



Has Finance confirmed that funding is available for this project?	YES, NO, NOT APPLICABLE
Date:	13/02/2019
Project Name:	Introduction of Three Bin Food Organics and Garden Organics Collection System
Project Manager:	Yvette Plimbley, Manager Waste and Recycling
Directorate:	Engineering
Project Code:	(only enter if funding is required)
Accountable Director:	Andrew Murphy, Director Infrastructure and Environment
Sponsor:	Andrew Murphy, Director Infrastructure and Environment

Priority Rating:	Highest Priority	Click on icon to calculate the Priority Rating and Score	
Priority Score:	26		
Estimated Timeframe:	2 years (From initial planning/approvals through to completion of roll out)	Completion date Timeframes	JAN 2021

Total Expenditure:		Click on icon to calculate the internal Resource Cost	
Total Salary Cost:	\$78,000 (1 FTE Education Officer Yr 1).		
Total Project Cost:	\$1,413,556 (one off service roll out costs)	Click on icon for Resource Cost example	
Number of FTE	1 Additional FTE		

OBJECTIVES

Description

Delivery of a three bin Food Organics and Garden Organics Collection Service to approximately 16,500 households throughout the City of Vincent

The objectives of this project are:

- Deliver Best Practice Collection Services to the City's Residents
- Work towards the delivery of the City's Waste Strategy Vision to "deliver zero waste to landfill by 2028".
- To align with the Waste Strategy 2030 to "A consistent three bin kerbside collection system, which includes separation of food organics and garden organics from other waste streams, to be provided by all local governments in the Perth and Peel region by 2025 and supported by State Government through the applications of financial mechanisms."

BENEFITS, DELIVERABLES, MEASURABLES

Problem Definition and Urgency

The City of Vincent currently spends around \$6.5 million per annum on its Waste and Recycling Service, which includes kerbside collections for domestic rubbish and recycling, commercial rubbish and recycling collections, bulk verge hard waste (junk), bulk verge green waste collections, public space litter collections and street cleaning, City event bins, waste education and community engagement events/workshops, and subsidised home composting equipment.

The City recently adopted the new Waste Strategy 2018 – 2023 with a Vision of “Zero waste to landfill by 2028”. The City’s current diversion from landfill is around 42%. The Strategy also recognises that currently around 55% of a typical Vincent rubbish bin is organic waste. Project 1 of the Strategy is an options appraisal to consider ways that this organic material could be diverted from landfill.

The new Western Australia Waste Strategy 2030 has recently been released. This Strategy has a much stronger focus on waste avoidance and creating a circular economy approach where waste is valued as a resource which can be reused or recycled for the benefit of the Western Australia Economy. A headline strategy for Local Governments is “*A consistent three bin kerbside collection system, which includes separation of food organics and garden organics from other waste streams, to be provided by all local governments in the Perth and Peel region by 2025 and supported by State Government through the applications of financial mechanisms.*”

Without significant changes to current waste management practices, the City will not achieve these targets.

The benefits of the project are:

- Increased diversion from landfill.
- Potential cost savings as a result of increased diversion from landfill and lower FOGO processing costs.
- Increased community awareness of the need for good waste behaviour.
- Aligned with the City’s waste strategy vision to “deliver zero waste to landfill by 2028”.
- Aligned with the Waste Strategy 2030.
- Implementation of a best practice collection system for City residents.

How does the project align to the Strategic Community Plan?

This project aligns with the following SCP priorities:

- Enhanced Environment (Outcome: We have improved resource efficiency and waste management). We have improved resource efficiency and waste management by delivering a contemporary and sustainable waste service that minimises waste generation and increases recovery, reuse and recycling. Aligned to both the City’s Waste Strategy and the national Waste Strategy 2030, as outlined above.
- Innovative and Accountable (Outcomes: Our community is aware of what we are doing and how we are meeting our goals). Project will be supported by a Consultation Plan and Communications Strategy to engage with the community, inform, educate, and promote the changes and encourage good waste diversion behaviours.

The project deliverables are:

Approvals/Reports:

- Business Case (including financial modelling (March 2019)).
- Project Management Plan.
- Consultation/Community Engagement Plan and Communications Campaign (March 2019).

Funding Opportunities

- Investigate funding opportunities (Better Bins or other Waste Authority Funding).

