

13.5 Proposed future options for the recovery of organic material (garden organics and food organics) from the Town's waste

Location	Town-wide
Reporting officer	Jonathan Horne
Responsible officer	John Wong
Voting requirement	Simple majority
Attachments	<ol style="list-style-type: none"> 1. Organics Recovery System for OCM [13.5.1 - 25 pages] 2. FOGO Modelling summary for OCM [13.5.2 - 27 pages] 3. Proposed Team Structure [13.5.3 - 1 page] 4. CONFIDENTIAL REDACTED - Detailed FOGO modelling for Option 2C and RRFA exit- Confidential [13.5.4 - 78 pages]

Recommendation

That Council:

1. Endorses the introduction of an organics collection and processing system (OCAPS) in a two-staged approach, with the initial stage accepting Garden Organics (GO) in a "third bin", with the subsequent stage accepting Food Organics and Garden Organics (FOGO) in a third bin.
2. Lists for consideration in future Budgets the introduction of the OCAPS focusing initially on Garden Organics collection service being made available to all rated residential properties commencing in 2022.
3. Lists for consideration in the draft 2021/22 Annual Budget the establishment of a Waste and Environment management area within the Town including a request for three further full-time equivalent positions from FY2021/22 to adequately resource the management of the OCAPS and other ongoing strategic waste management issues in line with the Town's Strategic Waste Management Plan and the new State Waste Plan.

Purpose

To seek Council's endorsement of the proposed introduction of the proposed OCAPS (three bin waste system) and note the required planning, budgetary and resource changes to allow for its implementation and ongoing management.

In brief

- As part of its membership of the Mindarie Regional Council (MRC), the Town endorsed a long-term Resource Recovery Facility Agreement (RRFA) between the MRC and Biovision (Suez) to process general municipal waste collected by the member councils into organic material. The RRFA runs from 2009 for 20 years.
- Approximately 90% or more of the Town's general municipal waste is consistently delivered to the RRF to be processed into soil conditioner. This translates into the highest rate (if not equal highest) of waste diversion from landfill among all of the MRC member councils.
- The operation of the Resource Recovery Facility (RRF) has essentially been executed in line with the RRFA. However, over recent years there have been significant changes in the waste practices of major individual MRC member councils, and the strategic direction being driven through the State Government. This has resulted in substantially less organic material being available for RRF processing from the general municipal waste stream, to the point where it became important to assess whether it is still operationally or economically desirable to continue running the RRF.

- It is anticipated that the MRC will reach a decision on the extent of future commitment that affects the long-term viability of the RRFA through its December 2020 council meeting. Considering that the RRFA has less than ten years of contract life, it is only a matter of time before it reaches a terminal point and the RRF will then cease taking input from MRC member councils.
- With such a final determination of the future of the RRF and it ceasing to accept material from MRC member councils, the Town will need to examine the best way forward for its municipal waste disposal, noting the State Government direction for the implementation of three bin FOGO waste systems by 2025.
- The decision on when to adopt a three bin GO or FOGO system and whether a GO service charge should be imposed is reviewed in this item. Based on the factors involved, the current preference is to conduct a two-staged approach with the introduction of a GO system with no service charge applicable, followed by a FOGO system subject to the future determination whether a FOGO service charge will be necessary. An organizational review is also recommended to address staffing capabilities.

