

- b) A united position to be presented to the Minister of Local Government to review the current rating exemption for energy generating infrastructure, or alternatively, consider the introduction of a *Payment in Lieu of Rates (PiLoR)* scheme as operates in Victoria; and
2. Authorises the Chief Executive Officer to advise the Northern Areas Council accordingly.

12.8. KERBSIDE FOGO FEASIBILITY REPORT AND 3-BIN ROLLOUT PLAN

REPORT PURPOSE

The purpose of this report is to recommend adoption of a fortnightly 3-bin kerbside collection model in Port Lincoln including Food Organics and Garden Organics (FOGO) and present the Kerbside FOGO Feasibility Report to Council for adoption.

RECOMMENDATION

That Council:

1. Receive and adopt the Feasibility Report for kerbside FOGO in Port Lincoln, as attached.
2. Adopt a kerbside 3-bin fortnightly collection model for Port Lincoln;
3. Adopt the proposed 3 year roll-out plan and budget and amend the scope of 2025/26 Annual Business Plan Project – Kerbside Recycle Bin Upgrades.
4. Request a review of Council's Waste Management Policy to allow for introduction of the 3-bin collection model.

12.9. CITY OF PORT LINCOLN 2024/2025 ANNUAL REPORT

REPORT PURPOSE

The purpose of this report is for Council to adopt the City of Port Lincoln Annual Report for the financial year 1 July 2024 to 30 June 2025.

RECOMMENDATION

Pursuant to the Local Government Act 1999 Section 131, and the Local Government (General) Regulations 2013 Section 10, Council:

1. Adopts the draft City of Port Lincoln Annual Report 2024/2025 as presented in the attachment 98515 to this report;
2. Adopts the General Purpose Financial Reports 2024/2025, as presented to Council, included as an appendix to the City of Port Lincoln Annual Report 2024/2025 under Section Three – Financial Performance; and
3. Authorises the Chief Executive Officer or delegate to make minor typographical and technical amendments to the draft City of Port Lincoln Annual Report 2024/2025 as presented in attachment 98515 to this report as required.

12.8 KERBSIDE FOGO FEASIBILITY REPORT AND 3-BIN ROLLOUT PLAN

REPORT INFORMATION									
Report Title	Kerbside FOGO Feasibility Report and Rollout Plan								
Document ID	100593								
Organisational Unit	Environment & Infrastructure								
Responsible Officer	Coordinator, Environmental Sustainability - Sebastian Carr								
Report Attachment/s	Yes 99927 Feasibility Report_ Kerbside FOGO in Port Lincoln								
REPORT PURPOSE									
The purpose of this report is to recommend adoption of a fortnightly 3-bin kerbside collection model in Port Lincoln including Food Organics and Garden Organics (FOGO) and present the Kerbside FOGO Feasibility Report to Council for adoption.									
REPORT DECISION MAKING CONSIDERATIONS									
Council Role	Provide/Respond - Fully or partially fund or provide a service or respond to a need								
Strategic Alignment	SDP GOAL: Goal 4: Sustainable Environment SDP ACTION: 4.5 Deliver the Waste and Resources Management Strategy in particular supporting diversion of organic and other recycleable materials away from landfill.								
Annual Business Plan 2024/25	ABP INITIATIVE: Choose an item. ABP PROJECT: Choose an item.								
Annual Business Plan 2025/26	ABP INITIATIVE: Choose an item. ABP PROJECT: Kerbside recycle bin upgrade (WMS)								
Legislation	Local Government Act 1999								
Policy	Waste Management 5.63.10								
Budget Implications	As per approved budget <table><tr><th>DESCRIPTION</th><th>BUDGET AMOUNT</th><th>YTD</th></tr><tr><td>OC12897 – Kerbside Recycle Bin Upgrade</td><td>\$220,000</td><td>\$0</td></tr></table> Budget assessment comments: This report seeks to amend the scope of the above budgeted project however will not result in any additional expenditure in 2025/26 financial year. This project commits Council to budget allocation in future years 2026/27 – 2027/28 to complete the 3-bin rollout, as noted in this report.			DESCRIPTION	BUDGET AMOUNT	YTD	OC12897 – Kerbside Recycle Bin Upgrade	\$220,000	\$0
DESCRIPTION	BUDGET AMOUNT	YTD							
OC12897 – Kerbside Recycle Bin Upgrade	\$220,000	\$0							
Risk Implications	Low Risk								
Resource Implications	This is a planned resource allocation								
Public Consultation	Not Applicable								
IAP2 Commitment	Not Applicable								

OFFICER'S RECOMMENDATION

That Council:

1. Receive and adopt the Feasibility Report for kerbside FOGO in Port Lincoln, as attached.
2. Adopt a kerbside 3-bin fortnightly collection model for Port Lincoln;
3. Adopt the proposed 3 year roll-out plan and budget and amend the scope of 2025/26 Annual Business Plan Project – Kerbside Recycle Bin Upgrades.
4. Request a review of Council's Waste Management Policy to allow for introduction of the 3-bin collection model.

EXECUTIVE SUMMARY

This report recommends the adoption of a fortnightly 3-bin kerbside collection system including Food Organics and Garden Organics (FOGO). Key findings of the FOGO Pilot and attached Feasibility Report include:

- Current 2-bin system sends 60% organics to landfill, contributing 1,635 tonnes CO₂-e annually (equivalent to 85% of Council's corporate emissions);
- FOGO Pilot diverted 78% of organics, tripling diversion from 16% to 53%;
- Environmental benefit: 800 tonnes CO₂-e reduction annually (≈190 cars off the road);
- Financial impact: near cost-neutral; potential savings with local processing.
- Recommendation: Adopt the 3-bin system and update kerbside waste policy to support residents during transition.

PREVIOUS COUNCIL REPORTS

This report follows previous reports presented to Council regarding the 12-month FOGO Pilot that concluded in March 2025:

Report 71093	22 April 2025	FOGO Pilot Completion Report
Report 63061	17 February 2025	FOGO Pilot Kerbside Service Continuation
Report 39750	19 August 2024	FOGO Pilot Update
Report 13215	19 February 2024	Kerbside FOGO Pilot
REP2331	20 March 2023	FOGO Trial Grant Funding

BACKGROUND

Port Lincoln is the last major SA city without kerbside organics collection. This project aligns with Council's Waste & Resources Strategy 2025–2029 and Environmental Sustainability Strategy 2025–2034 to increase landfill diversion and recovery of resources in Port Lincoln.

The attached feasibility report summarises the business case and other considerations for adopting a fortnightly 3-bin system in Port Lincoln including kerbside FOGO. The proposed system, based on the FOGO Pilot model, includes:

- Introduction of a 240L FOGO bin, kitchen caddy and compostable liner bags;
- Upgrade of existing 240L recycling bins; and
- Fortnightly collection of all three waste streams (FOGO, recycling, general waste);

FEASIBILITY REPORT SUMMARY

In 2023/24 financial year, 15% of Council's annual budget was spent on waste services (\$4.44M). Of those charges, \$1.62M was spent on the kerbside red lid landfill bin service, equating to 5.4% of Council's total annual expenditure. This material from kerbside landfill also contributes 1,635 tonnes of CO2-e emissions per year under the existing 2-bin system, roughly 85% of Council's annual corporate emissions profile.

Successive kerbside audits of the current "2 bin system" in Port Lincoln have shown 60% of the material in the kerbside landfill bin is organic and could be diverted for composting. During the 2023/24 FOGO Pilot, results from kerbside audits showed a "fortnightly 3 streams" kerbside collection service was able to divert 78% of this organic material into the FOGO bin, resulting in quantities in the kerbside landfill bin reducing by more than half and overall kerbside diversion **more than tripling from 16% to 53%**.

Based on these results this feasibility report demonstrates a kerbside FOGO collection service under the Green Industries SA (GISA) best practice fortnightly 3 bin model could be supported immediately by existing commercial composting facilities in Whyalla or Dublin that could be funded almost exclusively through offset savings from reduced landfill costs.

Impact on Council Profit & Loss	Projected Savings / Cost
"Fortnightly 3 bin" service	-\$19,305
Weekly FOGO service	-\$312,380
Weekly General Waste services	-\$326,624

Even considering haulage impacts, diversion of this organic material from landfill for composting would reduce overall carbon emissions by 800 tonnes CO2 emissions per annum, (roughly 40% of Council's annual corporate emissions), which is roughly equivalent to permanently taking 190 combustion engine cars off the road.

COMMENTARY

The attached feasibility report demonstrates roll-out of a kerbside FOGO service is immediately viable, with processing available at existing composting facilities, with the following conclusions:

Kerbside Model

Based on FOGO Pilot results and case studies from other Councils, a fortnightly 3 bin system with additional peak season collections has the potential to deliver an improved service level for residents, significant environmental benefits, and potential future cost savings. In the event weekly FOGO collection is preferred in future to reduce time between organics collections it could be provided for a \$290,000 premium, or approximately \$35 per rateable property.

Resourcing and Support

The FOGO Pilot demonstrated the divergent nature of experiences for different households following changes to their kerbside collection model. Supporting the community through this process will be key to success; the better the kerbside system works, the higher the benefits will be. To achieve this Council's kerbside waste management policy must be amended to include adequate provision for hardship, user-pays options to increase bin volumes for households producing higher levels of waste, and a range of other items to support residents.

Local Processing

If kerbside FOGO can be received at a local composting facility in future the benefits would be further improved through reduced haulage, local employment, and environmental and economic benefit from locally produced compost. Feedback from respondents to Council's Expression of Interest to develop a local composting facility has been positive, with discussions ongoing. One of the main barriers to establishing a local commercial composting facility is a stable, ongoing stream of well-balanced organic materials. A municipal FOGO service would provide this stable stream of materials and could act as the catalyst for establishing a local commercial composting facility.

Recommendations

The following are key recommendations of the attached feasibility report to support introduction of a 3-bin kerbside system including FOGO collection:

1. Commit to introduction of a fortnightly 3-bin system including FOGO, and roll-out over the next 3 financial years;
2. Update Council's Waste Management Policy to reflect the fortnightly 3-bin transition, including Council-owned kerbside bins for all 3 waste streams, hardship provisions, and additional collections during holiday periods;
3. Upgrade existing recycling bins to ensure universal access to recycling;
4. Support residents during the transition with information packs, promotion and education;
5. Monitor performance and provide ongoing support for residents to improve landfill diversion rates over time.

