300**	**(430,100)**	**(114.33%)**
Total Expenditure	**53,080,297**	**18,677,205**	**51,054,471**	**2,025,826**	**3.82%**
Changes in Net Assets Resulting from Operations	**1,677,152**	**1,372,819**	**(1,770,914)**	**3,448,066**	**205.59%**

APPENDIX NO. 6

Mindarie Regional Council

STATEMENT OF BUDGET REVIEW 2012/2013
Nature and Type
Estimated Actual for the year ending 30 June 2015

Description	Note	Budget vs Actual: Adopted Budget 2014/2015	Budget vs Actual: YTD Actual November 2014	Predicted: Estimated Actual Dec 14 to Jun15	Predicted: Variance Timing and Carryover	Predicted: Year End
Revenue form Ordinary Activities						
Member User Charges						
User Charges - City of Perth		1,844,010	656,247	1,126,347		1,782,594
User Charges - City of Wanneroo		10,464,350	4,173,953	5,781,273		9,955,226
User Charges - City of Joondalup		8,532,855	3,292,204	5,078,923		8,371,127
User Charges - City of Stirling		14,750,147	5,291,961	7,144,254		12,436,215
User Charges - Town of Cambridge		1,043,108	397,820	521,921		919,741
User Charges - City of Vincent		1,997,658	733,502	1,173,397		1,906,899
User Charges - Town of Victoria Park		2,023,153	663,950	1,398,128		2,062,078
User Charges - RRF Residues		6,254,524	2,487,504	3,742,525		6,230,029
		46,909,805	**17,697,141**	**25,966,769**	**-**	**43,663,910**
Non Member User Charges						
User Charges - City of South Perth		-	-	-		-
User Charges - Casual Tipping Fees		5,553,022	1,326,784	1,978,303		3,305,087
		5,553,022	**1,326,784**	**1,978,303**	**-**	**3,305,087**
Total User Charges		**52,462,827**	**19,023,925**	**27,945,073**	**-**	**46,968,998**
Other Charges						
Service Charges						
Carbon Price		-	-	-		-
Sale of Recyclable Materials		680,000	321,271	358,729		680,000
Gas Power Generation Sales		505,000	214,409	290,591		505,000
Grants & Subsidies	7	-	-	-		-
Contributions, Reimbursments & Donations		5,000	29,287	-		29,287
Interest Earnings		700,900	301,224	399,676		700,900
Other Revenue		396,000	156,536	239,464		396,000
Profit on Sale of Assets		7,722	3,372	-		3,372
Total Other Charges		**2,294,622**	**1,026,099**	**1,288,460**	**-**	**2,314,559**
Total Revenue from Ordinary Activities		**54,757,449**	**20,050,024**	**29,233,533**	**-**	**49,283,557**
Expenses from Ordinary Activities						
Employee Costs	4	(5,187,509)	(1,853,329)	(3,075,180)		(4,928,509)
Materials and Contracts	5,6&9	(3,868,530)	(961,994)	(2,978,045)		(3,940,039)
RRF Other Operationg Expenses	1	(23,048,800)	(9,405,298)	(13,643,502)		(23,048,800)
Waste Minimisation		-	-	-		-
Utilities	8	(182,300)	(81,147)	(101,153)		(182,300)
Depreciation		(1,155,400)	(480,905)	(676,651)		(1,157,556)
Borrowing Cost Expenses		(906,300)	(261,721)	(544,579)		(806,300)
Insurance		(348,430)	(78,928)	(269,502)		(348,430)
DEP Landfill Levy	2	(11,643,900)	(3,046,001)	(7,055,905)		(10,101,906)
Land Lease/Rental		(758,500)	(283,066)	(475,434)		(758,500)
Other Expenditure	2 & 3	(5,971,847)	(2,215,658)	(3,535,346)		(5,751,004)
Loss on Sale of Assets		(8,781)	(9,158)	(21,969)		(31,127)
		(53,080,297)	**(18,677,205)**	**(32,377,266)**		**(51,054,471)**
Funding Balance Adjustment						
Add Back:						
Depreciation		1,155,400	480,905	676,651		1,157,556
Amortisation for Cell Development		3,654,900	1,379,924	2,049,813		3,429,737
Amortisation Charge for Decommissioning Asset		846,100	352,544	493,556		846,100
RRF Amortisation		540,200	225,081	315,119		540,200
Adjust (Profit) / Loss on Asset Disposal		1,059	5,786	21,969		27,755
		6,197,659	**2,444,240**	**3,557,108**		**6,001,348**
Net Operating		**7,874,811**	**3,817,059**	**413,375**		**4,230,434**
Capital Expenditures						
Payments for Purchase of Land and Buildings		(10,150,000)	-	(10,150,000)		(10,150,000)
Payments for Purchase of Plant and Equipment		(2,277,000)	(119,772)	(2,130,000)	47,000	(2,249,772)
Payments for Purchase of Furniture and Fixtures		(27,000)	(2,540)	(24,460)		(27,000)
Payments for Purchase of Computing Equipment		(66,300)	(17,645)	(46,210)		(63,855)
Payments for Construction of Infrastructure		(3,825,000)	(987,557)	(2,837,443)		(3,825,000)
Payments for Landfill Excavation and RRF		-	-	-		-
		(16,345,300)	**(1,127,514)**	**(15,188,113)**	**47,000**	**(16,315,627)**
Funding Sources						
Proceeds from Disposal of Assets		-	-	-		-
Proceeds from Self Supporting Loans		13,100,000	-	13,100,000		13,100,000
Proceeds from Carbon Price		-	-	-		-
Council Contributions		252,757	-	252,757		252,757
Repayments of Self Supporting Loans		(2,366,243)	(1,100,740)	(1,265,503)		(2,366,243)
Transfer from Reserves		2,648,300	162,649	2,485,651		2,648,300
Transfer to Reserve (from Operating Surplus)		-	-	-		-
Transfer to Reserve		(1,971,197)	(821,150)	(1,150,047)		(1,971,197)
		11,663,617	**(1,759,241)**	**13,422,858**	**-**	**11,663,617**
Net Capital and Funding Sources		**(4,681,683)**	**(2,886,755)**	**(1,765,255)**	**47,000**	**(4,652,010)**
Closing Funds		**3,193,128**	**930,304**	**(1,351,880)**		**(421,577)**

APPENDIX NO. 6

MINDARIE REGIONAL COUNCIL
STATEMENT OF INVESTING ACTIVITIES
Estimated Actual for the year ending 30 June 2015

Description	Adopted Budget	Revised Budget	YTD Actual 30 November 2014	% to Adopted Budget	Projections from Dec 14 - June 2015	Projected Total for the year to 30 June 2015	Variations between Projected Total for year 2014/15 and Adopted Budget	Explanation 2 - Variation between Projected Total 2014/15 and Adopted Budget
PLANT, VEHICLES AND MACHINERIES								
Plant and Vehicles								
Replacement of Hino Bin Truck (Plant61)	190,000		0		190,000	190,000	0	
Replacement of Bomag Landfill Compactor (Plant65)	1,500,000		0		1,500,000	1,500,000	0	
Replacement of Navara RXD40 (Plant69)	40,000		0		40,000	40,000	0	
Replacement of Kia Grand Carnival (Plant84)	47,000		0		0	0	47,000	To be carried forward to 2015/2016.
Replacement of Land Rover Defender (Plant81)	48,000		47,576		0	47,576	424	
Replacement of Ford MKII G6E (Plant82)	52,000		47,695		0	47,695	4,305	
Replacement of Cat247 MTL (Plant74)	105,000		0		105,000	105,000	0	
Replacement of Nissan Pathfinder (Plant75)	45,000		0		45,000	45,000	0	
Replacement of Kubota Lawnmowere (Plant77)	5,000		0		5,000	5000	0	
Replace Caterpillar Forklift (Plant59) - budgeted 2013/2014	0		24,500		0	24,500	(24,500)	
	2,032,000	**0**	**119,772**	**5.89%**	**1,885,000**	**2,004,772**	**27,228**	
Machinery and Equipment								
2x Hook Lift Bins	40,000		0		40,000	40,000	0	
Hook Lift Body	85,000		0		85,000	85,000	0	
2way Radio System (Radio Repeater)	60,000		0		60,000	60,000	0	
4x Tarpomatic Tarps	60,000		0		60,000	60,000	0	
	245,000	**0**	**0**	**0.00%**	**245,000**	**245,000**	**0**	
TOTAL PLANT, VEHICLES AND MACHINERIES	**2,277,000**	**0**	**119,772**	**5.26%**	**2,130,000**	**2,249,772**	**27,228**	
FURNITURE AND EQUIPMENT								
Furniture and Fittings								
Furniture and Fittings	5,000		0		5,000	5,000	0	
Airconditioning Units to Various Locations	22,000		2,540		19,460	22,000	0	
	27,000	**0**	**2,540**	**9.41%**	**24,460**	**27,000**	**0**	
TOTAL FURNITURE AND EQUIPMENT	**27,000**	**0**	**2,540**	**9.41%**	**24,460**	**27,000**	**0**	

APPENDIX NO. 6

MINDARIE REGIONAL COUNCIL
STATEMENT OF INVESTING ACTIVITIES
Estimated Actual for the year ending 30 June 2015

Description	Adopted Budget	Revised Budget	YTD Actual 30 November 2014	% to Adopted Budget	Projections from Dec 14 - June 2015	Projected Total for the year to 30 June 2015	Variations between Projected Total for year 2014/15 and Adopted Budget	Explanation 2 - Variation between Projected Total 2014/15 and Adopted Budget
COMPUTING EQUIPMENT								
Computing Equipment								
Replacement of Laptop - Management Accountant	2,500		1,790	71.60%	0	1,790	710	
Replacement of Laptop - Waste Education Manager	2,500		1,790	71.60%	0	1,790	710	
Replacement of Laptop - Director Corporate Services	2,500		1,790	71.60%	0	1,790	710	
Replacement of Desktop - HR/Payroll Officer	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Technical Officer	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Weatherman	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Finance Accounts Receivable	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Waste Education Assistant	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Receptionist	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Landfill Manager	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Environmental Supervisor	1,200		1,165	97.08%	0	1,165	35	
Replacement of Desktop - Waste Education Officer	1,200		1,165	97.08%	0	1,165	35	
Replacement of Servers (Tamala and Neerabup)	48,000		1,790	3.73%	46,210	48,000	0	
	66,300	**0**	**17,645**	**26.61%**	**46,210**	**63,855**	**2,445**	
TOTAL COMPUTING EQUIPMENT	**66,300**	**0**	**17,645**	**26.61%**	**46,210**	**63,855**	**2,445**	
LAND AND BUILDINGS								
Land								
Land Purchase (New Landfill Site)	6,000,000		0		6,000,000	6,000,000	0	
	6,000,000	**0**	**0**	**0.00%**	**6,000,000**	**6,000,000**	**0**	
Buildings								
Recycling Centre Renovation and Alignment	60,000		0		60,000	60,000	0	
brought forward item:								
Administration Office Renovation	60,000		0		60,000	60,000	0	
Recycling Centre Toilet	15,000		0		15,000	15,000	0	
Education Centre Toilet	15,000		0		15,000	15,000	0	
Sorting Shed	4,000,000		0		4,000,000	4,000,000	0	
	4,150,000	**0**	**0**	**0.00%**	**4,150,000**	**4,150,000**	**0**	
TOTAL LAND AND BUILDINGS	**10,150,000**	**0**	**0**	**0.00%**	**10,150,000**	**10,150,000**	**0**	
INFRASTRUCTURE								
Operations								
Landfill Gas Well Installations	25,000		0		25,000	25,000	0	
	25,000	**0**	**0**	**0.00%**	**25,000**	**25,000**	**0**	

APPENDIX NO. 6

MINDARIE REGIONAL COUNCIL
STATEMENT OF INVESTING ACTIVITIES
Estimated Actual for the year ending 30 June 2015

Description	Adopted Budget	Revised Budget	YTD Actual 30 November 2014	% to Adopted Budget	Projections from Dec 14 - June 2015	Projected Total for the year to 30 June 2015	Variations between Projected Total for year 2014/15 and Adopted Budget	Explanation 2 - Variation between Projected Total 2014/15 and Adopted Budget
Landfill Phase 3								
Cell Development - Lining (inc. c/f)	3,800,000		987,557	25.99%	2,812,443	3,800,000	(0)	
	3,800,000	**0**	**987,557**	**25.99%**	**2,812,443**	**3,800,000**	**(0)**	
TOTAL INFRASTRUCTURE	**3,825,000**	**0**	**987,557**	**25.82%**	**2,837,443**	**3,825,000**	**(0)**	

APPENDIX NO. 6

Vision for Waste Management in the Metropolitan Area

Item 9.4	APPENDIX NO. 7	Item 9.4

WALGA

VISION FOR WASTE MANAGEMENT

IN THE METROPOLITAN AREA

APPENDIX NO. 7

EXECUTIVE SUMMARY

There is broad agreement in the Local Government sector that there is a need for change to how waste in the metropolitan area is governed. The change required includes a greater role for the State Government in providing an integrated waste management system, as well as the need for consolidation, improved governance and greater direction for Regional Councils.

The structures we currently have in place have delivered kerbside and verge collection services which are consistently well rated by the community. However if we are to reach the targets set in the Waste Strategy for municipal solid waste diversion from landfill (50% by 2015 and 65% by 2020) and provide the modern infrastructure needed to cope with projected waste generation, a more coordinated approach is needed.

APPENDIX NO. 7

Local Government Recommended Model for Waste Management in the Metropolitan Area

Governance and Roles

- Greater role for the State Government, to include an independent and strengthened Waste Authority which will:
  - Coordinate research on technology
  - Coordinate public education
  - Develop a metropolitan wide statutory plan for waste management (with Regional Delivery Plans to be developed by Regional Councils) and
  - Approve Regional Delivery Plans.
- Regional Council Consolidation:
  - Reduce the number of Regional Councils from five to three
  - Regional Council Governance
  - Compulsory Local Government membership
  - Ability to operate on a commercial basis
  - Geographically based boundaries
  - Ability to appoint skills based members of the Regional Council and
  - Provide mandatory and discretionary services.
- Regional Council role:
  - Develop and deliver Regional Delivery Plan compatible with Waste Authority metropolitan wide plan for waste management.

Integrated Waste Management System

- An integrated waste management system includes provision for all elements of the waste hierarchy, from waste avoidance to landfill
- An assessment of the validity of an aspirational 'zero waste' outcome is required
- Any integrated waste management system to include a range of approaches to funding the delivery of State Waste Strategy Targets, including direct funding through the Levy and Extended Producer Responsibility approaches and
- A review of the appropriateness of 'landfill diversion' as the best benchmark of performance is also required.

APPENDIX NO. 7

INTRODUCTION

The Robson Review of Local Government in the metropolitan area had several recommendations in relation to waste management. To ensure the best outcomes for the community and the environment, a WALGA Working Group (including Regional Councils, the Forum of Regional Councils, the Waste Authority and Local Government members) has been established to put together an approach to improve waste management in the metropolitan area.

APPENDIX NO. 7

This Paper has been developed based on discussions by the WALGA Working Group. The aim of the Paper is to identify a future governance structure for waste management in the metropolitan area which will facilitate the delivery of the State Waste Strategy targets in a timely and cost effective manner. The Paper also identifies the high degree of agreement between all of the Local and State Government entities who are most concerned with waste management.

Local Government and Regional Councils have invested heavily in providing waste management solutions for the community, and waste management collection services consistently rate well in surveys on services delivered by the sector. Regional Councils, on behalf of their members, have developed – or are developing – alternative waste treatment (AWT) options. These options are substantially more expensive than landfill and these costs are causing tensions within the Regional Councils and their member Local Governments.

The ability of individual Local Governments to withdraw from Regional Councils represents a significant risk to the ongoing financial viability of both AWT's and the Regional Councils, and this uncertainty will undoubtedly inhibit the development of further infrastructure whether it be a public private partnership, take and pay or other contractual approach.

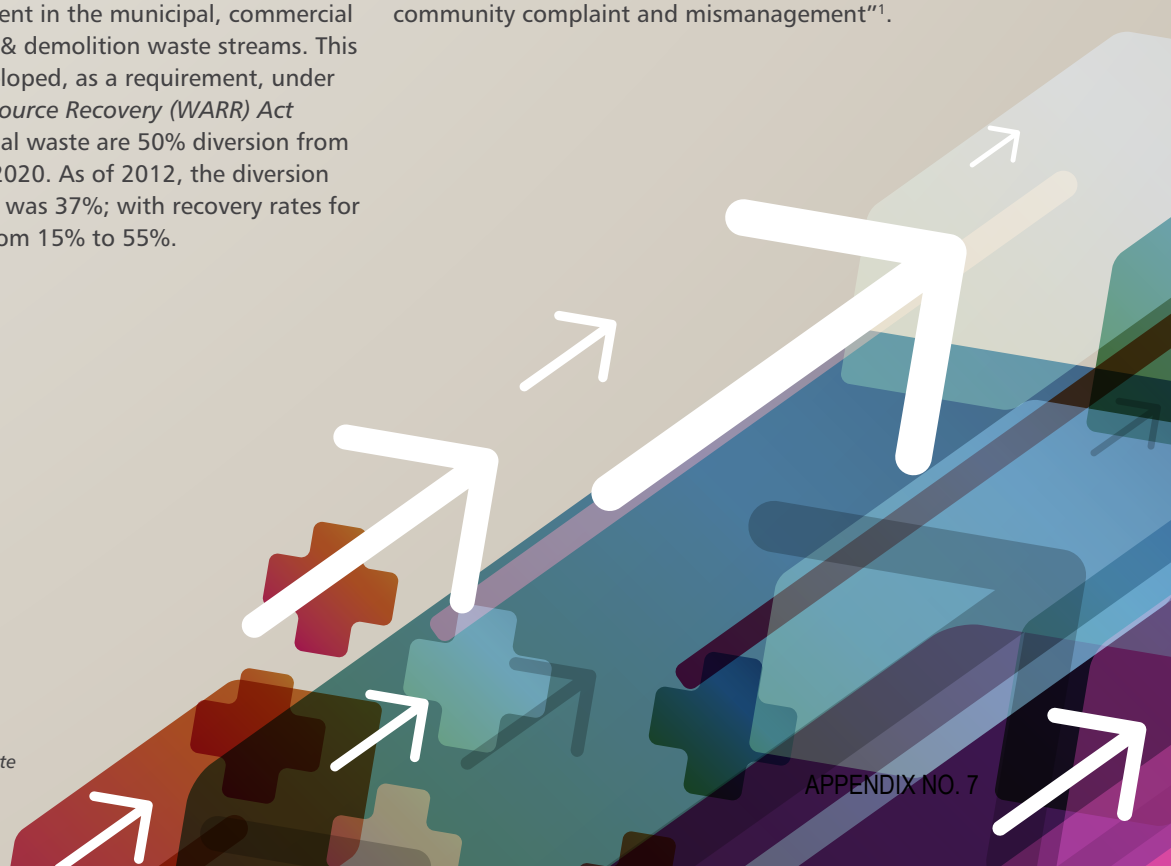
Until relatively recently there has been a fairly limited role by State Government in waste management. The Western Australian Waste Strategy: *'Creating the Right Environment'* was released in March 2012 and sets clear targets and direction for waste management in the municipal, commercial & industrial and construction & demolition waste streams. This is the first strategy to be developed, as a requirement, under the *Waste Avoidance and Resource Recovery (WARR) Act 2007*. The targets for municipal waste are 50% diversion from landfill by 2015 and 65% by 2020. As of 2012, the diversion rate, in the metropolitan area was 37%; with recovery rates for Local Governments varying from 15% to 55%.

This Strategy was developed by the Waste Authority – the statutory advisory body for waste management, also established under the *WARR Act 2007*. The Strategy has taken some time to develop, and preceding its development there was very little guidance from the State Government regarding expectations for waste management.

Regional Councils have developed various AWT facilities which are either managed by the Regional Councils or through an arrangement with a commercial operator. As these facilities were developed at different times, with limited oversight and coordination from State Government, coupled with varying Local Government constraints, the selected technologies, contractual approaches and risk profiles are markedly different. Local Government is of the opinion that there is now a greater expectation and role for State Government – through the Waste Authority – in waste management.

Until recently, waste was not really considered in the planning system; the Municipal Waste Advisory Council and Forum of Regional Councils have been driving forces in the ongoing activities to ensure that waste is included in future plans for the metropolitan area. Waste management services are sometimes referred to as 'essential services' which Local Governments deliver.

What this means is that the service should be "considered a priority in strategic planning and is ultimately protected from disruption from outside sources such as national and man-made disasters, market failures, economic pressures, community complaint and mismanagement"[1].



1 MWAC, 2010, Position Paper: *Is Waste Management an Essential Service?*

APPENDIX NO. 7

WHAT DOES SUCCESS LOOK LIKE?

Rather than just change for change's sake, we need to be very clear about the outcomes we are seeking from changes – particularly the metropolitan wide coordination of waste management – an alternative way to look at this would be, what does success look like?

Critical success factors identified by the Working Group included:

- Practical commitment to the Waste Hierarchy from the State Government
- Improved waste diversion to meet State Waste Strategy Targets
- Improvement in effective resource recovery
- Implementation of Extended Producer Responsibility Schemes by the State and/or Federal Government
- Cost effective service for ratepayers
- Greater hypothecation of the Landfill Levy to provision of waste infrastructure and management
- Metropolitan wide coordination of waste management
- Certainty for the operating environment – next five to 20 years – to enable investment in infrastructure;
- Utilisation of extensive Local Government expertise in this area
- Optimisation of existing infrastructure and resources
- Standardisation of collection systems to maximise efficiency of service delivery and education
- Avoidance of infrastructure and resources duplication and
- Ensuring Local Governments who have already invested in infrastructure to meet State Government targets are not disadvantaged by the changes.

To achieve these outcomes, Local Government must clearly determine where the sector is best placed to add value to waste management activities – and where the State Government should take the primary role and responsibility.

APPENDIX NO. 7

GOVERNANCE

State Government Role – what is the proper level of State Government control?

Local Government acknowledges and welcomes an increased level of State Government involvement in waste management and considers this would be best provided through an independent and strengthened Waste Authority.

Currently the Waste Authority, while being statutory in nature, is only an advisory body. This means the Authority has limited power to act and expend funds without reference to the Minister. In addition the Authority is housed within the Department of Environment and Conservation. This service arrangement is a cause of potential confusion and a perceived conflict of interest.

Local Government supports an independent and strengthened Waste Authority as a separate entity with sufficient statutory power to implement a metropolitan wide approach to waste management. To ensure the Waste Authority has sufficient access to Local Government and Regional Council expertise it is suggested that an independent Waste Authority establish Committees to provide a vehicle for engagement with the Regional Councils, Local Government and other relevant organisations. The Committee focusing on municipal waste would be a key mechanism for Regional Council and Local Government input into the direction and approaches used by the Waste Authority. To facilitate a partnership approach Local Government/Regional Councils and the Waste Authority should have equal representation on the Committee.

State Government Role – what is the role of State Government in waste management?

The role of the independent Waste Authority would be, in part, to coordinate a metropolitan wide approach to waste. This would be achieved through the development of a metropolitan wide, statutory plan for waste management. This Plan would provide clear direction for the Regional Councils, who would be required to develop Regional Delivery Plans, identifying the actions necessary to meet the requirements of the metropolitan wide statutory plans. These plans would be approved by the Waste Authority to ensure the actions of the Regional Delivery Plan accords with the metropolitan statutory waste management plan.

The Authority would also be responsible for coordinating research on waste technology and public education, and policy development in consultation with stakeholders. Local Government does not see the role of the State Government to be the operation of waste management facilities or the MSW supply chain. Currently the expertise in these areas rests in Local Government and the private sector. The suggestion of the establishment of Committees, identified in the previous section, is to ensure this expertise is utilised.

Regional Council Consolidation – how many Regional Councils do we need?

Regional Councils, and their member Local Governments, have multimillion dollar investments in waste processing. Changes to governance need to ensure that these investments are used wisely and to the benefit of the entire metropolitan area, but those communities that have invested still retain equitable ownership, involvement and benefit.

The current membership of Regional Councils has evolved over time and has resulted in a situation where member Councils are not necessarily in the same geographic area. Local Government contends that there is a need for a strong geographic basis for Regional Councils, and that the optimal configuration will take into account strategic and logistic considerations.

Local Government considers that a fewer number of Regional Councils, would be beneficial; the suggested approach is reduce the current five Regional Councils to three. These Regional Councils would be northern, southern and eastern areas.

Three Regional Councils are suggested to:

- Ensure involvement of communities which have provided the significant investment in the development of AWT
- Provide for synergies between collection and treatment
- Retain the considerable skills sets and experience in the area and
- Ensure a smoother transition to a new structure, as the current structures and legal arrangements are complex.

This approach is suggested as it was considered that a straight transition from five Regional Councils to one could be a very complex operation and that three Regional Councils would ultimately ensure a better outcome.

APPENDIX NO. 7

GOVERNANCE
CONTINUED

Regional Council Governance – what changes to the Governance of Regional Councils are needed?

The governing board of a Regional Council is currently made up of Councillors from its member Local Governments. The number of representatives from each member Local Government varies, dependent on the Regional Council establishment agreement. Elected members appointed to the Regional Councils possess varying degrees of knowledge regarding waste management which may not include an in depth technical and business understanding is necessary to oversee these multimillion dollar businesses.

An alternative approach is to include on Regional Councils an independent person(s) with relevant skills and expertise. However, given the significant investment of Local Governments in the facilities developed by Regional Councils, it is imperative that Local Government retain majority membership of the Regional Council.

Several options have been proposed, for example Council Controlled Organisations or Regional Subsidiaries. These options would require amendments to the Local Government Act, but would allow these entities to act in a commercial role, with elected member involvement, but based on the concept of a skills based Board. This would ensure that the relevant business skills were present on the Regional Council while maintaining the vital link to the community representation role. The appointment of members to the Board could be undertaken in a range of ways.

Regional Council Scope – what services should the Regional Council provide?

Currently Regional Councils provide a range of services, with some focusing solely on waste management activities and others including a range of other service offerings, such as regional development. All services are intended to provide value to member Local Governments.

In examining the approach to Regional Councils the question has to be asked what services should these Regional Councils provide? Should the services, outside those directly related to waste management be curtailed? The approach recommended is that there are a range of mandatory waste management services that a Regional Council has to provide, and discretionary services that the Regional Council may provide at the request of their member Local Governments.

If the Regional Council has the capacity to provide other services, this is in line with a commercial 'fee for service' approach. It also adds value for their member Councils. Regional Councils do not have to provide those services themselves – opportunities should exist to contract to private industry at the discretion of the Regional Council.

