



SUPPLEMENTARY BRIEFING PAPERS
FOR ELECTED MEMBERS'
BRIEFING SESSION

Draft Only

to be held at
the Council Chambers, Civic Centre, Dundebur Road, Wanneroo
on 25 June, 2019 commencing at 6:00PM



Briefing Papers for Tuesday 25 June, 2019

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L A T E I T E M S A G E N D A

Item 5 Late Reports

5.1 Adoption of Amendment No. 171 to District Planning Scheme No. 2 - Strata Lot 7 (20) Prindiville Drive, Wangara - Additional Use

File Ref:	36242 – 19/208457
Responsible Officer:	Director Planning and Sustainability
Disclosure of Interest:	Nil
Attachments:	2

Issue

To consider Amendment No. 171 to DPS2 following the public consultation period and adoption of the amendment.

Applicant	Rowe Group
Owners	Mr Kristophen Bond and Miss Hayley Saunders
Location	Strata Lot 7 (20) Prindiville Drive, Wangara
Site Area	310m ²
MRS Zoning	Industrial
DPS 2 Zoning	Service Industrial

Background

On 4 September 2018, Rowe Group on behalf of the owners requested the City consider an amendment to DPS2 to allow the use class 'Restricted Premises' as an additional use at Unit 7/20 Prindiville Drive, Wangara to facilitate the continued operation of the existing business 'Absolutely Adult'. This business has been trading at this location since December 2011 between 10:00am and 5:00pm Monday to Saturday and 12noon to 5:00pm on Sundays.

The amendment resulted from a compliance investigation which identified the business was operating without approval and that it is not capable of approval under the current provisions of DPS2.

Attachment 1 contains the location plan.

Council, at its meeting of 05 March 2019, considered the proposal and resolved as follows (refer Item PS04-03/19):

"That Council:-

- Pursuant to Section 75 of Planning and Development Act 2005 ADOPTS Amendment No.171 to District Planning Scheme No. 2 to allow the use class Restricted Premises as an additional use at Strata Lot 7 at 20 Prindiville Drive, Wangara and AMENDS Schedule 2 of the DPS 2 as follows:*

NO		STREET/LOCALITY	PARTICULARS OF LAND	ADDITIONAL USE AND CONDITIONS (WHERE APPLICABLE)
A41	1-41	Prindiville Drive, Wangara	Lot 7 on Strata Plan 18103 Certificate of Title Volume	Restricted Premises – 'D' use Condition: Operating hours between

			2132 Folio 388 (No.20)	10 am and 5 pm Monday to Saturday and 12 noon to 5 pm on Sundays.
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and the Scheme Map accordingly;

2. Pursuant to Section 35(2) of Planning and Development (Local Planning Schemes) Regulations 2015 RESOLVES that Amendment No. 171 to District Planning Scheme No. 2 is a Standard Amendment for the following reason:

The Amendment would not result in any significant environmental, social, economic or governance impacts on land in the scheme area;

3. Pursuant to Section 81 of the Planning and Development Act 2005 REFERS Amendment No. 171 to District Planning Scheme No. 2 to the Environmental Protection Authority; and
4. Subject to approval from Environmental Protection Authority:
 - a) NOTIFIES the Western Australian Planning Commission of its intent to advertise Amendment No. 171 to District Planning Scheme No. 2 pursuant to Regulation 47(1) of the Planning and Development (Local Planning Schemes) Regulations 2015; and
 - b) ADVERTISES Amendment No. 171 to District Planning Scheme No. 2 for a period of not less than 42 days pursuant to Regulation 47(2) and 47(4) of the Planning and Development (Local Planning Schemes) Regulations 2015.”

Attachment 2 contains the proposed Scheme Amendment maps.

Detail

The proposal seeks to amend DPS2 to allow the use class Restricted Premises as an additional use on the site to enable the continued operation of ‘Absolutely Adult’ and to modify Schedule 2 of DPS2.

The front portion of the tenancy is occupied by the shop floor where products are displayed and can be purchased by retail sale. The rear of the tenancy is used for warehousing of products which are stored for distribution for online sales. The applicant has advised that the warehousing and online sales component of the business generates approximately 80% of the business, with the retail portion generating the remaining 20% with approximately five customers visiting the store each day.

The retail sale component (Restricted Premises) is currently an ‘X’ or not permitted use within the Service Industrial zone.

Consultation

In accordance with the Council’s decision, the amendment was referred to the EPA for comment. On 8 April 2019, the EPA advised the City that the scheme amendment did not warrant an environmental assessment. The WAPC’s consent to advertise was not required in this case.

A 42 day public advertising period was carried out between 30 April and 11 June 2019 by way of on-site signs, advertisement in the local newspaper, a notice in the City's Civic Centre and website, and letters to the affected and nearby landowners. The City did not receive any submission on the proposal.

Comment

The site is located in the Service Industrial zone. Under the provisions of DPS2, the objective of the Service Industrial zone is:

"To accommodate a range of light industries, showrooms and warehouses, entertainment and recreational activities, and complementary business services which by nature would not detrimentally affect the amenity of surrounding areas."

The proposed amendment to include Restricted Premises as an additional use for this site is considered to satisfy the objective of the Service Industrial zone. The predominant function of the premises is to warehouse and distribute the products. The retail component in principle is not dissimilar to many other businesses within the Service Industrial zone, which allow customers to purchase warehoused goods via a retail counter.

Considering the nature of the land use Restricted Premises and the objective of the Service Industrial zone, and considering that the City did not receive any submissions on the proposed amendment, it is recommended that the proposed amendment to DPS2 be adopted *without modification* and forwarded to the WAPC for its consideration.

Statutory Compliance

Amendment No. 171 has been processed under the provisions of *Planning and Development (Local Planning Scheme) Regulations 2015* and the *Planning and Development Act 2005*.

Strategic Implications

The proposal aligns with the following objective within the Strategic Community Plan 2017 – 2027:

“2 *Economy*

2.1 *Local Jobs*

2.1.2 *Build capacity for businesses to grow”*

Risk Management Considerations

There are no existing Strategic or Corporate risks within the City's existing risk registers which relate to the issues contained in this report.

Policy Implications

Nil

Financial Implications

Nil

Voting Requirements

Simple Majority

Recommendation

That Council:-

1. Pursuant to Regulation 50(3)(a) of the *Planning and Development (Local Planning Schemes) Regulations 2015* SUPPORTS Amendment No. 171 to District Planning Scheme No. 2 WITHOUT MODIFICATION to allow the use class Restricted Premises as an additional use at Strata Lot 7 (20) Prindville Drive, Wangara and AMENDS Schedule 2 of District Planning Scheme No. 2 as follows:

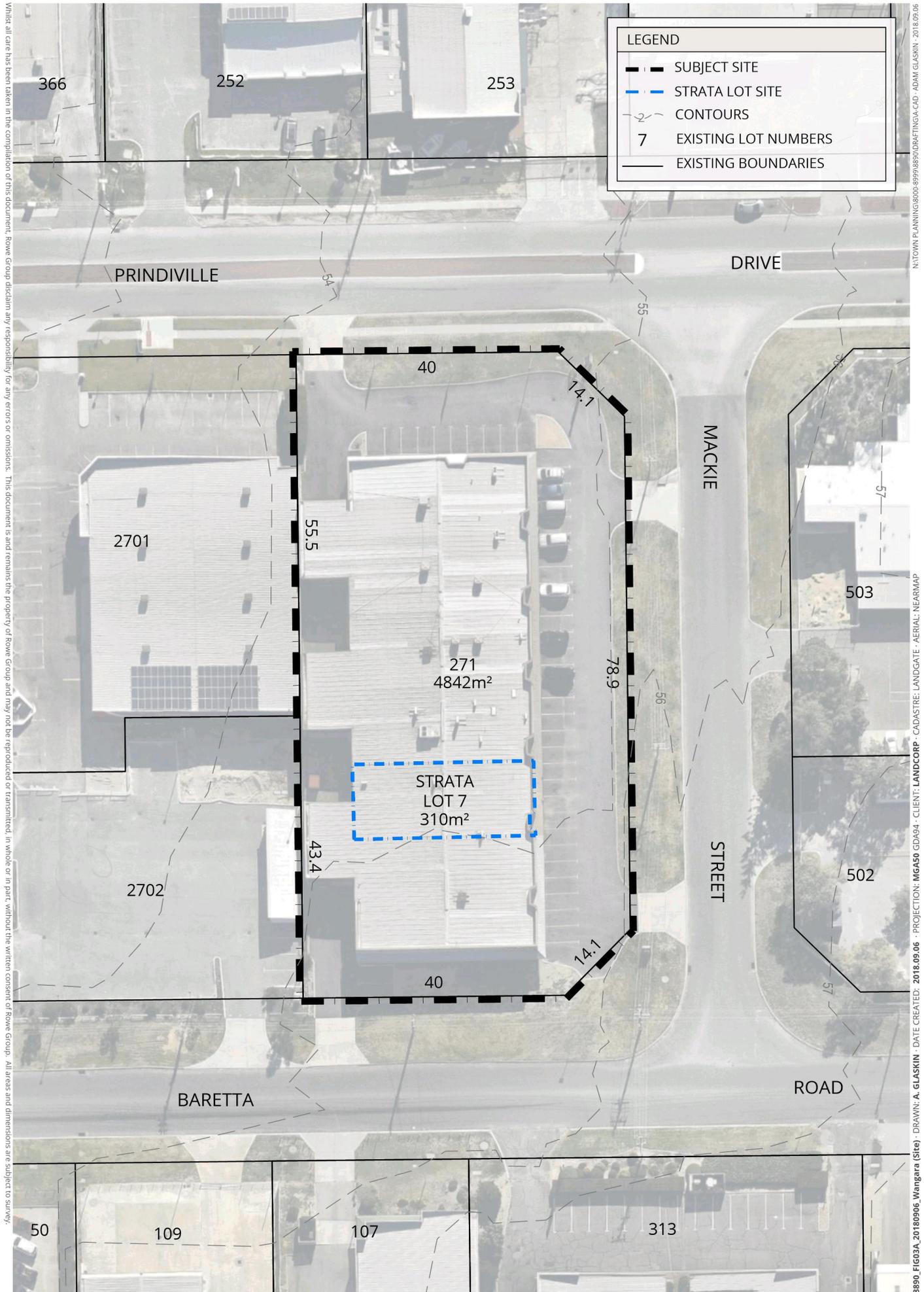
NO		STREET/LOCALITY	PARTICULARS OF LAND	ADDITIONAL USE AND CONDITIONS (WHERE APPLICABLE)
A41	1-41	Prindville Drive, Wangara	Lot 7 on Strata Plan 18103 Certificate of Title Volume 2132 Folio 388 (No.20)	Restricted Premises – 'D' use Condition: Operating hours between 10:00am and 5:00pm Monday to Saturday and 12noon to 5:00pm on Sundays.

and the Scheme Map accordingly; and

2. Pursuant to Regulation 53(1) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, PROVIDES the advertised amendment document to the Western Australian Planning Commission.

Attachments:

- 1 [↓](#). Attachment 1 - Location Plan and photos 18/517177
- 2 [↓](#). Attachment 2 - Scheme amendment document 171 doc 18/546817



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8890_FIG03A_20180906_Wangara (Site) - DRAWN: A. GLASKIN - DATE CREATED: 2018.09.06 - PROJECTION: MGA50 GD494 - CLIENT: LANDCORP - CADASTRE: LANDGATE - AERIAL: NEARMAP



No. 20 Prindiville Drive - View from North - East



No. 20 Prindiville Drive - View from South - East



DISTRICT PLANNING SCHEME No. 2

Amendment No. 171

FORM 2A

*Planning and Development Act 2005***RESOLUTION TO ADOPT AMENDMENT TO
LOCAL PLANNING SCHEME****CITY OF WANNEROO****DISTRICT PLANNING SCHEME NO. 2 - AMENDMENT NO. 171**

RESOLVED that the local government pursuant to section 75 of the *Planning and Development Act 2005*, amend the above local planning scheme by:

1. Amending Schedule 2 – Section 1 (Clause 3.20) – Additional Uses to insert the following:

NO		STREET/LOCALITY	PARTICULARS OF LAND	ADDITIONAL USE AND CONDITIONS (WHERE APPLICABLE)
A41	1-41	Prindiville Drive, Wangara	Lot 7 on Strata Plan 18103 Certificate of Title Volume 2132 Folio 388 (No.20)	Restricted Premises – 'D' use Conditions: Operating hours between 10am and 5pm Monday to Saturday and 12 noon to 5pm on Sundays.

2. Amending the Scheme Map accordingly.

The Amendment is standard under the provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* for the following reason:

1. The proposed Amendment proposes a land use that would not result in any significant environmental, social, economic or governance impacts on land in the scheme area. As such is considered a to be standard amendment in accordance with Clause 34 of the Regulations.