ROLLOUT OF 3-BIN SYSTEM

Costs to roll-out a 3-bin kerbside collection service include upgrades to recycling bins, rollout of FOGO bins, caddies and liners as well as provision of education and support materials for residents. Funding for the roll-out would include primarily capital contributions from Council along with some targeted grant funding through GISA, as per the below table.

3-Bin Rollout Costs	Total
Recycle Bin Upgrades	\$192,708
FOGO Bins	\$446,630
Caddies & liners	\$191,639
Print materials, education & contingency	\$157,676
Total Cost	\$988,654
Potential GISA Funding	-\$78,060
Potential Cost (With Funding)	\$910,594

Above estimates include contingencies, however exclude staff costs for project management and administrative tasks associated with the roll out. Additional funding is being sought from GISA however has not been assumed for the purposes of costing.

A current project included in Council's adopted Annual Business Plan is the upgrade of all 7,500 kerbside recycling bins across Port Lincoln. However, a staged approach for all 3 bins is now proposed to start in 2025/26 and be completed over 3 years.

Kerbside Collection Day Map – Port Lincoln



3 Year Roll-out by Collection Zone

Expanding the 3-bin system over 3 years will allow for changes to collection arrangements and Resource Recovery Centre operations to be implemented slowly. Additionally, a 3-year rollout will make the task for community groups to assemble and deliver bins more manageable, as well as support for residents from Council staff.

The current FOGO Pilot area covers 394 properties in the Monday collection zone. Initial expansion is proposed for the remaining 953 properties in this zone so that all properties with Monday collections will be using the 3-bin system by the end of 2025-26. This approach can be supported by the existing ABP project budget and resource allocation for 2025/26.

3-Bin Rollout Costs	2025/26	2026/27	2027/28	TOTAL
Collection Zone	Mon (remaining)	Tues & Wed	Thurs & Fri	
Rateable Properties	953	3888	2965	7806
Rollout Cost	\$120,700	\$492,427	\$375,526	\$988,654
Potential GISA Funding	-\$9,530	-\$38,880	-\$29,650	-\$78,060
Potential Cost (With Funding)	\$111,170	\$453,547	\$345,876	\$910,594

Why Fortnightly Collection?

The aim of the 3-bin system is to reduce waste to landfill and increase separation of recyclables and organics in line with Council's Waste & Resources Strategy. Experience from other Councils shows that the most effective way to increase waste separation is through reducing the frequency of red bin collections to fortnightly to incentivise waste separation, which is consistent with the findings of Council's FOGO Pilot.

Where weekly collection is still preferred by Councils, some South Australian Councils (eg. Port Pirie, Holdfast Bay, Burnside) are introducing weekly FOGO collections so the red bin can be collected fortnightly. As noted above, in the case of Port Lincoln a weekly FOGO collection would increase collection costs by over \$300,000 per year. Data on how full bins were during the FOGO Pilot suggests weekly collection is not required. For this reason fortnightly collections are recommended.

Community Transition Challenges

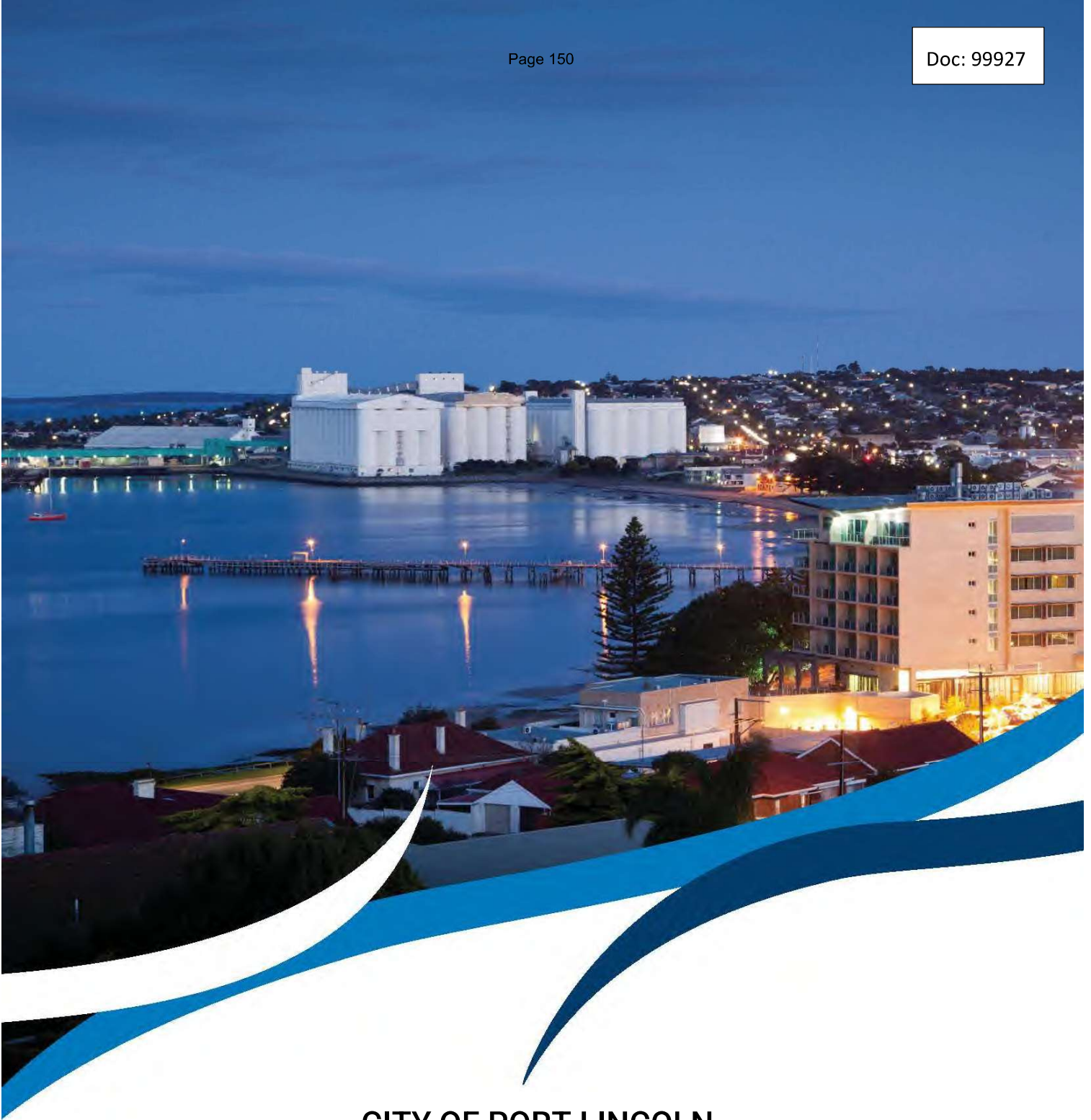
Engagement during the FOGO Pilot was extensive, including direct feedback from participants at multiple stages on their experience with the fortnightly 3-bin system. This engagement was summarised in the FOGO Pilot Completion Report presented to Council in April 2025, and has informed the proposed adoption across Port Lincoln.

We know from this engagement that introducing fortnightly collections is challenging for many and will result in complaints during the transition period. About half of survey responses at the conclusion of the 12-month FOGO Pilot raised some level of concern around the frequency of collection, and a quarter of responses said the 140L red bin volume was inadequate over two weeks.

However, audits conducted by KESAB during the FOGO Pilot also identified almost half (47%) of the red bin contents was not in the correct bin.

To support residents changing to a 3-bin system, Council's kerbside waste management policy must be amended to include supply of all 3 kerbside bins, adequate provision for hardship, user-pays options for additional bins for businesses, households with higher levels of waste, and a range of other items to support residents such as free second bins for families with children in nappies. Education and ongoing Council support for residents to adjust to the separation of organics from general waste and change to fortnightly red bin collection will be key to success:

Issue Raised	Policy Response
Red bin too small	Upgrade, provide & promote recycle bins Encourage separation of organics, recycling and other waste (education) Optional paid additional / larger red bin (current policy)
Red bin is smelly	Encourage all food to go in FOGO bin (education) Strategies to reduce smell from nappies (education)
High occupancy households	Encourage separation of organics, recycling and other waste (education) Optional paid additional / larger red bin (current policy)
Nappies, medical waste, etc.	Free second bin to manage nappies & medical waste
FOGO bin is smelly	Strategies to reduce smell (education)
Peak holiday periods	Provide additional free collections (weekly)



CITY OF PORT LINCOLN

FEASIBILITY REPORT:

Kerbside Food and Garden

Organics (FOGO) in Port Lincoln

November 2025



ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the Barngarla People, the Traditional Owners of the land on which the City of Port Lincoln rests and their continuing connection to land, sea, culture and community. We pay our respects to Elders past, present and emerging, and we extend that respect to other Aboriginal and Torres Strait Islander people in our community.



PERPARED BY:

Sustainable Solutions & City of Port Lincoln

Document History

Version	Date	Document	Co-Author	Co-Author
1	Nov 2024	First draft	Marina Wagner	Sebastian Carr
2	Jan 2025	Draft v2	Marina Wagner	Sebastian Carr
3	Feb 2025	Draft v3	Marina Wagner	Sebastian Carr
4	June 2025	Draft v4	Marina Wagner	Sebastian Carr
5	Nov 2025	FINAL	Marina Wagner	Sebastian Carr

Reference Documents

Document Title	Date
FOGO Pilot Final Report – City of Port Lincoln	2025
City of Port Lincoln Waste and Resources Management Strategy 2025-2029	2024
City of Port Lincoln Environmental Sustainability Strategy 2025-2034	2024
Pre-FOGO Pilot Kerbside Audit Report Feb 2024 (KESAB)	Feb 2024
FOGO Pilot Kerbside Audit Nov 2024 (KESAB)	Nov 2024
Eyre Peninsula Waste and Resources Strategy 2023 - 2033	2023
Kerbside Waste Audit City of Port Lincoln (KESAB)	2017
SA Better Practice Guide: Sustainable Kerbside Services (GISA)	2023
SA EPA Draft Waste Environmental Protection Policy	2024
City of Port Lincoln FOGO Pilot Project Management Plan	2023

Disclaimer

The Report has been prepared by in partnership between the City of Port Lincoln and Sustainable Solutions in accordance with the terms and conditions of engagement dated January 2024 and is based on assumptions and exclusions set out in the scope of works. Information in this document is current as of November 2025.