APPENDIX NO. 7

INTEGRATED WASTE MANAGEMENT SYSTEMS

The current waste management systems have evolved without significant State Government oversight, Regional Councils and Local Government have taken the lead.

The sector fully appreciates that is it desirable to have an enhanced level of coordination that is possible only if the State Government is more actively involved in this area. Local Government strongly supports integrated waste management systems to deliver environmentally sound, socially acceptable and economically prudent waste management outcomes. What this means in practice is the Government needs to show strong leadership by mandating the expectations for waste treatment options and investing in waste reduction and avoidance. The current State Waste Strategy targets are based on landfill avoidance, which gives no prioritisation of the diverse activities that lead to this diversion.

While giving consideration to metropolitan wide governance, aside from infrastructure, waste avoidance and reduction needs to be a cornerstone of the long term approach to waste management. Ultimately, the less waste generated, the less that needs to be managed. This approach clearly fits into making better decisions for waste.

There are a range of waste treatment options including composting (aerobic and anaerobic) and a suite of Waste to Energy technologies. It is however important to acknowledge that landfill will have a place in waste treatment for a considerable time. Given these settings, it is therefore recommended that an assessment of the validity of an aspirational 'zero waste' outcome is undertaken. For an integrated waste management system to operate effectively a range of funding mechanisms are needed. There are a range of potential approaches to funding, two options are direct funding through the WARR Levy (or other State Government funding) and using Extended Producer Responsibility Schemes to shift the burden of responsibility to producers.

APPENDIX NO. 7

CONCLUSION

Change in the current governance of waste management in the metropolitan area is clearly needed. Local Government has been taking a leadership role in diverting waste from landfill and ensuring that if material goes to landfill the environmental and human health impacts are minimised. However, with a growing population, an increasingly complex waste stream and more expensive treatment options becoming the norm, there is a need for a higher level of informed State Government coordination, leadership on policy, best practice and support via long term funding commitments.

Local Government is seeking commitment from the State Government to establish new governance structures for waste management in the metropolitan area (based on the model outlined) and put in place the policy, statutory and regulatory environment to ensure an integrated approach to waste management can be achieved for Western Australia.

APPENDIX NO. 7

MEMBERS OF THE WORKING GROUP

Mayor Alannah MacTiernan (Municipal Waste Advisory Council Chair) *Working Group Chair*

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Cr Doug Thompson (City of Fremantle)

Mayor Simon Withers (Town of Cambridge)

Cr Clive Robartson (City of Melville)

Mayor Henry Zelones (City of Armadale)

Cr Alan Pilgrim (Chair, Eastern Metropolitan Regional Council)

Cr Russell Fishwick (Chair, Mindarie Regional Council)

Cr Ron Hoffman (Chair, Rivers Regional Council and Forum of Regional Councils)

Cr Tony Romano (Chair, Southern Metropolitan Regional Council)

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APPENDIX NO. 7

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APPENDIX NO. 7

WALGA's Draft Response to the review of the WARR Act Discussion Paper

Item 9.4	APPENDIX NO. 8	Item 9.4

DRAFT
WALGA Submission
Waste Avoidance and Resource Recovery Act 2007 – Review

1 Introduction

In 2013, through a Working Group process, WALGA developed a paper outlining the Vision for waste management in the metropolitan area (Waste Vision Paper). The Waste Vision Paper identified that there was broad agreement in the Local Government sector that change is needed to how waste management is governed. In addition, the Waste Vision Paper included other proposed reforms, such as an increased role for State Government. The approach that has been taken to the WARR Act Review presents Local Government with a genuine opportunity to examine in detail what changes are needed to improve the governance of waste management and make recommendations to inform the State Government direction. The Review also provides the opportunity to raise issues outside of what the legislation can achieve, that relate to other tools required, such as regulation or programs.

This Draft Submission is in three parts. The first part of the Submission provides background to the current situation regarding waste management, identifying recent changes and issues. Part two of the Submission Identifies proposed 'level of service' outcomes for the sector, notes the input needed from State Government and considers the needs of the Commercial & Industrial (C&I) and Construction & Demolition (C&D) sectors. The final section of the Paper identifies potential models for reform and transition from current to future arrangements.

This Submission has been developed through a Policy Forum process; the Policy Forum includes Officers and Elected Members from Local Government and Regional Councils. This is the draft WALGA Submission and the Association is seeking feedback. Submissions from the sector are welcome, with comments closing **COB Monday 9 February**. Local Governments are also strongly encouraged to make their own submissions to the Department of Environment Regulation on the Review.

PART ONE: Background

Waste Management in WA

The Discussion Paper identified that around 5 million tonnes of waste was generated in the Perth and Peel Regions in 2012-13, and it also states of that waste generated in WA about 39% was recovered. The Discussion Paper does not break down the source of the waste by sector. The breakdown of waste to landfill, shown in Table 1, has been calculated using the Waste Authority Report *Recycling Activity in Western Australia 2012/13*[1].

	Waste generation (Recovery + Landfill)	Recovery (tonnes)	Landfill (est.)	Waste Generation (%)	Recovery rate (%)	Percentage of the Waste stream to landfill (%)
MSW (Metro)	1,626,572	587,389	717,920	26.6%	45%	28.5%
MSW (Non-Metro)			321,263			No data
C&I (whole state)	1,785,304	803,387	981,917	29.1%	45%	26.9%
C&D (whole state)	2,714,623	1,085,849	1,628,774	44.3%	40%	44.6%
	6,126,499	**2,476,625**	**3,649,874**	100.00%		100%

Table 1: Waste generated, recovered and landfilled 2012/13

MSW represents 26.6% of the overall waste generation, at a state level, but makes up 28.5% of the waste to landfill. The Commercial & Industrial (C&I) and Construction & Demolition (C&D) waste constitute 73.4% of the waste stream.

[1] *Recycling Activity in Western Australia 2012/13. Available Online* http://www.wasteauthority.wa.gov.au/media/files/documents/WA_Recycling_Activity_12_13.pdf

The WARR Act is, in part, an Act to "provide for waste services by local government". Therefore a substantial focus on Local Government as part of the review is to be expected. However, in the Discussion Paper Local Government is the main focus, with very limited mention of the C&D and C&I waste streams. While Local Government has a role to play in managing waste, the C&D and C&I waste streams make up the majority of waste to landfill and need to receive equal attention in the WARR Act review.

There are a range of factors that influence Local Governments (and the entire waste industry's) ability to manage waste, when considering any changes to the governance of waste, potential impacts on these factors are considered. The factors include:

- **Input Uncertainty:** Local Government has limited ability to influence the type of waste that is generated, producers of products have the power to develop and sell things without consideration of the end of life management of their products. This leads to increasing costs and complexity in developing waste management solutions.
- **Market Forces:** Waste management can be a volatile industry, recycling of many materials is subject to international market forces.
- **Geographic Isolation:** Western Australia's size and geographic isolation means that distance to market is an important factor.
- **Uncertain Regulatory Environment:** The regulatory environment can be uncertain and there has been limited guidance from State Government in relation to expected waste management outcomes.
- **Infrastructure costs and development:** Given the time it takes for infrastructure to be developed, the inputs (waste streams) are very likely to have changed from what was expected when the project was being planned, to when the project is completed. It is a rare infrastructure project that is delivered on time, to budget and meeting the operational parameters which were initially envisioned.
- **Costs:** Local Government, particularly in the more remote areas, has a limited rate base and transporting waste long distances is costly.

Due to the issues identified, the private sector was, for a considerable period, reluctant to invest in options for recycling and in the diversion of waste from landfill in WA. If there was private sector investment in infrastructure it was usually to service Local Government, organised through a Regional Council to aggregate volumes. In certain situations, where market failure occurred and the Regional Council identified a direct opportunity to divert waste from landfill, these entities have become service providers themselves. Therefore, Western Australia has benefited from investment by Local Government in waste management and recycling operations, including the significant investment in kerbside recycling, Alternative Waste Treatment facilities, waste education centres and in market development for problematic materials. Without the investment of Local Government, it is unlikely that the industry would have reached its current level of development. It should be noted that the private sector, while having corporate social responsibility, is primarily driven by the profit motive, whereas Local Governments primary driver is in providing a cost effective, comprehensive, sustainable and efficient service to meet community need.

WALGA Waste Visions Paper

The development of the WALGA Waste Vision Paper was an initiative to start the discussion within the sector about the future direction of waste management, and the role of Local Government within it. The Vision Paper was developed through a collaborative process, including input from members of the Waste Authority and Local Government and Regional Council Officers and Elected Members. This collaborative approach and constructive outcome provides a blueprint for how the sector can work with government to achieve mutually beneficial outcomes.

The Vision Paper identified that there was broad agreement about the need for change to how waste in the metropolitan area is governed. The changes identified included a greater role for the State Government in providing an integrated waste management system, as well as the need for consolidation, improved governance and greater direction for Regional Councils.

The Vision Paper also identified that the structures we currently have in place have a range of services which are consistently well rated by the community. However if we are to reach the targets set in the Waste Strategy for municipal solid waste diversion from landfill (50% by 2015 and 65% by 2020) and provide the modern infrastructure needed to cope with the projected waste generation, a more coordinated approach is needed. The Paper went on to provide a model for reform to the sector (this is included in Part three, as Model 1) and identified a range of potential additional roles for State Government.

The Vision Paper is the existing policy position for the sector and was used as the starting point for the development of this Submission. The Vision Paper is, however, a high level document so a range of additional detail is needed, and further input has been sought in developing this Submission.

Current arrangements and changing environment

The current Regional Councils have achieved some excellent outcomes, diverting significant tonnages of waste from landfill and delivering a range of services to their members. In the development of the WALGA Vision Paper and subsequent discussions, it has been recognised through these processes that there are issues which need to be addressed in order to facilitate more

efficient operations. These issues include the borrowing capacity/ability of Regional Councils, tendering regulations, governance, investment certainty and representation on their respective Councils. Feedback from some Local Governments has highlighted similar concerns.

These issues need to be addressed for any new or continuing structures, if they are not resolved, then there are likely to be serious concerns with requirements for compulsory membership as compulsory membership cannot guarantee cooperation. Any regional structure that is put in place will need to have the buy-in of its members in order to operate effectively – without commitment the outcomes will not be achieved.

The Association would argue that in waste management there are a range of issues which are best addressed at a regional scale, however there are a range of structures or approaches that could potentially deliver these outcomes. These issues and structures are further explored later in the Submission.

The private sector's role in the waste industry has substantially increased as many Local Governments have contracts in place for collection and processing of municipal solid waste. This increasing role reflects that there are sufficient tonnages of waste available and that activities are financially viable for the private sector to undertake. There is a significant role for the private sector in the collection and processing of waste into the future, as substantial investment will be needed to ensure there is sufficient infrastructure in place to process increasing waste volumes and meet the targets in the State Waste Strategy.

Changing Technology and Infrastructure Planning

The infrastructure in place for waste processing includes material recovery facilities, Alternative Waste Treatment facilities and composting facilities. Currently, thermal treatments, such as Waste to Energy (W2E) are not yet part of the waste treatment mix. However, as WALGA has identified in its Discussion Paper on Waste to Energy, these technologies will have a role to play as part of an integrated waste management system that has due regard for the waste management hierarchy and sustainability principles.

The Waste Authority has, through the Strategic Waste Infrastructure Planning (SWIP) Project developed a range of options for the technology and planning environment needed to meet the targets in the State Waste Strategy. However, a State Infrastructure Plan for waste management has yet to be released. In the absence of any high level plan, or the context provided by the SWIP, development of infrastructure has nevertheless continued. The major development has been in the number of private sector waste to energy (W2E) plants that have been proposed.

Until relatively recently the State Government had not provided regulatory guidance for W2E solutions to be considered. However, following a comprehensive review in April 2013, the Environmental Protection Authority and the Waste Authority provided advice to the Environment Minister on the environmental and health performance of this type of technology.

The Waste Authority has also published a separate position paper on this topic (*Waste to Energy Position Paper May 2013).* The advice to the Environment Minister was based on three technical reports into the performance of W2E technologies internationally:

- *Stage One – Review of Legislative and Regulatory Frameworks for Waste to Energy Plants*
- *Stage Two – Review of State of the Art Technologies (Case Studies)*
- *Stage Three – A Review of recent research on the health and environmental impacts of Waste to Energy Plants.*

These reports informed the States position on W2E and provided the framework for assessing applications for assessing a number of proposed W2E plants, including EMRC's Red Hill and Hazelmere facilities, the Phoenix Energy plant in Kwinana and New Energy's plants in the Pilbara and in East Rockingham.

The Executive Summary in the Stage Three report identified that there was little 'convincing or unequivocal evidence' that these plants presented a risk to health and presented a convincing environmental benefit:

> *"Incineration with energy recovery is considered to generate greenhouse gas savings based on the studies reviewed for this report and is considered one of the most efficient processes for treating MSW when heat recovery is achieved"* (p7)

In December 2014, the members of the Rivers Regional Council agreed to dispose of their MSW with Phoenix Energy. This volume, together with a component from the City of Kwinana, provides sufficient guarantee for the 150,000 ton minimum that Phoenix Energy required to underpin its proposed facility. The ultimate capacity of their plant is 400,000[2] tonnes, with MSW as the preferred feedstock. The construction of another New Energy plant in East Rockingham could divert around a further

[2] Phoenix Energy Australian Projects, Available Online http://www.phoenixenergy.com.au/projects/ Accessed 21/1/2015

100,000[3] tonnes of MSW, and divert a similar amount of C&I waste from landfill. If these technologies are successful, then the processing of waste in WA will change fundamentally.

As these plants are all privately funded, there is no capital investment required from Local Government, instead a 20 year commitment to provide waste at an agreed rate is what is required from the sector.

Extended Producer Responsibility / Product Stewardship

In considering the current context for waste management the activity at a national level on Product Stewardship should be noted. In 2011 the *Product Stewardship Act* was put in place. This Act provides the Federal Government with the head of power to put in place voluntary, co-regulatory and mandatory Product Stewardship Schemes. The first Scheme to be introduced was a co-regulatory scheme covering TVs and Computers. This Scheme is currently being reviewed, as there have been some implementation issues. As this was first Scheme of this type to be introduced, it is not unexpected that there would be a need for further work to be undertaken. However, the fundamental intent of shifting the financial burden of TV and Computer recycling from government to the producers of these products is sound.

There are two voluntary product stewardship schemes in development at a national level, for paint and batteries. The voluntary approach may work for paint, but the development of the battery scheme has been less successful. A voluntary Product Stewardship scheme for Tyres is in place, however any benefits from this scheme have yet to be realised in WA. Local Government has long been calling for a Cash for Containers scheme, either WA based or nationally. The process for considering a national scheme has been long running and a decision is still pending. In the absence of national Cash for Containers scheme, a significant opportunity exists for WA based legislation.

Department of Environment Regulation – WARR Act Review Discussion Paper

The WARR Act Review is a statutory requirement however the Act does not state the method/approach that the review must follow. The approach the Department has taken is to release a Discussion Paper which outlines the context which the review is taking place in, the scope of matters considered, the mechanisms in the WARR Act, other mechanisms for change and puts forward potential proposals for reform.

The reform proposals in the Paper focus on the collection and processing of waste, waste groups and infrastructure planning. The Proposal in the Discussion Paper is as follows:

> *It is proposed to provide for statutory Waste Groups with compulsory local government membership. Each group will be required to operate in a manner that is consistent with a statutory waste infrastructure plan (see below) and targets in the Waste Strategy under the WARR Act. The role of Waste Groups would be to coordinate the procurement of waste processing services to ensure that appropriate services are acquired at least cost and that competition is maximised.*
>
> *This approach removes investment uncertainty and lack of commitment from local governments, and ensures Waste Groups deliver services consistent with the Waste Strategy and a waste infrastructure plan. It also recognises and broadly aligns with the current position of the local government sector and provides increased certainty for local government investment and a clear role for industry. It would require amendments to the WARR Act and the Local Government Act 1995.*
>
> *The model outlined above will be considered for the Perth and Peel regions and may be expanded into non-metropolitan urbanised areas similar in population density and scale to the Perth metropolitan area to achieve similar waste performance in a staged and sustainable manner.*
>
> *Additional mechanisms are proposed to ensure the effectiveness of the waste infrastructure plan, including providing that it is statutory; and ensuring that Waste Groups are required to align their plans, waste services and contracts with the waste infrastructure plan, Waste Strategy targets and codes of practice. Waste infrastructure plans are not intended to replace environmental and planning approval processes as these relate to waste infrastructure development.*

The Department has briefed the Association on the Discussion Paper. It should be noted that the intent of the Paper is to be a broad overview to promote discussion with some limited direction towards a particular broad option. The breadth of the Paper offers Local Government a unique opportunity to develop the model/s for reform which achieves the best outcomes.

[3]Perth Metro, WA, Available Online http://www.newenergycorp.com.au/projects/perth-metro-wa/ Accessed 21/1/2015

PART TWO: Future Direction

When looking at reform of waste management, it is important to have a clear vision of what the ultimate outcomes being sought are, in relation to service delivery, Local Government, State Government and the private sector.

Service Delivery

Summary

Local Government aspires to the following level of service delivery:
Infrastructure: Access to efficient and better practice kerbside and vergeside collection services, as well as convenient and comprehensive drop off facilities for materials which cannot be disposed of through the kerb and vergeside services.

Behaviour change: Coordinated access to sufficient information, and consistent and effective education and incentive programs (supported by robust evidence of effectiveness) to ensure that the majority of the community can use services correctly, thereby minimising contamination rates.

While some levels of expected service delivery have been defined for Local Government, there is not an overall goal for the sector to work towards. This Submission recommends a level of service delivery based on two key factors, infrastructure and behaviour change. The community have to dispose of a range of products and Local Government provides various services to facilitate this.

Local Government aspires to the following level of service delivery:
Infrastructure: Access to efficient and better practice kerbside and vergeside collection services, as well as convenient and comprehensive drop off facilities for materials which cannot be disposed of through the kerb and vergeside services.

Behaviour change: Coordinated access to sufficient information, and consistent and effective education and incentive programs (supported by robust evidence of effectiveness) to ensure that the majority of the community can use services correctly, thereby minimising contamination rates.

Traditionally kerbside and vergeside services have allowed residents to dispose of most products, however there are problematic materials, such as HHW and some electronic waste, which cannot be disposed of through these services. Therefore drop off facilities/locations are needed. Drop off locations provide the additional benefit of potentially being reuse centres or collection points for Product Stewardship schemes. Intrinsically linked to the infrastructure are the behaviour change activities that support it. Behaviour change requires an ongoing commitment and a robust evidence base in order to ensure the message being communicated is understood and acted upon. The community may have misconceptions about how a service operates and through effective communication these issues can be addressed.

It is acknowledge that not all Local Governments will be able to provide the services recommended, due to an inability to access sufficient resources. The services are also not intended to be provided in isolation and there is a clear role for the waste industry, producers and State Government to support Local Government.

Reform Outcomes – Local Government

Summary

In considering changes to the Governance model for waste management in the metropolitan area, the following factors are important:

- Cost effective service for ratepayers
- Metropolitan wide coordination of waste management
- Certainty for the operating environment
- Utilisation of extensive Local Government experience in this area
- Optimisation of existing infrastructure and resources
- Standardisation of collection systems to maximise efficiency of service delivery and education

APPENDIX NO. 8

In developing the Waste Vision Paper, the question was asked 'what does success look like?' in relation to waste management governance reform. The following criteria were highlighted in the Waste Vision Paper and have been further discussed and refined subsequently through the Policy Forum process.

Cost effective service for ratepayers: The service should achieve the right social and environmental outcomes, but be at best price. To achieve this, the necessary conditions are a clear understanding of what services are currently being providing, what is 'best practice' for these services, whether they are cost effective and what it would take for them to be cost effective.

Metropolitan wide coordination of waste management*:* For the service delivery outcomes identified to be achieved, there needs to be metropolitan wide coordination of waste management. This includes a range of activities, such as aggregation of waste supply. Planning at a metropolitan wide level has many benefits including meeting the needs of the community, allowing for effective contingency and emergency management planning, avoiding duplication of resources and utilising economies of scale in procurement of services.

Certainty for the operating environment – next 5 to 20 years – to enable investment: To provide certainty for the private sector to invest in large-scale waste projects, a stable operating environment is need where waste tonnages can be guaranteed for the long term. To communicate information to the community and for long-term behaviour change outcomes, there has to be a degree of certainty in the operating environment.

Utilisation of extensive Local Government experience in this area: Local Government and Regional Councils have invested heavily to ensure they have suitably qualified technical experts employed to further their agreed waste management outcomes. This expertise provides credibility to the sector's decision-making process. The corporate knowledge and experience of the people employed in the sector is a valuable resource that needs to be both recognised and utilised in developing and implementing future waste management outcomes. This experience within the sector means that issues are more likely to be identified before they occur and that practical considerations are fully understood. This expertise means the sector can operate effective and efficient services.

Optimisation of existing infrastructure and resources: Local Governments, Regional Councils and the private sector have invested significant funds into the existing infrastructure in place to manage waste. To fully utilise existing infrastructure, it is important to look at the current facilities and examine if they are viable ongoing operations, or if there are other options. These facilities provide ongoing options to ensure effective waste management.

Standardisation of collection systems to maximise efficiency of service delivery and education: A standard collection service at least across the metropolitan area (if not wider) is achievable, if there investment to ensure all Material Recovery Facilities are able to process the same material, the necessary bin and collection infrastructure is in place and there is a consistent message delivered to the community. Ultimately, all Local Governments should be providing the same messages to their communities – there may be specific groups within the overall community which require a tailored message, but this can also be achieved through coordination. Infrastructure, of all kinds, and education and behaviour change are intrinsically linked - every decision about education/behaviour change has an impact on infrastructure and vice versa. Any new structure has to ensure that this link is explicitly recognised, agreed and coordinated.

Reform Outcomes - State Government

Summary

Local Government strongly recommends the State Government:

- Increase the hypothecation of funds raised by the Levy to enable strategic waste management outcomes
- Commit to Extended Producer Responsibility for problematic products
- Commit to the implementation of a Cash for Containers Scheme
- Ensure Planning for Waste Management
- Provide outcomes based Guidance
- Lead by example, particularly in waste disposal and in the procurement of waste derived materials
- Influence national processes

There are some key areas where Local Government needs support to achieve better practice service provision, in order to make services cost effective and efficient. State Government, largely through the Department of Environment Regulation and the Waste Authority, has a number of key roles and areas where enhanced activity would be greatly beneficial.

Increase Funding from the Levy: The State Government has custody of funds raised through the Waste Avoidance and Resource Recovery Levy. The return of funds from this Levy to Local Government is vital in order to achieve outcomes. The funding needs to be a long term commitment however, rather than on a project by project basis. A solid commitment of Levy funds, on a long term basis, in line with an agreed plan would provide certainty for the sector to plan their own investment and seek investment from the private sector. The Levy has increased, and consequently a great amount of funding will be available. The discussion regarding the SWIP Project indicated that a significant investment was needed to meet the Targets in the Waste Strategy. A greater rate of hypothecation of the Levy to waste management activities would assist in facilitating the necessary infrastructure and allied structural adjustments required to meet the Waste Strategy targets.

Recommendation 1: That the State Government increases the hypothecation of funds raised through the WARR Levy to facilitate enhanced strategic waste management outcomes.

Commit to Extended Producer Responsibility: What ultimately becomes waste is not controlled by Local Government, but rather the producers of various products who have a very limited interest in what happens to their product at end of life. Government support and implementation for Extended Producer Responsibility schemes is vital to address the ever increasing costs and complexities associated with management of waste. The Discussion Paper notes that the product stewardship and EPR provision in the WARR Act have not been applied to date. This is a key element of the Act and Local Government considers these provisions must be used for priority products. Through EPR Schemes the Government is also able to engage in a structured way with the C&I and C&D sectors, depending on the priority product, and provide these sectors with business development opportunities as well as additional avenues to achieve the State Waste Strategy Targets.

Recommendation 2: That the State Government use the provisions for Extended Producer responsibility contained within the WARR Act.

Commit to implementation of a Cash for Containers Scheme: There are a range of products that could be considered for an EPR Scheme. The highest priority for Local Government is the implementation of a Cash for Containers Scheme. Such a scheme would have multiple benefits and support a range of outcomes. A Cash for Containers scheme has an immediate positive impact on the cost of recycling – it makes it cheaper by increasing the value of the products recovered. Data from South Australia and New South Wales analysis shows that while the volume of material collected through kerbside recycling is likely to decrease the value of the remaining material increases to more than cover the removal of the material. There is an immediate impact on littering, and the consequent clean up costs. The 2012 Keep Australia Beautiful Litter Index showed that 5 of the top 12 littered material were beverage containers. A Cash for Containers system would have an immediate positive impact on that statistic – in South Australia, of the containers covered by their container deposit legislation, not one was in the top 12. It has been estimated that if a Cash for Containers Scheme was implemented in WA it would allow us to reduce litter by 25% - easily meeting the Target identified in the recently released *Litter Prevention Strategy for Western Australia 2015 – 2020*. In relation to infrastructure, the development of drop off centres where people can redeem their deposits provides the ideal site for a range of products to be collected.

Recommendation 3: That the State Government introduce a Container Deposit Scheme in WA to reduce litter and aid the effective recycling of municipal solid waste.

***Ensure Planning for Waste Management*:** High level strategic planning activities, such as the Strategic Waste Infrastructure Planning Project, are a key role of State Government as they ensure a strategic approach to the selection and placement of waste management infrastructure. As identified in the Changing Technology and Infrastructure section, the release of a State Government Plan for waste management in the metropolitan area is an essential outcome for the SWIP Project. Ensuring waste management is considered, and allowed for, within the state planning context, is also a vital role for State Government. Waste management is an essential service, and like the provision of water and energy, without proper acknowledgment of its planning and land allocation requirements at the highest level of State Government, waste management cannot, and will not, improve.

Recommendation 4: That the State Government, as a matter of urgency, adopt a strategic waste infrastructure plan to inform and guide Local Government investment and decision-making.

Provide outcome based Guidance: Prior to the Better Bins Program and the funding of WALGA to develop Better Practice Guidelines for Verge Collections in 2014, there was no WA specific guidance for Local Government on these topics. Therefore each Local Government approached service provision in a slightly different manner, depending on the information they had available, funds available and decision maker preference. The provision by the State Government of benchmarks / better practice approaches for the sector is a vital role.

Lead by example: In seeking markets for products once considered waste, the Government has a key role to play in purchasing. Main Roads, while using some recycling C&D through their Gateway Projects, has withdrawn a Specification 501 which covers the use of C&D roads and pavements. Government committing to using recycled C&D is an example of what would assist in terms of demonstrable leadership and market development. State Government also has the opportunity to use existing waste processing infrastructure, such as Alternative Waste Treatment facilities.