Background

1. In keeping with a desire to reduce its landfill waste, and along with other members of the MRC, the Town endorsed the MRC to enter into a contractual agreement to process waste at the “back end” of processing. At the time of considering waste diversion in Western Australia in the first decade of the current century, limited sorting of general municipal waste was being undertaken.
2. The method of converting general municipal waste into organic material at the final stage (just prior to landfill) through an engineering process represented an advanced solution at that time and was considered to be best practice.
3. Because of the large capital costs involved with creating a RRF, a long-term contract (over 20 years) was required to ensure that sufficient safeguards were in place to ensure ongoing operational viability. Consequently, the RRFA was negotiated between MRC and Biovision (Suez) and endorsed by the MRC member councils.
4. The RRF was built with the capability of having its operational life extended beyond the 20-year period through programmed maintenance and timely replacement of the relevant key component infrastructure. This is still an option opened to MRC should member councils decide to commit to the required financial investment and waste tonnage delivery.
5. Due to the changes in waste practices adopted by the member councils in moving to three bin collection systems, and the recent strategic direction being made by the State Government, the level of organic waste content within the general municipal waste stream being made available for RRF processing has reduced markedly. The reduction to the waste diversion rate (away from landfill) resulting from this lower organic content represents a significant potential problem for RRF’s long term operation.
6. Options for RRF long-term future operations have been considered with MRC member councils through strategy workshops at the MRC, including the conversion of the RRF into a FOGO plant. With the successful trial of FOGO processing by the RRF, external consultants considered the repurposing of the RRF into a FOGO processing plant to be the most beneficial longer-term option financially, but this was not considered by a number of member councils to be a realistic option as they were already opting to deal with organic waste material directly at an individual level (with long term contracts with GO processing private contractors being put in place).

7. Other future options for the RRF were also considered. With MRC member council endorsement, the MRC is expected to resolve to pursue the preferred course of action in its February 2021 council meeting.
8. Depending on the level of future commitment from MRC member councils to keep the RRF operating into the future, it is only a matter of time before the RRF stops receiving general municipal waste for organic processing. The Town must therefore consider the options to extract organic material from the general municipal waste stream (MSW). This will involve the full introduction of GO collection to all residential properties (approximately 15,700) from 2022, and a further change to collect FOGO for all residential properties anticipated from 2025 or as per State Government requirements subject to a future determination on the necessity of imposing a FOGO service charge.
9. It is estimated that the landfill gate fee charged by MRC will be significantly reduced after the close down of the RRF. The amount thus saved has been estimated to be sufficient to cover the annual operating cost of the Town's proposed FOGO third bin system. There is also the value of the RRF plant and the land that it sits on that could be cashed out to further benefit the member councils,
10. The State Government's Waste and Resource Recovery Strategy 2030 (WARRS) gives direction on the implementation of 3 bin FOGO systems by 2025 as the best way to pursue resource recovery prior to any residual waste treatments such as the waste to energy treatment where residual waste is incinerated to generate electricity. The WARRS has tied in the concept of only allowing residual waste treatment (from waste to energy systems) from the municipal waste stream (MSW) after FOGO processing as from 2020.

Strategic alignment

Civic Leadership	
Strategic outcome	Intended public value outcome or impact
CL06 - Finances are managed appropriately, sustainably and transparently for the benefit of the community.	To pursue a waste management system in line with community expectations, while applying financial controls on meeting environmental objectives from the choice of the waste management treatment.
CL08 - Visionary civic leadership with sound and accountable governance that reflects objective decision-making.	For Council to be seen to be responsibly addressing the issue of organic material collection and treatment.

Environment	
Strategic outcome	Intended public value outcome or impact
EN4 - A clean place where everyone knows the value of waste, water and energy.	To pursue a waste management system in line with community expectations while applying financial controls on meeting environmental objectives from the choice of the waste management treatment.

Engagement

Internal engagement

Stakeholder	Comments
Technical Services	Review and provide input to assess impacts on Town
Finance	Review the financial impacts of options
Elected members	Overview of options available

Other engagement	
Stakeholder	Comments
MRC Member Council Officers	Mostly recommended to implement GO collection first and no increase in waste charge for GO services. Organics bin presentation rate of 35% to 50% of residential properties.
MRC staff	Provided confidential estimated future gate fees and other relevant information to assist with the planning process of the implementation of the organics collection system
EMRC	Has outdoor windrowing FOGO processing capability but is limited to a certain tonnage per year.
SMRC member councils	Information such as where FOGO is being processed is unclear.
Community waste-related feedback from Co Creating Our Future Community Forum and the Climate Emergency Plan Community Survey	<p>Feedback received included:</p> <ul style="list-style-type: none"> • Remove organics from waste stream. • Divert green/food waste from landfill. • Being proactive with recycling and composting to reduce unnecessary landfill • The Town to facilitate food waste collection and composting. • Support for FO/GO 3-bin system
WALGA	Discussing the scope of the future contract.
Waste Authority	Discussing eligibility options under the Better Bins Plus funding program (Landfill waste levy).