This report has been prepared based on secondary information and data provided by other parties; as such, it relies on the accuracy of the provided information. Although data and information provided was assumed to be correct unless otherwise stated in this report.

While all professional care has been taken in preparing this report, Sustainable Solutions cannot accept any responsibility for any use or reliance on the content of this report by any third party.



Executive Summary

In 2023/24 financial year, 15% of Council's annual budget was spent on waste services (\$4.44M). Of those charges, \$1.62M was spent on the kerbside red lid landfill bin service, a staggering 5.4% of Council's total annual expenditure. This material from kerbside landfill also contributes 1,635 tonnes of CO₂-e emissions per year under the existing 2-bin system, roughly 85% of Council's annual corporate emissions profile.

Successive kerbside audits of the current "2 bin system" in Port Lincoln have shown 60% of the material in the kerbside landfill bin is organic and could be diverted for composting. During the 2023/24 FOGO Pilot, results from kerbside audits showed a "fortnightly 3 streams" kerbside collection service was able to divert 78% of this organic material into the FOGO bin, resulting in quantities in the kerbside landfill bin reducing by more than half and overall kerbside diversion **more than tripling from 16% to 53%**.

Based on these results, considering options for post-collection processing, and changes to contract rates and Council's kerbside collection model, this feasibility report demonstrates a kerbside FOGO collection service under the GISA best practice fortnightly 3 bin model could be supported immediately by existing commercial composting facilities in Whyalla or Dublin, and could be funded almost exclusively through offset savings from reduced landfill costs.

Impact on Income	Whyalla / Dublin		Future Local Processing	
	Overall Savings / Cost	Per Property Savings / Cost	Overall Savings / Cost	Per Property Savings / Cost
"Fortnightly 3 bins"	-\$19,305	-\$2	\$120,443	\$15
Weekly FOGO	-\$312,380	-\$38	-\$172,632	-\$21
Weekly General Waste	-\$326,624	-\$39	-\$245,821	-\$30

Even considering haulage impacts, diversion of this organic material from landfill for composting would reduce overall carbon emissions by 800 tonnes CO₂ emissions per annum, (roughly 40% of Council's annual corporate emissions), which is roughly equivalent to permanently taking 190 combustion engine cars off the road.

Additionally, if kerbside FOGO can be received at a local composting facility in future the benefits would be further improved through reduced haulage, local employment, and environmental and economic benefit via locally produced compost. Feedback from respondents to Council's Expression of Interest to develop a local composting facility has been positive, with discussions ongoing.

Currently one of the main barriers to establishing a local commercial composting facility is a stable, ongoing stream of well-balanced organic materials. A municipal FOGO service would provide this stable stream of materials and could act as the catalyst for establishing a local commercial composting facility.

The following are key recommendations of this feasibility assessment to support introduction of a 3-bin kerbside system including kerbside FOGO collection service:

1. Commit to introduction of a fortnightly 3-bin system including FOGO, and roll-out over the next 3 financial years;
2. Update Council's Waste Management Policy to reflect the fortnightly 3-bin transition, including Council-owned kerbside bins for all 3 waste streams, hardship provisions, and additional collections during holiday periods;
3. Upgrade existing recycling bins to ensure universal access to recycling;
4. Support residents during transition with information packs, promotion and education;
5. Monitor performance and provide ongoing support for residents to improve landfill diversion rates over time.

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1. Introduction

Organic waste constitutes approximately 60% of the materials presented in kerbside landfill bins in Port Lincoln.¹ As the last city in South Australia without a kerbside organics collection service, this is significantly higher than the sector average of 33%.²

Landfill is an expensive method of waste processing due to transport costs and the EPA solid waste levy, and as such comprises a significant cost to ratepayers. Sending organics to landfill also produces significant amounts of CO₂-e emissions due to the generation of methane, with alternative processing methods such as composting achieving up to a 97% reduction in emissions.³

Diversion of organic waste from landfill and recovery for beneficial use presents opportunities for a more efficient kerbside waste system, as well as potential financial and environmental benefits. This report details work undertaken by the City of Port Lincoln and Sustainable Solutions to investigate these opportunities via the introduction of a sustainable kerbside organics collection service in Port Lincoln.

A Food Organics and Garden Organics (FOGO) Pilot was conducted during 2024/25 to establish necessary information for Council to be able to make any future decisions about a establishing a permanent FOGO service in Port Lincoln.

Looking ahead, the management of FOGO materials post-collection will be key to this success, Ideally, through the establishment of a composting facility in Port Lincoln / lower Eyre Peninsula region that is supported by a sustainable supply of compostable organics and a strong local market for finished products.

In the wider regional context, the Eyre Peninsula Local Government Association (EPLGA) has released the Regional Waste and Resources Strategy (2023-2033) for its eleven member councils which identifies the potential for an organic processing facility on lower Eyre Peninsula and the potential for developing markets for high quality products from processed compostable materials.



¹ Kerbside Waste Audit City of Port Lincoln September 2017 (KESAB Environmental Solutions); and Pre-FOGO Pilot Bin Materials Audit Report February 2024 (KESAB Environmental Solutions).

² *South Australia's Kerbside Waste Performance: State & Regional Report 2021-2022*, Green Industries SA, p21.

³ *Australian National Greenhouse Accounts Factors 2024*, Australian Department of Climate Change, Energy, The Environment and Water, pp35-40.

Currently, all eleven Eyre Peninsula councils provide drop-off options for green waste at their respective transfer stations or landfill facilities where green waste gets stockpiled and periodically processed into mulch, which is then either re-used on those respective sites or offered or sold to local customers.

In alignment with Council's Strategic Directions Plan 2021-2030, Council is committed to strengthening its focus on economic and environmental responsibility and sustainability through strategic actions around resource management including increased recovery of recyclable materials from the general waste stream.

Council considers the provision of kerbside FOGO services in Port Lincoln has the potential to act as a foundational contract to support a sub-regional processing facility, thereby providing opportunity for participation from adjacent council areas as well as local generators of compostable organics, such as such as aquaculture, fisheries and farming.

1.1 Feasibility Objectives

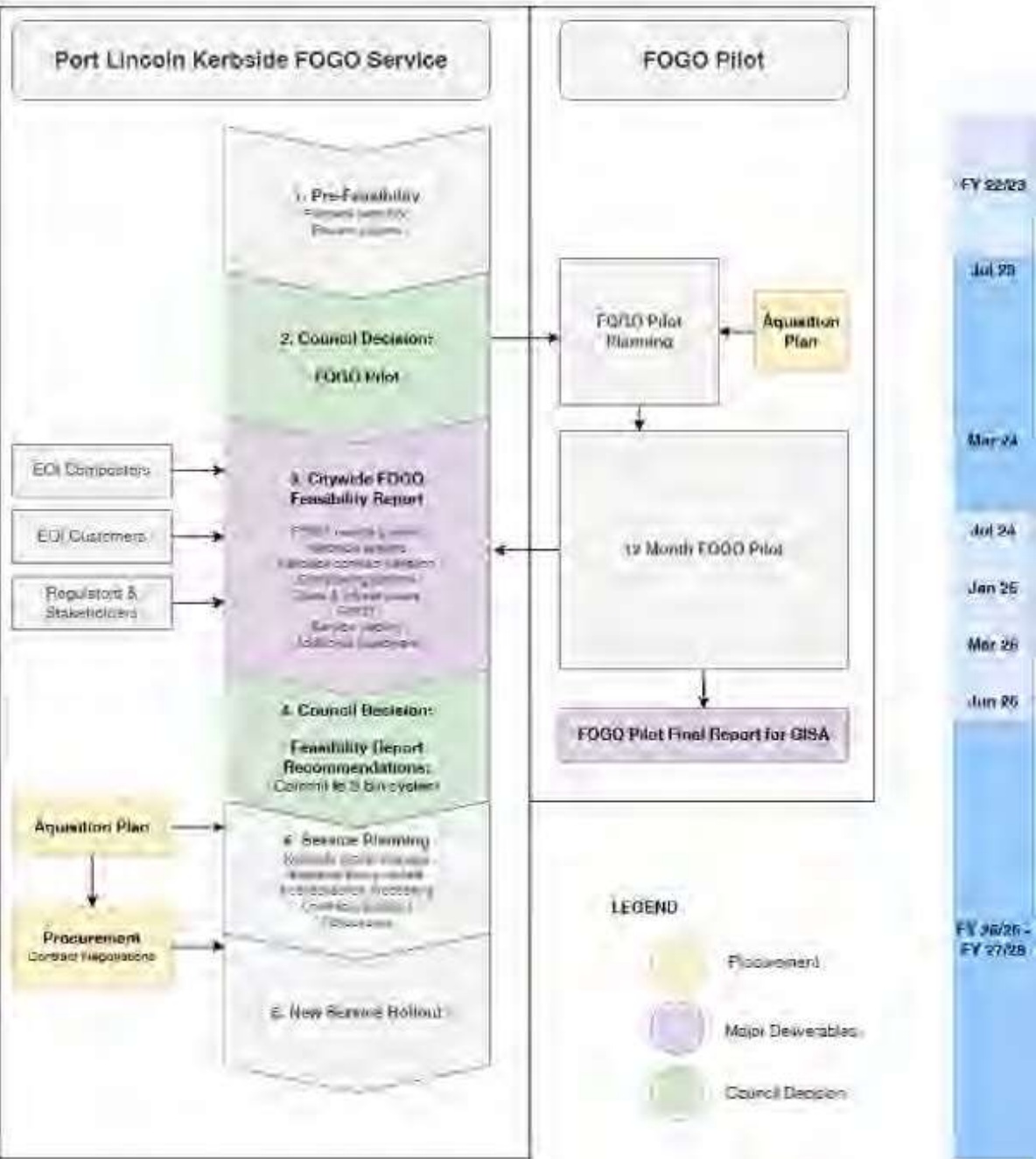
Key objectives for this study were developed in conjunction with the following documents:

Feasibility Study	Objective 1: Provide the City of Port Lincoln and its community (residential and commercial) with a viable kerbside FOGO collection service	Objective 2: Support development of a viable commercial composting facility on lower Eyre Peninsula capable of receiving FOGO
FOGO Pilot Management Plan	1. Diversion of waste from landfill; 2. Reduction of Council's carbon emissions; 3. Improve Port Lincoln's residential service levels through introduction of FOGO; 4. Drive the Circular Economy.	1. Diversion of waste from landfill; 4. Drive the Circular Economy.
City of Port Lincoln Waste and Resources Management Strategy	1. Reduce waste generation and increase landfill diversion; 2. Increase the recovery of resources; 3. Deliver reliable, flexible, and cost-effective services that meet the needs of the community; 4. Protect and conserve the natural environment.	1. Reduce waste generation and increase landfill diversion; 2. Increase the recovery of resources; 5. Implement governance structures that support collaboration and partnerships.
EPLGA Waste and Resources Strategy	1. Reduce waste generation and increase landfill diversion; 2. Increase the recovery of resources; 3. Deliver reliable, flexible, and cost-effective services that meet the needs of the community; 4. Protect and conserve the natural environment.	1. Reduce waste generation and increase landfill diversion; 2. Increase the recovery of resources; 5. Implement governance structures that support collaboration and partnerships.