Influence national processes: Extended Producer Responsibility may be best implemented at a national level and the State Government is uniquely placed to influence outcomes in that arena. A decision at the national level on Cash for Containers and support for the implementation of other co-regulatory or mandatory schemes would be ideal.

Reform Outcomes - Commercial & Industrial and Construction & Demolition waste

Summary – WALGA

Local Government strongly recommends that governance changes support both market development for Construction & Demolition waste and the effective engagement with Commercial & Industrial waste generators.

The Discussion Paper is predominantly focused on the Local Government sector. As Local Government is not the main generator of waste, further consideration and attention to the C&I and C&D waste streams by DER is obviously essential. It would be a missed opportunity not to engage with the C&I and C&D sectors and look at governance structures which could assist in increasing recovery rates from those sectors.

Local Government, under the WARR Act, only has responsibility for Local Government Waste; waste from households and its own sources. Therefore Local Governments concern with what occurs in these sectors is largely a question of ensuring efficient and positive environmental outcomes for the community, identifying synergies and ensuring all waste streams receive the attention they need to generate change.

Recommendation 5: That the State Government broadens the review of the WARR Act to ensure there is appropriate emphasis on the C&D and C&I waste streams.

Market development for Construction and Demolition waste: the increase in the Levy does provide a significant cost advantage to recycled C&D waste, however other vital considerations are that markets are available for products, and that appropriate regulatory arrangements are in place. Further, concerted efforts in these areas would ensure the industry can develop effectively and meet the Targets in the State Waste Strategy.

Effective engagement with Commercial and Industrial waste generators: This waste stream is very diverse and comes from a huge range of premises. Businesses, whose primary focus is not waste management, are likely to make decision about their waste management practice based on a few considerations. While cost may be important, other factors such as convenience and inertia are likely to have a significant impact on their decisions. To address this and change actual work practices is a long term commitment, which may require regulatory intervention (such as a Cash for Containers scheme), but at this stage there has been limited success in achieving this. A market based approach would be to provide real financial incentives for waste and recycling companies to increase the number of their clients with recycling services and to educate/engage with their clients on the use of services.

The light industries project, previously hosted by Perth Region NRM, also provides a proven program based approach to engagement with the C&I sector. This project involved officers interacting with businesses on an individual level and providing guidance on waste management and a range of other issues. This approach had multiple benefits, including pollution prevention, greater waste diversion from landfill and energy reduction. Programs of this type are resource intensive, but given the limited number of regulatory triggers and incentives available, they provide one sure way of changing behaviour.

Recommendation 6: That the State Government adopts appropriate governance changes to support the market development of C&D waste and effective engagement with C&I waste generators.

Reform Outcomes – WALGA

Summary

WALGA, through the Municipal Waste Advisory Council (MWAC), will continue to provide high quality advocacy, coordination, program delivery and information provision. MWAC will have enhanced abilities to coordinate activities between Regional Groups.

The Association currently provides a number of services to Local Government, including advocacy, program delivery and information sharing. The internal structure of the Municipal Waste Advisory Council (MWAC), which is a Committee with delegated authority on waste management issues, provides the mechanism to exchange information and develop sector wide policy and advocacy. Through the development of the Waste Vision Paper, which was initialled by MWAC, the major players in waste management were brought together and impetus to change the governance of waste management commenced. Having structures in place which allow for an exchange of ideas and coming to consensus positions provides a clear way forward.

With changes to the metropolitan Local Government landscape, there are potentially changes that will need to occur within the MWAC Structure to ensure the Committee remains the key body where all Local Government entities with a strong interest in waste management can collaborate. Overall, however, the role of WALGA would be to continue to provide services for the sector, including policy development and advocacy, program delivery and information sharing.

PART THREE: Waste Management – New Governance Model

In the previous sections, the current situation and background have been provided, as well as some of the recommendations for reform. The focus of both the Discussion Paper and the Waste Vision Paper has been predominately on the metropolitan area, as the main generator of waste. However, the issues raised and approaches suggested are equally applicable for the non-metropolitan area, as appropriate.

Function – what functions are best delivered regionally?

For effective and efficient waste management operations to occur, there are a range of activities which are potentially best coordinated/managed at a regional level. The following are suggested based on the Waste Vision Paper and feedback from stakeholders.

Region wide infrastructure plan: The Waste Vision Paper identifies that the regional organisations should develop region wide infrastructure plans, which align with the State Waste Infrastructure Plan. Local Governments should also have plans in place which align with their particular regional plan. Region wide planning allows for a more specific actions to be developed, which could include drop off points and alternative waste treatment facilities, as required. These types of plan are better developed at a regional level, rather than an individual Council level because they can ensure a balanced geographic spread of facilities. Also some facilities, like landfills and alternative waste treatment are more efficient at a larger scale, so planning for these facilities should be based on significant tonnages.

Region wide transition to better practice plan: The State Government has provided clear guidance on better practice approaches to kerb and vergeside services. The development of regional plan to transition to these services has the potential to allow greater economies for purchasing in bulk, for example, in new bin infrastructure. This would also ensure a coordinated change to services, so that residents would experience minimal difference to service provision and behaviour change could be coordinated.

Education/Behaviour change: Consistency of message, ongoing commitment and robust evidence of effectiveness are key ingredients to ensuring behaviour change. While individual Local Governments have currently provided resources dedicated to this, regional delivery of these activities would ensure that there was equal focus on behaviour change throughout the region. This would facilitate system changes and ensure that there is consistency to the messages being provided to the community.

Contingency and Emergency Management Planning: Contingency and emergency management planning are an absolute essential, whether it is looking at and planning for the implications for recycling market failure, facility incapacitation or natural disaster management, a regional approach allows for greater cooperation and focus. The current Regional entities have agreements in place regarding these type of issues, which is an essential back up. Emergency events occur infrequently, but without sufficient planning in place they can have catastrophic effects.

Market development: The private sector is not necessarily interested in developing uses / markets for materials which do not have a ready market. Regional Councils have played a significant role in developing markets for problematic products. At a

regional level problematic products can be identified and solutions sought. At some time these problematic products will cease to be an issues when the markets for sufficiently developed for the private sector to invest. An example of this is the development of mattress recycling, which started as a Regional Council initiative and has been taken on by the private sector.

Procurement: As has been noted, there can be advantages to aggregating procurement, whether it is for small infrastructure, such as recycling bins or larger infrastructure like a Waste to Energy facility. The aggregation of waste tonnes to allow the private sector to invest is likely to continue to be something best done at a regional level.

New Governance Model for Waste Management

In developing this governance model a number of options were considered. The development of a new model for waste management requires an understanding of what does and doesn't work with the current structures, the issues for waste management in WA, a clear vision of what we are seeking to achieve through change and an understanding of what governance options will be best placed to achieve these outcomes.

The following model has been developed on the assumption that there:

- Is a need to change the current governance arrangements we have in place to allow waste management to continue to improve
- Is a need for greater coordination of activities
- Are a range of services that are best delivered/coordinated, consistently, on a regional level
- Is a need for greater engagement and coordination of the C&I and C&D sector
- Is a range of expertise and experience in the Local Government sector that should be best utilised
- Is existing infrastructure which should be utilised
- Is a need for Elected Member involvement in Local Government related processes, as community representatives, and as such they need to have sufficient skills.

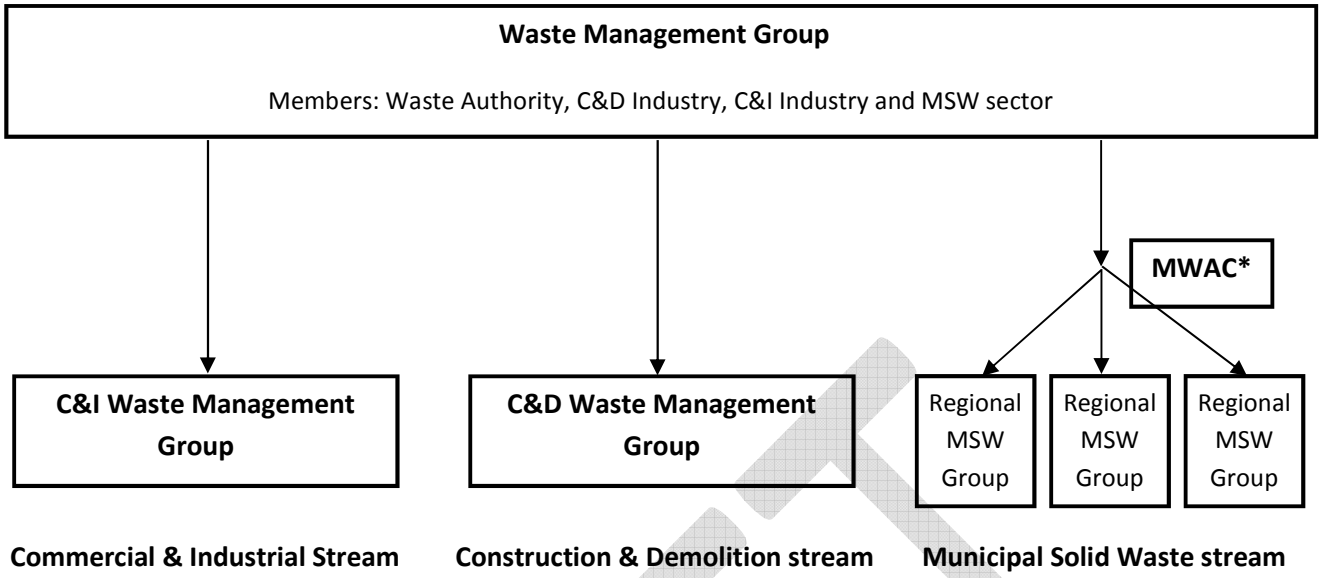
Recommendation 7: That the State Government establish an overarching Waste Management Group to guide and facilitate the implementation of the State Waste Strategy.

Recommendation 8: That the State Government establish Waste Groups for C&I and C&D wastes to facilitate greater engagement from these sectors and market development.

Recommendation 9: That the State Government facilitates the formation of three Regional Subsidiaries within the metropolitan area to undertake a range of regional functions.

Overall Structure

A simple diagram of the proposed structure is shown in Figure 1. The structure envisioned involves an overarching, metropolitan wide waste group, with two waste groups to focus on C&I and C&D waste. For MSW, it is proposed that the three regional groups are formally established Regional Subsidiaries. MWAC would perform the coordinating function for these three Regional Subsidiaries. The role and scope of each of these structures is discussed, as well as why they are best placed to resolve issues and achieve desired reform outcomes.



*MWAC provides a coordination function for the three groups to discuss and resolve issues.

Figure 1: Overall Structure of Proposed Governance Model

Metropolitan Wide Waste Management Group

Members: Waste Authority, C&D Industry, C&I Industry and MSW sector

Function: The Metropolitan wide waste group would be established to deal with strategic waste issues throughout Western Australia and to provide strategic oversight and direction to relevant waste management groups in accordance with the State Government's Waste Strategy

Administration: provided by the Department of Environment Regulation.

Notes: It is not envisaged that this group, in and of itself, would undertake significant quantities of work. Rather it would be the clearing house for issues and allow a group of key industry plays to be brought together to address challenges and coordinate issues between sectors. If an issue arose which related to one sector in particular it would be provided back to that waste group / regional subsidiaries for resolution and report back to the central group. This group could establish working groups, for problematic issues or materials which would draw on the expertise in each of the groups & the Regional Subsidiaries.

C&I Waste Management Group

C&D Waste Management Group

Function: The purpose of these groups would be to bring together those in the respective industries to focus on the issues affecting their industries and develop appropriate resolutions.

Membership: The Groups would have representatives from relevant industry associations, both producers of waste as well as those managing waste.

Administration: provided by the Department of Environment Regulation.

Notes: It is envisioned that these groups would start small, but develop. The group's administration would be funded by the Waste Authority, with projects put forward for funding as they are developed. These groups would develop plans for improving their industry focusing on programs that would reduce waste and would meet State Waste Strategy Targets. Through the use of the formal structure of waste groups, the industry sectors can develop capacity to be able to address the issues of their section and better practice waste management practices.

Regional MSW Group	Regional MSW Group	Regional MSW Group

Function: The purpose of these Regional Subsidiaries is to coordinate waste management at a regional level. Their roles would include:

- Develop and implement a region wide infrastructure plan – drop off point location & alternative waste treatment
- Develop and implement region wide transition to better practice plan – kerbside & vergeside
- Education/Behaviour change delivery – for all services
- Contingency and emergency management planning
- Market development - for problematic products
- Procurement, where a regional approach is preferred
- Utilisation of existing infrastructure

Membership: Compulsory membership of Local Governments in their region. The Regional Subsidiaries would be governed by a Board, incorporating representatives from the member's Local Governments as well as independent skills based members, with majority membership comprising member's Local Governments.

Administration: The Administration would be part funded by the Waste Authority, part funded by the member Local Governments.

Notes: Regional Subsidiaries would be established on a geographic basis covering the metropolitan area. To ensure ease of transition from current arrangements to this new model, three entities are suggested. However, in the future this should be re-examined to see if fewer subsidiaries could achieve the same outcomes within the metropolitan area. To ensure coordination between these Regional Waste Management Groups, MWAC would provide a forum for these entities to meet and discuss key issues. Where appropriate WALGA would undertake research and program delivery for the Regional groups. The Regional Subsidiaries would put forward proposals, in line with the Regional Plans to access funding from the Waste Authority.

How does the new structure help to address the range of issues and outcomes identified?

In this Submission a range of different issues for waste management and hoped outcomes have been identified. No one structure can resolve all of the issues, however through greater communication and coordination there is the hope that they can start to be addressed in way which all the industry and government understands and can participate in.

What the Structure cannot address directly

There is limited ability for this structure to implement EPR, this remains the State or Federal Government legislative imperative. However, through cooperation, voluntary product stewardship initiatives could be developed for problematic products in various sectors. This is particularly the case for C&I and C&D by bringing together the waste generator and managers could assist in developing voluntary product stewardship approaches.

In relation to uncertain regulatory environments, the State Government has control over that, so all the groups could do is provide an avenue for research and consultation.

What the structure can provide opportunities to address

While WA will remain subject to market forces, collective contingency and emergency management plans will mean that this volatility will be reduced. By greater communication between all waste streams, solutions for common material types can be worked on bringing together great volumes and consequently opportunities for market development and investment in infrastructure. Again with geographic isolation and the costs associated, without major tectonic intervention, it is unlikely that WA will move any closer to the east coast or rest of the world, however through greater collaboration and aggregation of waste better markets may be established. Finally, with regard to infrastructure costs, metropolitan wide coordination and collaboration will ensure that infrastructure is developed in line with the State Plan and if there are operational issues with the infrastructure, contingencies will be in place.

What the overall structure has been designed to achieve

Understandably this Submission is focused primarily on the issues associated with Municipal waste management, however MSW is not the majority of the waste stream, so consideration must also be given to what overall structures would facilitate improvements in the C&I and C&D waste streams. By working together, across all waste streams, the challenges of waste management in WA are more likely to be resolved.

The structures suggested for C&I and C&D are aimed to assist with building capacity in these respective areas and linking waste generation to waste recovery. The private sector, while working together on certain issues through industry associations, does

not have a structure that allows for collaboration and metropolitan wide planning. There are only relatively weak linkages between those generating waste and those processing it. By providing funding to these groups, and clear support for effective programs, the State Government can start to facilitate greater engagement by waste producers and a more robust private sector.

The question has been asked – why is Local Government involved in waste management and what value does it bring? Historically Local Government was involved in all aspects of waste management because there was limited private sector interest or investment. Over time this has changed for the many areas of Western Australia and there are now private companies undertaking a range of activities, frequently on behalf of Local Government. This is not always the case in the non-metropolitan areas, however where Local Government is still the primary waste management provider. As a representative of the community, through Council, Local Government is in touch with local issues and concerns and is able to provide a tailored service which meets the needs of its community.

Local Government has invested in waste management solutions, or facilitated private sector investment, through aggregation of waste tonnages. The Alternative Waste Treatment facilities in place are a testament to that investment. It would be underselling the sectors involvement in waste management however to see that as the only value that Local Government brings to waste management. Because of the community imperative, Local Government has a strong focus on ensuring beyond compliance at facilities, finding innovative ways to reduce waste from landfill and solutions for problematic waste streams, increasing community awareness of what waste management operations actually do and look like and sharing information with others to facilitate better practice. Local Governments expertise and high profile in the waste industry in WA shows in the culture of waste management interactions, there tends to be a great willingness to share knowledge and work together to improve the industry.

The proposed structure will build on these existing strengths of the sector and put in place new entities to continue to move waste management forward in WA. The structure addresses the reform outcomes that Local Government has identified:

Cost effective service for ratepayers: The approach of establishing Regional Subsidiaries has several benefits in relation to providing a cost effective service for ratepayers. The reduction in number of regional entities from 5 to 3 will decrease some of the baseline costs with running organisations, as will the reduced number of representatives on the governing body. The funding by the Waste Authority to assist with the underlying administration of these groups, will take some of the financial pressure off Local Government. Through greater formal coordination of the groups, economies of scale can be identified and pursued. For example, by developing a collective plan to transition to better practice kerbside recycling economies of scale in purchasing can be accessed.

Metropolitan wide coordination of waste management*:* The high level waste group will oversee all of the waste management activities in the metropolitan area and be able to identify the coordination needed. This group can facilitate the collaboration between C&I, C&D and MSW waste streams. For the Local Government sector, the reduction in the number of groups managing waste regionally will assist in basic collaboration. The structure suggested of WALGA facilitating interaction between the groups will ensure a formal commitment on going involvement in collaboration. Through the Waste Authority assessment and approval of plans, coordination is assured.

Certainty for the operating environment – next 5 to 20 years – to enable investment: By having compulsory membership to the regional subsidiaries, the certainty for supply of waste can be assured. The approach of having an overarching waste group also means that a greater certainty can be achieved, through collaboration and understanding of the operating environment.

Utilisation of extensive Local Government experience in this area: Through the suggested structures, Local Government expertise and experience in the area of waste management can continue to be utilised and built upon. The Regional Subsidiaries, as they are Local Government entities, would retain the ethos and expertise required.

Optimisation of existing infrastructure and resources: Existing infrastructure can be transitioned to the new Regional Subsidiaries and utilised.

Standardisation of collection systems to maximise efficiency of service delivery and education: One of the primary tasks of the Regional Subsidiaries is to develop and implement a plan to achieve greater standardisation across the metropolitan area.

Engagement and more active coordination of C&D and C&I: The structures proposed allow for capacity building in these sectors and a formal structure for them to develop plans and undertake activities that will enhance their industries.

The Regional Subsidiaries are well placed to achieve the regional outcomes as they have a structure that allows for ownership of assets and a combination of representative and skills based boards. These structures could be specifically tasked, through their Charter, with the range of regional activities outlined. Many of the regional activities, such as contingency planning, are already

occurring informally between Regional Councils, by transitioning to this new approach these activities would be formalised. The strong link between the Regional Subsidiary and its member Local Governments, through the member Local Government representation on the Board, is vital to ensure buy in to the activities agreed and a greater sense of ownership. Having three groups will also promote competition, allowing a wide range of procurement activities and approaches.

WA has many challenges to overcome in relation to waste management that it is only through working together, utilising existing expertise and experience, that we can meet these challenges. The model that WALGA is proposing intends to build on the existing successes, address current issues with the structures of Regional Councils and formalise the expectations of regional waste management service delivery.

Recommendations and Conclusions

In this Submission, Local Government has put forward a range of recommendations regarding achieving key waste management outcomes which focus on changes to the governance of waste management. However, changes to the way the MSW is governed alone will not resolve the challenges for waste management in WA. Therefore, a range of other actions have been highlighted for the State Government. The Association recommends:

1. That the State Government increases the hypothecation of funds raised through the WARR Levy to facilitate enhanced strategic waste management outcomes.
2. That the State Government use the provisions for Extended Producer responsibility contained within the WARR Act.
3. That the State Government introduce a Container Deposit Scheme in WA to reduce litter and aid the effective recycling of municipal solid waste.
4. That the State Government, as a matter of urgency, adopt a strategic waste infrastructure plan to inform and guide Local Government investment and decision-making.
5. That the State Government broadens the review of the WARR Act to ensure there is appropriate emphasis on the C&D and C&I waste streams.
6. That the State Government adopts appropriate governance changes to support the market development of C&D waste and effective engagement with C&I waste generators.
7. That the State Government establish an overarching Waste Management Group to guide and facilitate the implementation of the State Waste Strategy.
8. That the State Government establish Waste Groups for C&I and C&D wastes to facilitate greater engagement from these sectors and market development.
9. That the State Government facilitates the formation of three Regional Subsidiaries within the metropolitan area to undertake a range of regional functions.

Mindarie Regional Council – Infrastructure Options Assessment Report

Item 9.6	APPENDIX NO. 9	Item 9.6

MINDARIE REGIONAL COUNCIL INFRASTRUCTURE OPTIONS ASSESSMENT

APPENDIX NO. 9

APPENDIX NO. 9

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MINDARIE REGIONAL COUNCIL

WASTE PROCESSING INFRASTRUCTURE OPTIONS ASSESSMENT

Waste processing infrastructure options assessment

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Report No	AA007554-01-06
Date	20/1/2015

APPENDIX NO. 9

CONTENTS

APPENDIX NO. 9

APPENDICES

Table of figures

Table of tables

ACRONYMS

Acronym	Meaning
BAU	Business as usual
BOO(T)	Build, own, operate (transfer)
C&D	Construction and demolition
C&I	Commercial and industrial
CPI	Consumer price index
D&C	Design and Construct (D&C)
DCMO	Design, construct, maintain and operate (DCMO)
EfW	Energy from waste
EOI	Expression of interest
FOGO	Food and garden organics
GO	Garden organics
Hhld	Household
MBT	Mechanical biological treatment
MCA	Multi-criteria analysis
MRF	Materials Recovery Facility
MSW	Municipal solid waste
MRC	Mindarie Regional Council
RDF	Refuse derived fuel
RRF	Resource recovery facility
TP	Tamala Park

APPENDIX NO. 9

EXECUTIVE SUMMARY

Hyder has been engaged to provide an assessment of the most appropriate regional waste infrastructure approach for the members of the Mindarie Regional Council, in order to achieve the state government set waste diversion targets of 65% of municipal solid waste diverted from landfill by 2020. In order to fully assess the ideal approach for the members of the MRC, Hyder developed and modelled a number of infrastructure scenarios which are outlined in the table below:

Table 1 **General waste scenarios**

Scenario	Description
Business as usual (BAU)	Existing arrangements regarding Neerabup Resource Recovery Facility (RRF) and landfill continue, with Stirling & Cambridge's garden organics (GO) sent to a separate compost facility, and residual waste from any processing is sent to landfill
Scenario 1 2 bin system, second MBT	Collection systems as in BAU, all general waste goes to mechanical biological treatment (MBT) – either Neerabup RRF or a second MBT, only residuals from the MBT's go to landfill
Scenario 2 2 bin, EfW	Collection systems as in BAU, existing flows of general waste to Neerabup RRF continue and remainder goes to an energy from waste (EfW) facility (including bulk waste, MBT and MRF residuals)
Scenario 3 - 3 bin – residual to Neerabup, GO separately	All councils implement a greenwaste bin, with collected material open-windrow composted. All general waste would be processed via Neerabup RRF. Remaining material would go to landfill.
Scenario 4 3 bin – residual to LF	All councils have a third bin, Stirling for greenwaste only, all other councils collect all organics (including garden, food, nappies, contaminated paper etc) in the third bin for processing at Neerabup RRF and residuals go to landfill.
Scenario 5 3 bin residuals to EfW	All councils have a third bin, Stirling greenwaste only, all other councils collect all organics (including garden, food, nappies, contaminated paper, etc) in the third bin to be processed at Neerabup RRF with all residuals to energy from waste (including bulk waste and MRF residuals)

The modelling is dependent on a range of assumptions including costs and performance data on council collection systems; population projections for each council; waste generation projections; types of waste processing facilities and diversion performance; facility locations; assumed typical gate fees for various types of processing facilities; costs of new equipment and services; as well as price inflation and landfill levy increases. Hyder has used actual data where it was available from member councils, supplemented by typical industry data. Where such assumptions have been made, they are outlined in the report. The modelling scenarios and assumptions were discussed and reviewed at the MRC Strategic Working Group meetings.

Evaluation process

To determine preferred scenarios, a multi-criteria assessment (MCA) was undertaken using environmental impacts, cost, social impacts and risks as the key criteria. Each member council was asked to separately nominate their preferred weightings for the criteria. The average of the weightings was applied to rank the scenarios. The cost impact (measured as cost per

household), and environmental impact (primarily based on diversion performance) were the most heavily weighted criteria.

The multi-criteria assessment showed that the business as usual case was the least desirable, even though it has the lowest cost per household. The poor environmental performance (diversion) proved to be a key differentiator and as such the BAU Scenario was not considered for further modelling. The scenario of 2 bins with a second mechanical biological treatment facility (Scenario 1) was considered by members to be politically unsuitable and was therefore also discounted from further consideration.

Whilst the 3-bin option (Scenario 3), with all organics collected separately and residuals to landfill also scored poorly due to its low diversion performance, it had a low implementation cost given the limited requirement for infrastructure spending. Only two of the scenarios, being Scenario 2 and 5, are likely to deliver the diversion targets by 2022 and these options scored highly in the MCA. Both scenarios include the development of EfW infrastructure to recover energy from the residual waste stream. With increased recovery of recyclables or bulk waste scenarios 3 and 4 would come close to 60% diversion, but would be unlikely to reach the 65% state government diversion target. Therefore three scenarios – Scenario 2, 3 and 5 - were included for further modelling in the Stage 2 multi-criterial analysis.

Stage 2 of the modelling aimed to determine the most suitable sites based on transport implications for the region. The transport options were overlayed against the original modelling to provide an additional level of assessment of the preferred scenarios for the region. The main differences in the Stage 2 analysis were the modified cost impacts (per household, due to differences in the transport costs for key facilities), while the social impact and risk ratings were also adjusted based on issues related to the specific sites. Social considerations included likelihood of residential encroachment on the site and resident concerns about odour, traffic congestion, noise and perceptions of EfW technologies. Risk considerations included issues such as whether the proposed site is already a waste facility, the approval and development status for facilities and particular sites, and reliable access to markets (e.g. power).