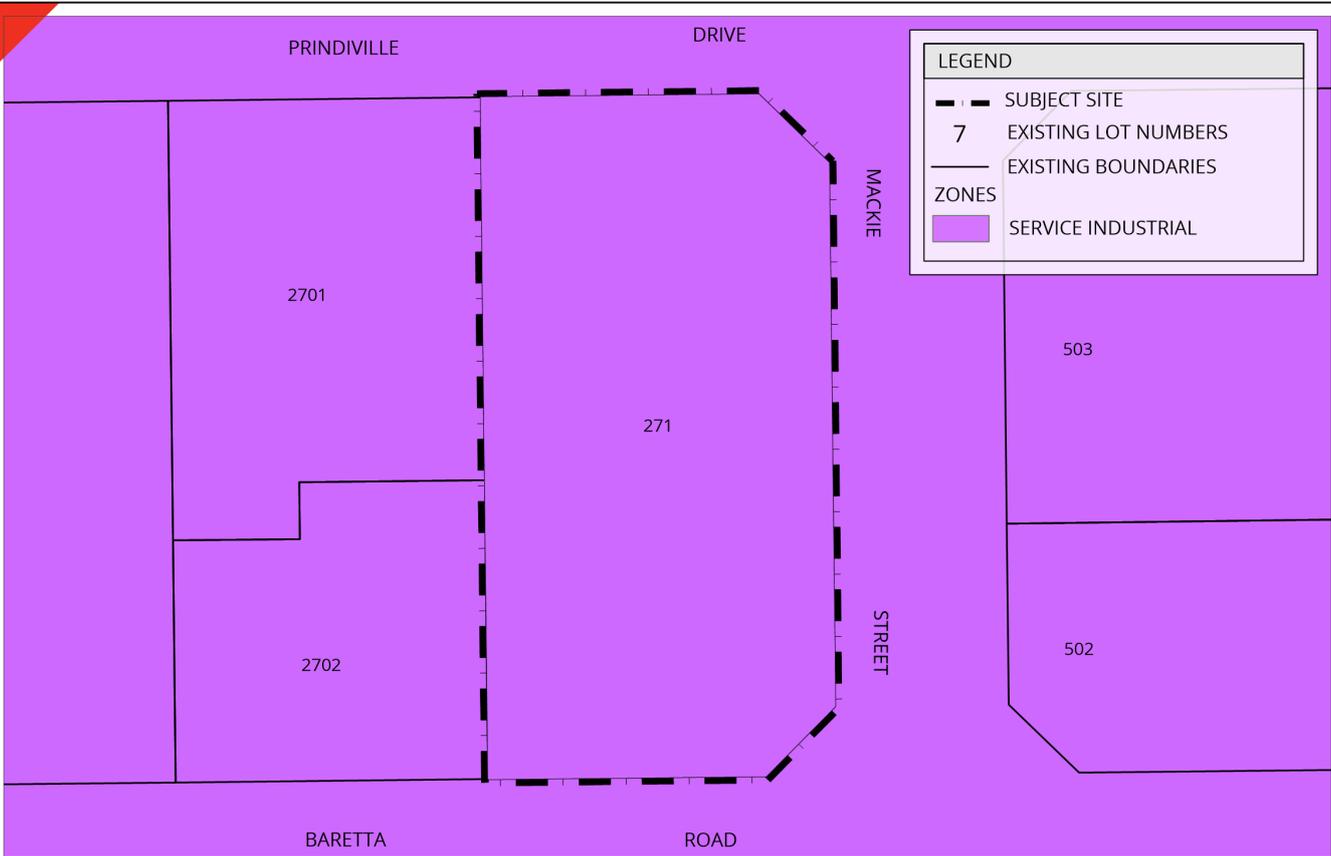
Date of Council Resolution.....

.....
(Chief Executive Officer)

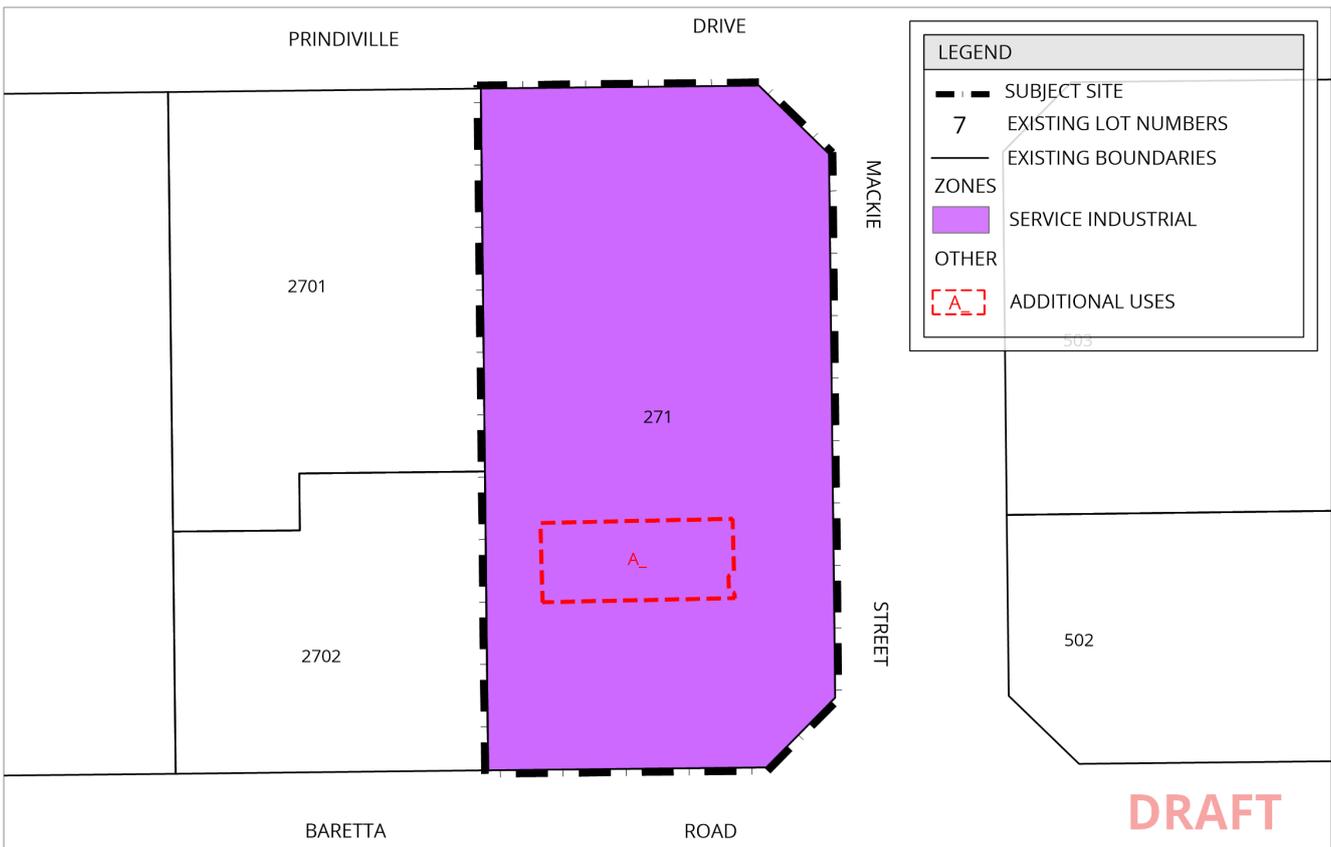
Dated this day of 20.....

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8890_FIG06A_20181206_Wangara (LPS REZONING) - DRAWN: W. CLEMENTS - DATE CREATED: 2018.12.06 - PROJECTION: MGA50 GD94 - CADASTRE: LANDGATE - N:\TOWN PLANNING\8890-8899\8890\FIG06A.CAD - WILLIAM CLEMENTS - 2018.12.06



EXISTING DPS No. 2 ZONING



DRAFT

PROPOSED DPS No. 2 ZONING

PROPOSED DPS No. 2 REZONING
 LOT 271 (No. 20) PRINDIVILLE DRIVE (STRATA LOT 7)
 WANGARA



5.2 Three Bin Kerbside Collection System

File Ref:	1458 – 19/223225
Responsible Officer:	Manager Waste Services
Disclosure of Interest:	Nil
Attachments:	5

Issue

To consider the Three Bin Kerbside Collection Business Case (the **Business Case**), in line with the Waste Services' Service Delivery Review 2018 Transition Plan.

Background

On 21 August 2018 Council resolved, in part, the following:

1. *RECEIVES* the "Waste Services Service Delivery Review 2018 – Report";
2. *ENDORSES* the implementation of the Draft "Waste Services Service Delivery Review 2018 – Transition Plan" as detailed in Attachment 2;..."

Administration has been working on the development of a Business Case for Council's consideration on how a three bin kerbside collection system, which provides for separately collected organic wastes, can be delivered within the City.

On 16 April 2019, the Waste Management Advisory Committee (**WMAC**) was updated on the progress of the implementation of 'Waste Services' Service Delivery Review Transition Plan' and it was agreed that this will now be presented to Council for consideration.

The Business Case (**Attachment 1**) investigates the implications of each of the range of options available to the City on this matter, with a view of forming a recommendation which is best for the community, the environment and the City's long term sustainability.

Detail

The City operates a two bin system to give residents the opportunity to dispose of their household waste at the kerbside.

One 240L yellow lid bin is provided for residents to dispose of co-mingled recyclable materials (e.g. hard plastics, paper, cardboard, glass bottles/ jars, cans, etc.). These bins are emptied fortnightly by the City's side loading waste compactor trucks and delivered to a third party processing facility in South Guildford.

One 240L green lid residual bin is also provided to residents to allow the disposal of residual waste (e.g. food, nappies, grass clippings and shrub cuttings etc.) These bins are emptied weekly by the City's side loading waste compactor trucks, and delivered routinely to either of the Mindarie Regional Council (**MRC**) Resource Recovery Facility (**RRF**) in Neerabup or Tamala Park.

The *Overall Approach* used to develop the Business Case is summarised as below:

Due diligence activities include:

- Inclusion of the community's opinion in the development of options;
- Stakeholder engagement – meetings/ discussions have taken place with key internal and external stakeholders;

- Research and analysis of numerous other Australian Local Government (**LG**) best practices;
- Recycling and recovery options available to the City, and their respective issues and opportunities; and
- Thorough modelling of the costs, benefits and risks of the options identified.

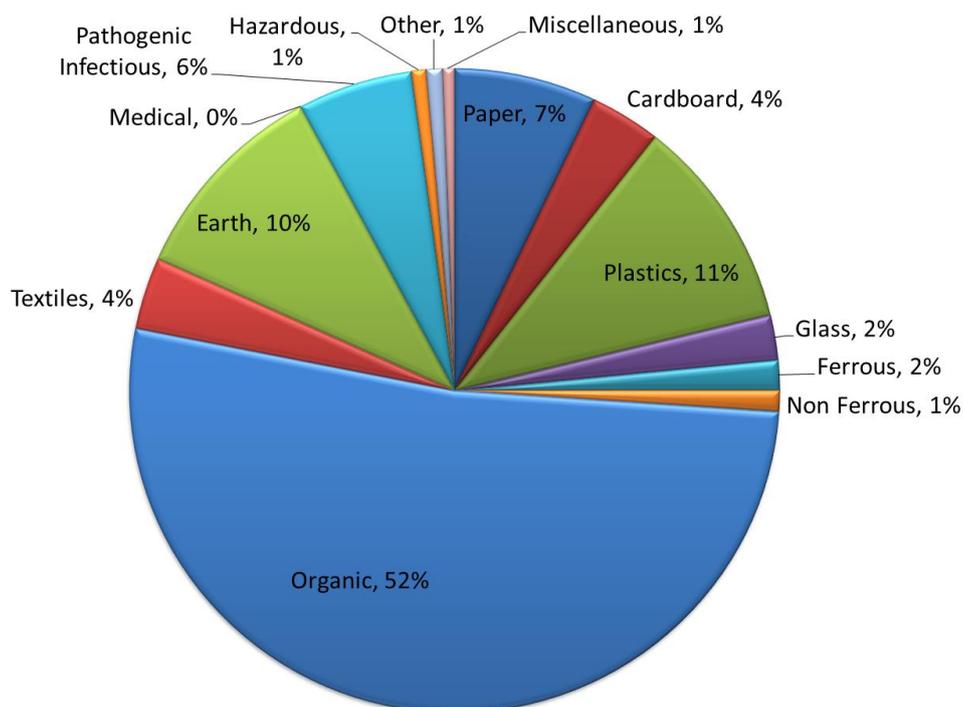
Business Case Inclusions are:

- 'Waste Authority Better Bins' funding;
- An analysis of current versus future waste management, transport and collection and bin size options available to the City;
- Consideration of community expectations for levels of service delivery;
- Impacts of the impending Container Deposit Scheme (**CDS**) in 2020;
- Best practice considerations for the introduction and roll out of a 3rd bin;
- Risk of service changes to and of MRC and it's member Councils;
- Issues related to service changes;
- Required marketing and advertising associated with changes to operations;
- Capital and operational costing for all options presented;
- Recommendations; and
- The next steps – detailing implementation requirements.

MRC Waste Audits

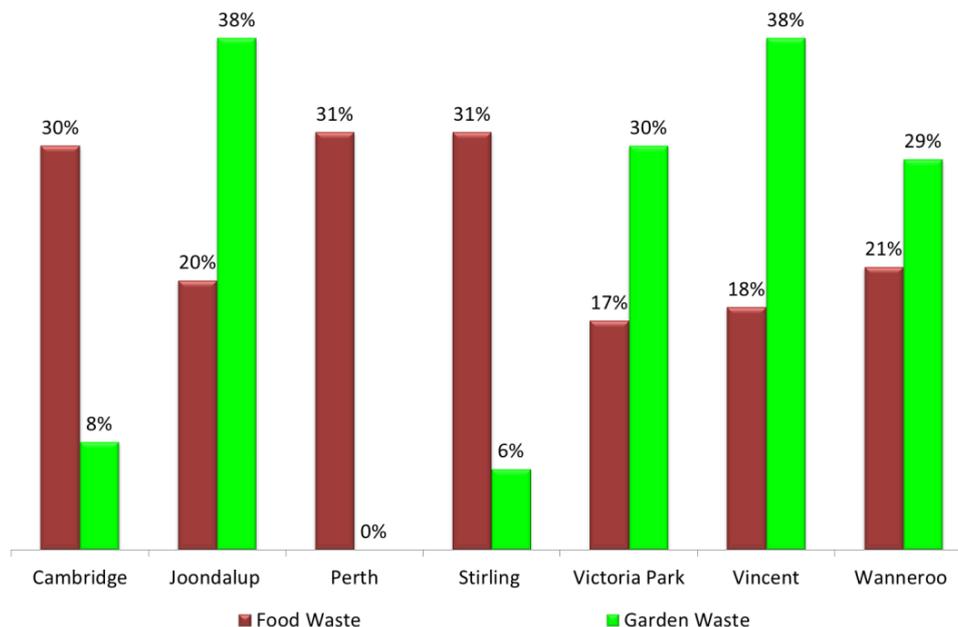
In 2017/18 MRC arranged waste audits in all seven MRC member Councils to gain an understanding of the material composition in the residual waste bin. The Southern Metropolitan Regional Council (**SMRC**) undertook waste audits on behalf of MRC. The audit provided overarching data in relation to recyclable (yellow lid bin waste) versus all other waste, it also broke down the data in to item descriptions.