Pre-Roll Out Activities

- Benchmarking - Best practice/lessons learnt.
- MUD’s review/assessment and action plan.
- Property assessments to identify bin storage considerations and action plan for the City’s variable housing stock/block sizes, etc.
- Delivery of communications campaign.
- Additional charges – Further develop financial mechanism for additional charges for service above new base level service.
- Develop Ranger enforcement support procedures.
- Procurement activities – i.e. waste tenders for: waste collections, waste processing and bin supply and roll out.
- Data management.
- Scheduling/activities.
- Operational processes – e.g. collection schedule amendments and communications.

Post Roll-Out Activities

- Customer visits.
- Bin tagging/audits.
- Enforcement and education activities.

How will the success of this project be measured?

The success of the project will be measured by the following:

- Increased diversion from landfill – measured and reported annually.
- Low contamination (<10%) demonstrates effective communications strategy and scheme acceptance.
- High customer satisfaction (customer surveys).
- Monthly project status reports.

If applicable, outline how the project will impact or be impacted by other departmental or government initiatives

There are a number of internal and external stakeholders impacted by the project, including:

Internal

IT Team

- Support in extracting detailed information from the City's property system.
- Support with data management from roll out activities.

Human Resources

- Support with recruitment activities.

Corporate Services (Rates/Contracts/Purchasing)

- Support extending additional payment procedures.
- Contract management support- waste tenders.

Customer Services

- Support in call handling and, dealing with customer enquiries, requests and complaints.

Marketing Team

- Assistance in development and delivery of community engagement and communications campaign.

External

- City of Vincent residents/community.
- New waste contractors (i.e. waste collection, bin supply/roll out, waste processing).
- Waste Authority (Better Bins Funding – or other opportunities, as applicable).

APPROACH

Recommended option and Reason:

On 11 December 2018, Council supported in principle the adoption of a three bin Food Organics/Garden Organics (FOGO) system, i.e. Option 2, for the City of Vincent. This is a Best Practice collection system which aligns with both the City's Waste Strategy and State Waste Strategy 2030 objectives.

The following additional information was requested by Council.

"2. REQUESTS:

- 2.1 Administration to prepare a comprehensive business case for implementation of a three bin Food Organics/Garden Organics (FOGO) system to be presented to Council in March 2019;
- 2.2 Administration to prepare a consultation plan to seek community input on the future adoption of a FOGO system;
- 2.3 Administration to investigate external funding options to support the adoption of a FOGO system including through the Waste Authority's Better Bins Program; and
- 2.4 Further financial modelling to be presented to Council on the implications of the adoption of a FOGO system."

This business case and attachments support items 2.1 and 2.2 above. Items 2.3 and 2.4 will be progressed at a later stage (as detailed below).

Financial modelling currently remains high level, with assumptions based on current market/industry estimates provided by Talis Consultants. This modelling shows the one off rollout costs of the preferred FOGO option to be \$1,413,556 with an additional annual cost of \$43,000. The one-off rollout cost in year one includes the cost of additional bins/equipment (i.e. a new 140 litre red lidded bin and lid change out on existing green bins to lime green to align with Better Bins guidelines and kitchen caddies with a years' supply of liners), a full time education officer to cover the roll-out of the new service and a comprehensive Consultation and Communications Campaign.

Ongoing costs include the collection and processing costs for the organics and residual streams, as well as ongoing bin maintenance and education (Note: 0.5 FTE from year 2 onwards for on-going education and embedding of the collection scheme). The cost of the impact of the reduction in tonnage sent to MRC (which results in a rise of the MRC gate fee) has been included.

The impact of an increase in landfill levy has not been modelled as future rises in the levy have not been confirmed by State Government. Ongoing increases to the landfill levy is very likely and would result in an increase in the cost of "do nothing" i.e. for the City to remain with a two bin system (at a conservative \$5 per tonne Levy increase this would equate to circa \$27,000).

There may be opportunity to apply for Better Bins Grant funding (typically up to \$30 per participating household; i.e. circa \$390,000 for the City's 12,986 low and medium density dwellings). This opportunity has not been included in the modelling, as Administration have yet to receive confirmation of the funding extension or alternative funding opportunities. Modelling will be updated as further information becomes available.

The modelling assumes no changes to other waste services, however Administration will review services post rollout, so that the impact of the change on other waste services can be assessed. For example, a FOGO bin rollout may cause migration of organic material from the bulk verge green waste service, which could result in recommended changes to that service.