1.2 Process & Timelines

The below provides an overview of the process used, key milestones and timelines associated with Council’s consideration of a city-wide kerbside FOGO service.

Figure 1: Project Decision Flowchart & Timelines



2. Further Context

2.1 State Strategic Alignment

The Environment Protection (Waste to Resources) Policy 2010 (W2R EPP), through the Environment Protection Act 1993, provides the regulatory underpinning for South Australia's waste management objective and actions identified under South Australia's Waste Strategy (2020-2025) and the National Waste Policy Action Plan (2019).⁴

Since the commencement of the W2R EPP, significant changes have occurred in the waste and resource recovery sector that warrant a review of the policy.

The SA EPA released a Discussion Paper to consult on proposed changes to the W2R EPP for a three-month consultation period (23 September 2024 -20 Dec 2024). The outcome of the process and ultimately, the revised W2R EPP will shape the future for SA and in particular the waste and resources sector in the transition to a more circular economy.

The eleven Eyre Peninsula councils and the EPLGA are actively engaging in this process and provide valuable input in the consultation process to ensure future policy measures support place-based solutions in the region and for the region.

Furthermore, a review of the SA State Waste Strategy (2020-2025) is underway. Green Industries SA (GISA) is the agency responsible for leading the process which commenced with a stakeholder workshop in September 2024. The reduction of avoidable waste from landfilling, in particular compostable organics, was identified as a key area in the strategy review.

SA's Food Waste Strategy 2020-25 'Valuing our Food Waste' supports the national target of halving Australia's Food Waste by 2030 and prioritises SA's actions to address the avoidance of food wastage and the reduction of food waste in the general waste stream in domestic and commercial settings. South Australia currently leads the nation with almost 50% of Councils providing kerbside FOGO services, indicating a strong success rate and general viability of the service.

2.2 Regional Strategic Alignment

The EPLGA supports programs and actions that reduce food waste, the establishment of local processing facilities and regional market development in conjunction with organic waste from farming, fisheries and aquaculture.

Eyre Peninsula is the size of Tasmania (approx.) with only 10% of the population, and vast distances between townships, service centres, as well as processing and manufacturing facilities posing very specific challenges in the transitioning to a more circular economy. As a result the recently released Eyre Peninsula Waste and Resources Strategy (2023-2033) recommends a place-based approach to waste and resources management, an approach which emphasises the characteristics of places as a fundamental starting point for planning and development.

⁴ SA EPA discussion paper 'Beyond recycling: Moving SA towards a more circular economy', Sep 2024

Improving services, developing local and regional solutions and transitioning the Eyre Peninsula to a more circular economy will require strong cooperation and partnerships between councils, industry and the community.

Introduction of a kerbside FOGO service and establishment of a local composting facility will support the above state and regional strategies and policies. However bespoke, unconventional approaches may provide the best solution to Eyre Peninsula's unique challenges and opportunities.⁵

2.3 Environmental benefits of diverting organics from landfill

Sending organics to landfill produces significant amounts of CO₂-e emissions due to the generation of methane, with alternative processing methods such as composting achieving up to a 97% reduction in emissions.⁶ Introduction of a landfill gas flare at the Veolia Glenfield facility during 2025 has significantly reduced emissions from landfill. Despite this, kerbside landfill material collected under the current 2-bin system will still contribute 1,635 tonnes of CO₂-e emissions per year, roughly 85% of Council's annual corporate emissions profile. Based on findings from the FOGO Pilot, Council could reduce up to 800 tonnes of CO₂-e per annum by diverting organic materials from landfill for composting, roughly equivalent to permanently taking 190 combustion engine cars off the road.⁷

Recovery of organic material by a local composting facility would increase local access to commercial quantities of compost, providing potential benefit to local agriculture and food production through improved soil condition and reduced water use.

Landfills will continue to play an integral role in the waste management system and preserving landfill airspace is an important measure to reduce the impact on the environment and reduce cost for both ongoing operations and future expansions.

2.4 Solid waste levy

Under the Environment Protection Act 1993, a waste levy is payable to the SA EPA on solid or liquid waste disposed of by landfill, incineration or via liquid waste depot. The levy artificially increases the cost of waste disposal, thereby incentivising resource recovery. No levy is paid on recovered material. Current waste levy rates are noted below⁸:

Source	2024–25 Levy
Metropolitan solid waste	\$161 / tonne
Non-metropolitan solid waste	\$80.50 / tonne
Liquid waste	\$43.75 / kL

⁵ Eyre Peninsula Waste and Resources Strategy 2023-2033

⁶ *Australian National Greenhouse Accounts Factors 2024*, Australian Department of Climate Change, Energy, The Environment and Water, pp35-40.

⁷ <https://greenvehicleguide.gov.au/pages/UnderstandingEmissions/VehicleEmissions>

⁸ SA EPA website https://www.epa.sa.gov.au/business_and_industry/waste-levy

Waste levy rates are reviewed annually and typically increase on 1 July each year. Over recent years annual increases were between 2% and 4.5%. Based on the total landfill volume collected by City of Port Lincoln in 2023/24, this levy resulted in a total cost of \$865,654.

2.5 City of Port Lincoln waste and resources strategy

In alignment with Council's Strategic Directions Plan 2021-2030 and Council's Waste and Resources Management Strategy 2025-2029, Council is committed to strengthening its focus on economic and environmental responsibility and sustainability through strategic actions around resource management including increased recovery of recyclable materials from the general waste stream.

At its March 2023 meeting, Council accepted \$58,000 grant funding from Green Industries SA (GISA) and allocated a further \$66,500 from Council's budget for a FOGO kerbside collection pilot in 2023/2024. This was followed by a Council resolution at the August 2023 council meeting to include a 'Feasibility Study for the collection and processing of compostable organic waste'.

2.6 City of Port Lincoln current waste services

At this point in time, the City of Port Lincoln offers the following kerbside collection services:

- general waste (140L bin/ red lid);
- co-mingled recycling (240L bin/ dark green or yellow lid);
- FOGO Pilot Only: Food and garden organics (FOGO) (240L bin/ light green lid);

Council also owns the Resource Recovery Centre (RRC) located on Hassell Road and has contracted Veolia Environmental Services (Veolia) to operate the facility, accepting a range of wastes and recyclables from the community and businesses for Port Lincoln and the wider catchment, including:

Disposal	Recycling	On-site processing
General waste Mattresses Commercial and industrial Fish nets and ropes Asbestos Fish waste	Paper Cardboard Glass Scrap metal Tyres e.waste Batteries Gas bottles Waste oil	Green waste Construction & demolition

Green waste and construction and demolition waste are the only waste streams stockpiled and periodically processed on-site. All other materials are temporarily stockpiled and aggregated for off-site transport to either landfill or processing facilities in Adelaide or interstate.

2.7 Current financial and management structure

The City of Port Lincoln holds a contract with Veolia for the following services:

- Operation of the Resource Recovery Centre;
- Transport and gate fees for recyclables transported to Northern Adelaide Waste Management Authority (NAWMA);

- Transport, waste levy and gate fees for general waste transported to Glenfield Waste Management Facility, Butler;
- Kerbside collection services.

Pursuant to section 155 of the Local Government Act 1999, Council declares service charges for both waste and recycling collection services which are itemised separately to property value-based rates on a cost recovery basis for waste and recycling collection services provided by Council.

For the 2023/24 financial year combined waste services totalled \$4.44M, constituting approximately 15% of council's overall expenditure. Noteworthy almost half of this (\$2.0M) was spent on kerbside collection.

2.8 Kerbside collection funding model

Council funds kerbside services and post-collection management of kerbside collected waste as follows:

- Waste and recycling service charges to service-entitled properties;
- Charges for additional bin collections;
- GISA transport relief subsidy for co-mingled recyclables.

Waste service charges for the 2024/25 financial year are shown below:

Rate Service Charges	\$/property
General Waste	\$315
Recycling	\$64
TOTAL	\$379

With the roll-out of a FOGO service, service charges to service-entitled properties will be adjusted to reflect all three kerbside waste streams (recycling, FOGO and general waste).

3. Port Lincoln kerbside FOGO Pilot

A full description, audit results and analysis of the 12-month FOGO Pilot conducted by City of Port Lincoln during 2024/25 can be found in the *Kerbside Food and Garden Organics (FOGO) Pilot Completion Report, April 2025*. Comprising 394 properties or roughly 5% of Port Lincoln, the Pilot service included:

- Introduction of the FOGO bin, kitchen caddy and compostable liner bags;
- Fortnightly collection of all three waste streams (240L FOGO, 240L comingled recycling, and 140L general waste) to manage collection costs;
- Collection of general waste and FOGO on the same day to encourage residents to place their food waste in the FOGO bin (rather than putting it in whatever bin is collected sooner); and
- upgrade of recycling bins from the existing majority dark green lids to yellow lids in line with Australian Standards, and provision of new bins to household without access to recycling.

Comparison is provided below of total bin volumes and bin numbers based on a two-week cycle between Port Lincoln business as usual kerbside services (BAU) and the FOGO Pilot.

Whilst the bin volume at the kerb increased for participating households with the change to fortnightly collection frequency of all three waste streams, the total number of collections remained the same. Additionally, the size of the Pilot area and the number of participating households eliminated the need for an additional collection vehicle. Given no additional truck movements were required, Veolia supported the Pilot kerbside collection model through adjustment of their resources at no additional cost to Council. Veolia has also agreed to extend this arrangement until Council has made a determination with respect to a citywide rollout of kerbside FOGO collection.



A significant information campaign took place prior to the start of the pilot, along with educational and supporting documentation, resident feedback surveys and social media promotion. Following community workshops and the successful rollout of FOGO under a community enterprise model by The Rotary Club of Port Lincoln in February, kerbside collections began on 4 March 2024.