Audit data was broken in to various item descriptions, data relating to each description and associated percentage of each stream is identified below. A full itemised list of individual descriptors can be viewed in **Attachment 2**.



MRC Waste Audit Data per item Description and Percentage

The graph below highlights the quantities of organic materials in each member Councils' residual waste bins. This shows that 50%, in total, (21% food and 29% greens) of the City's organic waste could be available for separate collection and processing in to product.



Percentage organics in residual waste bin

Organic Waste Management/ Processing Options

Two service delivery/processing options are available to the City:

- Garden Organics (**GO**); and
- Food Organics and Garden Organics (**FOGO**).

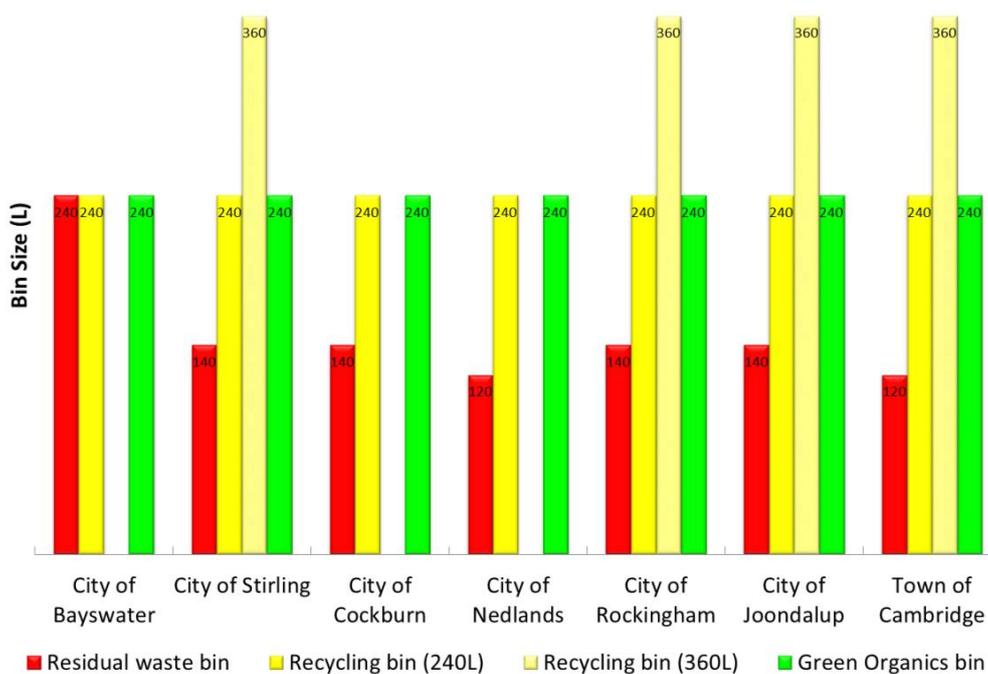
An assessment has been undertaken of all kerbside collection service options identified above as available to the City that can help achieve a greater diversion of waste from landfill.

These options include:

1. Do nothing - Administration will operate on a business as usual basis with no change to services or operating budget;
2. Introduce a third bin for the disposal of GO waste only and change bin lids to coincide with the Australian Standard (**AS**) 4123.7-2006 Mobile Waste Containers - Colours, markings and designation requirements. Only households located on plots >400m² would be eligible for the third bin; and
3. Introduce a third bin for the disposal of FOGO, bin lids to coincide with the AS 4123.7-2006 Mobile Waste Containers - Colours, markings and designation requirements.

Other Perth Metropolitan Local Authorities Three Bin Systems

The City has carried out a detailed analysis of the three bin kerbside collection systems employed by seven other Perth Metropolitan LG's (**Attachment 3** refers). These LG's provide a GO recycling service, and were initiated prior to the release of the 'Waste Avoidance and Resource Recovery Strategy 2030', earlier this year. The bin sizes offered by each can be seen in the graph below:



LG's with a three bin garden organics system

Service/ Bin Combination Options

The following table shows the potential waste management and bin size opportunities that are available to assist the City to divert a larger fraction of its waste from landfill and meet the objectives of the Waste Strategy, the waste processing technologies that these options could be sent to, any changes to existing bins that would be required, and the number of households that would be affected by each option.

Option	Bin Sizes	Waste Processing Option	Bin Change Requirements	No. of Households Affected
BAU	240	Recyclables		
	240	RRF		
1A (GO 3 Bin System plus BAU)	140	Landfill/RRF	Addition of new 140L red lidded bin	60,775
	240	Recycling	No change	0
	240	GO	Change dark green lid to lime green	60,775
	240	Recyclables	No change	0
	240	RRF	Change dark green lid to red	10,725
1B (FOGO 3 Bin System)	140	Landfill	Addition of new 140L red lidded bin	71,500
	240	Recycling	No change	0
	240	FOGO	Change dark green lid to lime green	71,500
2A (GO 3 Bin System plus BAU)	140	Landfill/RRF	Addition of new 140L red lidded bin	60,775
	**240/360	Recycling	Addition of new 360L litre bin	30,387
	240	GO	Change dark green lid to lime green	60,775
	**240/360	Recycling	Addition of new 360L litre bin	5,363
	240	RRF	Change dark green lid to red	10,725
2B (FOGO 3 Bin System)	140	Landfill	Addition of new 140L red lidded bin	71,500
	**240/360	Recycling	Addition of new 360L litre bin	35,750
	240	FOGO	Change dark green lid to lime green	71,500
3A (GO 3 Bin System plus BAU)	240	Landfill/RRF	Addition of new 240L red lidded bin	60,775
	240/360	Recycling	Addition of new 360L litre bin	30,387
	240	GO	Change dark green lid to lime green	60,775
	240/360	Recycling	Addition of new 360 litre bin	5,363
	240	Landfill/RRF	Change dark green lid to red	10,725
3B (FOGO 3 Bin System)	240	Landfill/RRF	Addition of new 240L red lidded bin	71,500
	240/360	Recycling	Addition of new 360L litre bin	35,750
	240	FOGO	Change dark green lid to lime green	71,500
4A (GO 3 Bin System plus BAU)	240	Landfill/RRF	Addition of new 240L red lidded bin	60,775
	240	Recycling	No change	0
	240	GO	Change dark green lid to lime green	60,775
	240	Recycling	No change	0
	240	RRF	Change dark green lid to red	10,725
4B (FOGO 3 Bin System)	240	Landfill/RRF	Addition of new 240L red lidded bin	71,500
	240	Recycling	No change	0
	240	FOGO	Change dark green lid to lime green	71,500

Three Bin System Options

A comprehensive list of the advantages and disadvantages of each three bin system is presented in **Attachment 4**.

Financial Modelling and Review

A full financial review and model has been developed which details the waste management, collection and transport and bin size options available to the City. All data has been developed in line with 2018/19 Budget and estimated 2018/19 tonnages. The model was developed and reviewed in collaboration with Strategic Finance, provides annualised costs for Business-As-Usual (BAU) versus all other options identified, and includes any potential funding that the City could expect, per model option, from the 'Better Bins Program', discussed above.

All costs for the implementation of each option discussed are modelled over a 10 year period and are in alignment with the LTFP for both operational and capital expenditure. The capital costs will be expended in year one, mainly for the purchase of bins and the logistical roll out costs to deliver bins to residents and change over bin lids.

The MRC gate fee figure used in the modelling is based upon data provided by the MRC and takes in to account the projected removal of tonnages by other MRC member Councils in future in their attempts to send any potential materials to alternative waste management solutions that potentially offer better resource recovery outcomes. In essence the financial modelling shows the effect of each member council removing their tonnage from MRC.

For each reduction in tonnes delivered to the MRC there is a commensurate increase in the gate fee of approximately \$7.00 per tonne for each reduction of 10,000 tonnes per annum as the MRC operation is largely fixed cost.

A model has also been developed which estimates the potential kerbside collection system recycling rate for all options, including BAU. This allows a comparison to be made between each option and has been overlaid on to the financial model, discussed above, in an attempt to show which option(s) provide the best outcome for the City.

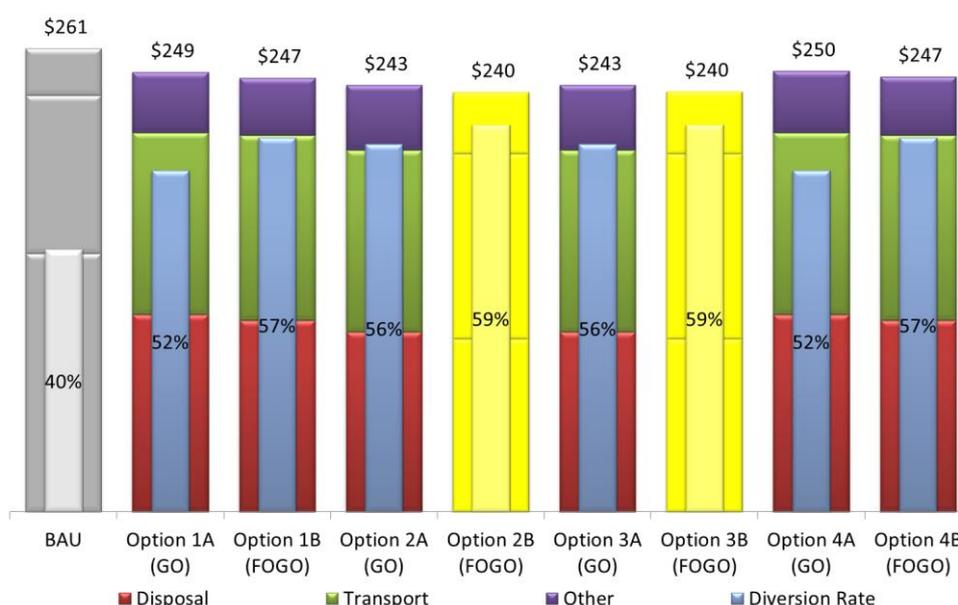
The model is based on the following waste management options and assumed industry rates for each, as researched from the market, available to the City for the treatment of residual, recycling and organic waste:

Waste Type	Waste Management Options
Residual Bin	Resource Recovery Facility, Landfill
Recycling Bin	Commingled Recyclables Processing
Green Organic (GO)	Green waste processing
Food & Green Waste (FOGO)	Composting

Overall Comparison (Financial vs Recycling Rate)

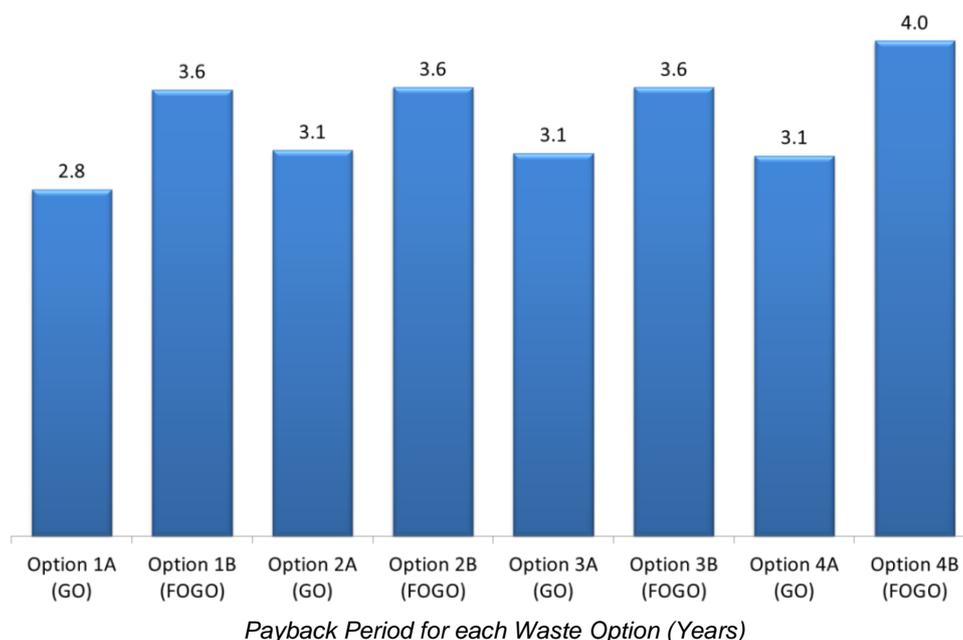
An overall comparison of each option compared to BAU is presented graphically, below.

The options which present the lowest forecasted cost over a ten year period and the highest recycling rate are both highlighted in yellow (assuming the *upper limit* processing gate fee of \$100 per tonne).



10 Year Operating Costs vs Recycling Rate (\$Millions) - by Waste Option

Payback Period for each proposed system's capital rollout expenses, in years, is presented in the graph below:



On review of all the system options, costs (disposal, transport, other, capital) and payback periods presented options 2B FOGO and 3B FOGO offer the City the most benefits in terms of operating costs and the highest diversion rate over a ten year period. The payback period is the same for both options and capital costs for option 3B are slightly higher than option 2B due to the fact that that Option 2B requires a new 140L residual bin and one lid exchange compared to option 3B where two lid exchanges are required.

By implementing a three bin FOGO system the City could anticipate savings of between \$21 million to \$34 million over a ten year period and an increase in kerbside recycling rates from 40% to 59% when compared to BAU.

Consultation

Consultation has occurred with several other LG's (throughout Australia) who have also provided information and assistance in the development of the Business Case.