Preferred scenarios

The modelling has identified scenario 2C (2 bin, energy from waste) as the preferred scenario based on the agreed criteria, however it was closely followed by 5C (3 bin, energy from waste). In either case, significant new EfW capacity is required, although the EfW capacity requirement is slightly higher under a 2-bin model. The analysis did not consider the impact of potential future state government policy, which currently favours but does not mandate three bin collection systems. Implementing a third bin requires additional community engagement and a slightly higher cost, however it is better aligned with the waste hierarchy and state government policy. In developing and procuring new waste infrastructure, the members of the MRC should consider the potential for 3 bin systems to be mandated in the future, such as through the current review of the Waste and Resource Recovery Act. If a three bin system was agreed to, a policy could be established for high density areas such as City of Perth and large parts of the Town of Victoria Park and City of Vincent to opt-in to a third bin service as appropriate.

As a result of the modelling, the preferred scenario resulted in the following (see Table 2) recommended facilities and preferred locations.

Final locations, ownership arrangements, operating models and procurement methods will need to be evaluated on a case-by-case for each infrastructure project. This provides an opportunity for the MRC or its member councils to deliver the land, infrastructure and processing services where it is most beneficial to do so, or to outsource to the market where it is most efficient to do so.

Table 2 Recommended infrastructure and preferred locations

Processing facility	Capacity required	Preferred location
Landfill	74,000 tpa (existing)	Tamala Park
Mechanical biological treatment	100,000 tpa (existing)	Neerabup
Materials recovery facility	100,000 tpa	Neerabup
Transfer station	300,000 tpa	Balcatta
Green waste processing facility (open windrow)	35,000 tpa	Neerabup
Bulk waste sorting shed	40,000 tpa	Balcatta
Waste to energy facility	250,000 tpa	TBC – market to determine

The state government has implemented a policy that is broadly supportive of EfW in the context of the waste hierarchy. Therefore additional waste diversion opportunities have been considered to determine the feasibility of maximising recovery prior to EfW treatment.

Currently each council offers a scheduled bulk waste collection from the vergeside. Some councils are considering an on-call service, either with or without provision of a skip bin. If an on-call bulk waste service is introduced it can be expected to significantly reduce the amount of bulk waste collected (based on performance of similar systems). In addition the waste could continue to be landfilled, or be subjected to enhanced recovery by either kerbside separation or processing in a sorting shed. The additional contribution to the overall diversion rate is likely to vary from 0.8% - 3.4% depending on the option selected.

The majority of member councils could improve their recycling recovery through improved education and bin monitoring. It is estimated that improvements in kerbside recycling could increase recovery by 1-3% for the region. However this additional recovery requires intensive effort and additional cost to engage further with the community.

Recommendations

As a result of the modelling it is recommended that the MRC and its member councils:

1 Agree on a broad waste infrastructure direction as outlined in the infrastructure plan, and seek endorsement of the plan from their respective councils.

2 Agree to commence discussions regarding the preliminary work required to develop the appropriate business plans and procurement options for each infrastructure project.

3 Agree to the actions outlined in this plan when infrastructure solutions are being considered by the MRC or its member councils, which includes bringing any proposed infrastructure solutions which may impact on the region to the attention of both the MRC and the Strategic Working Group.

4 Agree to support the MRC pursuing regular kerbside waste audits to inform the regional waste strategy and monitor progress on system changes.

1 INTRODUCTION

In 2010, the Mindarie Regional Council (MRC) commissioned an extensive study into waste processing options for the region, including a multi-criteria analysis of a range of scenarios. The study was undertaken soon after the commissioning of the Neerabup Resource Recovery Facility (RRF). Since the previous study was undertaken, a number of significant state government policy changes have occurred including:

- Significant increases to the landfill levy commencing 2015,
- Proposed local government amalgamations,
- The Better Bin Program – encouraging collection of organics in a third bin,
- The waste to energy policy, supporting appropriate use of energy recovery technologies; and
- Review of Waste Avoidance and Resource Recovery Act 2007.

Each of these issues has a significant impact on the MRC and its member councils, and opens up a number of opportunities that were not available or considered viable, when the original study was conducted.

Hyder has been engaged by the MRC to update the original modelling, and factor in some alternative scenarios in consultation with the MRC's members, to provide an assessment of the most appropriate waste infrastructure approach for the region.

The aims of the study were to:

- Identify scenarios that will assist the region in reaching the state government set waste diversion targets of 65% of municipal solid waste diverted from landfill by 2020,
- Determine high level cost implications,
- Identify necessary infrastructure and capacity required to process agreed waste streams,
- Outline possible ownership and operating options for each facility,
- Identify optimal locations for infrastructure, including transport modelling,
- Propose a practical and staged timeframe for infrastructure implementation and
- Provide detail on existing EfW providers in the WA market – including optimal size and acceptable material for each processing technology.

Key opportunities for the MRC's region include:

- Drop off centres for hazardous and other problem wastes,
- A MRF for the region,
- A green waste processing facility,
- A bulk waste sorting and reuse shed and
- An EfW facility, or other mixed waste processing facility for the region.

The WA Waste Authority State Waste & Recycling Infrastructure Project identified a number of potential waste infrastructure sites. Some of those are within the MRC's region and have been considered in the current infrastructure assessment.

Each major waste stream and its potential collection and processing options have been considered separately. The diversion potential and total estimated cost implications take into account all waste streams combined.

2 EXISTING WASTE SERVICES

This section outlines the existing collection systems within the member councils. These have been used in the business as usual (BAU) baseline modelling. For City of Stirling the modelling assumptions relate to the system that has already been committed to, and will be implemented from 1 July 2015.

The majority of member councils offer a two bin collection system, 240L general waste weekly and 240L recycling fortnightly, as shown in Table 2-3. Town of Cambridge and City of Stirling provide a three bin collection system, including a garden organics collection fortnightly. Some councils are starting to offer a wider range of bin sizes on an optional basis such as a 360L bin for recyclables.

Table 2-3 Summary of kerbside collection services

Waste stream	General waste		Recycling		Garden organics	
Council	**Bin size**	**Frequency**	**Bin size**	**Frequency**	**Bin size**	**Frequency**
Cambridge	120L / 240L	Weekly	240L / 360L	Fortnightly	240L	Fortnightly
Joondalup	240L	Weekly	240L	Fortnightly		
Perth	240L	Weekly	240L	Fortnightly		
Stirling*	140L	Weekly	240L	Fortnightly	240L	Fortnightly
Victoria Park	240L	Weekly	240L	Fortnightly		
Vincent	240L	Weekly	240L/360L	Fortnightly		
Wanneroo	240L	Weekly	240L	Fortnightly		

*Note City of Stirling's 3 bin system commences 1 July 2015

The majority of member councils provide scheduled vergeside waste collections for general bulk waste and greenwaste. Table 2-4 shows the current service frequency. One to two general bulk waste collection services are offered each year, and one to four greenwaste services. In addition Wanneroo, Joondalup and Stirling offer greenwaste disposal vouchers to residents. Stirling also offer their residents tip vouchers for one tonne per year of general waste and one tonne per year of inert waste for disposal.

Table 2-4 Vergeside waste service summary

Council	Vergeside bulk waste frequency	Vergeside greenwaste frequency	Tip vouchers	
			Greenwaste No	General waste No
Cambridge	Two per year	Two per year (collected at the same time as bulk waste)	None	None
Joondalup	Once every 9 months	Once every 9 months (collected at the same time as bulk waste)	4	None
Perth	One per year	One per year (collected at the same time as bulk waste)	None	None
Stirling	Oncall (skip)*	Once every 9 months **	4	4
Victoria Park	Two per year	Four per year	None	None
Vincent	One per year	Two per year	None	None
Wanneroo	One per year	Two per year	4	None

*Currently once per year. The oncall skip bin service will commence July 2015.
**Currently once per year. The 9-month cycle will commence July 2015.

Some councils in Perth are moving towards a skip bin bulk waste service. City of Stirling will be implementing the service from 1 July 2015. Bulk waste collection options and implications are discussed further in section 5.1.

Most member councils are recovering white goods, e-waste and mattresses from their bulk waste using separate contractors to their regular waste bulk waste collection contractor. A summary of materials recovered is outlined in Table 2-5.

Table 2-5 Verge collections – collection contractors and recovered materials

Council	Contractor/s	Items recovered through junk collection
Cambridge	Alvito (T/A Incredible Bulk) Spyder Waste	white goods, car batteries mattresses
Joondalup	Spyder Waste	white goods, mattresses
Perth	Inhouse	e-waste, white goods
Stirling	Inhouse	e-waste, metals, inc. white goods, mattresses
Victoria Park	All Earth Services Spyder	white goods, e-waste mattresses
Vincent	Steann Spyder	metals, inc. white goods, e-waste Mattresses
Wanneroo	Inhouse	White goods

Cities of Wanneroo, Perth and Stirling all undertake in-house waste collection services. All other councils contract their services out to third parties. A summary of collection contractors is provided in Table 2-6.

APPENDIX NO. 9

Table 2-6 Service provider – collection

Council	General waste	Recycling	Garden organics	Bulk verge	Bulk Greenwaste
Cambridge	Perth Waste	Perth Waste	Perth Waste	Incredible Bulk	Incredible Bulk
Joondalup	Cleanaway	Cleanaway	N/A	Wanneroo (inhouse)	Wanneroo (inhouse)
Perth	Inhouse	Inhouse	N/A	Inhouse	Inhouse
Stirling*	Inhouse	TBC	TBC	Inhouse	Inhouse
Victoria Park	Cleanaway	Cleanaway	N/A	All Earth Waste Services	All Earth Waste Services
Vincent	Perth Waste	Perth Waste	N/A	Steann	Steann
Wanneroo	Inhouse	Inhouse	N/A	Inhouse	Inhouse

* Contract to commence from 1 July 2015

Under the MRC's constitution all member councils are required to send their general waste which is not recycled to a MRC facility for disposal or processing. The MRC's Neerabup RRF facility provides 100,000 tpa processing capacity for MSW through a mechanical biological treatment (MBT) facility. City of Stirling has also committed to send at least 14,000 tpa of MSW to the Anaeco MBT facility, which is currently in commissioning and expected to commence operations in 2015. The remainder of the material is sent to Tamala Park for disposal to landfill. For source separated material (including dry recyclables and organics) the member councils arrange their own processing contractor. Table 2-7 outlines the processing contractors for each of the member councils. Some councils are unable to send their material to the Neerabup RRF facility as the receival floor is not compatible with rear-loader vehicles.

Table 2-7 Service provider – processing

Council	General waste	Recycling	Garden organics	Bulk verge	Bulk Greenwaste
Cambridge	MRC- TP/ RRF	Perth Waste	Perth Waste	MRC –TP	Brockway
Joondalup	MRC – TP/ RRF	Cleanaway	N/A	MRC –TP	WRC
Perth	MRC – TP	Cleanaway	N/A	MRC - TP	Brockway
Stirling	MRC –TP / Aneaco	TBC	TBC	Balcatta	Balcatta
Victoria Park	MRC –TP/ RRF	Cleanaway	N/A	MRC – TP	Maddington
Vincent	MRC –TP / RRF	Perth Waste	N/A	MRC – TP	Brockway
Wanneroo	MRC – TP/ RRF	Cleanaway	N/A	MRC –TP	WRC

MRC –TP (Tamala Park); RRF (Neerabup Resource Recovery Facility); WRC (Wangara Recycling Centre)

3 WASTE CHARACTERISTICS

The data in this section has been used for the baseline BAU modelling. It is based on actual data submitted to the MRC for the 2013/14 financial year.

The region generates approximately 320,000 tpa of municipal solid waste, excluding self-haul and commercial waste taken to Tamala Park. Approximately 28% is diverted from landfill City of Stirling has already committed to a 3-bin waste collection system, which Hyder estimates will bring their diversion performance up to around 48% and boost the regional diversion performance to around 41% in 2015. As waste volumes grow and with the processing capacity of the Neerabup RRF fixed at 100,000tpa, regional diversion is forecast to gradually decline (to 35% in 2022) unless additional processing capacity is developed.

A breakdown of the kerbside collected material diverted, disposed to landfill and the diversion rate for each council is provided in Table 3-8. The diversion rates are lower than some councils actual diversion rates as self-haul material and some other recycling – such as greenwaste, construction and demolition waste and council operations waste are excluded from the baseline kerbside modelling. Individual council diversion rates vary significantly, which is heavily influenced by the amount of general waste currently diverted via the Neerabup RRF facility. The modelling shows that to reach the state waste diversion targets of 65% by 2020 significantly more recycling will need to be undertaken by the region.

Table 3-8 Total tonnages MRC, 2013/14

Council Name	Total Diverted (t)	Total Disposed (t)	Total Generated (t)	Diversion Rate (t)
Cambridge	7,154	7,869	15,023	48%
Joondalup	34,843	51,757	86,660	40%
Perth	1,187	14,067	15,254	8%
Stirling	513	79,976	80,459	1%
Victoria Park	6,570	11,845	18,415	36%
Vincent	7,137	11,117	18,254	39%
Wanneroo	36,387	49,884	86,272	42%
Region	**93,792**	**226,484**	**320,276**	**29%**

The tonnage diversion is broken down further by waste collection stream in the following tables. The kerbside collection streams are shown in Table 3-9.

Table 3-9 Kerbside collection - tonnes, 2013-14

Council	Residual Waste		Recyclables		Garden Organics	
	Recovered (t)	Disposed (t)	Recovered (t)	Disposed (t)	Recovered (t)	Disposed (t)
Cambridge	1,124	6,067	3,170	464	1,797	0
Joondalup	19,933	32,552	10,289	5,479	N/A	N/A
Perth	-	13,893	1,098	99	N/A	N/A
Stirling	-	72,206	-	-	N/A	N/A
Victoria Park	2,922	8,929	2,685	801	N/A	N/A

APPENDIX NO. 9

Council	Residual Waste		Recyclables		Garden Organics	
Vincent	3,763	9,124	2,865	479	N/A	N/A
Wanneroo	22,573	30,572	10,616	3,996	N/A	N/A
Region	**50,316**	**173,343**	**30,724**	**11,317**	**1,797**	**0**

Data from each council's bulk verge collection system is provided in Table 3-10. The quantity of bulk waste disposed by each council varies significantly, ranging from 74 tpa in City of Perth to 11,894tpa from City of Joondalup. This is likely to be a function of many factors including the population serviced by each council, the demographics of that population, and the type of service offered.

Table 3-10 Verge collections and other council waste - tonnes, 2013-14

Council	Residual Waste				GO	
	Recovered[1] (t)	Clean-up Disposed (t)	Council Waste Disposed[2] (t)	Total Disposed (t)	Recovered (t)	Disposed (t)
Cambridge	17	1,252	86	1,338	1,043	-
Joondalup	178	11,894	1,832	13,726	4,403	-
Perth	1	71	3	74	88	1
Stirling	513	7,265	475	7,470	-	-
Victoria Park	25	1,960	-	1,960	931	155
Vincent	20	1,514	-	1,514	488	-
Wanneroo	192	6,474	8,323	14,797	2,964	519
Region	**946**	**30,430**	**10,720**	**41,149**	**9,917**	**675**

[1] Material recovered from the bulk waste, including material salvaged at the tip face

[2] Includes litter bins, depots, parks etc.

4 MODELLING: GENERAL WASTE SCENARIOS

General waste is the largest component of the kerbside waste stream. To reach the 2020 diversion targets, significant additional material will need to be recovered from this stream. On that basis Hyder focused the initial modelling on collection and treatment options for the general waste stream.

The 2010 modelling study also focussed on infrastructure options for general waste. The data from the original scenarios has been updated to give a revised BAU model and 2-bin scenarios. Three bin scenarios have also been evaluated.

The modelling evaluates the regional waste system as an annual time series, but analysis of the outcomes is focussed on the year 2022, which is representative of regional performance after implementation of the new waste infrastructure in each scenario. The business as usual scenario assumes a 2-bin system for all councils except for Cambridge and Stirling, which are modelled as having a third bin for garden organics. Recycling arrangements stay the same under each scenario (performance based on 2013/14 data), with the assumption that all councils will continue to offer a commingled recycling collection fortnightly.

Table 4-11 outlines the scenarios considered in the initial options modelling. In any modelling involving this number of member councils there are a range of options and assumptions inherently involved, which are outlined in section 4.1.

Table 4-11 General waste modelling scenarios

Scenario	Description
Business as usual	Existing arrangements regarding Neerabup RRF and landfill continue, with Stirling & Cambridge's garden organics (GO) sent to a separate compost facility, and residual waste from any processing is sent to landfill
Scenario 1 2 bin system, second MBT	Collection systems as in BAU, all general waste goes to MBT – either Neerabup RRF or a second MBT, only residuals from the MBT's go to landfill
Scenario 2 2 bin, EfW	Collection systems as in BAU, existing flows of general waste to Neerabup RRF continue and remainder goes to an EfW facility (including bulk waste, MBT and MRF residuals)
Scenario 3 - 3 bin – residual to Neerabup, GO separately	All councils implement a greenwaste bin, with collected material open-windrow composted. All general waste would be processed via Neerabup RRF. Remaining material would go to landfill.
Scenario 4 3 bin – residual to LF	All councils have a third bin, Stirling for greenwaste only, all other councils collect all organics (including garden, food, nappies, contaminated paper etc) in the third bin for processing at Neerabup RRF and residuals go to landfill.
Scenario 5 3 bin residuals to EfW	All councils have a third bin, Stirling greenwaste only, all other councils collect all organics (including garden, food, nappies, contaminated paper, etc) in the third bin to be processed at Neerabup RRF with all residuals to energy from waste (including bulk waste and MRF residuals)

APPENDIX NO. 9

4.1 MODELLING ASSUMPTIONS

The modelling is dependent on a range of assumptions including:

- Performance data on council collection systems (e.g. capture rates, contamination rates, participation rates)
- Projected population data for each Council
- Projected waste generation
- Waste composition
- Processing locations and types of facilities
- Assumed typical gate fees for various types of processing facilities
- Facility diversion rates
- Costs of equipment and services
- CPI and landfill levy increases

Hyder has used actual data where it was available. Where actual data was not available Hyder has used industry accepted figures based on similar systems locally and interstate. It is important to note that some modelling parameters can vary across a wide range and the values adopted by Hyder are considered to be typical. The key assumptions used are outlined in **Appendix A.**

The projected diversion rates and estimated capacities of processing facilities are heavily dependent on the assumed waste composition. No recent waste audits have been undertaken by the MRC. Some composition data was provided by the Town of Victoria Park and compared with average waste data from other metropolitan councils in WA. The major components of the average residual waste composition are shown in table below, which is based on averaged data from waste audits undertaken by similar Perth metropolitan councils between 2010-2015 (for 2-bin collection systems).

Table 4-12 General waste composition assumptions

Material category	Assumed proportion (% weight)
Potential food organics	22.0%
Potential garden organics	26.7%
Recyclable paper	4.5%
Recyclable glass	4.5%
Recyclable plastic	2.0%
Recyclable metals	2.5%
Other organics (nappies, contam paper etc)	13.2%
Non-recyclable	24.6%

4.2 MODELLING OUTCOMES – STAGE 1

This section provides a summary and discussion of the modelling outcomes for the first stage of scenario modelling, focussing on the estimated performance in 2022.

Figure 4-1 indicates that only two of the scenarios are likely to deliver the diversion targets by 2022, which are the two processing scenarios (2 & 5) that involve EfW. The contribution towards the target from each waste stream is also provided with the recyclables being constant across each scenario, but the amount of organics and kerbside residuals varying significantly. Note: kerbside waste processed through the Neerabup RRF facility is considered to be residuals processing, except in scenarios 4 and 5, where the third bin results in a clean organics stream which is processed through the RRF, and is therefore modelled as organics processing.

Figure 4-1 Total regional diversion under each scenario

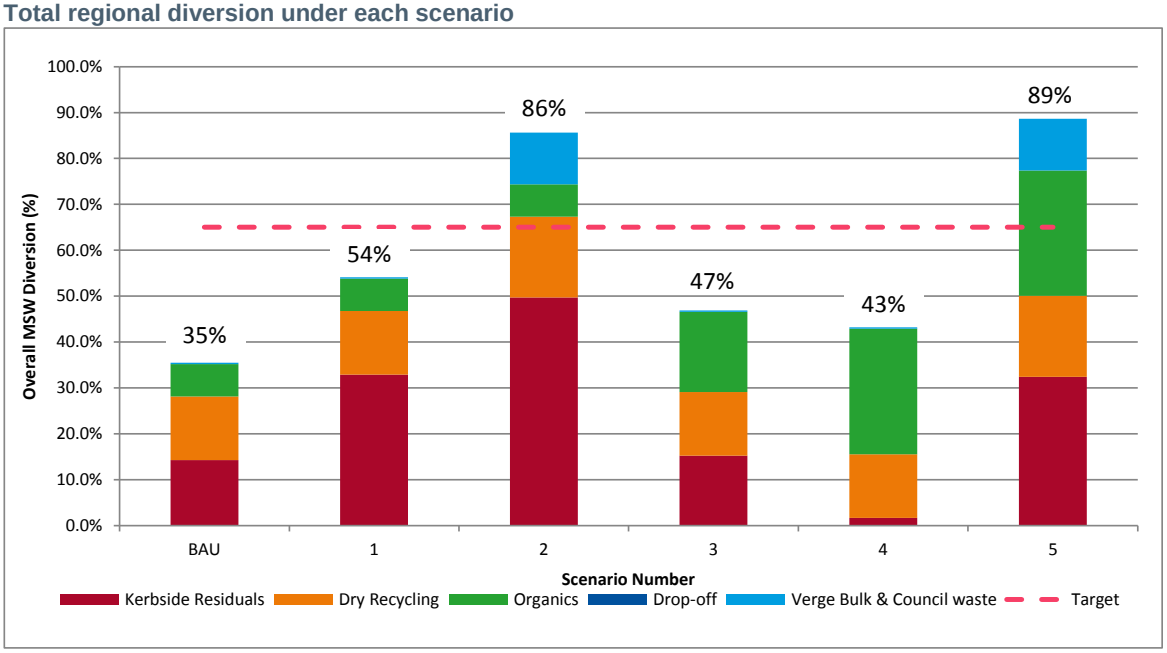


Figure 4-2 considers the cost of each scenario in 2022 on the basis of average cost per household, total cost per tonne collected and total cost per tonne diverted. These financial considerations have been overlayed with the diversion rate to determine value for money.

The average cost per household in 2022 ranges from $444 - $526 with business as usual being the cheapest option. However BAU produces the worst diversion performance and therefore has the highest cost per tonne diverted from landfill ($955/tonne). The energy from waste scenarios are the most expensive at $520/hhld (scenario 2) and $526/hhld (scenario 5) but with the lowest cost per tonne diverted ($463/tonne and $454/tonne respectively).

For reference, the average cost per household for business as usual in 2015 is estimated to be $342.

Figure 4-2 Regional unit cost vs diversion performance 2022

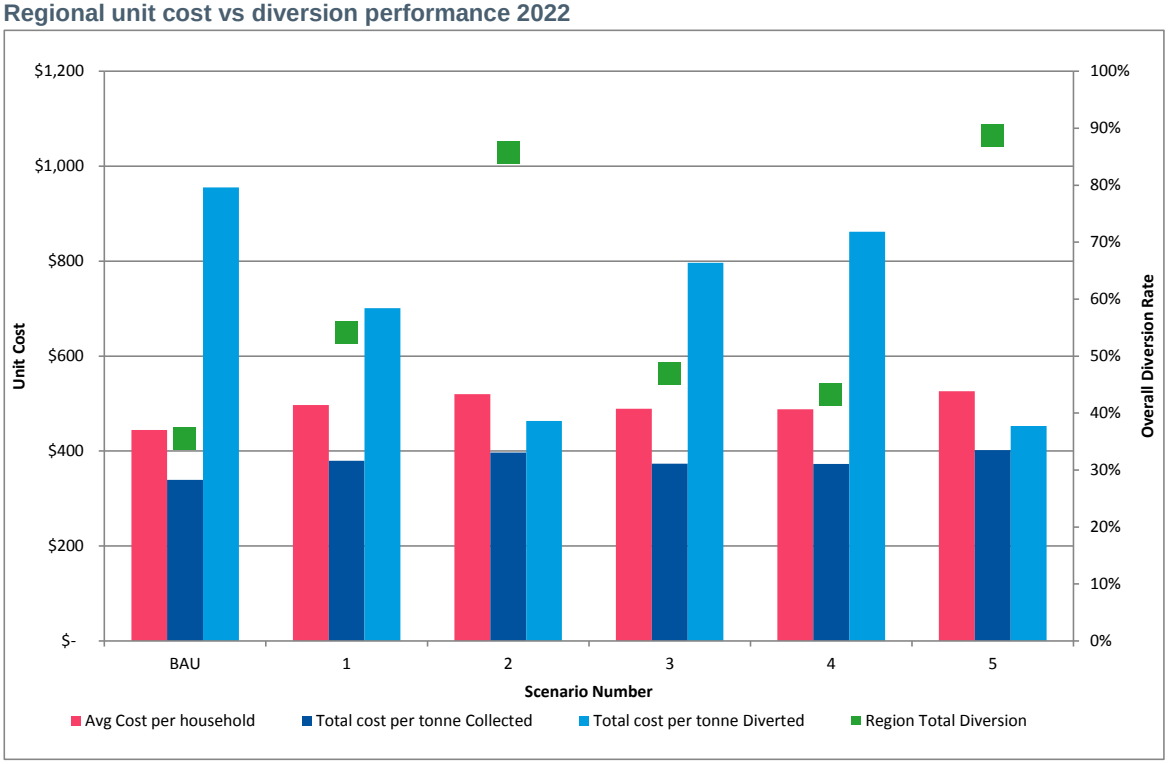


Figure 4-3 shows the total expected annual cost for the region using 2022 as an example. The total cost ranges between $140-165 million per year depending on the scenario. If a three bin system was to be implemented it is assumed the equipment cost would be incurred as a capital cost over one year, through either grant or reserve funding, therefore the equipment cost in this instance relates to bin maintenance/replacement costs only.