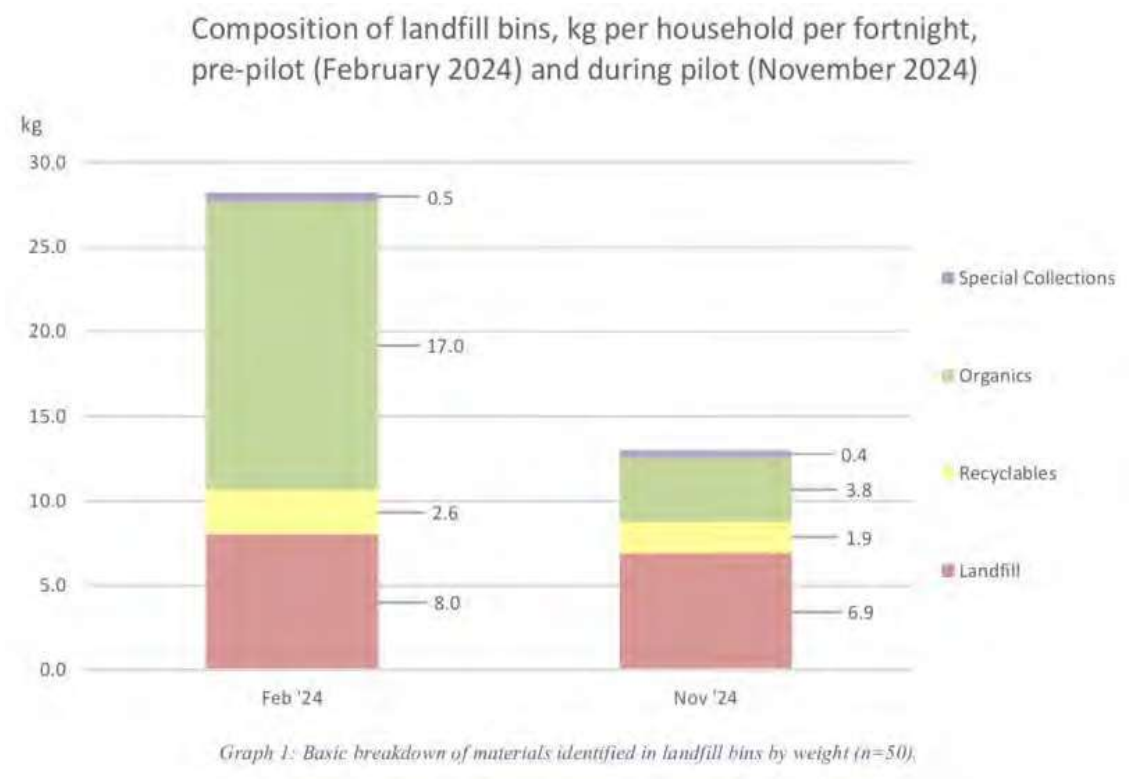
3.1 Pilot Results

Baseline audits conducted by KESAB prior to the Pilot commencement confirmed results from the previous 2017 kerbside audit, ultimately that approximately 60% of the general waste bin contents was organic materials.

Of this organic material, 53% of this organic material was garden waste and a further 40% was food waste (loose, packaged, or in compostable bags). In addition, 5% of the contents of the recycling bin was also compostable organic materials, which included pizza boxes and compostable paper.

In November 2024 KESAB conducted a second audit to measure change due to the Pilot service which demonstrated a significant reduction of 54% of waste presented in the red bin. The key contributor to this change was a 78% reduction in organics being placed in the red bin.

Figure 2. PILOT Area Kerbside General Waste Bin Composition (KESAB Audits)



Overall these results demonstrated through the introduction of the FOGO Pilot kerbside system and improvements to recycling bins the effective diversion rate of kerbside waste more than tripled from 16% to 53%.

Bin Fill Levels & Correct Streaming

During pre-pilot and mid-pilot kerbside audits, the fill level of each kerbside bin was recorded to gauge the change in remaining available space in each bin under the fortnightly 3-bin collection schedule. This information can be used to consider any increased pressure on available bin space due to the change from weekly to fortnightly collection of the red bin.

Bin Fill Levels	Audit 1 (Pre-Pilot)			Audit 2 (Mid-Pilot)		
	Fill Level (%)	Full Bins (#)	Material in Correct Bin	Audit 2 (Nov 24)	Full Bins (#)	Material in Correct Bin
Landfill (red bin)	76%	20	29%	86%	25	53%
Recycling	70%	15	86%	72%	13	88%
FOGO	-	-	-	59%	5	97%

As shown in the above table, despite the large amount of material recovered via the FOGO bin, on average it had the lowest fill level (59%) of the three waste streams primarily due to the high density of organic materials compared to other waste streams, as well as 97% of bin contents being the correct material type.

Contrastingly, it can be seen the red lid landfill bin recorded the highest fill level, increasing from 76% to 86% under the FOGO Pilot. On an individual household basis, an additional 5 bins were recorded as “full” through visual inspections during the audit, about 10% of the households sampled. This demonstrates the impact of reduced available bin volume through changing from weekly to fortnightly collections for the red bin.

It should be noted however that of material placed in the red bin, only 53% was genuine landfill. In other words, 47% of the materials placed in the red bin could have been diverted to another waste stream, demonstrating opportunity for residents to free up further space in the red bin.

3.2 Pilot Community Engagement

Feedback was received from participating residents through various formats throughout the Pilot period, including a Pilot launch survey (50 responses), Educational workshops (75 attendees), Email, phone and website feedback (82 enquiries), and a Pilot completion survey in March 2025 that received 105 responses.

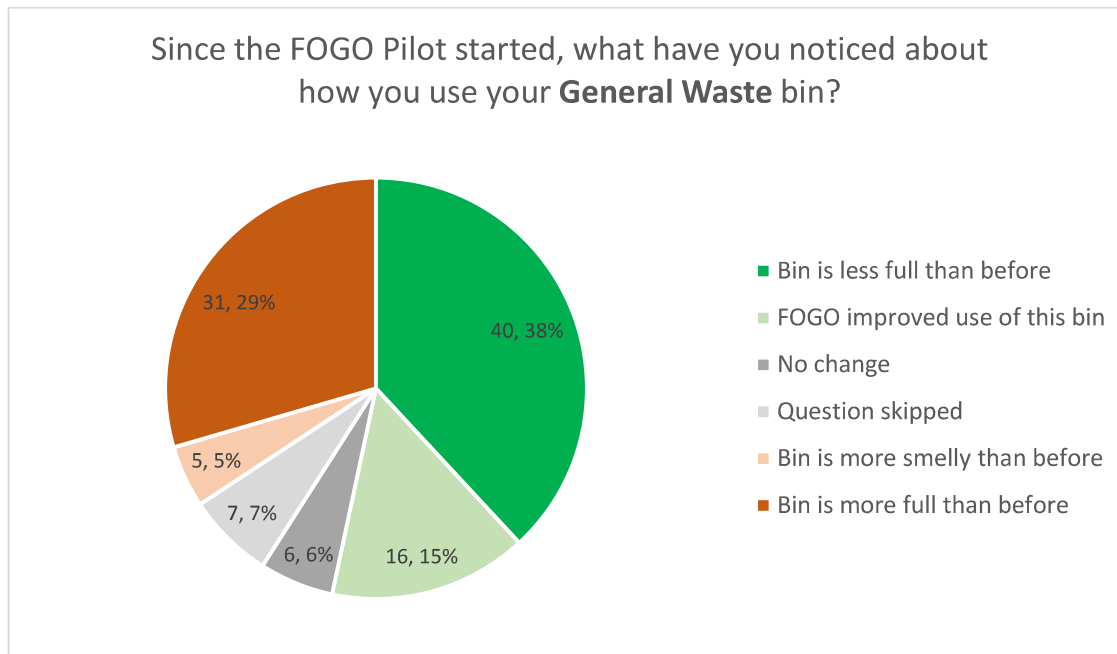
Full survey results and written comments have been provided in the Pilot Completion Report, however general insights from the Pilot completion survey responses include:

- 97% considered learning to use the FOGO bin “easy”;
- 85% would like to see the FOGO bin become a permanent service;
- 65% put all food scraps in the FOGO bin;
- 49% raised some level of concern about changing to fortnightly waste collections;

Perception of Changes to General Waste and Recycling

Respondents were asked in Survey 2 to comment on any observations about how their use of each waste stream changed through the Pilot. Generally responses were able to be grouped by category. The below charts demonstrate the divergent nature of experience within households in the Pilot.

Figure 3. Divergent feedback on changes to red bin usage (Pilot completion survey, Mar 25)