It is not possible to undertake further detailed financial modelling at this stage, as many items, such as contracted collection costs, recycling and FOGO processing costs and bin supply/delivery costs are subject to Tender – the timing of which is outlined in the overarching Project Management Plan.

Due to current limited FOGO processing facilities, the processing rate used is conservative, and it is likely that this rate will reduce as the market develops further. For example, industry professionals are predicting that the rates will be around \$100 per tonnes, in which case this would afford the City a further \$190k saving. Financial modelling will be updated as tendered rates become available, and will be used to inform the annual budget process (for 2020/21).

The roll out is provisionally scheduled to commence Oct 2020, to coincide with the expiry of existing collections/processing contracts. Whilst the majority of the one-off costs will be incurred in the 2020/21 financial year, as the Consultation and Communications Campaign is required to commence several months ahead of the physical roll out, a proportion of estimated \$80k marketing budget will be required in the 2018/19 financial year. These anticipated costs will be determined and included as part of the 2019/20 budget process.

The advantages and disadvantages for each option are summarised below:

Option 1: Garden Only (3 bin System)

Advantages:

- Simple system for residents to understand
- Stable market for garden waste composting and for product
- Low processing cost resulting in significant cost savings compared to baseline.

Disadvantages:

- Doesn't optimise organics recovery or align with the Waste Strategy 2030 objectives to provide FOGO collection systems by 2025.

Option 2: FOGO collected co-mingled (3 bin system) – SUPPORTED IN PRINCIPLE

Advantages:

- Best practice organics recovery.
- Aligns with the State Waste Strategy 2030

Disadvantages:

- More complex household behaviour required.
- Contamination risks are higher than for garden organics
- Cost of service implementation.
- Potential ongoing cost of fully compostable bags.
- FOGO processing not routinely available but emerging.
- Market risks for food organics soil conditioner
- Perceptions and challenges around fortnightly collection of general waste bin.

Option 3: FO + GO Collected Separately (4 bin system)	
<p>Advantages:</p> <ul style="list-style-type: none"> • Reduce market risk by optimising market and cheaper processing cost of garden organics. 	<p>Disadvantages:</p> <ul style="list-style-type: none"> • Additional bin storage and servicing requirements. • More complex household behaviour required. • Cost of service implementation. • Potential ongoing cost of fully compostable bags. • Market risks for food organics soil conditioner.
Option 4: FO (Units) + GO (Houses) - 3 bin system - with varying collection parameters for residual bin	
<p>Advantages:</p> <ul style="list-style-type: none"> • Provides an appropriate organics diversion option for apartments ensuring that all residents get an 'equivalent' waste service for their rates. 	<p>Disadvantages:</p> <ul style="list-style-type: none"> • May be some confusion about whether separate households can put food in with their garden organics. • FO processing not routinely available and limited market options exist. • High risk of contamination of FO in units

SCOPE

What will be included as part of this project?

- 1) Approvals/Reports (Business Case, Project Management Plan (PMP), Council)).
- 2) Develop and deliver Consultation and Communications Strategy in liaison with the City's Marketing Team
- 3) Investigate Funding Opportunities (including Grant application and acquittal, as applicable)
- 4) Budget estimates and financial management
- 5) Benchmarking Activities
- 6) Property assessments to identify bin storage considerations and action plan for the City's variable housing stock/block sizes, etc.
- 7) MUDS Assessment and FOGO Trial (Waste Strategy Project 3).
- 8) Develop Exemptions Management Procedure (i.e. Discretionary approval for larger residual bin for those with medical conditions, etc. – subject to application/assessment criteria)
- 9) Additional Charges – for services above base level
- 10) Stakeholder/Contractor Engagement (In accordance with the Project Management Plan)
- 11) Develop Property Data Management System (for scheduling purposes and to capture roll out data)
- 12) Recruitment of a Waste Education Officer (Year 1 – 1 FTE, 0.5 FTE year 2 onwards)
- 13) Waste Tenders - Tendering for up to 4 contracts (or a combined separable portions contract), in accordance with the City's Purchasing Protocols, i.e.
 - Waste (Residual) and Recycling Collections.
 - Recycling Processing Contract (may form part of collection contract above)
 - FOGO Processing (again may form part of collection contract above)
 - Bin Supply and Delivery (may minimise associated bin supply risk issues by including in the primary collections contract above).
- 14) Community and Stakeholder engagement in accordance with the Consultation and Communications Strategy (Attached). This includes consultation and monitoring & support activities both during and post rollout (for example, bin tagging, waste audits and customer visits, etc.).
- 15) Development of a phased roll out schedule
- 16) Establish old bin/bin part re-use or recycling arrangements
- 17) Scheduling (Roll Out Activities – in liaison with successful Contractor)
- 18) Implementation of a three bin system FOGO collection system to approximately 16,500 household throughout the City of Vincent, in line with the WALGA Better Practice Verge Side Collection Guidelines. This will comprise:
 - **240 litre Lime Green Lidded FOGO Bin (collected weekly).** Would change the lid on existing residual waste bin to lime green, to align with Better Bins standard bin colours (AS 4123.7-2006) and to potentially maximise funding opportunities. Bin would then be used for food organics and garden organics. As this contains both green and putrescible waste, this would be collected weekly.