Figure 4-3 Total region major costs under each model scenario

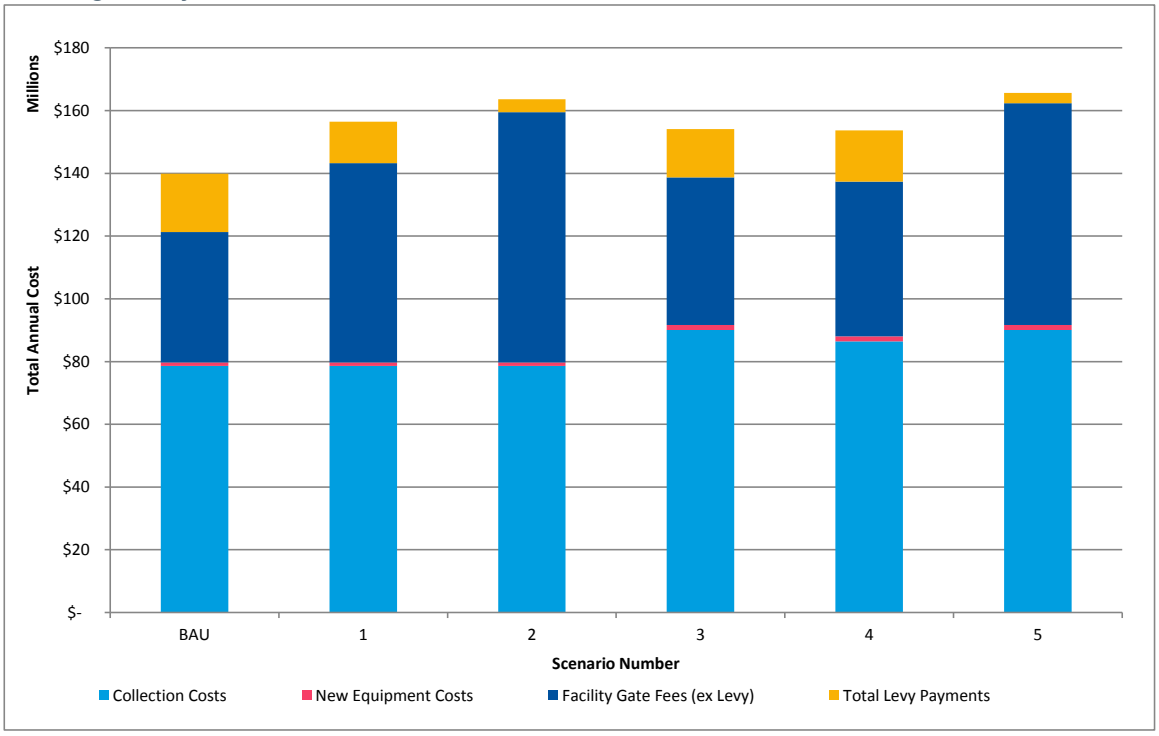
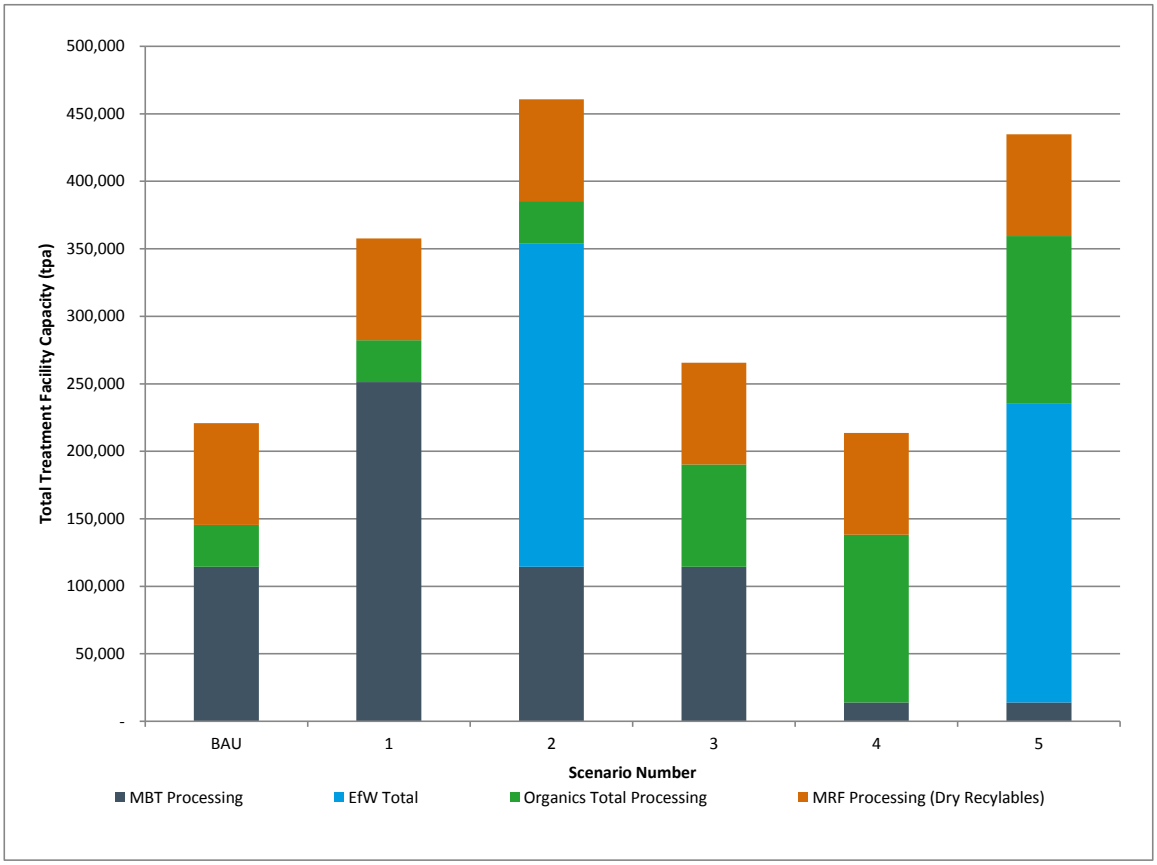


Figure 4-4 provides the total processing capacity required under each scenario. Business as usual and scenario 4 have the lowest processing infrastructure requirement (approximately 200,000tpa) including the existing capacity at the Neerabup RRF. Scenarios 2 and 5 have the highest infrastructure requirements (around 450,000tpa), which is partly due to the double handling of some waste streams such as EfW treatment of MBT, MRF and bulk waste residuals.

Figure 4-4 Total regional treatment capacity required under each scenario



4.3 MULTI-CRITERIA ASSESSMENT – STAGE 1

To determine preferred scenarios a multi-criteria assessment was undertaken, using the above modelling results as a key input. Hyder used the same multi-criteria assessment format and high level criteria as agreed in the original 2010 study. The main criteria (tier 1) and sub-criteria (tier 2) are shown in Table 4-14.

Table 4-13 Criteria used in the multi-criteria assessment

Tier 1 Criteria	Tier 2 criteria
Environmental	Waste diverted (tonnes) Resources recovered (tonnes) Net energy balance (GJ consumed / exported)
Financial	Financial impact ($ per household)
Social	Odour, visual amenity and emissions perception Community acceptance of bin system
Risk level	Highlighting project risk related to the likely timeframe of planning, approvals and finance.

Each member council was asked to separately nominate their preferred weightings for the Tier 1 criteria based on the importance and value placed on each factor by that council, as shown in Table 4-14. All Councils nominated to assign the majority of the weighting to environmental and financial criteria – however there is quite a range on the emphasis councils put on each criteria. For the assessment, Hyder adopted a straight mean of the weightings provided.

Table 4-14 Individual council nominated multi-criteria assessment weightings

Criteria	Council 1	Council 2	Council 3	Council 4	Council 5	Council 6	Council 7	Average
Environmental	30%	40%	20%	30%	60%	36%	30%	**35%**
Financial	35%	40%	40%	40%	20%	33%	30%	**34%**
Social	10%	10%	20%	20%	10%	13%	30%	**16%**
Risk	25%	10%	20%	10%	10%	18%	10%	**15%**
Total	100%	100%	100%	100%	100%	100%	100%	**100%**

The environmental and social criteria were further broken into sub-criteria, with weightings assigned by Hyder as outlined in Table 4-15.

Table 4-15 Sub criteria assessment weightings

Criteria	Subcriteria	Sub-weighting
Environmental	Waste diverted	80%
	Resources recovered	10%
	Net energy balance	10%
Social	Facility siting & technology - odour, visual amenity, and emissions perception	50%
	Collection system impacts	50%

The consolidated weightings were then applied to each scenario to provide a short list of preferred scenarios for further discussion. **Appendix B** contains a detailed breakdown of the quantitative data that was used in assessing the multi-criteria assessment. Table 4-16 provides the outcomes of the multi-criteria assessment. This ranks the scenarios from one to six based on the weighted scores. This shows that the BAU case is the least desirable, even though it has the lowest cost per household. The poor environmental performance (primarily diversion) proved to be a key differentiator. Scenario 4 also scored poorly due its low diversion performance. The EfW scenarios (2 and 5) both scored highly on the multi-criteria rankings, mostly due to the high diversion rates.

Table 4-16 Multi-criteria assessment outcomes - Stage 1

Rank	Scenario	Description	Weighted Score	Cost/hhld/ year 2022	Diversion rate
1	2	As per BAU, some general waste to Neerabup, remaining MSW+bulk+MRF residuals to EfW	86%	$520	86%
2	5	All councils with 3-bins (except Perth), Stirling GO only, others for all organics, MSW+bulk+MRF residuals to EfW	85%	$525	89%
3	1	As per BAU, but all general waste to MBT and residues to landfill	81%	$497	54%
4	3	All councils with 3-bin GO (except Perth), general waste to Neerabup or landfill	80%	$489	47%
5	BAU	BAU based on current practice, with Stirling and Cambridge on 3-bin GO, and existing RRF	78%	$444	35%
6	4	All council with 3-bins, Stirling GO only, others for all organics, residuals to landfill	76%	$486	43%

These options were presented to the MRC Strategic Working Group. Significant discussion revolved around which should be the third option to be modelled in further detail, with scenario 2 and 5 clearly viable options, but with little to differentiate between scenarios 1 and 3. It was determined that introduction of a second MBT would not be politically desirable and that a lower infrastructure option would be preferable to model. Therefore Hyder further assessed scenarios 2, 3 and 5 in the detailed transport modelling to determine optimal locations for key infrastructure. The detailed outcomes of the MCA are provided in **Appendix B**.

4.4 TRANSPORT MODELLING ASSUMPTIONS

The base modelling was overlayed with three location options for major infrastructure in each of the three preferred scenarios from Stage 1, based on a range of transport modelling assumptions. The transport modelling assumptions were discussed and refined in consultation with the Strategic Working Group.

There are a number of existing waste facilities, or proposed waste precincts, that are under consideration in this study as outlined in Table 4-17. Some other sites were considered, but where they were a similar distance for transport purposes (ie Canning/ Bibra Lake, Kwinana/ Rockingham or Balcatta/ Osborne Park) only one of the locations was included in the study. The areas included in the transport modelling are outlined on the map in **Appendix C.**

APPENDIX NO. 9

Table 4-17 Potential processing locations

	Drop-off Centres	Transfer Stations	Bulk Waste Shed	MRF	GO processing	MBT	EfW
Neerabup	✓	✓	✓	✓	✓	✓	✓
Tamala Park	✓	✓	✓	✓	✓	×	×
Wangara	✓	✓	✓	×	✓	×	×
Red Hill	✓	✓	✓	✓	✓	✓	✓
Balcatta	✓	✓	✓	✓	×	×	×
Bayswater	✓	✓	✓	✓	×	×	×
Hazelmere	✓	✓	✓	×	✓	×	×
Canning	×	×	×	✓	✓	✓	×
Kwinana	×	×	×	✓	×	×	✓

Distances from the centroid of each council area to the existing waste facilities, or proposed precincts were calculated and applied to the relevant scenarios.

To estimate the potential additional transport costs, Hyder devised two different transport cost rates:

- a short haul rate ($ per tonne, per kilometre) for additional transport of waste directly in the collection vehicle, beyond the BAU distance assumed to be already covered in the modelled collection costs (ie, bin lift rates); and
- A long haul rate, which combines a set base fee ($/tonne) to cover the transfer, bulking and loading activities, plus a variable rate to cover the transport element ($ per tonne per km).

The rates were based on cost data provided by some member councils and Hyder's knowledge of waste industry transport costs. The transport assumptions are set out in **Appendix A.**

Where material is taken to a transfer station and then bulked and hauled to a second location, the short haul rate was applied to the transfer station location, and an additional long-haul cost was estimated for the distance from the transfer station to the final destination.

The bulk waste shed, MRF and greenwaste processing baseline assumptions were determined by a separate analysis of each identifying the most beneficial location for all councils on a regional basis. In each case, the preferred locations for these operations were chosen based on currently available land parcels so as to minimise the overall regional transport costs. Where member councils choose to put infrastructure projects out to tender, other locations may well become available. For bulk waste it was assumed one facility would be appropriate for the region. Balcatta was the most beneficial for the entire region, closely followed by Wangara.

The MRF modelling assumes that councils used their existing MRFs, except for Joondalup, Stirling and Wanneroo that are considering a joint MRF procurement for a new facility. Balcatta was identified as the most beneficial from a transport cost perspective, followed by Neerabup. Green waste processing could be conducted over two sites. Of the sites considered appropriate for greenwaste the baseline site was determined based on which of Hazelmere or Neerabup

was closest to the centroid of each member council. However Tamala Park presents a viable bulk waste and greenwaste processing alternative.

Based on this analysis, the baseline transport assumptions which were common to each scenario are outlined in Table 4-18.

Table 4-18 Baseline transport assumptions

Council	Landfill	Bulk Waste Shed	MRF	Green Waste Processing	MBT
Joondalup	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup
Perth			Bayswater	Neerabup	
Stirling			Balcatta	Neerabup	
Vincent			Bibra Lake	Hazelmere	
Wanneroo			Balcatta	Neerabup	
Cambridge			Bibra Lake	Hazelmere	
Victoria Park			Bayswater	Hazelmere	

4.5 TRANSPORT MODELLING RESULTS

The initial modelling results presented earlier in the report assume that the transport cost to the business as usual facilities is already included in the current bin lift rates. The transport modelling takes into account the potential transport savings or additional cost against BAU depending on the waste facility locations proposed in each scenario. It should be noted that actual transport costs are likely to vary from those assumed in the modelling and between member councils. The purpose of this transport modelling is to differentiate between facility location options on cost basis (where possible), rather than to provide an estimate of the likely costs. Clearly, many other factors will also need to be taken into consideration in selecting the preferred locations for key infrastructure.

The primary differences modelled in the options for scenarios 2 (2 bin) and 5 (3 bin) are the location of the EfW facility, with three options considered as below. Detail of the transport options considered are outlined in **Appendix D**.

Table 4-19 Transport options considered scenarios 2 and 5 (EfW)

Scenario	Transfer Station location	Energy from waste facility location
2A / 5A - EfW facility at Neerabup	None (direct delivery)	Neerabup
2B / 5B - EfW facility at Red Hill via Balcatta TS	Balcatta	Red Hill
2C / 5C - EfW facility at Kwinana via Balcatta	Balcatta	Kwinana

The primary difference assessed in the scenario 3 options is the location of the green waste processing facility.

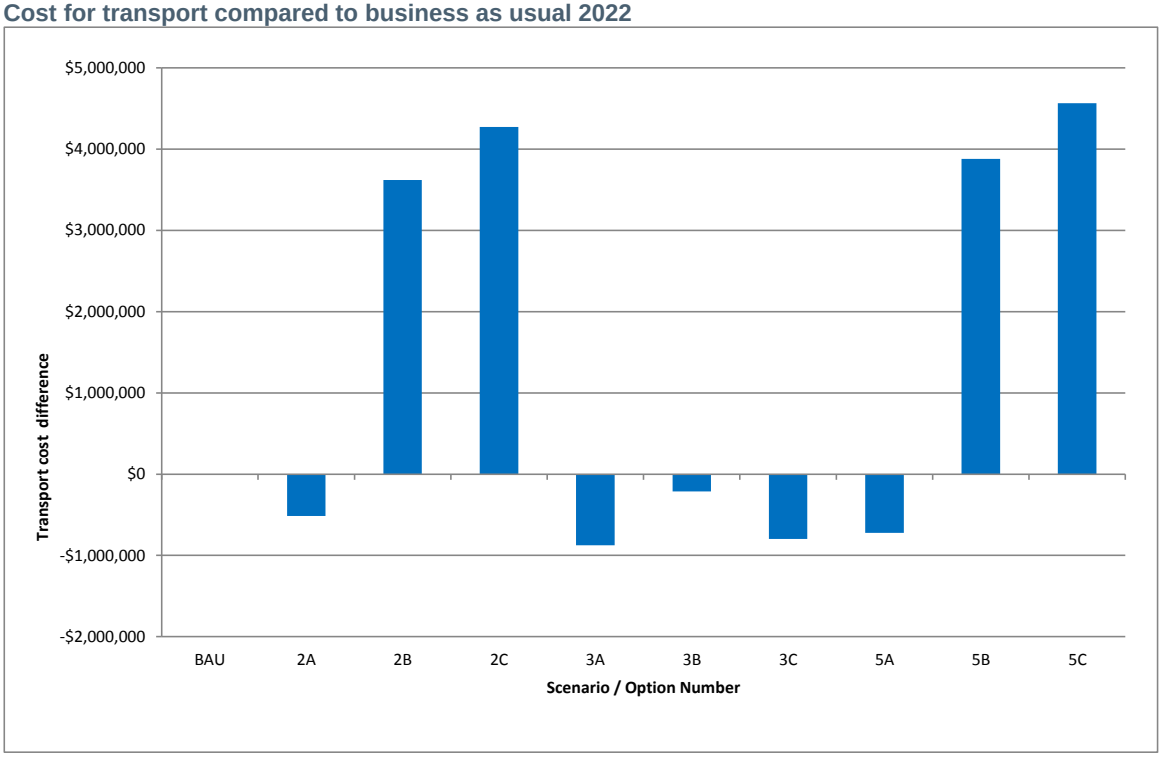
APPENDIX NO. 9

Table 4-20 Transport option considered scenario 3 (green waste)

Scenario	Green waste
3A - All Greenwaste processed at Neerabup	Neerabup
3B - All Greenwaste processed at Hazelmere	Hazelmere
3C - Greenwaste processed at either Neerabup or Hazelmere	Either Neerabup or Hazelmere depending on which is closest for each member council

The modelling results shown in Figure 4-5 indicate that 2A, 5A and all of scenario 3 options result in transport cost savings for the region compared to the BAU facility locations. This is primarily because if Neerabup is used as a dominant site for waste management it is slightly closer than Tamala Park for most councils. For scenarios 2B, 2C, 5B and 5C the waste is taken via a transfer station to the EfW facility, which adds cost, and both Kwinana and Red Hill are significantly further for member councils than Neerabup.

Figure 4-5 Cost for transport compared to business as usual 2022



4.6 MULTI-CRITERIA ASSESSMENT – STAGE 2

The transport options were overlayed against the original modelling to provide a further level of assessment of the preferred scenarios for the region. The main differences in the Stage 2 MCA were the modified costs per household due to differences in the transport costs. The social impact and risk ratings were also modified based on issues related to the specific sites. Social considerations included likelihood of residential encroachment on the site and resident concerns about odour, traffic congestion, noise and perceptions of EfW. Risk considerations included issues like – whether the proposed site is already a waste facility, stage of approval and reliable access to markets (e.g. power).

It should be noted that this high level assessment does not constitute a comprehensive and exhaustive site selection process, nor a detailed site suitability appraisal. There are numerous other factors which need to considered in identifying the most appropriate sites for major waste infrastructure and more detailed analysis may be warranted, as detailed in Chapter 7.

Table 4-21 Multi-criteria assessment outcomes – Stage 2

Rank	Alternative	Weighted Score	Cost/hhld/ year 2022	Diversion rate
1	2C: EfW facility at Kwinana via Balcatta TS	91%	$533	86%
2	5C: EfW facility at Kwinana via Balcatta TS	90%	$540	89%
3	2B: EfW facility at Red Hill via Balcatta TS	86%	$531	86%
4	5B: EfW facility at Red Hill via Balcatta TS	85%	$538	89%
5	2A: EfW facility at Neerabup (direct delivery)	85%	$518	86%
6	5A: EfW facility at Neerabup (direct delivery)	84%	$523	89%
7	3A: All Greenwaste processed at Neerabup	80%	$486	47%
8	3C: Greenwaste processed at either Neerabup or Hazelmere	80%	$486	47%
9	3B: All Greenwaste processed at Hazelmere	80%	$488	47%
10	BAU: Locations based on current proposals	79%	$444	36%

The diversion rates are the same within each preferred scenario (ie, 2, 3 and 5) and the cost per household only varies by a small margin. Therefore, the main differentiation in the Stage 2 multi-criteria assessment becomes the social impact and risk levels associated with each site. For the EfW scenarios, it assumes that, compared to the facilities that may be proposed at Red Hill or Neerabup, the proposed facility in Kwinana is more advanced in its planning and community engagement stages and is generally a lower risk site that is appropriately zoned and has low risk of residential encroachment.

As such, the Stage 2 MCA identifies that Kwinana may be the preferred location for an EfW facility for the region. The Kwinana facility is proposed to take 400,000tpa of MSW, therefore there is likely to be adequate capacity for the MRC's waste. However in the future C&I waste may take some of the capacity and there may be a strategic imperative to have more than one EfW facility in Perth. There are also development, commissioning and operational risks that

need to be fully understood. The capacity of the Balcatta facility to act as a transfer station for the region's waste, in addition to its use as a resource recovery facility for bulk waste, household waste, C&D and C&I will also need further consideration.

5 ADDITIONAL WASTE DIVERSION OPPORTUNITIES

The scenarios identified in the MCA as preferred were based mostly on high diversion performance as a key indicator of environmental performance. However, EfW may not be the political preference of the member councils. Additionally the region is supportive of the waste hierarchy. Therefore additional waste diversion opportunities have been considered to determine the feasibility of maximising recovery prior to EfW treatment.

5.1 VERGESIDE BULK WASTE

Currently each council offers a scheduled bulk waste collection from the vergeside. Some councils are considering an on-call service with or without a skip bin. If an on-call bulk waste service is introduced it can be expected to significantly reduce the amount of bulk waste collected. In addition the waste could continue to be landfilled, or it could be further recovered either through kerbside separation or processing in a sorting shed. Bulk waste collection and recovery options will impact the overall diversion and costs for the region.

Hyder has undertaken an analysis on the following options for bulk waste collection to determine expected tonnes collected, potential costs and diversion rates. Under all scenarios it is assumed that mattresses will be separately collected and recovered.

Table 5-22 Bulk waste collection and processing options

Option	Collection type	Processing i	Processing ii	Processing iii
Option 1	Scheduled (except Stirling)	Landfill	Kerbside separation	Sorting shed
Option 2	On-call – with skips	Landfill	N/A	Sorting shed
Option 3	On-call	Landfill	Kerbside separation	Sorting shed

In 2009 the MRC undertook a waste audit to determine the bulk waste composition. The composition is outlined in Table 5-23. Based on the processing assumptions, Hyder has assumed different recovery rates for each material based on how the material is likely to be presented. If recoverable material is collected by separate trucks at the kerbside, it is estimated that approximately 23% would be recovered overall. If all material was collected in compactor vehicles and taken to a bulk waste sorting shed an estimated 39% would be recovered. If material was collected for reuse – prior to compaction an additional 9% could be recovered on top of the kerbside or sort shed separation options.

Table 5-23 Bulk waste composition & recovery assumptions

Recovery assumptions	Composition	Kerbside	Sort shed	Reuse
Mattresses	6%	6%	6%	
Cardboard	5%		5%	
E Waste	6%	4.5%	4.5%	
Timber	17%		5%	
Furniture	16%			5%
Plastics	6%		1%	
Scrap metal	9%	8%	8%	
White goods	4%	4%	4%	
Carpet	4%			1%
Building materials	3%			
General waste	24%		5%	3%
Total	100%	23%	39%	9%

In 2013/14 the region produced 30,430 tonnes of bulk waste to landfill with an average of 120kg presented per household each year. Taking into account population and waste growth this was projected to grow to 36,550 tonnes by 2022. Hyder conducted a review of documented bulk waste participation rates across a number of councils in Australia. The average participation rates were:

- Scheduled service – 60% average
- On call – 30% average
- On call (user pays) – 11% average

In addition, the research showed that households presented an average 93-100kg/year for scheduled collections compared to 82 kg/year for on-call collections. Due to the generally low density housing in most of the MRC member councils, it is expected that the waste generation rates per household would be slightly higher than these average figures. In the modelling below it is assumed that bulk waste tonnages will reduce to 40% of current levels in moving from a scheduled to an on-call service, due to the lower participation and presentation rates. The table below provides a breakdown of the anticipated waste tonnages depending on the waste collection (scheduled or on-call) and processing (kerbside, sort shed, reuse) options, and the anticipated recovery rates for each different collection type.

Table 5-24 Tonnes and diversion rate by bulk waste collection system

Service	2022 - Scheduled (tonnes)			2022 - On Call (tonnes)		
Processing	Kerbside	Sort shed	Reuse	Kerbside	Sort shed	Reuse
Recovered	8,224	14,072	3,289	3,289	5,629	1,316
Waste to Landfill	28,326	22,478	33,260	11,330	8991	13,304
Total collected	36,550	36,550	36,550	14,620	14,620	14,620
Recovery rate	23%	39%	9%	23%	39%	9%

Service	2022 - Scheduled (tonnes)			2022 - On Call (tonnes)		
Contribution to the overall diversion rate*	2.0%	3.4%	0.8%	2.8%	3.4%	2.3%

* In addition to the recovery rate calculated for each base model scenario.

This data indicates that the collection and processing option selected by the region will significantly affect the amount of bulk waste recovered and processed. The additional contribution to the overall diversion rate varies from 0.8% - 3.4% depending on the option selected.

It should be noted that of the additional waste, that will no longer be presented in the vergeside bulk waste stream, Hyder expects a significant amount will continue to be stored in people's homes, some will be taken to charities, a proportion will be self-hauled to existing waste facilities and some will be collected by private waste contractors.

A study was conducted by the MRC in early 2014 to assess the business case for a bulk waste sorting shed to be established at either Tamala Park landfill or the Neerabup RRF. The intention of the sorting shed was to increase the recovery of the member council's bulk verge waste streams, through manual recovery of materials. The business case assumed a much higher volume of bulk waste to be available, and much higher recovery rate potential than assumed by Hyder. Hyder's recovery rates are lower on the assumption that some of the material presented is composite materials (i.e. part of furniture or households goods), will be compacted and therefore difficult to recover or may be treated timber and therefore is not easily recovered. Further, Hyder's tonnage assumptions are based on actual annual data from member councils rather than extrapolated tonnages from a three month period.

5.2 RECYCLING OPTIONS

There is minimal waste audit data available for the region, which would assist in determining the recycling recovery and kerbside contamination rates being achieved by each member council. However based on MRF composition data (average 24% contamination), and the assumed indicative waste audit data adopted from other Perth regions (13.5% recyclables in the garbage bin) it appears that there is likely to be potential to recover more recyclables, and reduce contamination rates.