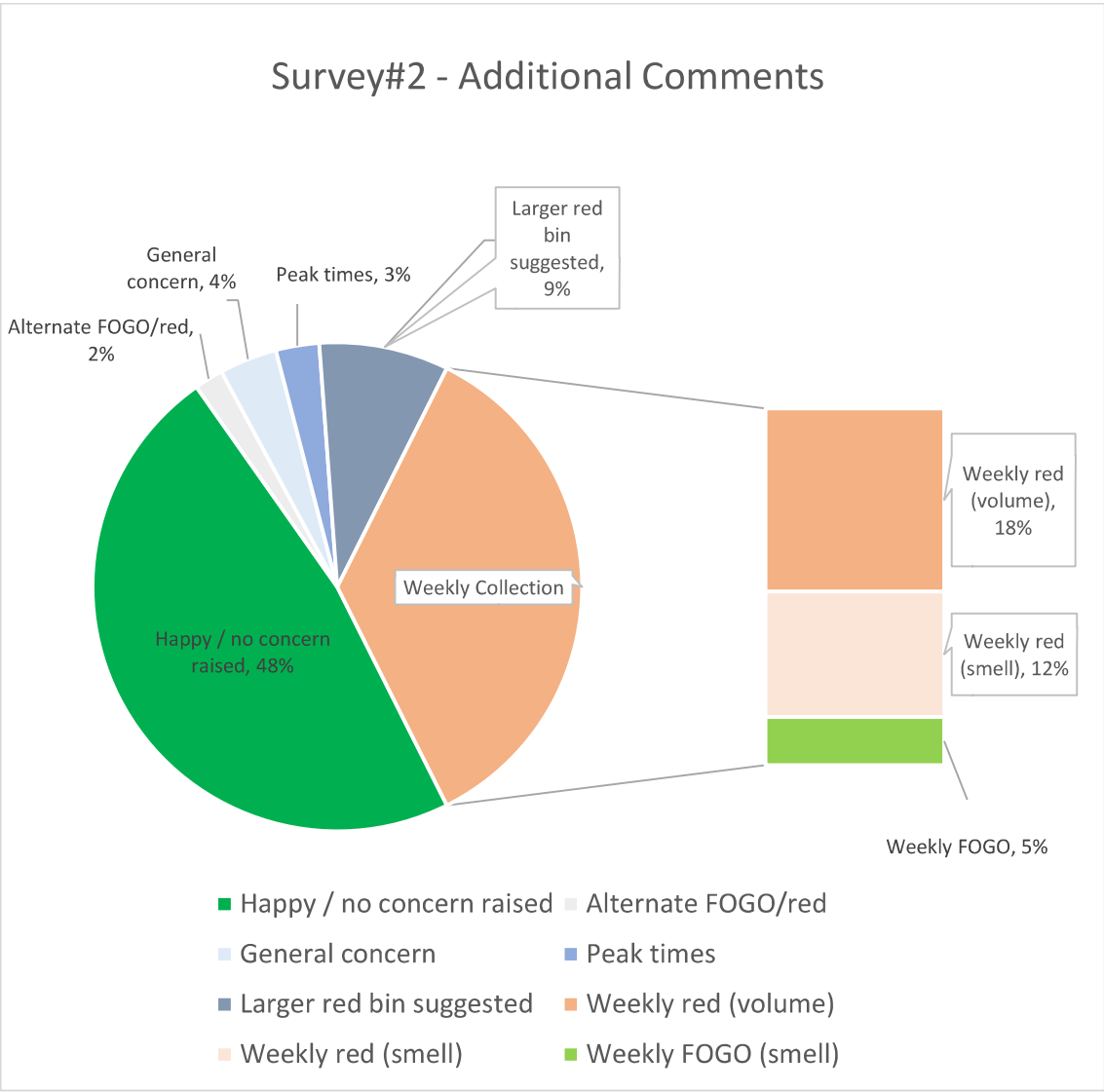
In terms of the **general waste bin** (above), a majority of comments indicated the Pilot service had a positive impact with 38% of households noting the bin was less full over two weeks than it had previously been for one week and 15% noting improved use of the bin due to the availability of a FOGO bin, a new recycling bin, or the need to pay more attention to each waste stream with less space available for landfill. Some comments indicated the red bin was “hardly worth putting out”.

Contrastingly, 31 responses noted the red bin was more full than before, in some cases noting it was “overflowing”, sometimes after one week, with some comments mentioning the need to find alternate methods to dispose of landfill via trips to the Resource Recovery Centre or placing waste in Council/neighbours bins. Multiple comments around the problem of how to deal with nappies was mentioned due both to volume over 2-week period and smell.

General Pilot Feedback

Respondents to Survey 2 were finally asked for general feedback on the FOGO Pilot. As shown below, approximately half of respondents raised some level of concern regarding the frequency of collection either due to smell (both general waste and FOGO) or available volume, particularly in the **general waste bin**. This result reinforces the finding from Audit 2 that 47% of remaining red bin contents could be diverted from landfill, and the need for additional support and education to improve diversion.

Figure 4. Commentary on FOGO Pilot collection schedule (Pilot completion survey, Mar 25)



Nappies

Concerns around nappies in the general waste bin, both in terms of available space and smell over a 2-week period, were raised by 12 respondents across multiple questions in the survey. As noted above, households who contacted Council during the pilot were provided a second red bin free of charge to support the additional volume of disposable nappies, however from survey responses it is evident not all households reached out for this additional support, suggesting a pro-active approach to identifying households with young children is required.

Recommended Council Response to Support Change

Resident feedback provides an important insight to help with the change management process of introducing a third kerbside bin. Mechanisms to support residents must be a fundamental part of any change management, and can be introduced via Council’s kerbside collection policy as well as clear information and assistance through periods of transition. Below is a summary of the typical concerns raised by residents, and recommended responses to consider in policy updates and additional support:

Change Issue	Policy Response
Red bin too small	47% of red bin could be diverted => education Upgrade, provide & promote recycle bins Paid additional / larger red bin (current policy)
Red bin is smelly	Food to go in FOGO bin => education Strategies to reduce smell from nappies => education
High occupancy	Additional bin & education
Sanitary needs (e.g. Nappies, medical, etc.)	Free (temporary?) additional bin & education
FOGO bin is smelly	Strategies to reduce smell => education Bin cleaning service
Peak holiday periods	Provide additional free collections (weekly)

3.3 FOGO Pilot key findings and recommendations

The following are final recommendations from the FOGO Pilot, as received by Council at the April 2025 Council meeting:

1. Upgrade existing recycle bin stock to improve access to recycling;
2. Increase education and promotion of diversion of landfill;
3. Continue supporting development of local compost processing capabilities, noting immediate availability of existing composting facilities equipped to support a kerbside FOGO service in the short term;
4. Consider cost-benefit and feasibility of fortnightly kerbside collection model option;
5. Review Council's kerbside collection policy to support introduction of a 3-bin system, with specific reference to:
 - Council responsibility for provision of all 3 kerbside bins;
 - Exceptional circumstances/hardship provisions for additional/upsized bins (eg. nappies, medical conditions, high occupancy rate);
 - Fees for additional/upsized bins where requested;
 - Different property types including vacant land and commercial properties (eg. hospitality and food businesses).
6. Introduce a kerbside FOGO bin and adopt a 3-bin kerbside collection model, supported by appropriately resourced support and education including engagement with residents, schools, and local businesses to encourage use of kerbside FOGO to separate food and other compostable materials from general waste;
7. Facilitate bin upgrades/rollouts via local community groups to capture value and provide community enterprise funding opportunities.

4. Council-wide kerbside FOGO service

The FOGO Pilot demonstrated clear latent demand in Port Lincoln for a kerbside organics collection service, bringing City of Port Lincoln in line with all other large population centres in South Australia. This section considers information available to Council from various

sources including experience from other Councils, sector wide advice and best practice, as well as feedback and recommendations from the FOGO Pilot. Considerations for Council to introduce a third kerbside collection bin include:

- Kerbside collection models (including frequency of collection);
- Post-collection processing;
- Cost-benefit and impact on fees and charges;
- Change management, education and resident support for the transition; and
- Kerbside policy changes.

4.1 Recommended kerbside service models

GISA's *SA Better Practice Guide: Sustainable Kerbside Services 2023* (the Guide) proposes 2 principal kerbside collection service models, depending on population density and access to resource recovery and processing facilities:

Metropolitan Councils – weekly FOGO

For metropolitan Councils with competitive access to composting and recycling facilities, The Guide proposes the following kerbside model:

- weekly collection of 240L FOGO bins;
- fortnightly collection of 140L general waste and 240L recycling bins;
- option to up-size general waste bins to 240L for large households or other hardships;
- additional recycling collection over peak periods.

Regional Councils – fortnightly 3-bins

With typically lower population density and limited access to economically viable commercial FOGO collections and composting facilities, The Guide acknowledges the metropolitan sustainable kerbside services model may not suit regional councils. As such, an alternative service model for regional councils to increase food and garden organics recycling include:

- fortnightly collection of three-bin service (FOGO, recycling, and general waste);
- collection of general waste and FOGO on the same day to encourage residents to place food waste in the FOGO bin (rather than putting it in whatever bin is collected sooner);
- user pays option for holiday homes for additional collections during peak seasons;

The service model for the Port Lincoln FOGO Pilot was selected based on this recommended regional collection model for regional Councils, and aligns with the experience of Case Study Councils in other regional councils in SA, including the four member councils of the Fleurieu Regional Waste Authority, as well as Copper Coast Council.

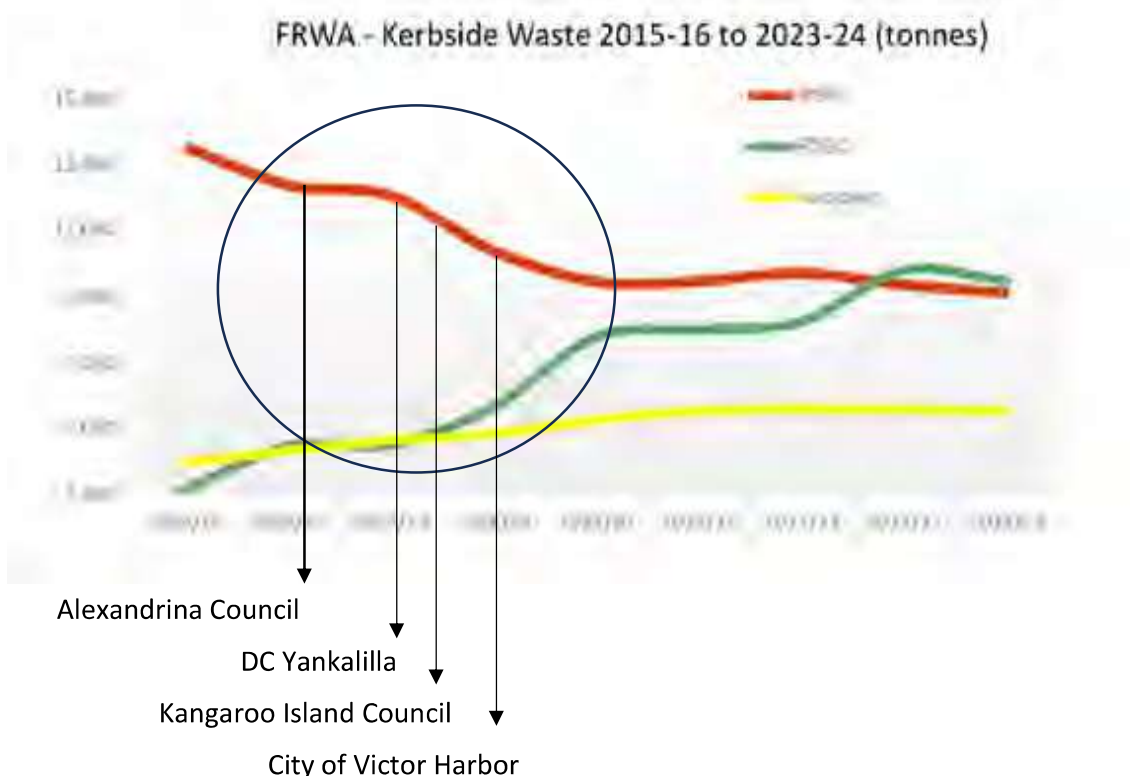
4.2 Examples from other regional councils

The **Fleurieu Regional Waste Authority** (FRWA) consists of four member councils: City of Victor Harbor, Alexandrina Council, DC Yankalilla and Kangaroo Island Council.