- **140 litre red lidded Residual Bin (collected fortnightly).** Aligned to AS 4123.7-2006 Better Bins standard colours. As the majority of the putrescible waste is removed, collections would change to a fortnightly schedule (which would be placed out fortnightly with the FOGO bin, alternating with recycling bin presentations).
- **240 litre or 360 litre yellow lidded Recycling Bin (collected fortnightly).** Would be placed out fortnightly with the FOGO bin, alternating with red lidded bin presentations).
- **Provision of countertop 10 litre kitchen caddy and roll of biodegradable bags (year 1 supply only).**

What will not be included as part of this project?

- Changes to current operations including: bulk waste collection services (Junk and Green), street cleaning and litter collection regimes, illegal dumping, drop off events, etc.

FOGO Cost Breakdown

Table 2 –FOGO Cost Breakdown

Ongoing Operational Costs

Subtotal FOGO Collection Costs	\$ 1,601,045.33
Subtotal FOGO Processing Cost	\$ 732,288.77
Subtotal refuse collection costs	\$ 460,300.53
Subtotal kerbside refuse disposal costs	\$ 1,528,271.19
Waste Education (part-time ongoing)	\$40,170
Total cost 3rd bin system	\$ 4,362,075.82

One Off Costs

Purchase of MGBs (\$40/bin for 140L red bin +25% lime green lid, caddies/liners)	\$ 976,566.67
Roll-Out of bins	\$ 278,989.33
Communications Campaign and Aligning Materials	\$ 80,000.00
Education (ongoing assumes fulltime educator Year 1 roll out, then 0.5 FTE year 2 onwards)	\$ 78,000.00
Subtotal of bin supply, roll-out and education	\$ 1,413,556.00

TOTAL COST \$ 5,775,631.82

Assumptions

Factor		Details/Comments
HOUSEHOLD/BIN DATA		
Number of separate houses	12,986	Profile ID accessed Aug 2018, low & medium density
Number of multi-unit households (MUDs)	3613	Profile ID high density
Total number of households	16,599	Rateable properties, https://www.vincent.wa.gov.au/statistics.aspx
Number of bins in MUDS	2409	High density dwellings divided by 240L bin capacity per dwelling (160L/hhld) based on average of CoV bin allowance outlined in CoV bin compound specs.
Total number of bins	15,395	
DISPOSAL		
Refuse disposal costs	\$205	Current MRC rate 2018/19
MRC rate increase due to reduced tonnage	\$2.71/tonne	Approx. \$5 for every 10,000 tonne removed. For FOGO option 2 est. extra \$2.71/tonne
Kerbside waste to landfill 2016/17 (t)	12,782	From waste management strategy