Member councils could potentially improve their recycling recovery through improved education and bin monitoring. It is estimated that improvements in kerbside recycling could increase recovery by 1-3% for the region. However this additional recovery requires intensive effort and additional costs to engage with the community. If a kerbside waste audit was undertaken it would assist in developing baseline to monitor the effectiveness of campaigns, verifying household recycling behaviours and targeting education campaigns.

Under the modelling it is assumed that each council will continue with its existing recycling processing options, except for the Cities of Joondalup, Wanneroo and Stirling who are currently engaged in interim recycling contracts pending consideration of a joint procurement contract to establish a new MRF in the northern corridor.

5.3 DROP OFF CENTRES

Currently residents from the MRC member councils use the following drop off centres for unwanted households goods and recyclables. Additional bulky waste, hazardous waste and self-haul waste can be taken to these facilities. Each of the sites has a separate area for recyclables and a differential pricing rate to encourage separation of easily recoverable materials. In addition hazardous waste drop off days are hosted within the member councils to encourage correct disposal of hazardous waste.

Table 5-25 Drop off centres within MRC

Facility (Owner)	Material accepted	Council residents likely to use facility
Tamala Park (MRC)	All materials, including free resource recovery of the full range of recyclable and hazardous wastes	Wanneroo & Joondalup
Balcatta (Stirling)	All materials, including free resource recovery of the full range of recyclable and hazardous wastes	Stirling, Vincent, Cambridge, Perth and Victoria Park
Wangara Recycling Centre (Wanneroo)	Oil, batteries, garden organics	Wanneroo & Joondalup
South Perth Transfer Station (South Perth)	Oil, batteries, cardboard, e-waste free. Other waste – at cost	Victoria Park, Perth

The vast majority of households within the MRC have access to a drop off centre within 10km, therefore the existing level of access to facilities is considered appropriate. With the upgrade to the facilities at the Balcatta transfer station, and potential upgrade to facilities at Wangara MRF Hyder has not recommended further development of drop off centres at this stage. However the availability of the drop off centres could be advertised more widely to encourage use of the facilities, particularly if changes are made to the existing vergeside bulk waste collections.

APPENDIX NO. 9

6 ENERGY FROM WASTE – OPTIONS AND LIMITATIONS

As the modelling has identified EfW as a preferred option to achieve the diversion targets, Hyder has provided a discussion on the range of thermal treatment processes for recovering energy from waste. The different forms of thermal energy recovery can be broadly grouped as:

- Pyrolysis;
- Gasification;
- Plasma Gasification; or
- Combustion (also known as incineration).

While all of these technologies can produce net energy outputs, the different technology approaches offer significantly different product options and efficiencies, as well as process scale, technical risk and economics.

In the WA waste market, there are a number of EfW technology providers and project developers offering variations of these technologies. Technologies currently being actively promoted in WA include:

- New Energy Corporation (gasification)
- SITA (fluidised bed gasification)
- Plasco Energy Group (gasification with plasma treatment)
- Phoenix Energy (mass burn grate combustion)
- Martin Bio (mass burn combustion, newer grate system)

It is noted that other providers and technologies would likely express an interest in the EfW procurement, given the likely significant scale of the project. The feedstock to these processes varies. Moving grate style combustion systems can generally accept raw, unprocessed mixed waste material (e.g. MSW), which is often termed the 'mass burn' approach. Fluidised bed systems (combustion or gasification) and most advanced pyrolysis and gasification processes have been more successfully implemented when the waste has been pre-processed into a good quality refuse derived fuel (RDF).

The pre-processing of mixed waste to produce RDF is usually through a Dirty MRF-type process preceding the thermal process. It can vary depending on the quality of fuel required, from basic shredding and metals removal, to more advanced extraction of other recyclables (plastics, cardboard) and inert or hazardous materials. The residuals from MBT facilities can also be used as RDF, as can residuals from clean MRF's processing dry recyclables. In Europe, MBT plants are commonly used to produce RDF, where the organic fraction is 'bio-dried' rather composted, and becomes part of the RDF product.

Hyder has outlined each of the EfW options below, and a summary Table 6-26 (on pg35) provides a comparison of the key aspects of each technology.

6.1 PYROLYSIS

In pyrolysis, the waste is heated in a reactor and there is a complete absence of oxygen in the system. A pyrolysis reactor is generally heated externally, and the high temperature environment causes the feed materials to break down (thermally decompose) into three products: a solid char; pyrolysis gas and pyrolysis oil. The char resembles charcoal and consists primarily of inert non-volatile substances in the waste (such as metals, silica etc.) and carbon.

The quantity of oil and gas which is produced will depend mostly on the pyrolysis temperature: generally a lower temperature (<800°C) leads to more oil and less gas, and vice versa for high temperature processes. Slower processes tend to produce more char.

Both the oil and the gas are combustible and some of the gas can be used as the source of heat to drive the process. The gas can also be cooled, cleaned and converted to electricity. However, reliability issues can arise when the heavy hydrocarbon vapours (tars) condense and block pipework and filters.

A lower temperature pyrolysis process would generally aim to maximise pyrolysis oil production. This oil is often referred to as 'bio-oil' and can be used as a precursor for the production of other chemicals or liquid fuels in a 'bio-refinery'. A number of systems are in development, particularly targeting the production of liquid fuels from tyres and waste plastics. Conversely, higher temperature pyrolysis aims to maximise gas production for conversion into electricity.

The char can also be used as a fuel, often displaying a similar energy content as coal. Char produced from clean organic waste can also be marketed as 'bio-char', a very effective soil amendment product and means of long-term carbon sequestration.

While commercial pyrolysis technology has a long history of use on coal and in metallurgical industries, commercial scale operational experience with pyrolysis plants treating waste feedstocks is limited, both in Australia and internationally. There is still a degree of uncertainty around their technical performance, reliability and ability to meet emissions limits. Many consider that pyrolysis of waste is yet unproven at a commercial scale.

Pyrolysis is most likely to be applied at smaller scales (10,000 to 20,000 tpa) and be used for processing of source separated materials such as waste wood, garden waste, tyres and plastics. EMRC is currently obtaining environmental approvals and planning to develop a pyrolysis facility to process untreated wood waste at their Hazelmere site. Other facilities are also in various stages of development, including a project in Ballina (NSW) to process green waste.

It is unlikely that pyrolysis would play a significant role in the processing of MSW from the MRC, therefore this option has not been considered further.

6.2 GASIFICATION

In gasification, the waste is heated in a reactor in a similar manner to pyrolysis, but in this case there is limited oxygen or steam in the system, so that the feed is partially oxidised (partial combustion). Most of the carbon and hydrogen in the waste is converted to a "syngas" consisting mainly of carbon monoxide (CO) and hydrogen (H_2). A solid residue remains consisting of inert ash and char – the inorganic compounds within the waste feed and a relatively small amount of carbon which failed to gasify. The syngas typically contains around 80% of the chemical energy contained within the incoming solid waste materials and has number of potential uses including:

- Burning immediately to raise steam for power generation (most common approach in existing commercial plants)
- Cleaning and use as a fuel in gas engines or turbines, or
- Use as a feedstock for the manufacture of other fuels or chemicals.

There are a number of different gasification processes and process configurations on the market. Different designs of the gasification reactor are available including fluidised bed, moving grate, rotary kiln, and updraft and downdraft reactors. Each is tailored to give certain benefits when gasifying various types of wastes.

APPENDIX NO. 9

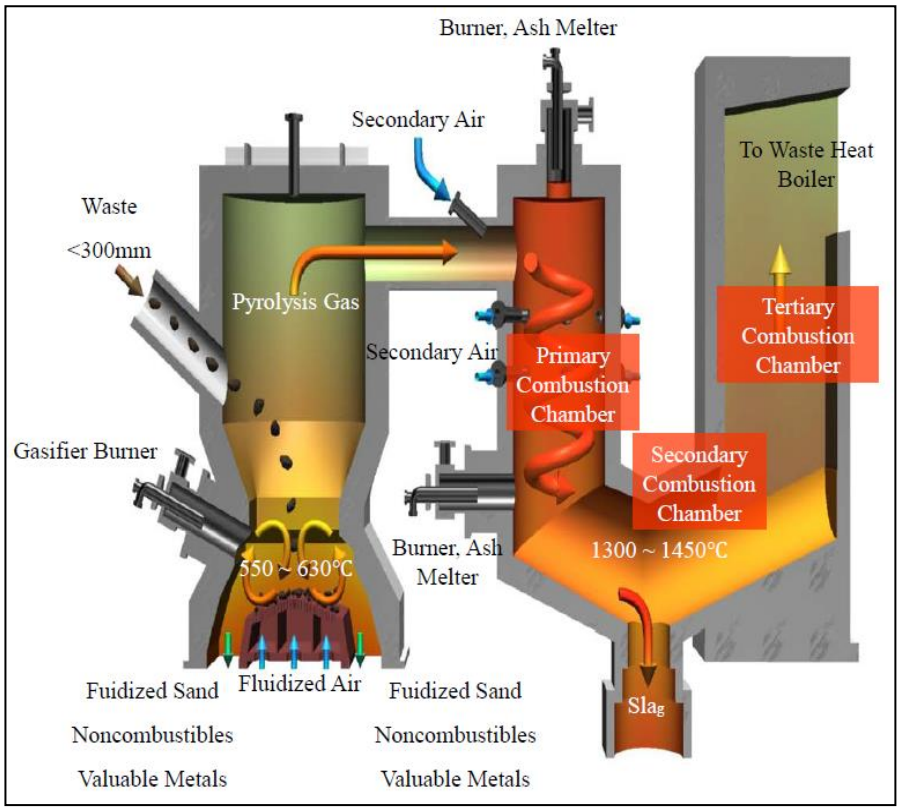


Figure 6-6 Illustration of typical EBARA fluidised bed gasification and ash melting process

Updraft and downdraft gasifiers have been successfully used for many years in the chemical industries for numerous applications. Gasification of waste has been most widely practiced in Japan and to a lesser extent, Korea, where high temperature systems (up to 1800°C) are used to melt the ash (slagging gasifiers) to create a glass-like aggregate that can be recycled. In Japan, this has been driven by a ban on disposing ash to landfill, however melting the ash in this way consumes energy and reduces the overall conversion efficiency of the system.

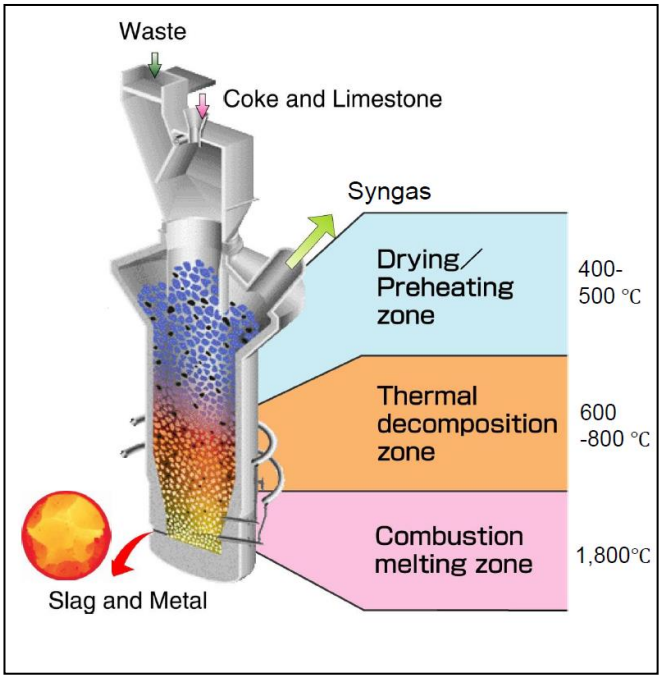


Figure 6-7 Illustration of typical Nippon Steel slagging, updraft gasifier

Typical gasification temperatures are 900 – 1,100°C with air and 1,000 – 1,400°C with oxygen. Air gasification is more widely used because it is cheaper and the cost of oxygen generation infrastructure is usually prohibitive. However the syngas produced contains up to 60% nitrogen and therefore has a lower heating value (4-6 MJ/Nm^3 compared to 10-18 MJ/Nm^3 using oxygen). High temperature gasification can also have the benefit of melting the ash (inorganic content of the input waste) to produce an inert glass-like slag. The high temperatures necessary to melt the ash (typically over 1,600°C) are often produced by adding supplementary fossil fuel such as coke, injecting oxygen or by the use of plasma to provide the necessary heat input (see plasma gasification below).

In addition to CO and H_2, syngas from gasification may contain smaller quantities of methane (CH_4) depending on the reactor type, as well as some of the unconverted reactants such as carbon dust, mineral ash, carbon dioxide (CO_2) and nitrogen (N_2) when air gasification is used. Additionally, traces of other organic and inorganic compounds are produced or released in the gasification process and need to be cleaned from the syngas prior to utilisation.

Many of the commercial waste gasification systems on the market are really two-stage combustion processes, where the gasification chamber produces a poor quality syngas which is immediately burned in a second chamber to produce steam for power generation through a turbine. The syngas from these systems is usually highly contaminated with tars and oils, and is not suitable for other applications except direct combustion.

6.3 PLASMA GASIFICATION

Plasma gasification uses extremely high temperatures in an oxygen starved environment to decompose organic waste materials into basic molecules. The extreme heat and lack of oxygen converts the organic matter in the waste into syngas. The heat source is a plasma arc, which is generated by the input of electrical energy to a gas (usually air). The plasma arc briefly attains temperatures between 3,000 and 8,000°C in the plasma plume, though in most plasma processes waste is not exposed directly to the plasma arc, and the temperature in the reactor may be between 1,000 and 2,000°C.

There are three main variants of plasma gasifiers available for processing waste:

- Direct exposure of waste to the plasma torch (mostly for high-level hazardous waste);
- Plasma assisted gasification of the waste; and
- Plasma heating of the syngas from a separate gasification chamber to produce a very clean and tar-free syngas stream (by ‘cracking’ the hydrocarbons).

APPENDIX NO. 9

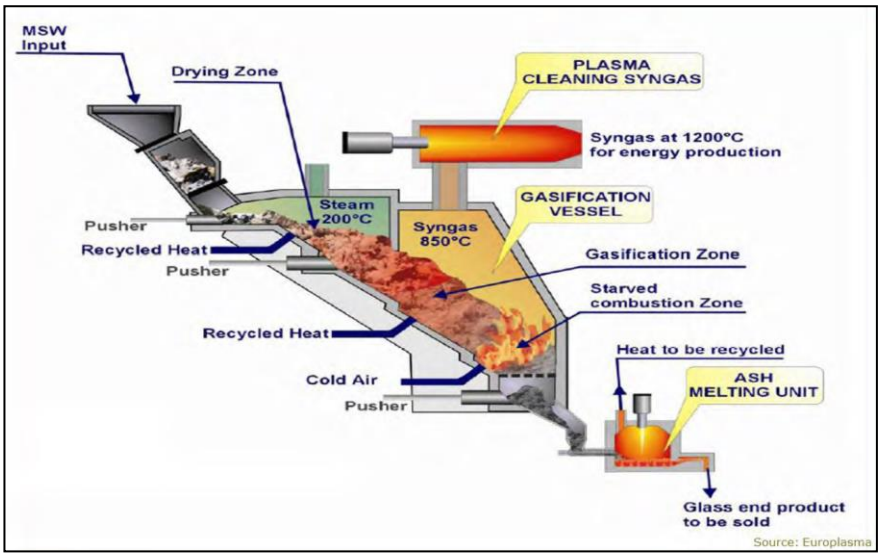


Figure 6-8 Illustration of Europlasma process

The syngas from a plasma gasification process generally requires less cleaning and should not suffer from tar problems that other gasification systems may exhibit. The clean syngas stream from the process lends itself to use in gas engines and turbines, which are more efficient than steam turbine systems. In the future, it could be suitable for use in fuel cells, which would achieve very high conversion efficiencies. The syngas could also be used to produce liquid fuels and chemicals.

Some processes use plasma torches just to melt the ash from the gasification or combustion process in a separate reactor. This is a common approach in Japan where landfill disposal of ash is prohibited. The melted ash forms a stable glass-like product than can be used as an aggregate. However, the energy inputs for this process are significant, and unlikely be financially viable in Australian context.

6.4 COMBUSTION

In combustion, or incineration, the carbon-based components (including plastics) of the waste feedstock are completely burnt (oxidised) in a furnace in an environment containing excess oxygen. Some inorganic components, such as elemental sulphur, will also be oxidised.

The main furnace types are:

- Moving grate
- Rotary kiln
- Fluidised bed

Moving grate systems are the most common worldwide and can be used to treat unprocessed waste (‘mass burn’). All systems accept RDF, however fluidised bed systems generally require a good quality RDF with small particle sizes.

Heat is released into the combustion gases and energy is recovered by raising steam from the hot combustion gases in a boiler. This steam can be then expanded through a steam turbine which drives a generator to produce electricity, or can be used directly as a source of heat for another process (or both, in combined heat and power configuration).

This technology is well established globally, with a large number of technology providers offering a variety of different furnace types and process configurations.

Figure 6-9 provides an example layout of a typical waste incineration process[3] using a moving grate technology.

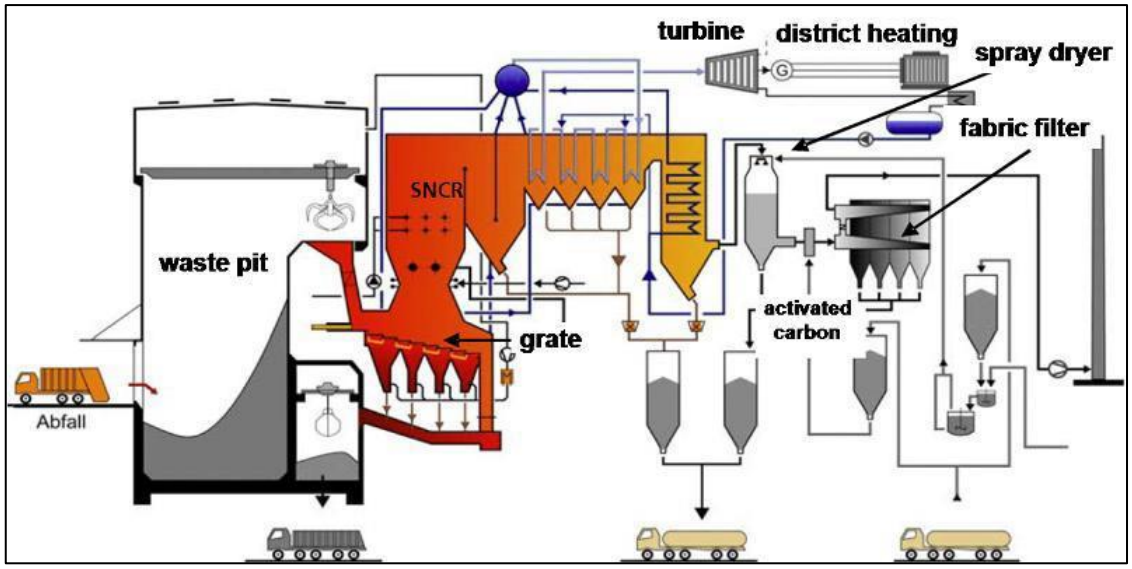


Figure 6-9 Flow diagram of a MSW grate incinerator (Leuna, Germany)

Fluidised bed furnaces feature turbulent mixing of the fuel and gases, often with a heat-carrying medium such as sand, which enables rapid and even heating and combustion of the fuel. This also makes it suitable for higher moisture content fuels such as sludges.

It should be noted that process economics generally dictate that these systems are large. The plant depicted in

Figure 6-9 has a capacity of 390,000 tpa. Most modern facilities are over 100,000 tpa capacity. The energy conversion efficiency of steam turbine systems is low at small scales and the air pollution control systems need to be large to cater for the large volumes of flue gases, due to the excess air inputs. Modern large scale plants include a number of measures to maximise energy conversion, through additional heat recovery systems.

Solid residues from the combustion of MSW are:

- Bottom ash
- Fly ash and air pollution control residues – typically 2% of the feed

Bottom ash is the main residue from the combustion process. It typically represents 10-20% of waste feed input (depending on composition) and contains varying quantities of non-combustible materials such as glass, ceramics, brick, concrete and metals in addition to clinker and ash. The actual quantity and composition will depend on the waste material fed to the process. Overseas, bottom ash is often recycled as a road-base material in civil construction projects. Alternatively it must be landfilled and can be suitable for inert landfills, subject to contamination limits. It is not yet clear whether this would be the case in WA.

Fly ash is the very fine particulate matter carried over from the combustion process which is removed from the flue gas by filters prior to discharge. Typically fly ash is removed with other air pollution control residues, although it can be separately filtered.

Typically, an air pollution control system consists of a wet semi-dry scrubbing system where acid flue gases are neutralised by scrubbing in a solution of lime and water or powdered soda

[3] IEA Task 36 – Chapter 4: Overview of Technologies Used for Energy Recovery, p25

ash. Flue gas emissions of dioxins, mercury and other heavy metals are removed by an activated carbon injection system. Control of dioxins and furans is achieved through a combination of accurate combustion control, rapid cooling of the flue gas and absorption onto the activated carbon. Modern technologies can readily achieve negligible levels of dioxin emissions, well below regulatory limits.

After gas scrubbing, the gases pass through bag filters to remove particulates, including fly ash and the lime and activated carbon particles. In some cases it may be necessary to undertake additional treatment stages to reduce emissions of nitrous oxides which may include flue gas recirculation and either a selective non-catalytic reduction stage or a selective catalytic reduction stage using injection of aqueous ammonia or dry urea.

Fly ash and residue from the air pollution control system (around 2% of the process feed) are generally classified as hazardous waste that can only be disposed in appropriate facilities. The chemical composition of the residue will depend on the waste incinerated, and the type of process and the flue gas cleaning system. Processes to recycle fly ash and air pollution control residues are not generally commercially developed or proven.

It is also possible to utilise plasma melting technology in a combination with a mass burn combustion plant to vitrify the ash resulting from the process. The combination of processes has been implemented by a number of technology providers in Japan.

Table 6-26 Summary of key aspects of major MSW thermal EfW technologies

Aspect	Mass Burn Grate Combustion	Fluidised Bed Combustion	Gasification	Fluidised Bed Gasification	Gasification with Plasma Treatment
Proposed plants and existing reference plants	▪ **Phoenix Energy - Kwinana** (proposed) ▪ **Martin- Bio – site TBC** ▪ Many hundreds of references throughout UK, US, Europe and Asia – common technologies include Martin, HZI, Volund, Keppel Seghers	▪ VISY Coolaroo (Victoria) energy recovery plant processing paper and recycling residues, attached to existing paper mill ▪ Allington EfW plant in UK ▪ SITA-Indaver SLECO plant in Belgium	▪ **New Energy Corporation – Pilbara and Rockingham (WA)** (proposed) ▪ Nippon Steel process – 35 plants in Japan and Korea ▪ JFE – 10 plants in Japan ▪ Enerkem MSW to bio-fuel in Canada (open 2014) ▪ Energos has 8 plants built in Europe, eg Sarpsborg 2 - Norway Isle of Wight - UK Minden Plant - Germany	▪ **SITA – Neerabup** (proposed) ▪ Lahti (full scale demonstration plant) CHP Gasification Project ▪ SITA - Charlton (UK) Eco Park in Surrey proposing to use fluidised bed gasification for RDF ▪ Ebara Corporation – 15 plants in Japan & Korea	▪ **Plasco – site TBC** ▪ Europlasma plant – Morcenx, France (commissioned Feb 2014) ▪ Plasco - Ottawa (Canada) (existing full scale demonstration module, planned commercial plant) ▪ AlterNRG – 2 plants in Japan
Feedstock	MSW and C&I, RDF	Good quality RDF, waste wood (chips), sludges	MSW and C&I, RDF	Good quality RDF, waste wood (chips), sludges	MSW, C&I, RDF, other industrial waste, hazardous waste
Flexibility in feedstock	Providing feedstock is mixed and effort has been made to remove inert material and recyclables this process allows for flexibility in feedstock.	Requires relatively small particle sizes (ie, well shredded RDF). Quite flexible to a wide range of fuel moisture contents and energy contents. Capable of accepting hazardous waste and e-waste	Less flexibility in feedstock as the process is more sensitive to variations in composition, ash content, moisture content, particle size and density	Requires relatively small particle sizes (ie, well shredded RDF). Quite flexible to a wide range of fuel moisture contents and energy contents.	Generally very flexible, can manage higher contamination feedstocks.

Scale	Typically large, to achieve efficiencies of scale and maximise energy recovery efficiency. The Phoenix plant in Kwinana expected to have capacity of 400,000 tpa. Most modern plants range from 100,000 tpa to 300,000 tpa. There are some plants as large as 800,000 tpa, featuring multiple lines. Smaller plants are possible (50-60ktpa) but less cost effective.	Typically large scale VISY Coolaroo plant is 100,000 tpa Allington facility is 550,000 tpa across three lines. SITA-Indaver SLECO plant in Belgium is 466,000 tpa in three lines.	Plants typically range from 10,000 tpa - 250,000 tpa New Energy's Pilbara Project will have capacity from 70,000 - 130,000 tpa Nippon Steel Shin Moji plant – 240,000 tpa Ebara Corporation - Japan - 70,000 tpa Enerkem bio-fuels plant – 100,000 MSW	Lahti RDF gasification plant, Finland processes 250,000tpa SRF (ie, high quality RDF) Proposed SITA Charlton plant will process 55,000 tpa	Typically 50,000-100,000 tpa A standard Plasco module can process around 50,000 tpa Plasco Ottawa plant planned to be 150,000 tpa (3 modules) Europlasma Morcenx plant – 50,000 tpa
Footprint	Kwinana Plant site - 3.5ha Covanta Harrisburg (US) - 4.5ha Coventry facility (UK) - 2ha	Expect similar to grate combustion (2-4 ha)	Expect similar to grate combustion (2-4 ha) Preliminary drawings show 8.7ha site for Pilbara Project (includes MRF) The preferred location for New Energy's facility in Perth is on a 10ha site	Expect similar to grate combustion (2-4 ha)	Plasco's facility in Ottowa (Canada) is located on a 4ha site

By Products	Recyclable metals (2-5%) Bottom Ash (typically 15-25%) APC residues (2-6%) Emissions to atmosphere – (70-75%, CO_2)	As for Grate systems	Recyclable metals (2-5%) Bottom Ash (15-25%) APC Residues (2-6%) Gas cleanup residues and Condensed Tars (2-6%) Syngas (70-80%) (Enerkem produces 60% bio-fuels)	Recyclable metals (2-5%) Bottom Ash (15-25%) APC Residues (2-6%) Gas cleanup residues and Condensed Tars (2-6%) Syngas (70-80%)	Vitrified aggregate product (typically 15-20%) Syngas products (75-80%) Gas cleanup residues (2-5%)
Diversion	Has the potential to divert up 90-95% of the MSW stream from landfill if bottom ash can be recycled (subject to markets), or 75-80% if not The bottom ash by-product may need to be disposed to landfill if a beneficial use is not practical	As for grate systems	As for grate combustion systems	As for grate combustion systems	Up to 95-98% providing market is available for aggregate by-product
Net Energy Conversion Efficiency	Typically 24-27%, but up to 30% (modern large plants), or around 20% for small plants	Approximately 25-27%	Approximately 20-25% depending on technology and feedstock	Approximately 25-27% depending on technology and feedstock	20-30% depending on energy conversion technology (turbine most efficient)
Limitations	Process produces small volumes of fly ash and APC residues that must be handled as hazardous waste, small scale systems not efficient or cost effective	Require more homogeneous feedstock compared to grate systems	Tar production may limit syngas applications to direct combustion with steam turbine	Limited full scale commercial facilities, requires good quality homogenous fuel	Still a developing technology without a proven track record in commercial scale facilities

Capital Cost	Phoenix Energy - Perth - $380M (includes plasma arc gasifier) Recent UK experience - $270M - $370M (150,000 tpa - 350,000 tpa facilites)	Likely to be similar to other Martin Grate VISY Coolaroo was $50M in 2011, but as part of an existing facility	New Energy Corporation - Perth - $180M New Energy Corporation - Pilbara - $180M	LahtiStreams - Finland - $230M	Europlasma Morcenx - $60M

7 INFRASTRUCTURE PLAN

Based on the Scenario 2C which is the preferred option arising from the modelling and multi-criteria assessment, the proposed infrastructure plan for the region consists of the facilities shown in Table 7-27. It should be noted that these facility capacities are based on the required tonnage for MSW only.