Legal compliance

Not applicable.

Risk management consideration

Risk impact category	Risk event description	Consequence rating	Likelihood rating	Overall risk level score	Council's risk appetite	Risk treatment option and rationale for actions
Financial	Adoption of FOGO will result in significantly higher costs than GO. Currently estimated to be \$788,000 p.a. in operating cost.	Major	Likely	High	Low	Avoid - Consider adoption of FOGO as a two staged approach – with GO as stage 1 and FOGO as stage 2
Financial	Funding for the capital cost relate to the purchase of the red lid bins	Moderate	Possible	Medium	Low	Treat-Seek further clarification from Waste Authority prior to adoption of budget
Environmental	Adoption of GO as interim stage may result in Waste to Energy not being available/having levies applied for residual waste treatment.	Moderate	Possible	Medium	Medium	Treat – review State government approach to other councils for residual waste treatment where not using FOGO. Advocate as required
Environmental	Adoption of GO as an interim stage will likely result in a lower waste diversion rate than FOGO	Moderate	Possible	Medium	Medium	Treat – Recognise cost is significantly higher for FOGO; and educate residents on the rationale for the 2 stage approach and raising the diversion rate
Health and safety	Not applicable				Low	
Infrastructure/ ICT systems/ utilities	Not applicable				Medium	
Legislative compliance	The State government waste strategy has not been legislated yet, but legislation on levies/treatment of residual waste may be introduced.	Moderate	Possible	Medium	Low	Accept

Reputation	Potential for Town to be seen as not progressive enough in opting for a two staged approach (GO/FOGO) on waste treatment	Possible	Moderate	Medium	Low	Treat – gain support for 2 two stage approach based on financial constraint: and the need to develop strategy sufficiently flexible to avoid a future change in direction such as that experienced by other MRC member councils.
Reputation	Potential for the Town to be seen to not be engaging with the community on the organics collection and processing system	Possible	Moderate	Medium	Low	Treat- To reinforce the outcomes from the previous community engagement forums held by the Town which established that there is an appetite for the introduction of a suitable organics system, as also supported by the number of emails that have been received enquiring about the 3-bin system; and that the State government has also based its advocacy to roll out the 3-bin system based on its own research.
Service delivery	Insufficient resource to manage the changeover to a GO/FOGO system in terms of logistics and waste education, along with the implementation of the	Moderate	Unlikely	Moderate	Medium	Treat - Review the Work Force Plan and annual budget/s to ensure adequate resource will be available. At least three new full-time employees have been identified as

recommendations within the Waste Plan (incorporating elements of the Strategic Waste Management Plan).

being required to be recruited incrementally over the new few years.

Financial implications

Current budget impact

Operating budget requirement (pro rata for FY 20/21) of \$50,000 per year for the first 3-5years to support a waste education program. Funds to be listed for consideration in the mid-year budget review pending endorsement of this report.

Approval of a new position (1 full-time equivalent/FTE) for a Waste Education Officer as listed in the draft Work Force Plan will also be listed for consideration in the mid-year budget review pending approval of this report.

Future budget impact

Future year budgets will be required to be amended to take into account the interest and repayment schedule for any major expenditure related to the RRF. This loan expense is intended to be funded through the expected future reduction in the MRC landfill gate fee.

Future budgets are also subject to extra costs expected for additional collection activity (the third bin collection) and the type of collection undertaken.

In addition to the extra operational cost considered in this report, it is anticipated that further full-time equivalents are required, namely a Sustainability Officer, a Waste Management Officer and a Managerial position (Manager, Waste and Environment) to be listed for consideration in the draft Annual Budget for 2021-22.