A community survey was undertaken over a 29 day period in May and June 2018, to assist the City in understanding what its residents, customers and stakeholders require and value in relation to the future of waste management.

89% of 1,280 people, who responded, stated that they wanted the City to separate garden and food waste, to promote greater recycling. 75% of those surveyed also confirmed their approval of the installation of an additional kerbside collection service to dispose of those of separately collected FOGO materials.

85% of respondents confirmed answered that they thought it was very important to increase recycling. Only 15% of respondents indicated that they wanted an increased size bin to deal with the ever growing volumes of recyclable packaging which they buy, however an even smaller number (5%) indicated that they wanted an additional 240L recycling bin. 59% indicated that they would prefer a weekly pick up service for yellow lid recyclables. However when those respondents were questioned upon whether they would pay any extra costs to receive a weekly service, they very strongly argued against this, and 78% now indicated that they would prefer a larger recycling bin.

MRC Administration and other member Councils' representatives have been kept informed of the City's Waste Management Transition Plan since the Council endorsed it in August 2018.

Comment

There are numerous green waste processors within the Perth Metro area that are able to receive any separately collected GO waste to process those materials in to compost after a three bin system is implemented in the community. Indeed this is already the case for the City's separately collected bulk green waste and green waste which is dropped off by residents at the City's Wangara Green Waste Recycling Facility.

The experiences/ decisions of other LG's within WA, and wider afield, have also been reviewed, in an attempt to ensure that any potential recommendations take in to account the experience of those areas, and their residents, who are already being serviced with a three bin system.

Better Bins encourages the use of a three bin system (residual waste, commingled recycling and food organics and/ or garden organics) to support greater source separation and higher recovery. The program also encourages LG's to provide effective education and engagement so that residents know how to use the system effectively, and requires LG's to transition to AS bin colours. The system provides the City with the opportunity to introduce a third lime green lidded organics bin, which is made available for residents to dispose of either their GO waste or both FOGO waste.

If chosen, the GO option would only be provided to properties >400m² due to the lack of green waste prevalent in properties below this threshold. This practice is generally accepted throughout other Australian LG's. If the City were to install a GO system, 60,775 properties would be eligible. The remainder of households would remain with a two bin system, but the current dark green lid bin would have the lid changed to a red lid. If the City were to opt for a FOGO kerbside collection system, this would result in all households being supplied with three separate bins.

Any residual waste disposed of at the MRC's RRF or Tamala Park Landfill will be subject to increasing annual gate fees, due to MRC having semi fixed costs. The more tonnage, which member Councils divert away from the MRC, the higher the gate fee becomes as those costs are required to be recovered. The only mechanism available to MRC to do this is to increase gate fee for the remaining tonnes. The gate fee for subsequent years' gate fees are likely to be higher, for the reasons highlighted, as MRC member Councils send more materials to alternative recycling options to meet the objectives and targets set by the *Waste Avoidance and Resource Recovery Strategy 2030*.

Commingled recyclable processing worldwide has seen a shift over the past couple of years as a result of China, historically the world's largest receiver of materials for reprocessing, refusing to admit substandard recyclables from other countries. This has caused the gate fees of processors to increase as their ability to gain other revenues from marketable processed product has diminished. Resultantly, it is very unlikely that the City will enjoy its current gate fee of \$20.48 per tonne in to the future. An appropriate per tonne figure has been utilised for modelling purposes in this Business Case.

The City invited an Expression of Interest (**EOI**) in December 2018 for the provision of FOGO processing, in an attempt to identify what options may be available from industry, both now and in to the future. The City received six submissions from the EOI, the quality and detail of which has highlighted that the processing of these materials is possible, and could be available in the event that the City proceeds with the implementation of a FOGO processing option in future.

Financial modelling has been undertaken which seeks to account for the capital costs associated with each option, the forecasted operational costs/savings of each in comparison to business as usual and the time required to recoup the initial capital costs (from expected savings). The model produced takes into account the implications and consequences of the City's membership of MRC; specifically the MRC gate fee used for forecasting has been amended to reflect if/ when each member Council is expected to change their service delivery models and reduce their respective quantity of waste materials disposed of at the MRC (as noted in papers accessible from each member Council).

It is noted that Administration intends to present a separate report at an appropriate time on the wider MRC implications of each member council continuing to send recyclable materials to processing solutions out with the MRC.

Any potential issues that the community could face due to the installation of a third bin have been assessed. These include, but are not limited to, bin size options, bin storage space (both in single and multi-unit dwellings), the disposal of nappies/ healthcare products, etc.

To deliver the Three Bins Kerbside Collection Project, the City would require internal resources, for the duration of the project rollout, with waste knowledge to ensure that any new system is efficiently and effectively delivered for residents. The financial model includes the estimated cost of these project specific resources.

The successful delivery of the Program also requires the implementation of a planned communication plan, which will provide the tools and framework that deliver an effective and sustainable message to encourage behavioural change in the community. Education is not just a one way distribution of information; it is about engagement and participation of all stakeholders in creating change. It may take many forms including:

- Printed materials such as brochures, flyers, posters, letters and stickers;
- Electronic resources such as websites, social media, e-newsletters and digital versions of printed communications; and phone apps;
- Media such as newspaper, City of Wanneroo community newsletter, radio and TV;
- Informal workshops and presentations, such as school education programs, community workshops and resident association presentations;
- Community events and static displays, in locations such as shopping centres and libraries; and
- Signage, including bus shelter advertising, banners and bus livery.

Subject to Council's decision on the recommendation in the report, overarching community information will be released during July/ August to advise residents of the implementation of a three bin kerbside collection system. This will be followed by more comprehensive communications to the community from November 2019, onwards.

The Waste Hierarchy (avoidance, reuse, reprocessing, recycling, energy recovery, dispose) will continue to be advocated through waste education activities that are aligned with both the project and the City's current Waste Education Plan.

It has been calculated that three further vehicles would be required to deliver that service due to the reduced amount of unproductive travel time that would be experienced as more bins would be emptied per truck. Analysis indicates that the implementation of an organics recycling collection service could potentially result in a 2.5% increase in carbon dioxide production due to increase transport requirements. This is a modest increase, given the scale of the size of operations involved.

Subject to the Council's endorsement of the recommendations on the implementation of this Program, Administration proposes to invite tenders for the commissioning of a suitable contractor for the processing of the City's FOGO wastes and commence the program rollout

from 1 July 2020. At the conclusion of the tender process, around October/ November 2019, the implementation schedule and other associated details will need further refinement and consideration by Council. These details will include key milestones and dates, risk mitigation strategies, and deployment details.

It is also noted that the funding agreement with the Waste Authority to receive funding for the implementation of the Better Bins Program is also required to be finalised and agreed to by the City by 30 September 2019.

The option to introduce a third bin to divert the City's organic waste is directly aligned to the Waste Authority's Better Bins Kerbside Collection Program.

This report seeks Council's:

- Approval to implement of a Three Bin Kerbside Collection System (as per Options 2B and 3B in the Business Case) in line with the Waste Authority's Better Bins Kerbside Collection Program, that separately collects FOGO wastes for onward processing by a third party contractor in to an AS 4454 standard compliant product;
- Authorisation for administration to invite tenders for the commissioning of a suitable contractor to process the City's FOGO waste; and
- Approval for the Chief Executive Officer to finalise and authorise the Better Bins Program Funding Agreement with Waste Authority;

Statutory Compliance

The *Waste Avoidance and Resource Recovery Act 2007 (WARR Act)* confers on the Minister for the Environment the ability to require any local government to provide waste services to its community in line with the State Waste Strategy:

- *Waste Avoidance and Resource Recovery Strategy 2030*; and
- *Waste Avoidance and Resource Recovery (WARR) Act 2007*.

Strategic Implications

The proposal aligns with the following objective within the Strategic Community Plan 2017 – 2027:

- “3 *Environment (Natural)*
 - 3.3 *Reduce, Reuse, Recycle, Waste*
 - 3.3.3 *Create and promote waste management solutions*”

Risk Management Considerations

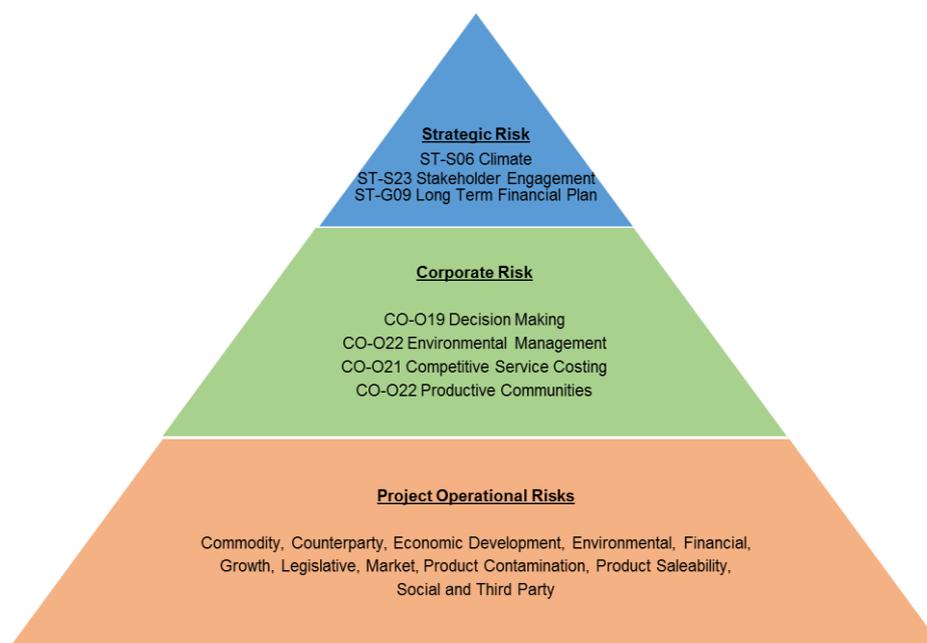
Risk Title	Risk Rating
CO-021 Competitive Service Costing	High
Accountability	Action Planning Option
Director Community & Place	Manage

Risk Title	Risk Rating
CO-022 Environmental Management	High
Accountability	Action Planning Option
Director Planning & Sustainability	Manage

Risk Title	Risk Rating
ST-G09 Long Term Financial Planning	Moderate
Accountability	Action Planning Option
Director Corporate Strategy & Performance	Manage

The above risk/s relating to the issue contained within this report have been identified and considered within the City's Strategic/ Corporate risk registers. Action plans have been developed to manage these risks to support existing management systems.

In preparing the Business Case a full review of risks has been undertaken as detailed in **Attachment 5** and summarised below:



Three Bin System Risk Register

It is noted that actions to mitigate identified risks will be developed further and included in the further report to Council following the conclusion of the FOGO Processing tender process. The tender for the FOGO Processing will require the potential contractor to demonstrate to the City their financial capacity, planned approach to deliver the new services, operational capacity, market viability of the end product and their own risk assessment and mitigation strategies. This will be similar to the City's recently advertised tender for the processing of comingled recycling waste.

Policy Implications

The City's Waste Management Services Policy defines the level of waste management service to be delivered to the community. The City's Strategic Waste Management Plan 2016 – 2022 is aligned with the State Waste Strategy.

Financial Implications

Detailed financial modelling has been undertaken to assess the impact of the various options identified for the implementation of the Better Bins Program. The modelling includes:

- Capital cost for the procurement of new bins;
- Operational resources (staff and communication plan) costs required for the program rollout;
- Operational costs for the pick-up of the third bin;
- Organic waste processing costs; and
- Impact on the other waste management costs including MRC gate fee.

It is proposed to utilise the funding in the City's Waste Reserve, which has a balance of \$8.9m, to procure the new bins. Subject to Council's decisions, the savings generated from the implementation of the Three Bin Kerbside Collection System can be utilised to payback the Reserve funding.

Subject to the signing of the Better Bins Program funding agreement, the City is expected to receive up to \$2.4 million from the Waste Authority.

Funding provisions of \$320,000 for salaries for the additional internal resources for the program rollout and \$250,000 for marketing and community engagement have been included in the draft 2019/20 Budget.

Voting Requirements

Simple Majority

Recommendation

That Council:-

1. **APPROVES** the implementation of the Three Bin Kerbside Collection System (as per Options 2B and 3B in the Business Case) in line with the Waste Authority's Better Bins program, that separately collects Food and Garden Organics wastes for onward processing by a third party contractor in to an Australian Standards 4454 standard compliant product;
2. **AUTHORISES** administration to invite tenders for the commissioning of a suitable contractor to process the City's Food and Garden Organics waste;
3. **SEEKS** a further report following the completion of the tender process as per Recommendation 2, detailing the implementation schedule including key milestones and dates, risk mitigation strategies, and deployment details;
4. **AUTHORISES** the Chief Executive Officer to finalise and authorise the Better Bins Program Funding Agreement with Waste Authority; and
5. **ADVISES** Mindarie Regional Council of the Council's decision.