Table 7-27 Infrastructure Plan

Processing facility	Capacity required in 2022	Capacity required in 2030	Preferred location
Landfill	60,000 tonnes	74,000 tonnes	Tamala Park (existing) – waste may eventually be transferred to alternative landfill
Mechanical biological treatment	100,000 tonnes	100,000 tonnes	Neerabup (existing)
Transfer station	240,000 tonnes (MSW) + 50,000 tonnes (C&I)	335,000 tonnes (MSW) + 60,000 tonnes (C&I)	Balcatta (with alternative option of Tamala Park
Bulk waste sorting shed	25,000 - 40,000 (includes self-haul)	40,000 – 66,000 (includes self-haul)	Balcatta
Materials recovery facility	75,000 tonnes	100,000 tonnes	Neerabup
Green waste processing facility	32,000 tonnes	34,500 tonnes	Neerabup
Waste to energy facility	240,000 tonnes	335,000 tonnes	Kwinana

Procurement options for each of these facilities will vary. Due to the outcomes of the modelling the proposed facility locations align with existing feasibility and development plans that are already underway. City of Stirling anticipates reconfiguring their transfer station for a range of purposes. This is a high priority project for the City with construction proposed to commence in 2017. Once the transfer station is reconfigured, the bulk waste sorting shed could be constructed. We have assumed that the existing depot, sited alongside the transfer station, would not be included in the reconfiguration.

Table 7-28 outlines considerations in relation to each piece of infrastructure required. Depending on the procurement option selected for each facility, these projects could be run concurrently as they will be at different stages of the procurement/development process. Taking into account the proposed timeframes in the table below, Hyder proposes that the facilities are pursued in the following order of priority by member councils:

1 Transfer station reconfiguration

2 Green waste processing facility

3 Bulk waste sorting shed

4 Materials recovery facility

5 Waste to energy facility

Table 7-28 Infrastructure development priorities

Facility	Issues	Timeframe
Transfer station	Proposed for City of Stirling's Balcatta site as part of overall site improvements.	2.5 years
Green waste processing facility	Currently the value of this product is not being optimised and a new facility is required to replace Wangara	2 years
Bulk waste sorting shed	Dependent on reconfiguration of Balcatta Transfer Station	3.5 years
Materials recovery facility	Temporary capacity is available at existing MRFs throughout Perth however due to expected population growth of Wanneroo, Joondalup and Stirling development is a priority.	3-4 years
Waste to energy facility	The modelling indicates the Kwinana facility as preferred location based on project risks and social impacts, as it has progressed furthest in the planning and development stages however undertaking a competitive tender process would be advisable as there are a number of other competitive options in the market and the procurement process / timeframe should not preclude other options	3-6 years (possibly up to 10 years depending on location, ownership arrangements, operating model and procurement method)
Landfill and MBT	Existing facilities, not a high priority for replacement until 2026+	
Drop off centres	Existing facilities exist, upgrades and additional promotion may occur	

7.1 OWNERSHIP, MANAGEMENT AND PROCUREMENT OPTIONS

One of the fundamental considerations for the infrastructure plan is the ownership arrangements, operating models and procurement options for each infrastructure project.

Under the current governance options the MRC is restricted in its functions as it is focused primarily on the acceptance and processing of residual waste. Hyder has conducted a separate study on the governance options and range of services that could be offered by the MRC, and the advantages and disadvantages of each approach. To optimise the benefits of each of the proposed facilities it will require secure tonnages from the participating councils and a contractual arrangement that provides certainty over the life of the facility. Seeking consensus and commitment amongst the member councils on the preferred options is critical, and will also affect the timeframe for each of the facilities.

There are a number of procurement options that the MRC and its member councils may consider. The most common options are summarised and described below.

Logic dictates that direct costs to the MRC will increase with the more risk that is put onto the Contractor. However, where the MRC takes on inappropriate project risks and those risks are realised, the overall cost to the MRC is likely to be higher. Different organisations have varying appetites for risk, but in general, local governments have a low appetite for risk, given that their funding comes from rate payers and Councils are ultimately accountable to residents to spend that money carefully.

Where the term the MRC is used in this section, it may apply to the relevant member council, for example in the case of Stirling or Wanneroo that may ultimately retain ownership of the site under development. Any commitment and risk undertaken by the MRC is ultimately a risk, and financial impact, for all member councils.

The overarching principle in assessing procurement models should be that risks should be allocated to the party that is best placed and most experienced in managing those risks.

The MRC is not experienced in designing, constructing or operating advanced waste processing facilities (such as EfW) and there are a number of risks associated with those actions.

The procurement and contracting options that may be considered for the project include:

- Build, Own, Operate (BOO) – a Contractor is engaged to design, finance, build, operate and maintain the facility. Under this model the Contractor takes on most of the risk, but also gets the benefits of any upsides (e.g. revenue from third party waste inputs).
- Build, Own, Operate, Transfer (BOOT) – as for BOO, except ownership of the facility transfers to MRC at the end of the contract period, at which point the MRC can either take over the operations, outsource it via a further contract or decommission the facility.
- Design, construct, maintain and operate (DCMO) – the MRC owns, finances and retains control of the facility but contracts out the design, construction and operations of the facility to an experienced contractor (or separate contractors).
- Design and Construct (D&C) – the MRC owns and finances the facility, contracting the design and construction to a specialist contractor. The MRC then operates and maintains the facility with full control.
- Alliance model – the MRC works in partnership with a specialist Contractor to jointly develop the facility, sharing the costs, risks and benefits, with joint control over time and cost decisions.

Options for procurement and management of services where a new facility is required are outlined in the Table 7-32.

Table 7-29 Site ownership, management and procurement options

Site Owner	Procurement/ Management	Scope of contract
Private sector	Putting the service to market without offering a preferred site or land	Guaranteed supply contract (for existing facilities) BOO
Individual council (Council owns the land, organising suitable zoning and development approvals, if not already a suitable waste management site)	Leasing the land to a third party to design, construct, own and operate the facility	BOOT DCMO Alliance model
	Developing and operating the site	D&C, council operate DCMO contract
	Leasing the land to the MRC to manage a processing operation	D&C, MRC operate DCMO
	Leasing the land to the MRC to manage a procurement contract	BOOT DCMO Alliance contract
MRC Assumes the MRC owns the land, on behalf of member councils (ie shared ownership)	Leasing the land to a third party to design, construct, own and operate the facility	BOOT DCMO Alliance contract
	Developing and operating the site	D&C, MRC operate DCMO
	Manage a procurement contract	BOOT DCMO Alliance contract

Each of these options has differing levels of risk and suitability depending on the nature of the contract. It is recommended that if the private sector is expected to finance the facility, minimum contract periods should be stipulated to allow recovery of the capital investment, as follows:

- Bulk waste – 7 years
- Greenwaste – 7 years
- Materials recovery facility – 12 years
- Waste to energy facility – 20 years

In terms of the specific technology risks that apply to each project and treatment process - MRFs, transfer stations, bulk waste and greenwaste processing facilities are all very common and there are a number of experienced contractors and operators within the market to which those risks can be safely outsourced, provided a reputable and experienced contractor is chosen. Energy from waste is newer to the Australian market, globally there are a large range of experienced contractors but their availability to a WA project needs to be considered in the tender assessment.

The lowest risk option is the one where everything is outsourced to an experienced contractor (BOO model). The next level low risk option is an outsourced procurement option with a later transfer of the asset to the MRC (BOOT model). The two variants are by far the most common procurement models for waste processing facilities and provide certainty of future costs for the MRC.

The highest risk option is the D&C model whereby the MRC would take on the operations and maintenance of the facility. Although this option may cost less upfront it should only be considered for facilities where the MRC is experienced in the operation and is well placed to manage the risks effectively. Otherwise it could potentially result in significant cost impacts in the future.

One option for the MRC to play a part in delivery of the project, either in the design and construction phase or in the operations and maintenance phase, is through an Alliance model. The MRC would have to share many of the risks in any alliance contracting model, but can mitigate these by accessing the expertise of the Contractor. This is not recommended for the MRC given the large number of stakeholders involved and the difficulty seeking agreement from member councils if the future costs are less certain.

The following table provides a brief overview of the procurement options that are likely to be most relevant.

Table 7-30 Summary of Key Procurement Options

Contracting Option	Potential advantages to MRC	Potential disadvantages to MRC
Build Own Operate (BOO)	• No capital cost incurred • No operational responsibility • No product marketing responsibility • Specialised operating skills not required • High contractor accountability	• Potentially higher overall cost • Loss of operational control • Resources required to monitor service provision • Long term commitment • Reliance on commercial viability of contractor
BOO and Transfer after x years (BOOT)	• No capital cost incurred • No operational responsibility until post-transfer • No product marketing responsibility until post-transfer • Specialised operating skills not required until post-transfer • Potential for operator training prior to transfer • Special corporate structure not required • High contractor accountability	• Potentially higher overall cost • Loss of operational control until post-transfer • Contractor may potentially economise on maintenance as the transfer approaches • Post-transfer maintenance responsibility • Resources required to monitor service provision • Long term commitment • Reliance on commercial viability of contractor
Alliance partnership	• Access to a wider skills base to develop, operate and maintain the facility – partners leverage off each other's strengths. • Potential to share in any profit from the operation. • Potential for more favourable pricing because of risk sharing.	• Unlikely to achieve by in from all member councils due to unknown costs • Likely that some form of capital investment will be required. • Exposure to commercial risk. • Special corporate structure may be required.
DCMO - MRC finance and ownership with an contracts for construction and operations	• Potentially lower overall cost • Retention of control and ownership • Operational responsibility outsourced	• MRC liable for the capital cost • MRC assumes construction and process risk (that which cannot be put onto D&C contractor) • Retention of product marketing responsibility, with no economy of scale. Exposure to commodity price fluctuations
D&C - Council owns and operates the facility	• Potentially lower overall cost • Full retention of control and ownership	• All operational risk on Council • Council liable for the capital cost • Council assumes construction and process risk (that which cannot be put onto D&C contractor) • Retention of product marketing responsibility, with no economy of scale. Exposure to commodity price fluctuations

Further consideration regarding each of the proposed infrastructure developments are outlined below. Hyder has identified approximate timeframes for each stage. We recognise these timeframes as ambitious but achievable if the MRC and its member councils commit suitable resourcing, priority and political support to the infrastructure plan. The proposed timeframes are considered in the context of the existing contractual arrangements, facility life and waste infrastructure needs of the member councils. They also take into account the aim of reaching the state government waste diversion targets by 2020.

7.2 MATERIALS RECOVERY FACILITY

The Cities of Wanneroo and Stirling are both able to provide a site for a MRF development. If neither of these sites are deemed suitable it is also possible to develop a MRF at Tamala Park. City of Wanneroo has recently closed the Wangara MRF and has identified a suitable alternative site in Neerabup. Stirling have proposed that the MRF could fit onsite at the Balcatta waste facility, alongside the transfer station, bulk waste shed and other household drop off/tip shop operations. It may also be more beneficial to outsource the provision of all or part of this service to the market.

Table 7-31 Recycling facility options

Site	Advantages	Disadvantages
Balcatta	Currently zoned as a waste facility Central and optimal transport distance	Existing high volume of traffic to the facility Availability of space for all proposed infrastructure
Neerabup	Provides an additional waste facility to take pressure off Balcatta. May be preferable for the northern growth corridor	Not currently zoned as a waste facility Greenfield site requires significant planning, approvals and site works
Tamala Park	Currently zoned as a waste facility Joint ownership arrangements of the facility already exist	Slightly further that the other two facilities

Balcatta was slightly preferred based on the transport cost modelling, however it may be worth further investigation of the zoning, approvals and development considerations at Neerabup, as the northern facility may be preferable strategically in the long term, rather than increasing pressure on the Balcatta waste facility. This should be done in conjunction with an assessment of the options available in the market.

7.3 BALCATTA TRANSFER STATION & BULK WASTE

The Balcatta site is considered to be of key strategic importance in the development of waste infrastructure in the northern corridor, given its central location.

City of Stirling has indicated that at a minimum they would like the reconfigured Balcatta transfer station to include: a recyclables drop off area/tip shop prior to the weighbridge, a reconfigured transfer station (suitable for small and large vehicles), a drop off area for C&D wastes and greenwaste and a bulky waste sorting shed and MRF if the space permits. As the increased operations would increase traffic flow to the site, it is possible that two entry points could be used. It is anticipated that C&D waste and greenwaste would not be processed on the site, they would just be stockpiled for offsite processing.

Hyder has assumed that the existing infrastructure on the site would be mostly demolished and removed. It is anticipated the recyclables drop-off area would remain on a similar footprint. Based on this assumption there is around 6.5 hectares of land available for the remaining operations. Hyder investigated the footprints of a number of similar size facilities in Australia to determine what would be required on the Balcatta site shown below in Table 7-32.

Table 7-32 Balcatta Transfer Station infrastructure estimated footprint required

Facility	Footprint required
Transfer station	2ha
C&D drop off	0.5ha
Greenwaste drop off/mulching	0.5ha
Bulk waste sorting shed	1ha
MRF	1ha
Other infrastructure (weighbridge, office & roads)	1.5ha
Total requirement	**6.5ha**

As shown above, based on high level considerations it is feasible to fit all of the operations onto the one site. However a detailed site analysis and traffic modelling, considering both internal and external traffic flows would need to be undertaken. While the MRF could be based at Neerabup, it is helpful to understand that there is potential for it to fit within the reconfigured Balcatta transfer station.

It is likely that the transfer station would be the highest priority within the reconfigured plant. The bulk waste sorting shed is likely to be commissioned within 12 months of the transfer station completion. If the MRF was to be built on this site it should be a higher priority than the bulk waste shed.

As part of the process, consideration would need to be given to possible alternative locations, the preferred ownership arrangements, operating model and procurement methods.

7.4 GREEN WASTE PROCESSING

Hyder has performed a high level assessment of the organics processing requirements under Scenarios 2, 3, 5 and BAU shown in Table 7-33. The processing footprint required depends on whether the option selected is open windrow composting, or aerated/covered composting which

requires a smaller footprint. As the sites being considered are all within the metropolitan area an aerated or covered composting system would be preferable to reduce the land required, and reduce odour concerns. The processing footprint does not take into account buffers or other operations on the site, it relates to the area required for pre-processing, composting windrows and screening only.

Table 7-33 Organics processing capacity considerations

Scenario	Source	Tonnage (in 2022)	Processing Footprint	Annual processing cost (capital and operational)
2	Kerbside organics from Stirling and Cambridge, vergeside from rest	31,000	2-5ha	$2 million
5	All Councils (except Stirling) kerbside FOGO with no vergeside, Neerabup processes 70,000 tonnes^.	54,000*	3-8ha	$6 million*
3	All Councils kerbside organics with no vergeside	76,000	4-11ha	$4 million
BAU	Kerbside organics from Stirling and Cambridge. Vergeside from others	31,000	2-5ha	$2million

^Assumes that Neerabup RRF processing only organics would be limited to 70,000 tonnes due to surface area constraints on maturation floor.
*Includes 34,000 tonnes of FOGO additional to what can be processed at Neerabup.

There are four potential site options which are owned by local government and are potentially suitable for a greenwaste processing facility, these include:

- South of Neerabup RRF (MRC)
- Tamala Park (MRC)
- Site opposite Wanneroo's EfW precinct
- Hazelmere (EMRC).

A significant portion of the cost of processing greenwaste is the transport cost, therefore depending on the tonnage being processed, and the available land area it may be preferable to have two sites. Under the preferred scenario 2, a 5ha site would be required to process open windrow organics at a cost of approximately $2 million per year. Table 7-34 compares sites that Hyder has identified as potential locations for greenwaste processing.

Other options may well exist if the provision of services was to be put out for competitive tender.

Table 7-34 Greenwaste processing site options

Site (owner)	Available footprint	Advantages	Disadvantages
South of Neerabup RRF (MRC)	10ha	Land already owned by the MRC, closest residential premises are 800m to south, Neerabup RRF facility already in place which sets precedent, large site allows for greater buffer distances.	Residential encroachment to south, greenfield site, would need further investigation re: planning, approvals and site development

Site (owner)	Available footprint	Advantages	Disadvantages
Tamala Park (MRC)	0.9ha	Land already owned by the MRC, leachate and storm water infrastructure already in place, no buffers required as the operation would sit inside the landfill boundary.	Could only process 18,000t of organics, unless windrows are placed on closed landfill cells with a suitable pad.
Site opposite Wanneroo's EfW precinct (Wanneroo)	TBC	TBC	Greenfield site, would need further investigation re: planning, approvals and site development
Hazelmere (EMRC)	4ha	Close transport for southern members, Planning, approvals and site development already in place for mulching.	Processing MRC greenwaste would require the majority of the site, EMRC may prefer to continue only as a mulching, not a composting operation due to limited buffer distances.

Under the preferred scenario 2 Neerabup is the only site able process all of the MRC's organics in one location. An alternative option is decentralised processing: Tamala Park could process around 18,000 tonnes per year, leaving 13,000 to be processed at a facility such as EMRC's Hazelmere. This could reduce transport costs as the northern Councils would use Tamala Park and the southern Councils Hazelmere.

Hyder has not investigated private sites that could be used for open windrow composting as there are a large number of organisations currently accepting greenwaste in the outer metropolitan and regional areas. An expression of interest could identify such sites. If an EOI was conducted it is recommended that it be modelled on councils dropping the material to centralised drop off locations such as Balcatta, Wangara and Tamala Park, with the contractor offering off-site processing and a collection service from these locations.

7.5 ENERGY FROM WASTE

Based on the modelling, the preferred option is to maintain 2-bin systems (except those already committed to 3-bin) and use the Kwinana EfW site. However, in Hyder's view it is preferable to put the EfW processing option to the market as there are some EfW providers that have progressed with sites and planning processes that are likely to have capacity for the MRC's waste, thereby reducing the overall project risk. There are also providers that are in the process of securing sites (including Neerabup) and approvals that with guaranteed tonnages from the MRC may be able to provide competitive options.

If the MRC were to go to market for EfW, it is timely to do so while there is significant interest in this sector in WA, and there is no single company dominating the market.

A key decision is the amount of secure tonnage that is to be offered to the market – the modelling projections indicate 240,000tpa of waste available in 2020 and 335,000tpa in 2030 (in the preferred Scenario 2). However tendering for the full long-term capacity may leave significant capacity under-utilised at cost in the medium term. In the long-term, it is likely that other waste processing options will be available. The preferred scenario based on the modelling is for a 2-bin collection system, however based on the proposed changes to the Waste and

Resource Recovery Act, the waste hierarchy and policy decisions, it would be prudent to consider that a 3-bin system may be implemented at some point during the life of the project. Therefore it is suggested that the MRC go to market with an EOI but consider:

- The preferred procurement model
- Offer a site within the MRC, but also permit the proponents to use their own site
- Proven gasification or combustion technologies as the preferred processing options
- Determine appropriate guaranteed tonnages based on medium term projections and allowing for the region to switch to a 3 bin collection system
- A requirement for pre-processing waste
- Appropriate allocation of risks to the party best placed to manage those risks, and
- Offer as much certainty as possible within the contract to create a competitive environment for tenderers.

7.6 LANDFILL AND MBT

It is anticipated that Tamala Park will continue to have sufficient capacity until 2024 at current inputs. With a reduction in waste going to landfill, its life should be extended beyond that time. On closure it may be preferable for Tamala Park to be redeveloped into a transfer station suitable for small and large vehicles. Hyder understand there are a number of private operators currently planning landfill developments in semi-rural regions within 1.5 hours of Perth. On that basis the MRC may be able to go to the market to provide future landfill capacity.

At a similar time (around 2029), the Neerabup RRF plant will have reached the end of its 20 year contract period. As part of the Tamala Park closure and redevelopment plan, options for the 100,000tpa of material processed at the Neerabup RRF should be considered.

Investigation of a future landfill facility and transfer station is currently the lowest of the priorities for the region but should be considered once the initial waste infrastructure plans (MRF, EfW and Balcatta) are secured. If the market is unable to offer a suitable solution and the MRC are required to secure a new facility, planning will need to commence in the short term.

8 RECOMMENDATIONS

Hyder has conducted a series of modelling analyses in consultation with the member councils to arrive at the preferred scenario 2C. The modelling is based on a range of assumptions that do not fully account for the political and social considerations of implementing the preferred model. However, the outcomes do provide for a broad direction, taking into account the best interests of the region as a whole. To progress in implementing the infrastructure plan, it is recommended that the MRC and its member councils:

1 Agree on a broad waste infrastructure direction as outlined in the infrastructure plan, and seek endorsement of the plan from their respective councils.

2 Agree to commence discussions regarding the preliminary work required to develop the appropriate business plans and procurement options for each infrastructure project.

Table 8-35 Recommended infrastructure and preferred locations

Processing facility	Capacity required	Preferred location
Landfill	74,000 tpa (existing)	Tamala Park
Mechanical biological treatment	100,000 tpa (existing)	Neerabup
Materials recovery facility	100,000 tpa	Neerabup
Transfer station	300,000 tpa	Balcatta
Green waste processing facility (open windrow)	35,000 tpa	Neerabup
Bulk waste sorting shed	40,000 tpa	Balcatta
Waste to energy facility	250,000 tpa	TBC – market to determine

3 Agree to the actions outlined in this plan when infrastructure solutions are being considered by the MRC or its member councils, which includes bringing any proposed infrastructure solutions which may impact on the region to the attention of both the MRC and the Strategic Working Group.

4 Agree to support the MRC pursuing regular kerbside waste audits to inform the regional waste strategy and monitor progress on system changes.

APPENDIX A

MODELLING ASSUMPTIONS

Table 8-36 Modelling assumptions

Variable	Assumed Value	Units
Waste generation annual growth per capita	1% declining down to zero by 2030	% pa
CPI Rate	2.5%	
Landfill Cost Escalation	3.5%	
Collection parameters		
Bin lift rates	Council Specific	$/lift/hhld
New MGBs (240L)	$45.00	$/bin
Kitchen Caddy	$17.70	$/hhld ($6 caddy + 1 yr of liners $11.70)
Garden organics capture rate	90%	% of all generated GO
Food organics capture rate	60%	% of all generated FO
'Other' organics capture rate	60%	% of all generated other organics
Technology performance characteristics for MCA (Environmental)		
Landfill		
Net electricity exported - garbage	80	kWhr/tonne
	0.288	GJ/tonne
MBT - Aerobic composting, Producing compost only		
% recyclables recovered	5%	of input
Stabilised organic product	28%	of input
Net electricity exported - tunnel composting	-85	kWhr/tonne
	-0.306	GJ/tonne
MBT - Aerobic composting, Producing compost & RDF		
% recyclables recovered	5%	of input
RDF product	30%	of input
Stabilised organic product	25%	of input
Net electricity exported - tunnel composting	-85	kWhr/tonne
	-0.306	GJ/tonne

Variable	Assumed Value	Units
Thermal EfW - Raw MSW		
% metals recovered	3%	of input
Ash recycling to aggregate	5%	of input
Net CV fuel	8	MJ/kg
Net energy conversion efficiency	27%	
Net electricity exported	2.16	GJ/tonne
	600	kWhr/tonne
Thermal EfW - RDF		
% metals recovered	0%	of input
Ash recycling to aggregate	5%	of input
Net CV fuel	12	MJ/kg
Net energy conversion efficiency	27%	
Net electricity exported	3.24	GJ
	900	kWhr/tonne
Existing Facility Type	Gate Fee (ex. Levy $2014)	
Landfill	$92	per tonne
Neerabup MBT	$106*	per tonne
Anaeco MBT	$180	per tonne
Future Facility Type		
Landfill	$80	per tonne
MBT Processing compost only	$180	per tonne
MBT producing compost and RDF	$200	per tonne
Dirty MRF producing RDF	$180	per tonne
EfW processing Raw MSW	$150	per tonne
EfW processing RDF	-	per tonne
Organics Processing		
3 bin system (GO)	$55	per tonne
3 bin system (FOGO)	$150	per tonne
3 bin system (All organics)	$180	per tonne

*Note we understand that this is lower than the gate fee currently being charged at the Neerabup MBT, but given that it has been applied consistently across all the modelling, the relative modelling results are still valid.