Analysis

11. There are a number of relevant factors to be considered in relation to the decision on the best option for the Town to pursue the extraction of organic material from the MSW through an organics collection and processing system (OCAPS) or three bin waste system. The analysis reviews these in the following paragraphs.
12. **Extract of organic content for GO or FOGO within the existing MSW.** Based on a previous review of the composition of MSW for the Town undertaken through the MRC in 2017/18 (winter and summer samples) garden waste accounted for around 30.5% (by weight), and food waste accounted for around 16.4% (by weight). Other minor organic wastes (wood, straw, other putrescible material) brought the total organic composition weight to just over 50%. This is consistent with generally accepted organic composition averages for MSW.

13. While it follows that the overall weight composition undertaken in the previous sampling indicates that 51% (GO 34%, FO 17%) exists in organic material for both garden and food waste, it does not necessarily mean that this will be fully extracted in the waste diversion. This will depend on the willingness of residents to commit to a sustained approach in changing behavior for waste separation, as well as the waste education efforts that the Town will need to implement.
14. However, based on an expected high level of interest and willingness for behavior change, it is reasonable to assume that upwards of 80% of the potential organic material currently in the MSW waste stream will be extracted in the waste separation process undertaken at the source. For a FOGO system, this will equate to around 41% of MSW (51% x 80%); for a GO system, this will equate to around 27% (34% x 80%) of MSW. It is noted that this will likely improve as residents become used to the changes when combined with ongoing waste education. These expected rates of waste diversion have been subsequently used as the basis to apply to tonnages in determining the costs for processing in the operational expenses for GO and FOGO systems.
15. The anticipated results on extraction of organic material noted above are based on the collections of material for all 15,700 residential properties within the Town. The Waste Authority guidelines and experience of other councils suggest that the best results for the extraction of GO from properties are likely to come from those properties which have an area greater than 400 square metres. These properties are generally considered to offer the best opportunity for garden organic collection when comparing the relative garden areas to dwelling size: properties less than 400 square metres, or Multi Unit Development (MUDs) properties, have relatively less requirement for garden organic waste (and in the case of high-density MUDs are more likely to have separate contractual arrangements in place to take garden organic waste away). Review of the property size and density within the Town has revealed that there are around 6,000 properties which have block sizes equal to or greater than 400 square metres. Consequently, these properties offer the best opportunity for GO collection.
16. It follows that the balance of 9,700 properties will not offer a relatively high return of GO material per property. While acknowledging this, there are significant drawbacks to only targeting those properties with an area in excess of 400 square metres. The distribution of these larger size properties within the Town is fairly wide ranging, and it follows there will be confusion among residents on the equity/ collection details of some residences having a third organics bin, and other relatively close neighbouring properties not attracting the bin. The collection costs for material also rely on a certain number of bin lifts, and with the likely lower volume numbers of bin lifts being generated for the lower base property listing, the unit costs of collection are anticipated to be significantly higher.
17. It should also be noted that experience with other councils suggests that the presentation rate for GO material is around 50% - 55%; and consequently the actual bin lifts for all properties are only likely to exceed a theoretical 6,000 property collection by some 30%. This allows contractors to be relatively assured of sufficient volume in bin lift numbers to offer likely lower bin lift rates.
18. For these reasons, any movement to organics collection is recommended to be based on a full conversion of properties rather than a targeted selection based on area size. Waste education will be required as early as practical and at a very high impact level to ensure that the contamination rate stays low and that residents do not unnecessarily place partially filled garden organics bins on the verge as the contractor will charge the Town on a per bin lift basis and may impose a penalty for unacceptable high level of contaminations.
19. The current waste diversion rates being achieved through the RRF plant for the Town are noted in the draft local government waste plan endorsed by Council in the September 2020 round of meetings. Table 10 of the draft waste plan (base year 2017/18) indicates that 46% of MSW (classed as mixed waste) is recovered (diverted) through the RRF plant, although this figure will reduce as the level of organic material feed is reduced. In theory, applying the expected tonnages for a third bin system for all properties (at 80% of maximum theoretical tonnages) will result in a fall in the level of overall MSW diversion if other residual (i.e. after initial third bin separation) waste diversion is not

available to the Town. This may occur until a full FOGO system is adopted, as further discussed below in the notes on residual waste treatment. However, this will only be a temporary drop in waste diversion (in any case) until FOGO is fully adopted and residual waste treatment options become available. Note that the current diversion rate is relatively high because the RRF is still operating effectively and accepting the bulk of the Town's general waste stream (around 90% or more).