During the 2016/17 financial year, **Alexandrina Council** changed their 3-bin system from a weekly collection of general waste (140L bin) and 4-weekly collections of green waste (240L bin) and recyclables (240L bin) to a fortnightly collection of all three waste streams, which also included the change of the green waste bin to FOGO services.

During the 2017/18 financial year, **DC Yankalilla** introduced the FOGO bin and changed their collection system from a two bin system of weekly collections of general waste (140L bin) and 4-weekly collections of recyclables (240L bin) to a three-bin system and a fortnightly collection of all three waste streams.

Figure 5. FRWA Kerbside Waste 2015-16 to 2023-24⁹



During the same financial year, **Kangaroo Island Council** also changed from a two-bin system to a three-bin system by introducing a FOGO service (240L bin) to 12 townships and coastal settlements, upgraded the bin size of the recycling bin to 240L and changed the collection schedule from a weekly collection of general waste and weekly recycling (both in 140L bins), to a fortnightly collection of all waste streams, using 140L bins for general waste and 240L bins for recyclables and FOGO.

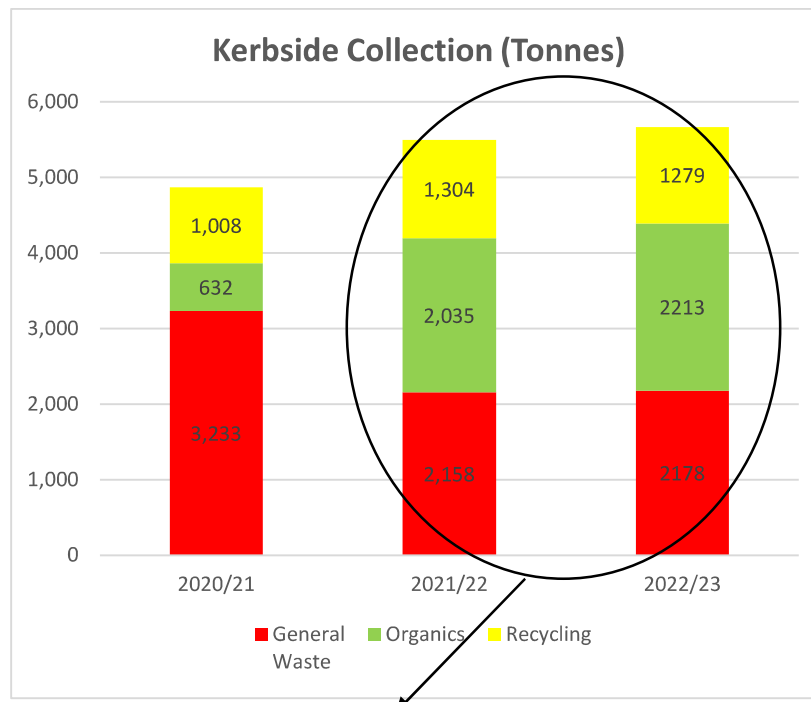
During the 2018/19 FY the **City of Victor Harbor** prepared to adjust their existing 3-bin system by changing the 240L green waste bin to a FOGO bin and to move the collection of all three waste streams to a fortnightly schedule, which became effective on July 2019.

The progressive change to a 3-bin system and a collection schedule that supports diversion at the kerb, led to a noticeable step change and a significant reduction of waste going to landfill and increase in diversion of FOGO and recyclables.

⁹ FRWA Annual Report 2023-24, modified by adding change in kerbside systems by council area

Copper Coast Council changed to a 3-bin system by introducing a FOGO collection service for all properties across the region from July 2021. Prior to that date, the kerbside services excluded farming and agricultural properties and residents in those areas had to either self-haul their waste and recyclables to transfer stations or were able to dispose of their waste through burning or dumping on their private landfill.

Figure 6. Copper Coast Yearly Waste Stream Kerbside Collection Comparison¹⁰



Change to kerbside system July 2021

- Expansion of collections outside of township areas (increase of waste overall);
- Simultaneously reducing waste going to landfill;
- Increasing diversion of FOGO and recyclables;
- Marinating 'steady state' for the following year.

From July 2021 this system changed to a fortnightly collection service of all three waste streams for residents inside (kerb pick up) and outside (bin bank pick up) Township Service Areas. Commencing February 2021, businesses were moved to a weekly collection of all three waste streams (240L per waste stream).

For the examples above, respective councils implemented policies that allow for adjustments to collection systems and schedules during peak holiday times and include exceptional circumstances provisions for a range of scenarios which are outside the scope of the standard kerbside system. The experience of these Councils is referenced in The Guide as a recommended better practice approach for other regional Councils in South Australia.

¹⁰ Copper Coast Council website and Copper Coast Council Annual Report 2022/23

For the examples above, respective councils implemented policies that allow for adjustments to collection systems and schedules during peak holiday times and include exceptional circumstances provisions for a range of scenarios which are outside the scope of the standard kerbside system.

In the context of Eyre Peninsula, **Port Pirie Regional Council** successfully introduced weekly FOGO kerbside collection and fortnightly red bin collection in March 2024, supported by associated policy provisions. Since introduction of the change this project has been awarded the Waste Management & Resource Recovery Association Australia's award for best Resource Recovery Innovation Award, South Australia.

Given City of Port Lincoln's characteristics as a relatively high population density regional centre, recommended options to consider for sustainable kerbside waste services include either the "fortnightly 3 bin" model recommended for regional Councils, or the "weekly FOGO, fortnightly waste/recycling" model recommended for metro Councils. Further analysis of these options has been provided in this following sections of this report.

4.3 Kerbside waste policy update

Council's waste management policy document was last updated in May 2022, and any change to kerbside services would require a review of this policy. Key matters for consideration and consultation on proposed changes to kerbside services should include:

- Scope of service (typically provided for residential premises, define dwelling and potential exclusions (e.g. empty blocks), define circumstances for inclusion of small businesses, including the services a business might be entitled to);
- Proposed service schedule for all three kerbside waste streams;
 - Configuration of services;
 - Changes to collection days;
 - Date of commencement of changes to the kerbside service;
 - Additional provisions during the peak holiday season and other events;
- Expansion on the existing exceptional circumstances provisions to include:
 - Additional bin(s) for households with special medical needs;
 - Additional bin(s) for households using nappies;
 - Options for administering exceptional circumstances provisions;
- Scope, terms and fees for additional or up-sized bin allocations;
- Management of non-compliance (e.g. high contamination levels);
- Methods of measuring and reporting on the performance of the system;
- Provision of bins by size and colour and spare parts for each bin type;
- Fees and charges, ownership & replacement of bins.

It is recommended to review all other provisions around kerbside services as well as services provided through the RRC as part of the overall policy review.

4.4 Access to recycling

Council provides a fortnightly collection service of recyclables to all rateable properties within the City of Port Lincoln (excluding vacant land and marina berths). Under a "fortnightly 3

streams” kerbside system, full access to and utilisation of kerbside recycling is critically important to reduce pressure on the smaller general waste bin.

4.4.1 Lid colours

The 240L recycling bin size is in line with GISA’s sustainable kerbside guidelines; however lid colours are not in line with Australian Standards, and include both dark green (66%) and yellow lids (16%). This potential source of confusion for residents and collection truck drivers would be further compounded through introduction of a “green bin” (FOGO).

Both GISA and the South Australian EPA via its draft W2R EPP update have highlighted the importance of standardised lid colours to improve identification of recycling bins and resident education, leading to improved levels of utilisation and compliance. Mandatory lid colours in line with the Australian Standards is highly recommended for the City of Port Lincoln kerbside system to improve identification and education around separation of waste streams.

4.4.2 Bin ownership

The current model of owner supplied kerbside recycle bins in Port Lincoln means there are varying levels of consistent access to recycling bins across the city. Some owners take their recycling bins with them when they move house or choose either not to replace damaged recycling bins or not purchase recycling bins. For some properties residents may be reluctant to purchase a recycling bin, such as rental properties and short-term accommodation. In each of these cases lack of a recycling bin would typically mean recyclables are placed in the general waste bin. Pilot results indicated approximately 11% of properties do not have a recycling bin, and 7% of properties require a replacement bin.

It is projected that upgrading recycling bins to improve access and identification will lead to improved use of the recycling system based on audit results from the FOGO Pilot over the past 12 months demonstrating an increase in the recovery rate of recyclables from 65% to 75%.

As a result, to support a “fortnightly 3 streams” collection service, it is highly recommended that yellow lid recycling bins are mandated, and the Council owned bin model currently used for general waste bins be phased in across all three kerbside bins.

4.5 Projected quantities of kerbside materials

Results from the Pilot audit in November 2024 demonstrated the following changes to the types and quantities of materials presented in kerbside bins under a fortnightly 3 bin system:

- 54% reduction in materials presented in kerbside general waste bins;
- 63% presentation of FOGO bins, and increased presentation of general waste bins;
- 78% of compostable organic waste was diverted from the red bin to the FOGO bin;
- residents using the FOGO bin for additional green waste;
- overall waste collected through the kerbside system increase by approximately 5.1%.

Comparing recorded tonnages for kerbside collection in 2023/24 with tonnages forecast for the 2025/26 based on the KESAB Pilot audit results, projections for a city-wide roll out of

FOGO bins and change to “fortnightly 3 streams” kerbside collection can be seen in the below table.