APPENDIX B

DETAILED MULTI-CRITERIA ASSESSMENT OUTCOMES

Qualitative Score	Numerical Equivalent
✓✓	5
✓	4
○	3
×	2
××	1

Stage 2 MCA Criteria - 2022 (with transport options)

Criterion		Scenario BAU: BAU based on current practice, with Stirling and Cambridge on 3-bin GO, and existing RRF	Scenario 2: As per BAU, some general waste to Neerabup, remaining MSW+bulk+MRF residuals to EfW			Scenario 3: All councils with 3-bin GO, general waste to Neerabup or landfill			Scenario 5: All councils with 3-bins, Stirling GO only, others for all organics, MSW+bulk+MRF residuals to EfW		
		BAU: Locations based on current proposals	2A: EfW facility at Neerabup (direct delivery)	2B: EfW facility at Red Hill via Balcatta TS	2C: EfW facility at Kwinana via Balcatta TS	3A: All Greenwaste processed at Neerabup	3B: All Greenwaste processed at Hazelmere	3C: Greenwaste processed at either Neerabup or Hazelmere	5A: EfW facility at Neerabup (direct delivery)	5B: EfW facility at Red Hill via Balcatta TS	5C: EfW facility at Kwinana via Balcatta TS
ENVIRONMENTAL											
Waste diverted (tonnes & diversion %)	Tonnage of waste diverted from landfill.	147,000 t 36%	353,000 t 86%	353,000 t 86%	353,000 t 86%	193,000 t 47%	193,000 t 47%	193,000 t 47%	366,000 t 89%	366,000 t 89%	366,000 t 89%
Resources recovered (tonnes)	Recovery of recyclable materials. Includes kerbside-collected household recyclables, sorted recyclables at RRF's. For thermal treatment, there may also be potential to use bottom ash as aggregate for construction activities	63,000	78,000	78,000	78,000	63,000	63,000	63,000	73,000	73,000	73,000
	Recovery of stablised organics / compost product	82,000	82,000	82,000	82,000	129,000	129,000	129,000	119,000	119,000	119,000
Net energy balance (GJ)	A relative assessment of the energy produced such as electricity from biogas or waste combustion and energy consumed, such as mains electricity, gas, liquid fuels. "+" is net energy generated, "-" is net energy consumed.	4,000 GJ	515,000 GJ	515,000 GJ	515,000 GJ	-8,000 GJ	-8,000 GJ	-8,000 GJ	478,000 GJ	478,000 GJ	478,000 GJ
FINANCIAL											
Financial cost ($/hhld/yr)	Region wide cost per household	$444/hhld	$518/hhld	$531/hhld	$533/hhld	$486/hhld	$489/hhld	$487/hhld	$524/hhld	$538/hhld	$540/hhld
SOCIAL											
Odour, visual amenity, and emissions perception	Impacts on the community related to facility siting and technology. Includes the potential for different types of technologies to generate odours and the potential for successful odour control, the typical size and potential intrusiveness and the potential for litter generation, and community perception of the potential for toxic emissions from different processes.	✓	×	○	○	✓	✓	✓	×	○	○
	Impacts on the community related to the collection system	✓	✓	✓	✓	✓	✓	✓	○	○	○
RISK											
Geographic / location	Risks associated with factors such as locational characteristics, zoning, access and current and future uses.	○	×	×	○	○	○	○	×	×	○

APPENDIX C

WASTE INFRASTRUCTURE LOCATIONS MAP

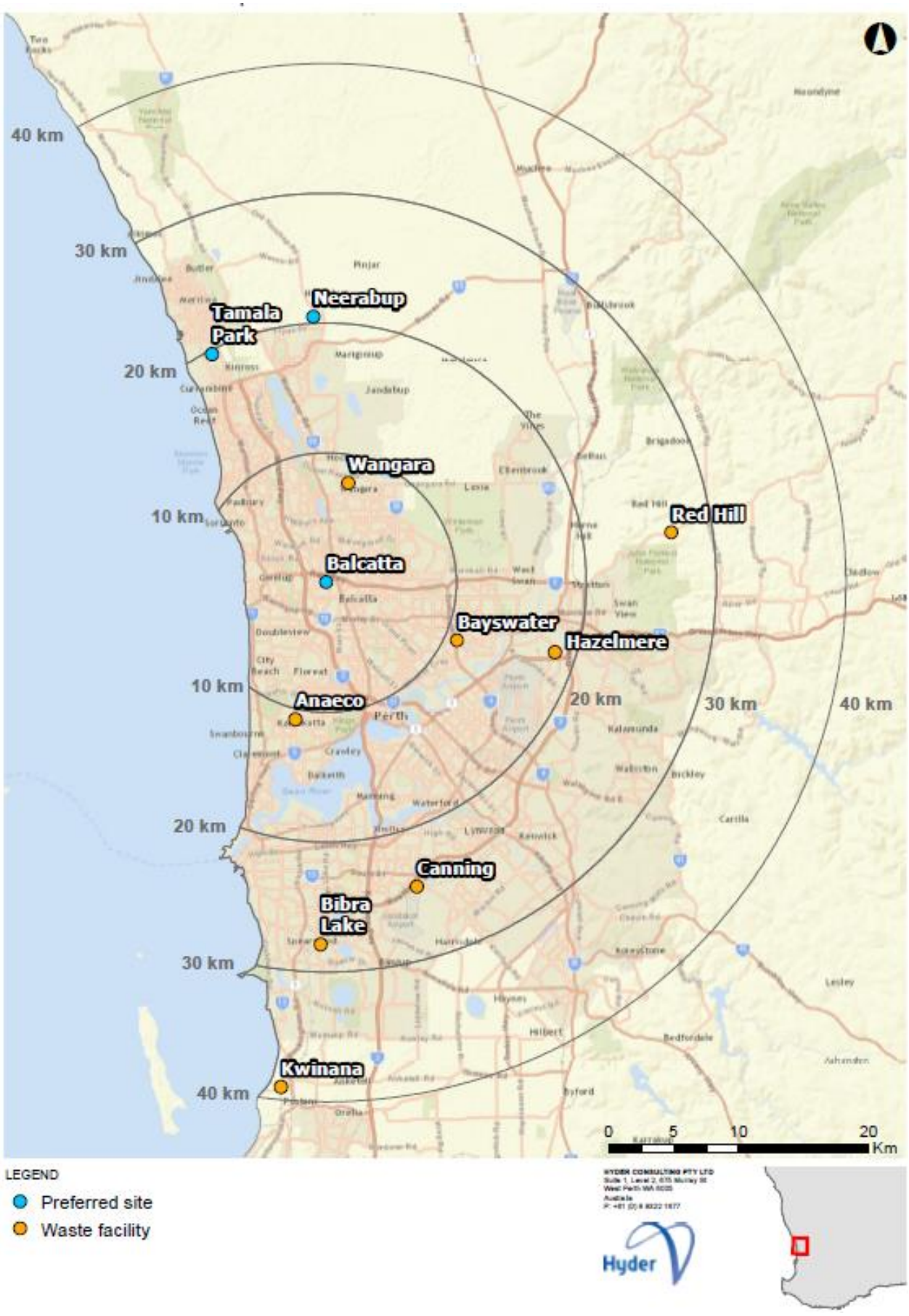


Figure 8-10 Waste infrastructure location map

APPENDIX D

DETAILED TRANSPORT OPTIONS

Table 8-37 Scenario 2a – 2c – detailed transport assumptions

Transport modelling Option 2a

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	Neerabup
Joondalup	Tamala Park	N/A	Balcatta	Neerabup	Neerabup	Neerabup	Neerabup
Perth	Tamala Park	N/A	Balcatta	Bayswater	Neerabup	Neerabup	Neerabup
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Anaeco	Neerabup
Victoria Park	Tamala Park	N/A	Balcatta	Bayswater	Hazelmere	Neerabup	Neerabup
Vincent	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	Neerabup
Wanneroo	Tamala Park	N/A	Balcatta	Neerabup	Neerabup	Neerabup	Neerabup

Transport modelling Option 2b

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Red Hill
Joondalup	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Red Hill
Perth	Tamala Park	Balcatta	Balcatta	Bayswater	Neerabup	Neerabup	Red Hill
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Anaeco	Red Hill
Victoria Park	Tamala Park	Balcatta	Balcatta	Bayswater	Hazelmere	Neerabup	Red Hill
Vincent	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Red Hill
Wanneroo	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Red Hill

Transport modelling Option 2c

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Kwinana
Joondalup	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Kwinana
Perth	Tamala Park	Balcatta	Balcatta	Bayswater	Neerabup	Neerabup	Kwinana
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Anaeco	Kwinana
Victoria Park	Tamala Park	Balcatta	Balcatta	Bayswater	Hazelmere	Neerabup	Kwinana
Vincent	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Kwinana
Wanneroo	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Kwinana

Table 8-38 Scenario 3a- 3c detailed transport assumptions

Transport modelling Option 3a

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	N/A	Balcatta	Bibra Lake	Neerabup	Neerabup	N/A
Joondalup	Tamala Park	N/A	Balcatta	Balcatta	Neerabup	Neerabup	N/A
Perth	Tamala Park	N/A	Balcatta	Bayswater	Neerabup	Neerabup	N/A
Stirling	Tamala Park	Balcatta	Balcatta	Balcatta	Neerabup	Anaeco	N/A
Victoria Park	Tamala Park	N/A	Balcatta	Bayswater	Neerabup	Neerabup	N/A
Vincent	Tamala Park	N/A	Balcatta	Bibra Lake	Neerabup	Neerabup	N/A
Wanneroo	Tamala Park	N/A	Balcatta	Balcatta	Neerabup	Neerabup	N/A

Transport modelling Option 3b

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	N/A
Joondalup	Tamala Park	N/A	Balcatta	Neerabup	Hazelmere	Neerabup	N/A
Perth	Tamala Park	N/A	Balcatta	Bayswater	Hazelmere	Neerabup	N/A
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Hazelmere	Anaeco	N/A
Victoria Park	Tamala Park	N/A	Balcatta	Bayswater	Hazelmere	Neerabup	N/A
Vincent	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	N/A
Wanneroo	Tamala Park	N/A	Balcatta	Neerabup	Hazelmere	Neerabup	N/A

Transport modelling Option 3c

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	N/A
Joondalup	Tamala Park	N/A	Balcatta	Neerabup	Neerabup	Neerabup	N/A
Perth	Tamala Park	N/A	Balcatta	Bayswater	Neerabup	Neerabup	N/A
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Anaeco	N/A
Victoria Park	Tamala Park	N/A	Balcatta	Bayswater	Hazelmere	Neerabup	N/A
Vincent	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	N/A
Wanneroo	Tamala Park	N/A	Balcatta	Neerabup	Neerabup	Neerabup	N/A

Table 8-39 Scenario 5a-5c transport assumptions

Transport modelling Option 5a

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	Neerabup
Joondalup	Tamala Park	N/A	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup
Perth	Tamala Park	N/A	Balcatta	Bayswater	Neerabup	Neerabup	Neerabup
Stirling	Tamala Park	Balcatta	Balcatta	Balcatta	Neerabup	Anaeco	Neerabup
Victoria Park	Tamala Park	N/A	Balcatta	Bayswater	Hazelmere	Neerabup	Neerabup
Vincent	Tamala Park	N/A	Balcatta	Bibra Lake	Hazelmere	Neerabup	Neerabup
Wanneroo	Tamala Park	N/A	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup

Transport modelling Option 5b

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Red Hill
Joondalup	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Red Hill
Perth	Tamala Park	Balcatta	Balcatta	Bayswater	Neerabup	Neerabup	Red Hill
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Anaeco	Red Hill
Victoria Park	Tamala Park	Balcatta	Balcatta	Bayswater	Hazelmere	Neerabup	Red Hill
Vincent	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Red Hill
Wanneroo	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Red Hill

Transport modelling Option 5c

Council	Landfill	Transfer Stations	Bulk Waste Sorting and Reuse Shed	Materials Recovery Facility	Green Waste Processing	Mechanical Biological Treatment	Waste to Energy Facility
Cambridge	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Kwinana
Joondalup	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Kwinana
Perth	Tamala Park	Balcatta	Balcatta	Bayswater	Neerabup	Neerabup	Kwinana
Stirling	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Anaeco	Kwinana
Victoria Park	Tamala Park	Balcatta	Balcatta	Bayswater	Hazelmere	Neerabup	Kwinana
Vincent	Tamala Park	Balcatta	Balcatta	Bibra Lake	Hazelmere	Neerabup	Kwinana
Wanneroo	Tamala Park	Balcatta	Balcatta	Neerabup	Neerabup	Neerabup	Kwinana

MRC 2014 Annual Compliance Return

Item 9.7	APPENDIX NO. 10	Item 9.7

Government of **Western Australia**
Department of **Local Government and Communities**

Mindarie Regional Council - Compliance Audit Return Regional Local Government 2014

Certified Copy of Return

Please submit a signed copy to the Director General of the Department of Local Government and Communities together with a copy of section of relevant minutes.

Commercial Enterprises by Local Governments

No	Reference	Question	Response	Comments	Respondent
1	s3.59(2)(a)(b)(c) Functions & General Regulation 7,9	Has the local government prepared a business plan for each major trading undertaking in 2014.	N/A		Gunther Hoppe
2	s3.59(2)(a)(b)(c) Functions & General Regulation 7,10	Has the local government prepared a business plan for each major land transaction that was not exempt in 2014.	N/A		Gunther Hoppe
3	s3.59(2)(a)(b)(c) Functions & General Regulation 7,10	Has the local government prepared a business plan before entering into each land transaction that was preparatory to entry into a major land transaction in 2014.	N/A		Gunther Hoppe
4	s3.59(4)	Has the local government given Statewide public notice of each proposal to commence a major trading undertaking or enter into a major land transaction for 2014.	N/A		Gunther Hoppe
5	s3.59(5)	Did the Council, during 2014, resolve to proceed with each major land transaction or trading undertaking by absolute majority.	N/A		Gunther Hoppe

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Delegation of Power / Duty

No	Reference	Question	Response	Comments	Respondent
1	s5.16, 5.17, 5.18	Were all delegations to committees resolved by absolute majority.	N/A	Council has not delegated any powers to its committees	Brian Callander
2	s5.16, 5.17, 5.18	Were all delegations to committees in writing.	N/A	Council has not delegated any powers to its committees	Brian Callander
3	s5.16, 5.17, 5.18	Were all delegations to committees within the limits specified in section 5.17.	N/A	Council has not delegated any powers to its committees	Brian Callander
4	s5.16, 5.17, 5.18	Were all delegations to committees recorded in a register of delegations.	N/A	Council has not delegated any powers to its committees	Brian Callander
5	s5.18	Has Council reviewed delegations to its committees in the 2013/2014 financial year.	N/A	Council has not delegated any powers to its committees	Brian Callander
6	s5.42(1),5.43 Administration Regulation 18G	Did the powers and duties of the Council delegated to the CEO exclude those as listed in section 5.43 of the Act.	Yes		Gunther Hoppe
7	s5.42(1)(2) Admin Reg 18G	Were all delegations to the CEO resolved by an absolute majority.	Yes		Gunther Hoppe
8	s5.42(1)(2) Admin Reg 18G	Were all delegations to the CEO in writing.	Yes		Gunther Hoppe
9	s5.44(2)	Were all delegations by the CEO to any employee in writing.	Yes		Gunther Hoppe
10	s5.45(1)(b)	Were all decisions by the Council to amend or revoke a delegation made by absolute majority.	Yes		Gunther Hoppe
11	s5.46(1)	Has the CEO kept a register of all delegations made under the Act to him and to other employees.	Yes		Gunther Hoppe
12	s5.46(2)	Were all delegations made under Division 4 of Part 5 of the Act reviewed by the delegator at least once during the 2013/2014 financial year.	Yes		Brian Callander
13	s5.46(3) Admin Reg 19	Did all persons exercising a delegated power or duty under the Act keep, on all occasions, a written record as required.	Yes		Brian Callander

Disclosure of Interest

No	Reference	Question	Response	Comments	Respondent
1	s5.67	If a member disclosed an interest, did he/she ensure that they did not remain present to participate in any discussion or decision-making procedure relating to the matter in which the interest was disclosed (not including participation approvals granted under s5.68).	N/A		Gunther Hoppe

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Department of **Local Government and Communities**

No	Reference	Question	Response	Comments	Respondent
2	s5.68(2)	Were all decisions made under section 5.68(1), and the extent of participation allowed, recorded in the minutes of Council and Committee meetings.	N/A		Gunther Hoppe
3	s5.73	Were disclosures under section 5.65 or 5.70 recorded in the minutes of the meeting at which the disclosure was made.	Yes		Brian Callander
4	s5.75(1) Admin Reg 22 Form 2	Was a primary return lodged by all newly elected members within three months of their start day.	Yes		Brian Callander
5	s5.75(1) Admin Reg 22 Form 2	Was a primary return lodged by all newly designated employees within three months of their start day.	Yes		Brian Callander
6	s5.76(1) Admin Reg 23 Form 3	Was an annual return lodged by all continuing elected members by 31 August 2014.	Yes		Brian Callander
7	s5.76(1) Admin Reg 23 Form 3	Was an annual return lodged by all designated employees by 31 August 2014.	Yes		Brian Callander
8	s5.77	On receipt of a primary or annual return, did the CEO, (or the Mayor/ President in the case of the CEO's return) on all occasions, give written acknowledgment of having received the return.	Yes		Brian Callander
9	s5.88(1)(2) Admin Reg 28	Did the CEO keep a register of financial interests which contained the returns lodged under section 5.75 and 5.76	Yes		Brian Callander
10	s5.88(1)(2) Admin Reg 28	Did the CEO keep a register of financial interests which contained a record of disclosures made under sections 5.65, 5.70 and 5.71, in the form prescribed in Administration Regulation 28.	Yes		Brian Callander
11	s5.88 (3)	Has the CEO removed all returns from the register when a person ceased to be a person required to lodge a return under section 5.75 or 5.76.	Yes		Brian Callander
12	s5.88(4)	Have all returns lodged under section 5.75 or 5.76 and removed from the register, been kept for a period of at least five years, after the person who lodged the return ceased to be a council member or designated employee.	Yes		Brian Callander
13	s5.103 Admin Reg 34C & Rules of Conduct Reg 11	Where an elected member or an employee disclosed an interest in a matter discussed at a Council or committee meeting where there was a reasonable belief that the impartiality of the person having the interest would be adversely affected, was it recorded in the minutes.	Yes		Brian Callander

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Department of **Local Government and Communities**

No	Reference	Question	Response	Comments	Respondent
14	s5.70(2)	Where an employee had an interest in any matter in respect of which the employee provided advice or a report directly to the Council or a Committee, did that person disclose the nature of that interest when giving the advice or report.	Yes		Brian Callander
15	s5.70(3)	Where an employee disclosed an interest under s5.70(2), did that person also disclose the extent of that interest when required to do so by the Council or a Committee.	Yes		Brian Callander
16	s5.103(3) Admin Reg 34B	Has the CEO kept a register of all notifiable gifts received by Council members and employees.	Yes		Brian Callander

Disposal of Property

No	Reference	Question	Response	Comments	Respondent
1	s3.58(3)	Was any property that was not disposed of by public auction or tender, given local public notice prior to disposal (except where excluded by Section 3.58(5)).	N/A		Gunther Hoppe
2	s3.58(4)	Where the local government disposed of property under section 3.58(3), did it provide details, as prescribed by section 3.58(4), in the required local public notice for each disposal of property.	N/A		Gunther Hoppe

Finance

No	Reference	Question	Response	Comments	Respondent
1	s7.1A	Has the local government established an audit committee and appointed members by absolute majority in accordance with section 7.1A of the Act.	Yes		Gunther Hoppe
2	s7.1B	Where a local government determined to delegate to its audit committee any powers or duties under Part 7 of the Act, did it do so by absolute majority.	N/A		Gunther Hoppe
3	s7.3	Was the person(s) appointed by the local government to be its auditor, a registered company auditor.	Yes		Gunther Hoppe
4	s7.3	Was the person(s) appointed by the local government to be its auditor, an approved auditor.	Yes		Gunther Hoppe
5	S7.3, s7.6(3)	Was the person or persons appointed by the local government to be its auditor, appointed by an absolute majority decision of Council.	Yes		Gunther Hoppe

Government of **Western Australia**
Department of **Local Government and Communities**

No	Reference	Question	Response	Comments	Respondent
6	s7.12A(3), (4)	Where the local government determined that matters raised in the auditor's report prepared under s7.9 (1) of the Act required action to be taken by the local government, was that action undertaken.	N/A		Gunther Hoppe
7	s7.12A(3), (4)	Where the local government determined that matters raised in the auditor's report (prepared under s7.9 (1) of the Act) required action to be taken by the local government, was a report prepared on any actions undertaken.	N/A		Gunther Hoppe
8	s7.12A(3), (4)	Where the local government determined that matters raised in the auditor's report (prepared under s7.9 (1) of the Act) required action to be taken by the local government, was a copy of the report forwarded to the Minister by the end of the financial year or 6 months after the last report prepared under s7.9 was received by the local government whichever was the latest in time.	N/A		Gunther Hoppe
9	A Reg 7	Did the agreement between the local government and its auditor include the objectives of the audit.	Yes		Gunther Hoppe
10	A Reg 7	Did the agreement between the local government and its auditor include the scope of the audit.	Yes		Gunther Hoppe
11	A Reg 7	Did the agreement between the local government and its auditor include a plan for the audit.	Yes		Gunther Hoppe
12	A Reg 7	Did the agreement between the local government and its auditor include details of the remuneration and expenses to be paid to the auditor.	Yes		Gunther Hoppe
13	A Reg 7	Did the agreement between the local government and its auditor include the method to be used by the local government to communicate with, and supply information to, the auditor.	Yes		Gunther Hoppe
14	Audit Reg 10	Was the Auditor's report for the financial year ended 30 June 2014 received by the local government within 30 days of completion of the audit.	Yes		Gunther Hoppe
15	s7.9(1)	Was the Auditor's report for 2013/2014 received by the local government by 31 December 2014.	Yes		Gunther Hoppe

Government of **Western Australia**
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Local Government Employees

No	Reference	Question	Response	Comments	Respondent
1	Admin Reg 18C	Did the local government approve the process to be used for the selection and appointment of the CEO before the position was advertised.	N/A		Sonia Cherico
2	s5.36(4), 5.37(3), Admin Reg 18A	Were all vacancies for the position of CEO and other designated senior employees advertised and did the advertising comply with s5.36(4), s5.37(3) and Admin Reg 18A.	N/A		Sonia Cherico
3	s5.37(2)	Did the CEO inform council of each proposal to employ or dismiss a designated senior employee.	N/A		Sonia Cherico
4	Admin Reg 18F	Was the remuneration and other benefits paid to a CEO on appointment the same remuneration and benefits advertised for the position of CEO under section 5.36(4).	N/A		Sonia Cherico
5	Admin Regs 18E	Did the local government ensure checks were carried out to confirm that the information in an application for employment was true (applicable to CEO only).	N/A		Sonia Cherico

Government of **Western Australia**
Department of **Local Government and Communities**

Official Conduct

No	Reference	Question	Response	Comments	Respondent
1	s5.120	Where the CEO is not the complaints officer, has the local government designated a senior employee, as defined under s5.37, to be its complaints officer.	N/A	CEO is the complaints officer	Brian Callander
2	s5.121(1)	Has the complaints officer for the local government maintained a register of complaints which records all complaints that result in action under s5.110(6)(b) or (c).	Yes	No complaints involving members had been received during the year.	Gunther Hoppe
3	s5.121(2)(a)	Does the complaints register maintained by the complaints officer include provision for recording of the name of the council member about whom the complaint is made.	Yes		Brian Callander
4	s5.121(2)(b)	Does the complaints register maintained by the complaints officer include provision for recording the name of the person who makes the complaint.	Yes		Brian Callander
5	s5.121(2)(c)	Does the complaints register maintained by the complaints officer include provision for recording a description of the minor breach that the standards panel finds has occurred.	Yes		Brian Callander
6	s5.121(2)(d)	Does the complaints register maintained by the complaints officer include the provision to record details of the action taken under s5.110(6)(b)(c).	Yes		Brian Callander

Tenders for Providing Goods and Services

No	Reference	Question	Response	Comments	Respondent
1	s3.57 F&G Reg 11	Did the local government invite tenders on all occasions (before entering into contracts for the supply of goods or services) where the consideration under the contract was, or was expected to be, worth more than the consideration stated in Regulation 11(1) of the Local Government (Functions & General) Regulations (Subject to Functions and General Regulation 11(2)).	Yes		Gunther Hoppe
2	F&G Reg 12	Did the local government comply with F&G Reg 12 when deciding to enter into multiple contracts rather than inviting tenders for a single contract.	N/A		Gunther Hoppe
3	F&G Reg 14(1)	Did the local government invite tenders via Statewide public notice.	Yes		Gunther Hoppe
4	F&G Reg 14, 15 & 16	Did the local government's advertising and tender documentation comply with F&G Regs 14,15 & 16.	Yes		Gunther Hoppe

APPENDIX NO. 10

Government of **Western Australia**
Department of **Local Government and Communities**

No	Reference	Question	Response	Comments	Respondent
5	F&G Reg 18(1)	Did the local government reject the tenders that were not submitted at the place, and within the time specified in the invitation to tender.	Yes		Gunther Hoppe
6	F&G Reg 18 (4)	In relation to the tenders that were not rejected, did the local government assess which tender to accept and which tender was most advantageous to the local government to accept, by means of written evaluation criteria.	Yes		Gunther Hoppe
7	F&G Reg 17	Did the information recorded in the local government's tender register comply with the requirements of F&G Reg 17.	Yes		Gunther Hoppe
8	F&G Reg 19	Was each tenderer sent written notice advising particulars of the successful tender or advising that no tender was accepted.	Yes		Gunther Hoppe
9	F&G Reg 21 & 22	Did the local governments's advertising and expression of interest documentation comply with the requirements of F&G Regs 21 and 22.	N/A		Gunther Hoppe
10	F&G Reg 23(1)	Did the local government reject the expressions of interest that were not submitted at the place and within the time specified in the notice.	N/A		Gunther Hoppe
11	F&G Reg 23(4)	After the local government considered expressions of interest, did the CEO list each person considered capable of satisfactorily supplying goods or services.	N/A		Gunther Hoppe
12	F&G Reg 24	Was each person who submitted an expression of interest, given a notice in writing in accordance with Functions & General Regulation 24.	N/A		Gunther Hoppe
13	F&G Reg 24E	Where the local government gave regional price preference in relation to a tender process, did the local government comply with requirements of F&G Reg 24E in relation to the preparation of a regional price preference policy (only if a policy had not been previously adopted by Council).	N/A		Gunther Hoppe
14	F&G Reg 11A	Does the local government have a current purchasing policy in relation to contracts for other persons to supply goods or services where the consideration under the contract is, or is expected to be, $100,000 or less.	Yes		Gunther Hoppe
15	F&G Reg 14(5)	If the local government sought to vary the information supplied to tenderers, was every reasonable step taken to give each person who sought copies of the tender documents or each acceptable tenderer, notice of the variation.	Yes		Gunther Hoppe

Government of **Western Australia**
Department of **Local Government and Communities**

I certify this Compliance Audit return has been adopted by Council at its meeting on _____

Signed Mayor / President, Mindarie Regional Council

Signed CEO, Mindarie Regional Council

APPENDIX NO. 10