20. At the same time as extraction of the organic material from MSW collection, experience from movement to a three-bin system for local governments also indicates that there may be an uplift in the recycling effort, so that the amount of the waste going into the yellow recycling bin may increase. Previous details from the MRC composition sampling indicated that some 26% of the Town's MSW contained recyclable materials (paper, cardboard, plastic, glass and cans etc. – as per Table 11 of the draft local government waste plan). It follows that there is some potential for some cost reduction/waste diversion of MSW. However, the experience of the Town has also been that a better effort in recycling may be difficult to achieve, and it is for this reason that no specific allowance has been made for this aspect in its costing assumptions (although noting that there is some potential upside). It is also noted that the Container for Change initiative would reduce the amount of recyclable items in the recycling bins.
21. **Likely operational and capital costs of GO or FOGO systems.** In looking at the operational costs for GO or FOGO systems for the Town, there are two main areas to be considered, and these are presented in the attachment detailing expected changes to operational costs.
22. The information presented to Elected Members at the November 2020 Concept Forum considers the potential additional imposition on the Town through the need to fund the future costs associated with the future of the RRFA. The extra costs of any required loan funding service are expected to be offset by the expected future savings in MRC gate fees (compared to current fees) *applied to the whole of the waste tonnage produced by the Town and sent to the MRC*. In essence, based on an indicated future gate fee of around \$140 per tonne after the RRF had ceased operating, the expected savings will produce a break even result within ten years of loan funding service.
23. The attachment to this report considers the extra annual operational costs which are applicable to the tonnages of GO or FOGO under a three-bin system for these materials. There are extra costs for the additional fortnightly service (collection of a third bin, effectively completed on a fortnightly basis), extra education costs for the third bin change, extra costs for treatment of the GO or FOGO material (expected gate fees applied to tonnages), and supplementary kitchen caddy bin costs (FOGO only). Offsetting these extra costs are any effective savings in gate fees for GO or FOGO material (***any reductions being applied against the lower average expected gate fees after the RRF had reached the end of its operation***). Allowances have also been made for an expected reduction in verge waste processing.
24. In calculating the extra operational costs and offsetting savings in rates for processing GO or FOGO, the assumptions on total reductions (extracts) for organic material have been used and applied against total MSW tonnages for the Town. In other words, the calculations are based around the expectation that FOGO will attract about 41% of total MSW, and GO will attract around 27% of total MSW. In essence, there is a higher indicative cost for processing FOGO (\$150 per tonne) compared to GO (\$58 per tonne), and FOGO also attracts supplementary costs for fully compostable kitchen caddy bags (for use in temporary storage of food scraps). Effectively, the current indication for FOGO is that there is a premium of around \$788,000 per year to be met when adopting a full FOGO system over the currently recommended full GO option (which currently indicates a potential saving of around \$33,000).
25. The current pricing position for the adoption of GO or FOGO is noted in the preceding paragraph. However, the cost of processing FOGO may change based on representations being put to the State government on the partial release of the surplus funds from the State waste levy. The MRC and the Town have been advocating that the surplus accessible in the State controlled waste levy be made available to potentially provide a subsidy against the cost of processing FOGO through the RRF –

and which would provide the only fully indoor plant capable of processing FOGO material. (It is noted that the Southern Metropolitan Regional Council (SMRC) partly processes FOGO for Melville, Fremantle and East Fremantle councils at its plant in Canning Vale, however, final processing has been undertaken at external windrow areas in the outer metropolitan area). While this use of surplus funds may reduce the expected cost of FOGO processing, the position of the State government has not been determined yet, and it is considered to be unlikely to be adopted to effect a reduction in the FOGO processing cost.