Attachments:

1 	<i>Three Bin Kerbside Collection Business Case</i>	19/236779	<i>Confidential</i>
2 	<i>SMRC Waste Audit Data</i>	19/227835	
3 	<i>Metro 3 Bin Systems</i>	19/227922	
4 	<i>Advantages and Disadvantages of Three Bin Options</i>	19/228001	
5 	<i>Waste Services 3 Bin System Risk Register</i>	19/212653	

ATTACHMENT 1

Three Bin Kerbside Collection – Business Case

This attachment is confidential and distributed under separate printed cover to all Elected Members

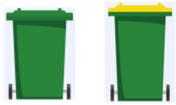
Administration use only

Attachment 1 – HPE # 19/134245[V3]

Summary		Percentage of Total Weight
Total Recyclables		26%
Total Non Recyclables		74%
Total		
Item Description		Percentage of Total Weight
Paper		Percentage of Total Weight
Newspaper		0%
Glossy Paper		2%
Office Paper		1%
Coloured Paper		0%
Other Paper		4%
Net Paper Weight:		7%
Cardboard		Percentage of Total Weight
Corrugated Cardboard		1%
Flat Cardboard		2%
Liquid Paper Board Foil Lined		0%
Liquid Paper Board Other		0%
Other Cardboard		1%
Net Cardboard Weight:		4%
Plastics		Percentage of Total Weight
PET #1		1%
HDPE#2		1%
PVC#3		0%
LDPE#4 (Recyclable)		0%
Polypropylene#5		1%
Polystyrene #6		1%
Plastic#7 Other		1%
Plastic Bags		6%
Plastic Film		0%
Composite (Mostly Plastic)		0%
Net Plastic Weight:		11%
Glass		Percentage of Total Weight
Amber Glass		0%
Blue Glass		0%
Clear Glass		1%
Green Glass		0%
Miscellaneous/Other Glass		0%
Net Glass Weight:		2%
Ferrous		Percentage of Total Weight
Steel Cans		1%
Steel Aerosols		0%
Ferrous Composite		0%
Ferrous Other		1%
Net Ferrous Weight:		1%
Non Ferrous		Percentage of Total Weight
Aluminium Cans		0%
Aluminium Foil		1%
Non-Ferrous Composite		0%
Non-Ferrous Other		0%
Net Non-Ferrous Weight:		1%
Item Description		Percentage of Total Weight
Organic		Percentage of Total Weight
Food Waste		21%
Green Waste		29%
Wood		1%
Straw		0%
Other Putrescible		1%
Net Organic Weight:		52%

Textiles	
Textiles Natural	0%
Textiles Synthetic	2%
Other Textiles	1%
Net Textiles Weight:	4%
Earth	
Dust 'n' Dirt 'n' Rock 'n' Inert	9%
Ceramics	0%
Ash	0%
Bricks	1%
Concrete	1%
Net Earth Weight:	10%
Medical	
Pharmaceuticals	0%
Medical Waste	0%
Hypodermic Syringes	0%
Net Medical Weight:	0%
Pathogenic Infectious	
Sanitary / Hygiene	0%
Nappies	5%
Net Pathogenic Infectious Weight:	6%
Hazardous	
Chemicals	0%
Paint	0%
Batteries Household	0%
Batteries Other	0%
Fluorescent Tubes/Light Bulbs	0%
Oil Household, Motor & Other	0%
Building Material	0%
Hazardous Other	0%
Net Hazardous Weight:	1%
Other	
Toner Cartridges	0%
Computer Equipment	0%
Mobile Phones	0%
Electrical Items	0%
Wax Candle & Other	0%
Rope	0%
Other Household Items	0%
Other (Specify)	0%
Net Other Weight:	1%
Miscellaneous	
Miscellaneous	1%
Net Miscellaneous Weight:	1%

Local Authority	Bin Size (L)			Year Introduced	Option to upgrade to a larger 240L waste bin	Additional weekly waste collections	Roll-out Methodology
	240	240	240				
City of Bayswater	240	240	240	2009	Additional 240L waste bin costs \$164 annually	No	All properties
City of Stirling	140	240	240	2015	No	No	Only to properties >400m ²
City of Cockburn	140	240	240	2016-2019	No	No	Staged roll out to all properties >400m ² . Properties <400m ² can request a GO bin if the City agrees there is sufficient green size to justify the service.
City of Nedlands	120	240	240	2016	Yes, waste fee increase from \$298 to \$660	No	All properties
City of Rockingham	140	240/360	240	Jul-17	No	Yes for an additional waste fee of \$187	All properties
City of Joondalup	140	240/360	240	Jan-19	Yes, from 1 July 2019 the fee to upgrade to a 240L waste bin is \$85 and from 1 July 2020 the fee will increase up to \$200.	No	All properties
Town of Cambridge	120	240/360	240	2011/2012	Yes - waste fee increases from \$100 to \$500.	No	Only to properties >400m ²

Option	Positives	Negatives
<p>BAU (2 bin System) 240L 240L Footprint 0.854m²</p> 	<p>Minimal impact to householder</p> <p>No additional space required for a 3rd bin</p> <p>No change to collection schedules</p> <p>Less confusion and less decision making by housholder</p> <p>No change to bin size</p>	<p>Not in line with State Waste Strategy</p> <p>Will not achieve State Waste diversion targets</p> <p>Increase in landfill disposal costs due to increases in tipping fees and landfill levy</p> <p>RRF not as efficient a recovery process</p> <p>Bin colours not standardised to meet Australia Standard AS 4123.7-2006</p> <p>Confusion amongst residents as neighbouring Councils have moved to 3 bin system</p>
<p>1A (GO 3 Bin System) 140L 240L 240L (waste collected weekly) Footprint 1.183m²</p> 	<p>Increase recycling rates, divert organics from landfill in line with Waste Hierarchy and State Waste Strategy 2030</p> <p>Meet community expectations of responsible waste management by Council</p> <p>Standardised bin colours to meet Australia Standard AS 4123.7-2006</p> <p>Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected fortnightly</p> <p>Reduces greenhouse gas emissions (methane) and associated climate change impacts as less waste sent to landfill</p> <p>Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill</p> <p>75% of the community support the addition of a 3rd bin (Community Survey 2018)</p> <p>\$30 funding per household available from Waste Authority</p> <p>Supports a viable resource recovery industry</p> <p>Produce compost that can be used as soil improver/fertiliser</p> <p>Effective community education and compliance programs to reduce contamination</p> <p>Increase organic waste recovered</p> <p>The Waste Authority favours a bin system that incorporates a small 140L waste bin to encourage residents to reduce waste generation and maximise recycling.</p>	<p>Possible community opposition from residents who feel they do not require a third bin</p> <p>140L waste bin may not be sufficient for larger households particularly where large volumes of nappies are generated</p> <p>Property may not have sufficient space to accommodate a 3rd bin</p> <p>Contamination rates in yellow and green bins could potentially be higher as 140L waste bin may not be sufficient for large households</p> <p>No additional recycling volume</p> <p>Provision of GO bin not in line with Waste Strategy</p> <p>Only one organic waste stream collected</p>
<p>1B (FOGO 3 Bin System) 140L 240L 240L (waste collected fortnightly) Footprint 1.183m²</p> 	<p>Provision of FOGO bin in line with State Waste Strategy 2030</p> <p>Meet community expectations of responsible waste management by Council</p> <p>Standardised bin colours to meet Australia Standard AS 4123.7-2006</p> <p>Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected weekly</p> <p>Reduces greenhouse gas emissions (methane) and associated climate change impacts as all organic waste no longer sent to landfill</p> <p>The Waste Authority favours a bin system that incorporates a small 140L waste bin to encourage residents to reduce waste generation and maximise recycling.</p> <p>Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill</p> <p>Providing all household with a FOGO service achieves the highest participation and diversion rate</p> <p>FOGO processing costs lower than landfill disposal costs</p> <p>75% of the community support the addition of a 3rd bin (Community Survey 2018)</p> <p>\$30 funding per household available from Waste Authority</p> <p>Increase organic waste recovered</p> <p>Supports a viable resource recovery industry</p> <p>Produce compost that can be used as soil improver/fertiliser</p> <p>Effective community education and compliance programs to reduce contamination</p> <p>Collection of FOGO weekly and waste fortnightly in line with the Citys Waste Service Delivery Review</p> <p>Greater potential to achieve State Waste Strategy Targets of 65% diversion rate by 2020 and 70% diversion rate by 2030 by utilising a FOGO bin</p>	<p>Concerns amongst residents about losing weekly general waste collection service</p> <p>Perception amongst residents in relation to odour, vermin & overflowing bins for fortnightly collection of general waste bin</p> <p>140L waste bin may not be sufficient for larger households particularly where large volumes of nappies are generated</p> <p>Potential to provide a 240L general waste bin or additional 140L waste bin to households using nappies at a cost or under exemption</p> <p>Contamination rates in yellow and green bins could potentially be higher as 140L waste bin may not be sufficient for large households</p> <p>Possible community opposition from residents who feel they do not require a third bin</p> <p>No additional recycling volume</p> <p>Properties may not have sufficient space to accommodate 3 bins</p> <p>Additional costs for kitchen caddies and compostable bags/bin liners</p> <p>Change to general waste collection schedule from weekly to fortnightly</p> <p>Property may not have sufficient space to accommodate 3 bins</p>

<p>2A (GO 3 Bin System) 140L 240L/360L 240L (waste collected weekly) Footprint 1.333m²</p> 	<p>Increase recycling rates, divert organics from landfill in line with Waste Hierarchy and State Waste Strategy 2030</p>	<p>140L waste bin may not be sufficient for larger households particularly where large volumes of nappies are generated</p>
	<p>Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill</p>	<p>Property may not have sufficient space to accommodate 3 bins or a larger 360L recycling bin</p>
	<p>Meet community expectations of responsible waste management by Council</p>	<p>Possible community opposition from residents who feel they do not require a third bin</p>
	<p>Standardised bin colours to meet Australia Standard AS 4123.7-2006</p>	<p>Contamination rates in yellow and green bins could potentially be higher as 140L waste bin may not be sufficient for large households</p>
	<p>Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected fortnightly</p>	<p>Provision of GO bin not in line with Waste Strategy 2030</p>
	<p>Reduces greenhouse gas emissions (methane) and associated climate change impacts as less waste sent to landfill</p>	<p>Only one organic waste stream collected</p>
	<p>75% of the community support the addition of a 3rd bin (Community Survey 2018)</p>	
	<p>\$30 funding per household available from Waste Authority</p>	
	<p>360L recycling bin has the potential to receive recyclables currently disposed of in general waste bin</p>	
	<p>The Waste Authority favours a bin system that incorporates a small 140L waste bin to encourage residents to reduce waste generation and maximise recycling.</p>	
	<p>Effective community education and compliance programs to reduce contamination</p>	
	<p>Supports a viable resource recovery industry</p>	
	<p>Produce compost that can be used as soil improver/fertiliser</p>	
	<p>Increase organic waste recovered</p>	
<p>2B (FOGO 3 Bin System) 140L 240L/360L 240L (waste collected fortnightly) Footprint 1.333m²</p> 	<p>Providing all household with a FOGO service achieves the highest participation and diversion rate</p>	<p>Concerns amongst residents about losing weekly general waste collection service</p>
	<p>Collection of FOGO weekly and waste fortnightly in line with the City's Waste Service Delivery Review</p>	<p>Perception amongst residents in relation to odour, vermin & overflowing bins for fortnightly collection of waste bin</p>
	<p>Increase recycling rates, greater diversion of organics from landfill in line with State Waste Strategy 2030 and Waste Hierarchy</p>	<p>140L waste bin may not be sufficient for larger households particularly where large volumes of nappies are generated</p>
	<p>Meet community expectations of responsible waste management by Council</p>	<p>Potential to provide a larger general waste bin to households using nappies at a cost or under exemption</p>
	<p>Standardised bin colours to meet Australia Standard AS 4123.7-2006</p>	<p>Properties may not have sufficient space to accommodate 3 bins</p>
	<p>75% of the community support the addition of a 3rd bin (Community Survey 2018)</p>	<p>Additional costs for kitchen caddies and compostable bags/bin liners</p>
	<p>Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill</p>	<p>Change to general waste collection schedule from weekly to fortnightly</p>
	<p>The Waste Authority favours a bin system that incorporates a small 140L waste bin to encourage residents to reduce waste generation and maximise recycling.</p>	<p>Possible community opposition from residents who feel they do not require a third bin</p>
	<p>Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected weekly</p>	
	<p>Reduces greenhouse gas emissions (methane) and associated climate change impacts as less waste sent to landfill</p>	
	<p>Reduces leachate in landfills caused by decaying food organics</p>	
	<p>\$30 funding per household available from Waste Authority</p>	
	<p>Effective community education and compliance programs to reduce contamination</p>	
	<p>Increase organic waste recovered</p>	
<p>Produce compost that can be used as soil improver/fertiliser</p>		
<p>Supports a viable resource recovery industry</p>		
<p>FOGO processing costs lower than landfill disposal costs</p>		
<p>Greater potential to achieve State Waste Strategy Targets of 65% diversion rate by 2020 and 70% diversion rate by 2030 by utilising a FOGO bin</p>		
<p>360L recycling bin has the potential to receive recyclables currently disposed in general waste bin</p>		
<p>3A (GO 3 Bin System) 240L 240L 240L (waste collected weekly) Footprint 1.281m²</p> 	<p>Larger 240L waste bin accommodates larger households who generate more waste</p>	<p>\$24 funding per household available from Waste Authority</p>
	<p>Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected fortnightly</p>	<p>Increase in waste disposal costs</p>
	<p>Standardised bin colours to meet Australia Standard AS 4123.7-2006</p>	<p>Possible community opposition from residents who feel they do not require a third bin</p>
	<p>Increase recycling rates, divert waste from landfill in line with Waste Hierarchy and State Waste Strategy 2030</p>	<p>No additional recycling volume</p>
	<p>75% of the community support the addition of a 3rd bin (Community Survey 2018)</p>	<p>Provision of GO bin not in line with Waste Strategy 2030</p>
	<p>Effective community education and compliance programs to reduce contamination</p>	<p>Properties may not have sufficient space to accommodate 3 bins</p>
	<p>Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill</p>	<p>Only one organic waste stream collected</p>
	<p>Produce compost that can be used as soil improver/fertiliser</p>	
	<p>Increase organic waste recovered</p>	
	<p>Supports a viable resource recovery industry</p>	