FOGO DATA AND PROCESSING		
FOGO processing cost	\$135	Based on expected market rates (conservative – limited markets)
Percentage green waste in refuse bin	37.5%	Based on average of summer (35%) and winter (40%) data for CoV in the MRC audit
Estimated garden organics available (t)	4793	37.5% of the general waste total
Current Bulk Verge Green Waste	493	From waste management strategy
Total garden organics estimated to be collected	3950	Assuming 80% capture rate, plus a 3% increase in volume of GO
Percentage of food waste in garbage bin	17.75%	Average from the MRC waste audit report 17.6% winter, 17.9% summer
Food organics available for collection (t)	2269	17.75% of total waste to landfill (i.e. 12782 t * 17.75%)
Expected food organics capture rate (t)	1475	Assume 65% food waste capture rate (i.e. 2269 * 65%)
Total estimated food and garden organics(t)	5424	FOGO Total @ 80% GO +3% (3950t) and 65% FO (1475t) capture rates
Estimated Contamination GO	2%	Based on industry averages (for diversion %)
Estimated Contamination FOGO	6%	Based on industry averages (For diversion %)
Cost of 140L bin during initial rollout	\$40	Market average
Cost of 240L bin during initial rollout	\$40	Market average
Rollout per HH - FOGO	\$35	Delivery of 140l bin & education materials (\$8), kitchen caddy (\$8.5), biobags (\$6.5) and lime green lid retrofitted (\$12)
Waste education assumptions	\$78,000	Full time salary \$65,000 + 20% on costs (inc. Super) Year 1 only
	\$40,170	Part time salary (0.5 FTE year 2 onwards)
Not currently included		
Increase in Landfill Levy		No details available currently
No change in existing services		To be reviewed post implementation
Better Bins funding		Awaiting details re extension of deadline or alternate funding available
NOTE: Collection costs have been based on current in-house costs for the Weekly FOGO and average market lift rates for the fortnightly general waste bins, as these collections are expected to be outsourced (with the Recycling Collections, as the current contract will be due for re-tender).		



IMPLEMENTATION ACTIVITIES

The implementation activities associated with this project are:

- Delivery of consultation strategy/communications campaign.
- Alternative service management procedure (e.g. medical).
- Implement Bin Storage Action Plan (developed from the Property Assessments undertaken to address bin storage considerations)
- Multi-Unit development assessment.
- Corporate services – data management, additional charges.
- Waste tenders.
- Recruitment activities.
- Order long lead items (bins, lids, caddies/liners etc.).
- Scheduling activities (in liaison with successful contractor).
- Bin roll out.
- Commence collections (October 2020).

A review of the implementation activities associated with the project will be conducted at the conclusion of the research and consultation phase.

FINANCE

Requirements will form part of the annual budget process and long term financial plan.

INTERNAL SERVICE REQUIREMENTS

Marketing & Communications	<input checked="" type="checkbox"/>	Assistance in development and delivery of Community Engagement and Communications Campaign. January 2019 onwards
IT	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - Support in extracting detailed information from the City's property system - Support with data capture/management from roll out activities July-October 2019
Human Resources	<input checked="" type="checkbox"/>	Support with recruitment activities. May-July 2020
GIS	<input checked="" type="checkbox"/>	If RFID utilised, may need assistance in linking the asset data to the property. July-October 2019
Procurement Services	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> - Rates support developing expanded additional payment procedures. July-October 2019 - Procurement support- waste tenders. January-July 2020
Governance & Risk	<input type="checkbox"/>	
Other (please specify)	<input checked="" type="checkbox"/>	Customer Services - Support in call handling and dealing with customer enquiries, requests and complaints. In line with Communication Campaign delivery timescales. Commencing March/April 2020.

Complete schedule by shading the cells to show the forecast.

[illegible]

[illegible]

CONSULTATION AND COMMUNICATION			
Internal/External Stakeholder	What do they need to know? What information do we need?	When do they need to know it?	How do they need to be informed?

*Note: If a detailed Communications Plan is required please speak to the Marketing & Communications Team at your earliest convenience. **REFER ATTACHED CONSULTATION PLAN AND COMMUNICATION STRATEGY***

RISKS AND ISSUES	
Please complete Appendix B-project Risk, Issue and Decision Register (<i>click icon to open</i>)	
<p>Risks</p> <ul style="list-style-type: none"> Community acceptance of a three bin FOGO system, which includes fortnightly collection of residual waste Lack of established FOGO processing Infrastructure New collection and processing contracts not in place on time. Delivery delays on long lead items (i.e. Waste Bins/Receptacles) MRC gate fee increases as member councils remove their organics <p>Issues</p> <ul style="list-style-type: none"> Support from Internal Stakeholders (i.e. Corporate Services/ Marketing/IT/Customer Services) Effective Roll-out – with adequate Supervision Bin Supply 	

PROJECT BOARD/STEERING COMMITTEE