26. It should also be noted that the current position for costs related to GO or FOGO are based on existing market costs for processing. While noting that the processing rates for GO are markedly lower than FOGO processing, there has been some market indication that the cost of GO processing could rise sharply. The scenario that the cost of GO processing becomes less favourable compared to FOGO processing would need to be determined and reviewed through the tendering process available to the Town.
 27. For both the GO and FOGO processes, extra costs will be incurred for the **capital costs** of bin purchase. Expected costs are also summarized in the attachment, which shows the recommended approach for GO and subsequent FOGO. While noting that the costs for FOGO are likely to be inflated by the need to purchase kitchen caddy bins for food scraps, the only subsidy currently available for a three-bin system is related to the capital purchase of bins *specifically for FOGO collection*. This capital purchase subsidy is available to councils on a sliding scale (from \$23 per bin in 2021/22 to \$15 per bin in 2025/26). It is noted however that a subsidy may still be available to the Town where it initially adopts a GO system which is later reverted to a FOGO system (at a lower rate due to the passage of time) – this would need to be clarified. This subsidy program (Better Bins Plus) is funded by the State waste levy surplus.
 28. Another consideration in relation to the capital costs for bin purchases is the choice for a replacement of the whole bin or only the lid. In the colour scheme for the three-bin system (either GO or FOGO) the bin used for collection of garden or food organics is a lime green bin with lime lid. If the Town were to follow this scheme the current dark green bin would be replaced by a new lime green bin; however, this would require the whole bins to be sent for recycling, rather than only the lids. While the replacement of bins and total recycling of those discarded bins may be easier, the replacement of only the lids does provide a likely more attractive economic cost and better environmental outcome if the work can be achieved efficiently. This would need to be further reviewed before implementation, but currently, the cost analysis assumes that a lid replacement (only) will be employed, but with some allowance for replacement of bins where a total replacement is required.
 29. **Markets for GO and FOGO.** Currently, the metropolitan market for GO is well established; and presents as material suitable for resale in the general commercial market. The recoupment of value from resale by commercial operators allows the gate fee for processing GO to be kept at a low level compared to FOGO. Markets for FOGO have not been established to the point where commercial resale value is readily realizable. It follows that until there is an established market for the ultimate produce processed through FOGO, the gate fee for GO will continue to be markedly lower than FOGO.
 30. **Switchover to GO and FOGO.** The change from the current system to a three-bin system will involve some change in behavior from households. An adoption to a three bin GO system will only involve a relatively simple change as garden organic material would be the only acceptable material. There is therefore an argument that any further change at a later date would be easier to implement as a change to a three-bin system has already been made. On the other hand, residents may not feel that changing over from GO to FOGO in a relatively short time (potentially over two to three years if the Town is to meet the 2024/25 timeline for the introduction of FOGO) is required, and a single (and larger) change is required.
 31. **Internal resources.** Regardless of the adoption of GO or FOGO systems, additional community education on the new system and other associated waste and recycling initiatives including worm
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farming and home composting programs will be required, and some allowance has been made for its introduction in the form of a project cost with some aspects of these programs envisaged to be embedded in the scope of the future GO and FOGO collection and processing contracts. However, beyond that, there will be a requirement for ongoing resources to address not only the introduction and operational activities (including recurrent education) associated with the third bin system, but also strategic waste issues arising from the adoption and ongoing implementation of the recently approved Waste Plan (adopted by Council in September 2020), as well as the recent deletion of general waste education activities undertaken by the MRC (these have been subsequently decentralized to the individual MRC member councils) and the implementation of actions identified in the Town's Strategic Waste Management Plan (SWMP).