<p>3B (FOGO 3 Bin System) 240L 240/360L 240L (waste collected fortnightly) Footprint 1.281m²</p> 	Larger 240L waste bin accommodates larger households who generate more waste	Possible community opposition from residents who feel they do not require a third bin	
	FOGO processing costs lower than landfill disposal costs		
	Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected fortnightly	Concerns amongst residents about losing weekly general waste collection service	
	Standardised bin colours to meet Australia Standard AS 4123.7-2006	Perception amongst residents in relation to odour, vermin & overflowing bins for fortnightly collection of waste bin	
	Effective community education and compliance programs to reduce contamination	Properties may not have sufficient space to accommodate 3 bins	
	Providing all household with a FOGO service achieves the highest participation and diversion rate	Additional costs for kitchen caddies and compostable bags/bin liners	
	75% of the community support the addition of a 3rd bin (Community Survey 2018)	Change general waste collection schedule from weekly to fortnightly	
	Collection of FOGO weekly and waste fortnightly in line with the City's Waste Service Delivery Review		
	Greater potential to achieve State Waste Strategy Targets of 65% diversion rate by 2020 and 70% diversion rate by 2030 by utilising a FOGO bin		
	Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill		
	Produce compost that can be used as soil improver/fertiliser		
	Increase organic waste recovered		
	Supports a viable resource recovery industry		
<p>4A (GO 3 Bin System) 240L 240L 240L (waste collected weekly) Footprint 1.281m²</p> 	Larger 240L waste bin accommodates larger households who generate more waste	Possible community opposition from residents who feel they do not require a third bin	
	Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected fortnightly	No additional recycling volume	
	Standardised bin colours to meet Australia Standard AS 4123.7-2006	Provision of GO bin not in line with Waste Strategy 2030	
	Increase recycling rates, divert waste from landfill in line with Waste Hierarchy and State Waste Strategy 2030	Properties may not have sufficient space to accommodate 3 bins	
	Effective community education and compliance programs to reduce contamination	Only one organic waste stream collected	
	Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill		
	75% of the community support the addition of a 3rd bin (Community Survey 2018)		
	Produce compost that can be used as soil improver/fertiliser		
	Increase organic waste recovered		
	360L recycling bin has the potential to receive recyclables currently disposed in general waste bin		
	Supports a viable resource recovery industry		
	<p>4B (FOGO 3 Bin System) 240L 240L 240L (waste collected fortnightly) Footprint 1.281m²</p> 	Larger 240L waste bin accommodates larger households who generate more waste	Possible community opposition from residents who feel they do not require a third bin
		Potential reduction in bulk green collection costs as green waste diverted to 3rd bin which is collected fortnightly	No additional recycling volume
Standardised bin colours to meet Australia Standard AS 4123.7-2006		Properties may not have sufficient space to accommodate 3 bins	
Increase recycling rates, greater diversion of waste from landfill in line with Waste Hierarchy		Additional costs for kitchen caddies and compostable bags/bin liners	
75% of the community support the addition of a 3rd bin (Community Survey 2018)		Change to general waste collection schedule from weekly to fortnightly	
Collection of FOGO weekly and waste fortnightly in line with the City's Waste Service Delivery Review			
Providing all household with a FOGO service achieves the highest participation and diversion rate			
Reduction in landfill disposal costs due to a reduction in the amount of valuable materials going to landfill			
Increase organic waste recovered			
Produce compost that can be used as soil improver/fertiliser			
Supports a viable resource recovery industry			
Effective community education and compliance programs to reduce contamination			
360L recycling bin has the potential to receive recyclables currently disposed in general waste bin			

Risk Title	Link with Strategic / Corporate Risk Register	Category	Business As Usual (BAU) 2 Bin System		Proposed Three Bin Options			Comments	
			Business As Usual (BAU)	Recyclables Materials	Residual Waste	Recyclables Materials	Food Organic & Green Organic (FOGO) Materials		Green Organic (GO) Materials
Commodity/ Market	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management CO-O21 Competitive Service Costing CO_22 Productive Communities	Positive	1. The commodity produced can be used by some markets, mainly agriculture and freeway verge cover, but with no real monetary value. 2. The materials when processed are made in to other products. 3. The processing methodology meets circular economy principals.	1. The commodity produced has a well established use for the production of recycled materials and is saleable globally. 2. The materials when processed are made in to other products. 3. The processing methodology meets circular economy principals.	N/A	1. The commodity produced has a well established use for the production of recycled materials and is saleable globally. 2. The materials when processed are made in to other products. 3. The processing methodology meets circular economy principals.	1. Clean FOGO materials can be processed in to Australian Standard compost. 2. The commodity has many beneficial uses and can be blended in to various specified products 3. This commodity can be used by many different industries. 4. High quality Australian Standard product is extremely saleable. 5. There is potential for the City to utilise the compost/commodity within its own parks and gardens. 6. The new Waste Strategy discusses increasing the development of markets for recycled materials. FOGO materials are highlighted as a Priority Waste.	1. Clean GO materials can be processed in to Australian Standard mulch/compost. 2. The commodity has many beneficial uses and can be blended in to various specified product. 3. This commodity can be used by many different industries. 4. A mature market already exists for a high quality Australian Standard product. 5. There is potential for the City to utilise the compost/commodity within its own parks and gardens.	The organic commodity produced via the BAU methodology cannot meet market standards and therefore has no monetary value; as a result of this, it is arguable whether it is actually being truly recycled, or not. Commingled recyclables rely heavily on global markets with very little commodities processed within Australia. This has however been identified in the newly published State Waste Strategy as a focus material, as has the treatment of and production of materials from FOGO waste. programs are to be developed to facilitate the increased usage of these recycled products within WA. FThe materials produced have the potential to be used internally within parks, gardens, verges and the likes, bolstering a local circular economy and highlighting the value of recycling to the community.
		Negatives	1. The commodity produced does not meet AS 4454-2012 Composts, soil conditioners and mulches. 2. The soil enhancer produced by the RRF is relatively unsaleable in large numbers due the high number of contamination within the commodity.	1. Processing of the majority of recyclables is not available locally. 2. The commodity value is subject to uncontrollable market changes which can effect the profitability of processors and hence their ability to honour contracts if the risk is not priced accordingly.	N/A	1. Processing of the majority of recyclables is not available locally. 2. The commodity value is subject to uncontrollable market changes which can effect the profitability of processors and hence their ability to honour contracts if the risk is not priced accordingly.	1. There is a limited market currently for these materials. 2. This new product (in such large quantities) has limited buy-in from potential markets (farming, CoW Parks & Conservation, etc.) due to the perception of recycled materials being of inferior value to more routinely used inorganic fertilisers,	1. None identified.	
		Summary	The commodity has limited uses and is not processed to Australian Standard therefore limits it's uses and saleability stifling a circular economy. Current contamination needs to be removed from this bin before it can be processed in to an Australian Standard, multi use saleable commodity.	In general there are global markets for clean recyclable materials. This commodity is likely to be available and saleable for many years to come, however the global market is subject to uncontrollable changes (e.g. legislation changes in other countries). Increased clean recyclables available in WA will encourage industry to invest in processing markets locally.	N/A	In general there are global markets for clean recyclable materials. This commodity is likely to be available and saleable for many years to come, however the global market is subject to uncontrollable changes (e.g. legislation changes in other countries). Increased clean recyclables available in WA will encourage industry to invest in processing markets locally.	In general there are regional and local markets for clean FOGO materials currently in existence. Given the details in the new Waste Strategy, this commodity is likely to be processed and saleable for many years to come. Clean FOGO has the potential to encourage industry to invest in processing markets locally. The City could also utilise the product within its own parks and gardens, adopting a circular economy principal.	The market for these materials is very mature, stable and will happily receive greater volumes due to demand. The City could also utilise the product within its own parks and gardens adopting a circular economy principal.	
		Residual Risk Rating	Medium - Consider	Low - Recommended	N/A	Low - Recommended	Low - Recommended		
Counterparty	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management CO-O21 Competitive Service Costing CO_22 Productive Communities	Positive	1. MRC is Perth's largest regional council with 7 Member Councils, which has the ability to allow its members to benefit from the aggregation of tonnage, costs and general economies of scale. 2. It is funded by it's member Councils, which shares risk across all parties. 3. The City has two representatives on the MRC's council, ensuring that the City's voice is heard when decision-making.	1. There are currently two large recyclers located within WA, should the City have issue with one, it could realistically utilise the other recycler at short notice. 2. Both Recyclers are well over 50 years old, each with a turnover of more than a Billion dollars annually. 3. Both Recyclers also have double the processing capability available than they process at present.	1. MRC is the largest regional council with 7 Member Councils. 2. It is funded by it's member Councils. 3. It has stable credit and trading transactions.	1. There are currently two large recyclers located within WA, should the City have issue with one, it could realistically utilise the recycler at short notice. 2. Both Recyclers are well over 50 years old and turnover more than a Billion dollars globally. 3. Both Recyclers also have double the processing capability available, than they process at present. 4. A third Recycler is currently in discussions with the SMRC closing the monopoly of Recyclers.	1. There are a number of FOGO processing facilities available to the City so should any default occur there should be other organisations available to process FOGO waste. 2. Through the City EOI process in January, they City are also aware there are a number of other organisations wishing the invest within the City to provide processing capabilities (non of which are new companies). 3. All companies either operating or will to invest in processing at well established companies with reputable contracts and turnover.	1. There are numerous GO processing facilities available to the City so should any default occur other organisations are plentiful to process GO waste. 2. The City also has the ability to utilise the owned and operated Wangara Greens Recycling Facility to process any greens waste, it is also adequate licenced to do so. 3. All companies either operating or will to invest in processing at well established companies with reputable contracts and turnover.	
		Negatives	1. A blended gate fee pays for all of MRC's semi-fixed costs. As member councils divert materials to other recycling options, MRC's gate fee continues to rise to recover those costs. 2. MRC's decisions rely upon agreement by the 7 member councils prior to any changes taking place; this limits the organisation's ability to react to market changes.	1. There are currently only two large scale recyclers Perth, which inhibits choice. 2. The impending Container Deposit Scheme could have bearing on the processing availability in the future.	1. MRC have fixed costs which is to be met by member councils, the more tonnage taken away from MRC increases ALL members gate fees.	1. There are currently only two large scale recyclers Perth. 2. The impending Container Deposit Scheme could have bearing on the processing availability in the future.	1. Potential contractual default could occur should the City opt to utilise a Contractor that has no resalable commodity markets.	1. Potential contractual default could occur should the City opt to utilise a Contractor that has no resalable commodity markets.	
		Summary	MRC poses little risk to the City as it is a self funded organisation via its members. City Councilors also have a seat on the board of the MRC.	It is extremely unlikely that the City would be exposed to any contractual issues considering the reputation and cash flow of the Recyclers.	MRC poses little risk to the City as it is a self funded organisation via its members. City Councilors also have a seat on the board of the MRC.	It is extremely unlikely that the City would be exposed to any contractual issues considering the reputation and cash flow of the Recyclers.	It is extremely unlikely that the City would be exposed to any contractual issues as the City would ensure any Contractor has saleable markets before any contract is offered.	The City would not be exposed to any contractual issues considering the reputation and cash flow of the Greens Recyclers and multitude of companies within WA who process green waste.	
		Residual Risk Rating	Low - Recommended	Medium - Consider	Low - Recommended	Low - Recommended	Medium - Consider	Low - Recommended	