32. It is therefore also prudent for the Town to consider the current staffing resources devoted to waste management to address the likely extra requirements following a decision to introduce the new system. An organizational review in this area is also sought to be endorsed. A recent review undertaken revealed that three more full-time employees will be required to be recruited incrementally over the next few years
33. **Treatment of residual waste.** To meet the longer-term targets within the WARRS on the levels of waste recovery required for local governments, it will also be necessary to consider the treatment of the remaining waste contained within MSW. Therefore, after the initial separation of garden or food material in MSW, the issue of treatment of the remaining (residual) waste needs to be reviewed. There are some alternatives that may be considered (an example is pyrolysis, or treatment of waste at extremely high temperatures to produce useful carbonaceous residues – it is noted that the Town has reviewed this method, and while it has promise, has found that this treatment is unlikely to reach the stage of being a commercial reality in the foreseeable future). However, the most commercially viable and realistic treatment will be the waste to energy (WTE) plants that are nearing completion in the Kwinana (end of 2021) and East Rockingham (2023) areas.
34. As referred to in the background section, the State government WARRS notes that the recovery of energy should only come from residual waste as from 2020. The strategy requires that this residual waste **only** be derived after the implementation of a three bin FOGO system. While noting this requirement, there are a number of councils (in particular the Rivers Regional Council – South Perth, Armadale, Canning and Gosnells councils) that have opted not to adopt a three-bin service on economic grounds, instead entering into long term arrangements for the supply of MSW to the Kwinana WTE plant. To bypass the direction from the State government on this aspect, these councils will likely be relying on the timing of the WTE agreements that have been entered into – being prior to the approval of the WARRS.
35. In addition, the Cockburn council has recently indicated that it will be sending the contents of its general MSW to a WTE plant, even though it is only following a three bin GO system.
36. The State government has not yet indicated what action it may take on waste supplied to WTE plants from those local governments which do not comply with the direction on residual waste (only coming after FOGO separation) under the WARRS, or whether such action will be different for those local governments which do not have any three-bin system in place but have early agreements in place, as opposed to those which may have only three bin GO systems in place. If additional levies or other actions are to be taken by the State government in relation to the question of treatment of residual waste, this will need to be factored into future decision making by the Town.
37. **Logistics and tendering requirements.** If the Town is to initially adopt a three bin GO system for all households (excluding commercial properties), the current dark green bin will be replaced by the smaller 140 Litre red lid bin (for general waste) and a suitable garden organic bin (current dark green bins with only a lime green lid change, or whole new lime green bins). The red lid bin will still contain food organic material, and so will continue to be collected on a weekly basis (effectively replacing the current dark green bin collection); and an additional collection will be required for the garden organic material on a fortnightly basis.

38. Under the current contract, the contractor will collect these smaller red lid bins on a weekly basis for households reverting to GO; and continue to collect the current dark green bins for those commercial properties not covered for GO. There would be some logistical changes for the contractor to accept and implement.
39. The additional collection for the garden organic material bin will be considered to be contracted out or otherwise procured as appropriate. From a procurement perspective, this new service may be seen as a separate and additional service to the existing collections but officers will continue to investigate the procurement options with assistance from WALGA. Any tendering required will also need to consider the future period for a switchover to a three bin FOGO system (where the smaller red bin would revert to being collected on a fortnightly basis as it would **not** contain food organics, whereas the lime green lid bin/lime green bin would then be collected weekly as it does contain food organics).
40. **Summary.** Based on the current differential in pricing of GO and FOGO, there are significant savings (potentially \$788,000 per year) to be achieved in adopting the recommended GO system for all 15,700 residential properties prior to future implementation of FOGO to meet the WARRS timelines. There are also ready markets for the GO material, and the changeover for the initial period will not involve a large change as the only acceptable material under a GO system will be garden organic material. However, it is recognized that there are drawbacks to this approach, the main one being the likely temporary drop in MSW diversion.
41. Other factors come into play, including the approach to be taken by the State government on residual waste actions/levies, the change in market prices for processing GO/FOGO (and bin lift rates), and any applicable subsidies that may apply. These may affect the Town's approach to the issue in the medium to longer term. However, at this stage officers recommend that a two-stage approach to the full implementation of FOGO be adopted, initially to GO and then FOGO to meet the 2024/25 WARRS timelines.

Relevant documents

WARRS

Council adopted Waste Plan and associated Strategic Waste Management Plan (SWMP)

[Waste Authority guidelines which cover the Better Bins Plus subsidy](#)