Risk Title	Link with Strategic / Corporate Risk Register	Category	Business As Usual (BAU)	Recyclables Materials	Residual Waste	Recyclables Materials	Food Organic & Green Organic (FOGO) Materials	Green Organic (GO) Materials	Comments
Economic Development	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management CO-O21 Competitive Service Costing CO_22 Productive Communities	Positive	1. The RRF currently employs local people to operate the site. 2. The current process allows for a change in waste mix i.e. pure FOGO to optimise the output i.e. a cleaner saleable product. 3.	1. More jobs are created/maintained within resource recovery as opposed to Landfill. 2. New jobs will be created when either a transfer station or Materials Recovery Facility become available within the region. 3. An EOI for the future use of WRC confirmed that there was interest in reuse of the current plant building as well as the opportunity to build a new MRF on the site.	1. MRC's Tamala Park is currently situated within the City with the majority of staff either living in either the Cities of Wanneroo or Joondalup.	1. More jobs are created/maintained within resource recovery as opposed to Landfill. 2. New jobs will be created when either a transfer station or Materials Recovery Facility become available within the region. 3. An EOI for the future use of WRC confirmed that there was interest in reuse of the current plant building as well as the opportunity to build a new MRF on the site.	1. The introduction of FOGO processing will create new jobs on the whole, north of the river. 2. Further jobs will be created in a multitude of industries such as bagging of product, distribution and sales due to the multitude of end uses processing FOGO creates. 3. Further jobs will be created as the City will require people to collect a third FOGO bin from residences.	1. Further jobs will be created as the City will require people to collect a third FOGO bin from residences. 2. GO processing is readily available within the City of Wanneroo.	Resource recovery directly creates 9.2 full-time equivalent positions (FTE) per 10,000 tonnes of waste treated in comparison to 2.8 FTEs per 10,000 tonnes disposed to landfill (Access Economics 2009). FOGO collection services makes a significant contribution to resource recovery, which can generate local employment opportunities.
		Negatives	1. The site, in its current format is fully developed. 2. Any processing change will require all member Councils to agree, as a number of other councils operate a GO system, they will unlikely approve any change in the short term, therefore it is unlikely to marry with CoW's timeframe for change.	1. All current recyclers are based South of the river with little opportunity for jobs growth within Wanneroo or the northern region.	1. No likelihood of new jobs being developed within Wanneroo, as landfills are not being approved by State government, due to historic environmental contamination issues within the Swan coastal plain.	1. All current recyclers are based South of the river with little opportunity for jobs growth within Wanneroo or the northern region.	1. Industry will need to be sought locally to ensure there are no increased transport costs	1. GO will not encourage new markets to Wanneroo as there are a number of recyclers already based locally.	
		Summary	Business as usual. With both the RRF and Tamala Park facilities available for at least a further 10 years, a disposal point is guaranteed to the City. A portion of domestic waste is currently, and will continue to be, diverted from landfill through the RRF. All disposal points are sited within CoW, minimising transport costs.	Following an EOI process for the future use of the Wangara Recycling Centre, the City has become aware that a number of proponents determined that a processing site is required in the northern corridor. The City's WRC, due to its previous industry history and placement is seen as an ideal site for this type of development. This will ultimately create new jobs and encourage those people to invest in homes within the City thus increasing the economy.	With Tamala Park facilities available for at least a further 10 years, a disposal point is guaranteed to the City. All disposal points are sited within CoW, minimising transport costs.	Following an EOI process for the future use of the Wangara Recycling Centre, the City has become aware that a number of proponents determined that a processing site is required in the northern corridor. The City's WRC, due to its previous industry history and placement is seen as an ideal site for this type of development. This will ultimately create new jobs and encourage those people to invest in homes within the City thus increasing the economy.	Due to tonnage of FOGO material available for processing, industry will invest in the City either via processing technology or a transfer station locally, ultimately creating new jobs and encouraging new people to invest in homes within the City thus increasing the holistic economy.		
		Risk Profile	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	
Environmental Waste Hierarchy	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management CO-O21 Competitive Service Costing CO_22 Productive Communities	Positive	1. Positively, the process reduces the amount of materials which are finally deposited in landfill. 2. The process produces a soil enhancer which can be used for agricultural purposes.	1. Recycling complies with the principles of the waste hierarchy when managing recyclable wastes. 2. Commingled recycling is delivered direct to the processor minimising any further increased transport.	1. The Landfill methodology is beneficial only when all other materials that can otherwise be recycled/recovered are removed.	Recycling complies with the principles of the waste hierarchy when managing packaging wastes. This should be managed alongside the City Waste Education Plan.	1. FOGO aligns with the upper most waste hierarchy. 2. FOGO processing diverts a greater fraction of waste from landfill. 3. FOGO is treated via processing and produces an AS compost. Compost assists soil nutrients, lessening the likelihood of die back and other diseases. 4. Processing FOGO produces various grades of composts and soil enhancers that can be utilised in all industries, enhancing soils, grass, plants and flowers.	1. GO aligns with the upper most waste hierarchy. 2. GO can be treated via processing and produces an AS compost. Compost assists soil nutrients, lessening the likelihood of die back and other diseases. 3. Processing GO allows processors to pre mix the greens in to various products.	Other than landfilling residual waste, all other options meet the upper waste hierarchy, however landfill is the correct disposal option for waste that cannot otherwise be recycled or recovered, which is optimal for FOGO will be the case. This is until waste to energy becomes available in Western Australian. FOGO provides the most benefit to the environment as it creates a local circular economy that minimises any environmental impact.
		Negatives	1. As the plant takes commingled wastes in the first instance, any potentially recyclable materials become contaminated during processing and require to be sent to landfill, after processing. 2. The end product is of poor quality, therefore can be used in minimal industries. 3. The residual content of the waste is double handled in terms of transport, creates increased GHG.	1. Both Perth recyclers are based south of the river which incurs increased transport. 2. Both recyclers have a diversion rate of 86%, this is based on ALL recyclables processed through the MRF. This results in 14% of waste being contaminated i.e. items should not be in there in the first place being sent to landfill.	1. Landfill sits at the bottom of the Waste Hierarchy.	1. Both Perth recyclers are based south of the river which incurs increased transport. 2. Both recyclers have a diversion rate of 86%, this is based on ALL recyclables processed through the MRF. This results in 14% of waste being contaminated i.e. items should not be in there in the first place being sent to landfill.	1. Any heavy contamination in FOGO can effect the product. 2. FOGO with 10% or more contamination will likely be rejected and sent to landfill. 3. Potential increased odour in open windrow composting (however these plants have to be 2 kilometres away from households).	1. Any heavy contamination in GO can effect the product. 2. FOGO with 10% or more contamination will likely be rejected and sent to landfill.	
		Summary	Commingled residual and organics processing has it's place and is valuable should no other organic processing be available. It takes a lot of energy to process the commingled material through this technology and then ultimately a higher rate of effort as the residual waste then has to be loaded and transport back to landfill for disposal.	Recycling meets the upper waste hierarchy and is the most optimum option available for commingled recyclables. The City is to encourage third party contractor to invest in processing north of the river, due to growth and to minimise transport.	Landfill should not be considered for waste containing organic materials due to decomposition creating GHG, however landfill is the most optimum option available at present for waste that cannot otherwise be recycled or recovered. The City should reconsider landfill following the introduction of waste to energy.	Recycling meets the upper waste hierarchy and is the most optimum option available for commingled recyclables. The City is to encourage third party contractor to invest in processing north of the river, due to growth and to minimise transport.	FOGO processing provides the most benefit to the City in terms of management of waste. It lessens the impact of organic waste going to landfill and after processing provides another product which then enhances soil and minimises the use of water. This process fully adheres to the WA Waste Strategy 2030, where it prescribes all FOGO must be diverted from landfill by 2025, including waste to energy.	GO processing provides benefit to the City in terms of management of waste. It does however mean that the food content will then either likely be processed via RRF which will have an impact of the final product as composting requires greens content to make a beneficial product. The City could be directed by MRC to dispose of this waste to Landfill which will increase GHG due to food organic content decomposing in landfill.	
		Residual Risk Rating	Medium - Consider	Low - Recommended	Medium - Consider	Low - Recommended	Low - Recommended	Low - Recommended	

Risk Title	Link with Strategic / Corporate Risk Register	Category	Business As Usual (BAU)	Recyclables Materials	Residual Waste	Recyclables Materials	Food Organic & Green Organic (FOGO) Materials	Green Organic (GO) Materials	Comments
Financial (LTFP)	ST-G09 Long Term Financial Plan CO-O10 Decision Making CO-O21 Competitive Service Costing	Positive	1. The City would save transport costs due to not implementing a three bin service.	1. Historically Recycling operations provide good value, dependent upon the value of commodities at the time of tendering.		1. Historically Recycling operations provide good value, dependent upon the value of commodities at the time of tendering.	1. The City will hugely reduce its waste management costs by opting to process approx. 30,000 tonnes via FOGO processing \$100 per tonne versus \$205 increasing per tonne. 2. As FOGO become more popular in line with the new Waste Strategy it will likely become cheaper.	1. The City will reduce its waste management costs by opting to process approx. 17,400 tonnes via FOGO processing \$50 per tonne versus \$205 increasing per tonne.	
		Negatives	1. The RRF's running costs are high, and expected to rise, given the requirement to dispose of high concentrations of residual waste from the process. 2. Waste management costs will increase the more organic tonnage member Councils take away from the MRC. 3. If the City has the largest tonnage left in the MRC when all other members have removed their waste, the City could see the gate fee hugely inflated in future years.	1. Although disposal costs are relatively inexpensive the City are still required to pay landfill levy on the contamination that is sent to landfill.	1. As the Landfill void reduces and space become an issue, MRC will likely increase the costs for landfill, due to demand. 2. Waste management costs will increase the more organic tonnage member Councils take away from the MRC.	1. Although disposal costs are relatively inexpensive the City are still required to pay landfill levy on the contamination that is sent to landfill.	The are little to no negatives financial risks associated with FOGO.	1. The City will be subject to increased costs as food waste will still be processed via the MRC.	
		Summary	The ever-increasing nature of MRC costs means that the option of continuing as-is is financially unsustainable. However, at this time, MRC provide the only viable disposal option for general waste materials, and this is likely to continue for at least the next ten years. This option is therefore one which can be utilised during any transition period for the City.	Recycling provides the City with good value for money while meeting the upper waste hierarchy. Recycling is the least expensive waste stream to dispose of.	The ever-increasing nature of MRC costs means that the option of continuing as-is is financially unsustainable. However, at this time, MRC provide the only viable disposal option for residual waste materials, and this is likely to continue for at least the next 4 - 5 years until waste to energy become available.	Recycling provides the City with good value for money while meeting the upper waste hierarchy. Recycling is the least expensive waste stream to dispose of.	FOGO processing provides the City with good value for money while meeting the upper waste hierarchy. FOGO processing diverts a large fraction of waste from increased costs experienced when utilising the MRC. FOGO provide the City with a \$15 million cost saving over a 10 year period.	GO processing provides the City with value for money while meeting the upper waste hierarchy. GO processing diverts a moderate fraction of waste from increased costs experienced when utilising the MRC.	
		Residual Risk Rating	High - Further Assessment	Low - Recommended	Medium - Consider	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended
Growth	ST-G09 Long Term Financial Plan ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O21 Competitive Service Costing CO-22 Productive Communities	Positive	1. BAU currently maintains the City's growth and other MRC Councils growth as the RRF has 100,000 tonnes capacity for processing.	1. There is more than enough capacity for all of the state's Recycling materials to be processed within WA now and far in to the future. 2. Future growth will most likely be managed by industry as they include forecasted tonnage growth in long term processing contracts. 3. Third party contracts via the City's EOI process have already committed to diversifying business operations in to the northern corridor.	1. Mandarie Regional Council's forecasts indicate that the remaining Tamala Park landfill capacity can accommodate member councils for another 11 years at current disposal rates. 2. The more waste is removed from member councils it will increase the life of landfill.	1. There is more than enough capacity for all of the state's Recycling materials to be processed within WA now and far in to the future. 2. Future growth will most likely be managed by industry as they include forecasted tonnage growth in long term processing contracts. 3. Third party contracts via the City's EOI process have already committed to diversifying business operations in to the northern corridor.	1. FOGO processing operations are easily scalable, and therefore can be expected to accommodate City growth.	1. GO mulching and composting operations are easily scalable, and therefore can be expected to accommodate City growth.	
		Negatives	1. BAU is unlikely to maintain the City's increased growth in line with other Councils growth. 2. The RRF only has 14 years life span. Should BAU remain as it is today, the RRF will accommodate the City's tonnage until 2022 (based on each household creating 0.8T of domestic waste)	1. Growth will be maintained but the City will require an extra vehicle every 3 years to maintain growth until a time a processing facility becomes available either within the City or north of the river.	There are no current perceived negative implications with this option	1. Growth will be maintained but the City will require an extra vehicle every 3 years to maintain growth until a time a processing facility becomes available either within the City or north of the river.	There are no current perceived negative implications with this option	There are no current perceived negative implications with this option	
		Summary	The plant is currently running at full capacity, with no scope for expansion. Using the RRF is unsustainable in the long term.	Third party contractors will have the capacity to maintain growth, more so when a MRF is built north of the river. There is no perceived risk to the City.	The lifetime of Landfill is sustainable until waste to energy facilities are built and alternative disposal options are made available.	Third party contractors will have the capacity to maintain growth, more so when a MRF is built north of the river. There is no perceived risk to the City.	FOGO processing is easily scalable and quite easily manage the City's vast growth, with numerous applications to the DWER being presented for FOGO processing north of the river.	GO processing is easily scalable and poses no risk to the city's growth or capacity for processing.	
		Residual Risk Rating	High - Further Assessment	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended
Legislative	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management	Positive	1. Current processing methodologies are subject to DWER legislation for processing.	1. Current processing methodologies are subject to DWER legislation for processing. 2. Provides a circular economy in line with the requirements of the Waste Strategy 2030.	1. Landfilling methodologies are subject to DWER legislation for disposal. 2. Aligns with the WA Better Bins program and the Waste Strategy once all materials that can otherwise be recycled or recovered are removed.	1. Current processing methodologies are subject to DWER legislation for processing. 2. Provides a circular economy in line with the requirements of the Waste Strategy 2030.	1. Current processing methodologies are subject to DWER legislation for processing. 2. Provides a clean product that meets the requirements of AS4454 composts soil conditioners and mulches. 3. Meets the requirements of the Waste Strategy 2030 as all organic waste is removed from disposal via landfill or waste to energy.	1. Current processing methodologies are subject to DWER legislation for processing. 2. Provides a clean product that meets the requirements of AS4454 composts soil conditioners and mulches.	
		Negatives	1. Does not meet the requirements of the Waste Authorities Better Bins program (remains a two bin system). 2. Does not align with the Waste Strategy 2030 as there is no at source separation. 3. The Waste Strategy 2030 commits to a circular economy approach, while this processing methodology meets this in part, there are very few markets for the end product due to the contamination content.	1. The commodity is subject to global legislation change due the vast majority of commodity sold globally.	1. No organic waste is permitted in Landfill after 2025.	1. The commodity is subject to global legislation change due the vast majority of commodity sold globally.		1. Food waste will still remain in the landfill bin, no organic waste (food and greens) is permitted in Landfill after 2025.	
		Summary	The RRF is fully Licenced (EPA 67A) by the DWER and complies totally with its licence arrangements. This processing methodology does not fully meet the objectives of the Waste Authorities Bins program (will remain a two bin system) or the Waste Strategy 2030 as the product that remains is saleable/useable in very few markets.	Recycling plants are subject to much legislation, more so EPA licence requirements. There is some risk as global legislation changes can effect countries accepting recyclable waste. Federal government has committed funds to assist processing recyclable materials within Australia.	Landfill is heavy legislated in terms of both safety and environmental issues. Tamala Park is subject to strict licence regimes and audit. Landfill is not permitted to accept organic waste past 2025, no is waste to energy.	Recycling plants are subject to much legislation, more so EPA licence requirements. There is some risk as global legislation changes can effect countries accepting recyclable waste. Federal government has committed funds to assist processing recyclable materials within Australia.	FOGO processing meets the objective of Better Bins, Waste Strategy 2030 and AS4454. All FOGO processors are required to hold an EPA 67A licence which holds processors accountable for environmental	GO processing meets the objective of Better Bins, Waste Strategy 2030 in part and AS4454. All FOGO processors are required to hold an EPA 67A licence which holds processors accountable for environmental. Utilising this option depends on MRC then processing the red waste bin through the RRF to remove the food content. If it doesn't food waste will still be required to be removed as it is omitted from landfill by 2025.	
		Residual Risk Rating	High - Further Assessment	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Medium - Consider

Risk Title	Link with Strategic / Corporate Risk Register	Category	Business As Usual (BAU)	Recyclables Materials	Residual Waste	Recyclables Materials	Food Organic & Green Organic (FOGO) Materials	Green Organic (GO) Materials	Comments
Product Contamination/ Saleability	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management CO-O21 Competitive Service Costing	Positive	1. The product can be used by some markets, mainly agriculture and freeway verge cover.	1. Recyclable materials are saleable globally. 2. The materials when processed are made in to other products which are saleable again. 3. The product processing methodology meets circular economy principals.	N/A	1. Recyclable materials are saleable globally. 2. The materials when processed are made in to other products which are saleable again. 3. The product processing methodology meets circular economy principals.	1. Clean FOGO materials can be processed in to AS compost. 2. FOGO has many operational uses and can be mixed in to various AS materials. 3. The product can be used by in all industries. 4. The product is extremely saleable. 5. Producing AS compost and diverting 50% of the City's domestic kerbside waste from landfill meets circular economy principals. 6. The City could utilise the compost/commodity within its own parks and gardens.	1. Clean FOGO materials can be processed in to AS mulch/compost. 2. The commodity has many operational uses and can be mixed in to various AS materials. 3. This commodity can be used by in all industries. 4. The product is extremely saleable. 5. Producing this commodity and diverting 50% of the City domestic kerbside waste from landfill meets circular economy principals. 6. The City could utilise the compost/commodity within its own parks and gardens.	BAU observes the greatest risk to the City in terms of product contamination and saleability due to commingled processing. All other options provide less product contamination and increased saleability.
		Negatives	1. Due to high level contamination the soil enhancer does not meet AS 4454-2012 Composts, soil conditioners and mulches 2. The soil enhancer produced by the RRF is relatively unsaleable in large numbers due the severity of contamination.	1. Recyclables currently have 14% contamination which can cause issue for forward onward recycling. 2. The product does not currently operate a basket price therefore saleability price is not widely know.	N/A	1. Recyclables currently have 14% contamination which can cause issue for forward onward recycling. 2. The product does not currently operate a basket price therefore saleability price is not widely know.	1. WA requires an increase of commodity producers locally. 2. Increased contamination can affect the product available for processing.	1. WA requires an increase of commodity producers locally. 2. Increased contamination can affect the product available for processing.	
		Summary	The soil enhancer has limited uses and is not processed to Australian Standard therefore limits it's uses and saleability stifling a circular economy. Current contamination needs to be removed from this bin before it can be processed in to an AS, multi use saleable product.	In general there are global markets for clean recyclable materials. Products will be available and saleable for many years to come. Increased clean recyclables available in WA will encourage industry to invest in processing markets locally. Contamination can be reduced by introducing increased capacity recycling bins and a robust education strategy.	N/A	In general there are global markets for clean recyclable materials. Products will be available and saleable for many years to come. Increased clean recyclables available in WA will encourage industry to invest in processing markets locally. Contamination can be reduced by introducing increased capacity recycling bins and a robust education strategy.	In general there are regional and local markets for clean FOGO materials. FOGO will be processed and saleable for many years to come. Clean FOGO will encourage industry to invest in processing markets locally. The City could also utilise the product within its own parks and gardens adopting a circular economy principal. Contamination can be reduced developing and delivering a robust education strategy.	In general there are global markets for clean GO materials. This commodity will be available and saleable for many years to come. Clean GO will encourage industry to invest in processing markets locally. The City could also utilise the product within its own parks and gardens adopting a circular economy principal. Contamination can be reduced developing and delivering a robust education strategy.	
		Residual Risk Rating	High - Further Assessment	Low - Recommended	N/A	Low - Recommended	Low - Recommended	Low - Recommended	
Social/ Community Acceptance	ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O22 Environmental Management CO-O21 Competitive Service Costing CO_22 Productive Communities	Positive	1. Waste surveys have confirmed the current practice is socially acceptable to the City's residents.	1. The practice of recycling is well-embedded within the community. 2. Recycling practices and operations are seen as essential services within its general community. 3. Offering increased volume to residents will be extremely well received with larger families as the vast majority of residents want to do the right thing in terms of correct at source separation.	1. Landfilling residual waste will likely be acceptable to the community once residents are fully aware that all other materials that cannot be recovered or recycled are removed and are fully educated in this medium.	1. The practice of recycling is well-embedded within the community. 2. Recycling practices and operations are seen as essential services within its general community. 3. Offering increased volume to residents will be extremely well received with larger families as the vast majority of residents want to do the right thing in terms of correct at source separation.	1. Concept of recycling these materials is likely to be acceptable, subject to residents accepting a 3 bin service. 2. The majority of residents completing the waste survey confirmed that they would prefer the City to process FOGO materials. 3. Residents will feel engaged as their Council is meeting their needs and listening to what they have requested.	1. Concept of recycling these materials is likely to be acceptable, subject to residents accepting a 3 bin service.	BAU is likely to pose the biggest issues/risks to residents due to increasing costs to maintain this service. All other options are likely to be readily acceptable and engage the community should a robust education campaign be developed and fully rolled out in sufficient time before and bin roll out commences.
		Negatives	1. Increasing costs associated with the RFF will unlikely be tolerated in the future.	1. There are no perceived negative risks associated with recycling in terms of social acceptability.	1. The education campaign does not fully inform residents of landfill and acceptable landfill waste criterion.	There are no perceived negative risks associated with recycling in terms of social acceptability.	1. Some residents located on smaller block sizes could envisage an issue with extra bin storage.	1. Some residents located on smaller block sizes could envisage an issue with extra bin storage.	
		Summary	This option provides its residents will some assurity, that its waste is managed sustainably however their expectations due to general discussions in the media will naturally create an expectation that Councils should be transitioning to a three bin service and minimising its impact on the environment by source segregating waste and processing FOGO in to a saleable product.	Recycling unanimously is accepted throughout the community.	There is some social risks attributed to this waste management methodology however, this can be combated via a robust education campaign fully informing residents of waste management expectations.	Recycling unanimously is accepted throughout the community.	FOGO processing will likely be fully acceptable to the community, once the City has qualified there are likely to be minimal extra storage space required for the extra bin	This option would result in a large cost saving for the City. However using this option as a transition point when moving towards a FOGO service (full alignment with the Waste Hierarchy) could be problematic for two reasons: 1) Two separate education campaigns would be required within a few years, which could be confusing for residents and costly. 2) The perception by some residents that they are getting less of a service (i.e. 2 bins) than their 3-bin neighbour.	
		Residual Risk Rating	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	Low - Recommended	

Risk Title	Link with Strategic / Corporate Risk Register	Category	Business As Usual (BAU)	Recyclables Materials	Residual Waste	Recyclables Materials	Food Organic & Green Organic (FOGO) Materials	Green Organic (GO) Materials	Comments
Third-party	ST-G09 Long Term Financial Plan ST-S06 Climate ST-S23 Stakeholder Engagement CO-O10 Decision Making CO-O21 Competitive Service Costing	Positive	<ol style="list-style-type: none"> There is little to no perceived third party risks to the MRC. The RRF is operated by Suez, whereby strict contracts have been developed and are audited regularly. Suez are a global multidisciplinary organisation turning over a billion dollars per annum, therefore Suez are financially stable to pay any liabilities. Should Suez be unable to provide processing, the City could dispose of its waste to landfill until an alternative solution could be procured. Should Suez default on a contract obligations the MRC could procure other suitable organisations to manage the RRF and its contract. The City could diversify its strategy and implement FOGO to manage the food content. 	<ol style="list-style-type: none"> There are many global processors available to the Recycling market. Federal government have committed to invest in recyclables processing within Australia. Recycling operations with Australia requires a Licence to process by the DWER, therefore the change of environmental breach are limited as they are subject to audit and annual return data. There are two larger recyclers in Perth with a third new large recycler commencing operations in Perth, minimising processing and financial risks that are aligned with a small monopoly. State government are introducing a Container Deposit Scheme (CDS) whereby all applicable materials are subject to a 10c refund. All applicable materials inside the recycling waste stream will be subject to further income (likely based on MRF totals). 	<ol style="list-style-type: none"> Tamala Park Landfill is solely owned and operated by MRC which is funded by its member Councils. Their legislative and financial acumen poses no risk due to management, due diligence and regular audits. MRC members are the main financial contributors. 	<ol style="list-style-type: none"> There are many global processors available to the Recycling market. Federal government have committed to invest in recyclables processing within Australia. Recycling operations within Australia requires a Licence to process by the DWER, therefore the change of environmental breach are limited as they are subject to audit and annual return data. There are two larger recyclers in Perth with a third new large recycler commencing operations in Perth, minimising processing and financial risks that are aligned with a small monopoly. State government are introducing a Container Deposit Scheme (CDS) whereby all applicable materials are subject to a 10c refund. All applicable materials inside the recycling waste stream will be subject to further income (likely based on MRF totals). 	<ol style="list-style-type: none"> There are currently 3 processors available to the City at present. Via its FOGO EOI process, third party contractors have professed to invest in both in vessel and open window composting either via a processing facility or transfer station based locally. Local discharge locations minimise risk of increased transport costs. Wanneroo has sizable tonnages of FOGO waste available for processing which encourages local investment. The City will only align itself legally, contractually and financially with established organisations with vast experience within FOGO processing markets. FOGO processing minimises legislation breaches as it meets the upper waste hierarchy and meets the outcome of the State Waste Strategy 2030 	<ol style="list-style-type: none"> There are a number of GO processors available locally and within Western Australia. Should the City be faced contract or processing breach, GO materials can be processed via its own Wangara Greens Recycling Facility, via its current contract. GO can be pre mixed in with other products allowing diversification of product. 	
		Negatives	<ol style="list-style-type: none"> Processing technology is built to accept commingled waste which in effect will always contaminate the end product, limiting its diversification in to other products due to contamination and pH of the product. It will likely be timely and costly to diversify waste management options. This process does not fully meet the upper waste hierarchy or if effect the State Waste Strategy 2030 by separating waste at source and producing a clean product. MRC's financial dependence is purely the responsibility of its member councils of which Wanneroo is one of the largest. The more tonnage removed from the waste management responsibility of MRC, results in a higher gate fee for all member Councils. Wanneroo is currently the largest waste provider to MRC in terms of tonnage, in effect pay the costs for all other Councils who have removed waste. 	<ol style="list-style-type: none"> Regulation and enforcement have intensified globally, with more recent examples including the Chinese National Sword which placed an embargo on the type and quantities of materials it accepted. The Chinese National Sword placed increased financial pressure on worldwide recyclers, with the City's own recycler entering in to dispute resolution (is was eventually rescinded) to increase gate fees. MRC's financial dependence is purely the responsibility of its member councils of which Wanneroo is one of the largest. The more tonnage removed from the waste management responsibility of MRC, results in a higher gate fee for all member Councils. Wanneroo is currently the largest waste provider to MRC in terms of tonnage, in effect pay the costs for all other Councils who have removed waste. 	<ol style="list-style-type: none"> All MRC costs are met by a single gate fee price which includes both the landfill and MRC operations. Therefore this fee is ever increasing due to increased at source separation and other processing methodologies becoming available at reduced costs is palatable to all member Councils. As MRC costs are fixed, taking tonnage away from MRC means that the cost increases over the tonnage still available for processing which Wanneroo has the largest amount. 	<ol style="list-style-type: none"> Regulation and enforcement have intensified globally, with more recent examples including the Chinese National Sword which placed an embargo on the type and quantities of materials it accepted. The Chinese National Sword placed increased financial pressure on worldwide recyclers, with the City's own recycler entering in to dispute resolution (is was eventually rescinded) to increase gate fees. 	The are no perceived third party negatives aligned with FOGO.	<ol style="list-style-type: none"> The food content that would still be available for processing will be managed by MRC therefore is subject financial risks associated with MRC and increased gate fees. 	There are third-party risks associated with all options presented. Risks are managed through the City's Enterprise Risk Management Framework and associated Audit and Risk committees. Third party risks are all highlighted and managed through the City's Contract and Procurement Policy and Procedures and associated contractor terms and conditions and other contract agreements.
		Summary	Third party contractual, regulatory and breach risks are minimal, however financial risks are perceived as high due to the increasing financial pressures of increased gate fee on annual basis. This can result in increased waste fees in terms of rates to meet the costs of MRC's increases, whereby most other contracts are fixed for a period term (not including CPI), which is better manageable for the City.	Recycling does pose some third party risks, however the risks are minimal. Should there be any contract default the City would be protected by via its Processing Agreements in terms of costs. The other Recyclers have capacity to be able to access the City's recycling and would not do so at inflated costs, as the recyclers aim would be to keep the materials/gate fee in the long term.	Regulatory and contract breach risks are minimal, however financial risks are increased due to the increasing financial pressures of increased gate fee on annual basis. This can result in increased waste fees in terms of rates to meet the costs of MRC's increases, whereby most other contracts are fixed for a period term (not including CPI), which is better manageable for the City. The cost to purely landfill waste enjoys a gate fee of \$130 per tonne, which the City could expect to pay was it not expected to meet the costs of the RR also.	Recycling does pose some third party risks, however the risks are minimal. Should there be any contract default the City would be protected by via its Processing Agreements in terms of costs. The other Recyclers have capacity to be able to access the City's recycling and would not do so at inflated costs, as the recyclers aim would be to keep the materials/gate fee in the long term.	FOGO realises minimal third party risks. Should there be any contract default the City would be protected by via its Processing Agreements in terms of costs. FOGO processing meets preferred objectives of the State Waste Strategy 2030.	Regulatory and contract breach risks are minimal, and the product can be diversified in to other markets. Financial risks are increased due to the increasing financial pressures of increased gate fee on annual basis.	
		Residual Risk Rating		High - Further Assessment	Low - Recommended	Medium - Consider	Low - Recommended	Low - Recommended	Low - Recommended