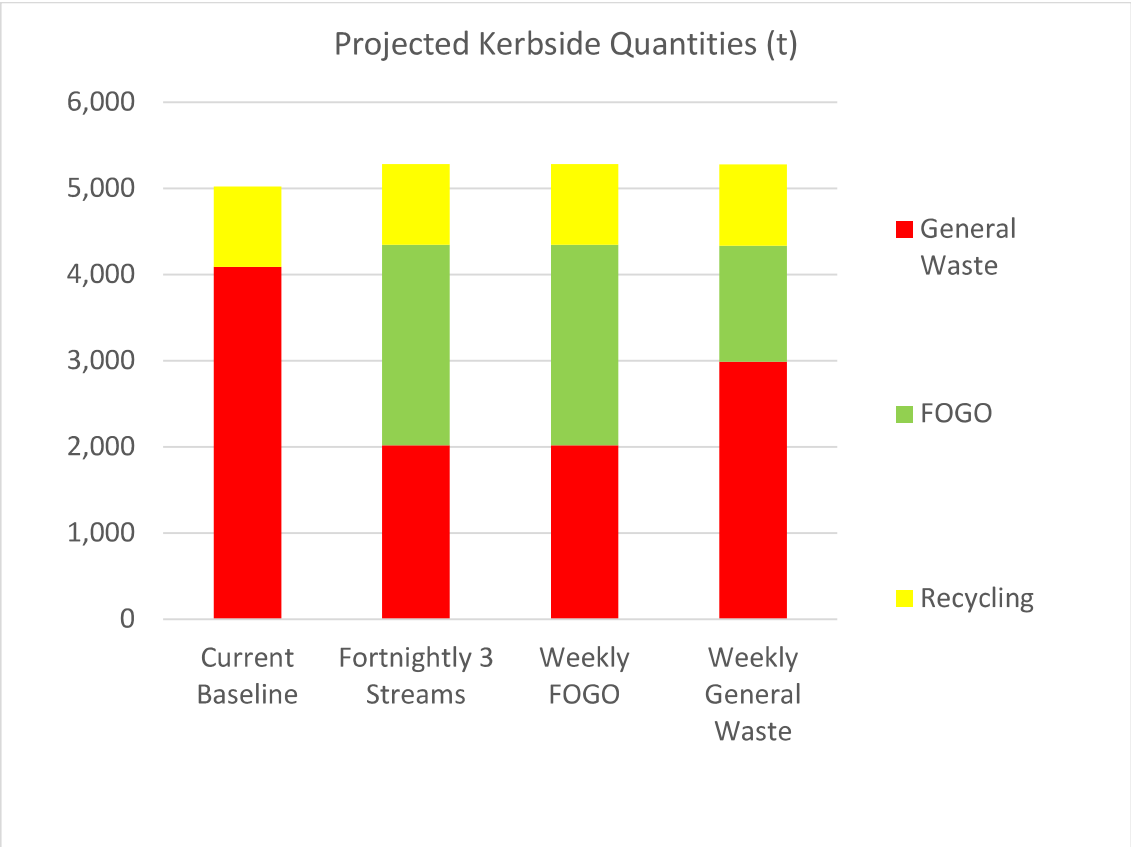
Kerbside Quantities	Kerbside Waste Streams (Tonnes)			
	General Waste	FOGO	Recycling	TOTAL Kerbside
2023/24 Baseline Results	4,088	0	934	5,022
Proposed "Fortnightly 3 Streams"	2,016	2,329	934	5,280
Weekly FOGO	2,016	2,329	934	5,280
Weekly General Waste	2,987	1,347	945	5,278

These projections take into consideration the participation rate, recognising that only households presenting all three bins were included in the audit sample, and as such may demonstrate a higher level of waste stream separation than households not presenting all three bins. As such these figures are considered conservative.

For this assessment, a steady state has been assumed for recyclables despite audit results showing different trends for recyclables in both the red bin and the yellow bin. A detailed discussion of those results is provided in the FOGO Pilot Report.

For completeness, given cost projections have been included later in this report, projected quantities have also been included in the above table for weekly FOGO and weekly general waste service models. In the case of weekly general waste collection, kerbside quantity breakdown from City of Whyalla has been used. The projections indicate approximately 970 tonnes of organics would not be recovered under this model, and would instead be sent to landfill via the general waste bin. This is due to lower FOGO participation rates and organics diversion rates due to the lack of incentive to change household behaviour around waste separation. Increased participation and diversion is a key benefits of a fortnightly all streams model.

Figure 7. Projected change in annual quantities under a fortnightly 3 bin system



As previously shown in Figure 2, approximately 30% of materials remaining in the general waste bin under the fortnightly all streams model are organic and could be placed in the FOGO bin. This along with the relatively low presentation of 63% of FOGO bins on collection days demonstrates opportunity to target higher diversion and better use of the FOGO bin in the future through education and awareness campaigns.

4.6 Contractual Impacts

Glenfield landfill gate fees are included under Council’s current contractual arrangements, and are impacted by changes to the overall quantity of general waste received; for example, a reduction in landfill quantity results in an increase to the per tonne charges, reflecting impacts to the contractor’s economy of scale.

Additionally, kerbside collection costs per property under Council’s current contract are based on current truck numbers, collection route and resource allocation, and changes to the kerbside model may result in changes under the contract.

These impacts have been considered in business case calculations.

5. Options for Organics Processing

In South Australia, there are a number of large commercial composting facility operators, including Peats Group, Jeffries, Integrated Waste Services (IWS) with their respective facilities at Brinkley and Whyalla, Buckland Park and Dublin and Van Schaik in the South- East of the state.

The lower Eyre Peninsula region lacks a commercial-scale licensed composting facility capable of receiving municipal FOGO, meaning materials would need to be freighted long distances for processing.

5.1 Expression of interest from the industry sector

In October 24 Council called for Expressions of Interest (EOI), inviting stakeholders from the established composting market to collaborate on the development of a local FOGO ready composting facility for the Port Lincoln and lower Eyre Peninsula region.

The EOI sought to identify current local market capabilities relating to receiving and processing organic materials, haulage services, grinding, composting and providing site premises, as well as commercial FOGO composting operators from across South Australia positioned to collaborate on provision of a service.

Responses were received from six respondents across the following categories:

1. Composting business only	4 respondents
2. Local business & premises only	NIL respondent
3. Full composting service provider	3 respondents
4. Complementary service provider	2 respondents
5. Service Innovation	3 respondents

Council engaged with each respondent to identify opportunities for collaboration, in particular between providers. Positive discussions are ongoing between parties, and at the time of writing the following options have been identified:

1. Transport to existing facilities in Whyalla and Dublin;
2. Expansion of an existing facility in the Port Lincoln area to receive FOGO;
3. Establishment of a new facility in the Port Lincoln area to receive FOGO.

5.2 Existing facilities outside lower Eyre Peninsula

The closest established composting facilities are in Whyalla and Dublin. Both facilities have capacity to receive additional tonnages and scenarios have been costed for the transport of FOGO material from Port Lincoln to Whyalla (297km one way) and Dublin (594km one way).

Peats Group has operated a commercial open windrow composting facility (EPA Licence 51492) on a leased section of the council-owned landfill facility at Mt Laura, Whyalla since 2019. Peats Group process approximately 4,000 tonnes of organics per year, with capacity to receive projected volumes of FOGO from Port Lincoln. Typical markets for the final compost product include broadacre agriculture and landscaping.

The Dublin Eco Hub facility (EPA Licence 51568) is owned and operated by the IWS Group with quality control services provided by ENNOVO. The Dublin facility undertakes forced aeration

composting works processing approximately 100,000 tonnes of organics per year, with capacity to receive projected volumes of FOGO from Port Lincoln. Manufactured as a pasteurised soil conditioner in accordance with AS4454-2012¹¹, typical markets for their Living Earth compost include broadacre agriculture, landscaping, food production and private use.

5.3 Potential locations on lower Eyre Peninsula

The map below shows the closest established composting facility capable of receiving FOGO located in Whyalla, and potential options for the location of composting facilities on the lower Eyre Peninsula and their respective catchments (all indicative).



5.3.1 Port Lincoln Resource Recovery Centre (RRC)

The RRC is an established waste and recycling depot (EPA Licence 237) and offers a range of services to the residential and commercial customers for the City of Port Lincoln and surrounding areas. Owned by City of Port Lincoln, Veolia Environmental Services currently contracted to operate the RRC until 2027.

In principle, Council can apply to vary the existing EPA licence to include composting operations at the RRC. Informal advice from the EPA indicated any application to expand current EPA approvals to include composting works would require a full technical assessment of the site and a tailored, low-odour composting method proposed to avoid impact of sensitive receptors and satisfy EPA requirements. This along with the exposed location of the

¹¹ https://www.iwsgroup.com.au/wp-content/uploads/2025/03/IWS_A4P_LEAC.pdf

facility on a hill-top and fire risk in the area suggest any application for open windrow composting would be at risk of not being supported by the EPA.

Despite the challenges of sensitive receptors, there are a range of advantages in support of adding composting works to the RRC operations:

- Council owned facility giving security of land tenure;
- existing Development Approval and EPA Licence;
- well-established facility as a subregional hub, widely accepted and used by residential and commercial customers as such has a 'social licence' to operate;
- good access to road network;
- accessible with semi-trailer and b-double;
- experienced operator with good track record;
- layout and space to accommodate composting works.

Currently, green waste is being received at the site, stockpiled and periodically processed via mobile mulching contractors. Tonnages received on site are relatively low and cost for mobile mulching campaigns are high, with no established high value markets for mulch. Co-location of a composting operation would improve economy of scale and access to markets for organic products, along with other operational efficiencies.

5.3.2 Hallett's 'DK Quarries', Port Lincoln

This site holds an EPA Licence for composting up to 2,500 tonnes per annum (EPA Licence 51983), with current operations limited to receipt of fish waste and green waste. Compost generated on site is used in their organic soil mix, which is a popular product in the local landscape supply market. There are advantages in support of this site expanding to receive FOGO including:

- existing Development Approval and EPA Licence;
- well-established facility with existing local market, popular product and brand recognition and as such has a 'social licence' to operate;
- good access to road network;
- accessible with semi-trailer and b-double;
- experienced operator with good track record;
- layout and space to accommodate composting works.

In the EOI return, Hallett Group indicated expansion of operations to facilitate receipt of FOGO may be possible however would require further review of processing changes, in particular methods to remove contamination and other details to establish general feasibility.

5.3.3 Glenfield Waste Management Facility

The Glenfield Waste Management Facility (EPA Licence 50151) is located in Butler, SA and is owned and operated by Veolia Environmental Services. The site is an open top landfill processing 13,000 tonnes of landfill waste per annum, accepting landfill waste from the Resource Recovery Centre in Port Lincoln as well as other transfer stations on Eyre Peninsula. The site consists of a large open area with void space for landfilling and is licensed to receive:

- Commercial & Industrial Waste;
- Construction & Demolition Waste;
- Municipal Solid Waste;

- Putrescible Waste;
- Shredded tyres, not exceeding 250mm;
- Waste fill;
- Intermediate soil.

In the EOI return, Veolia indicated that adding composting works at Glenfield is possible, depending on the availability of sufficient feedstock by composition and quantities, however they noted transport distances to and from site for organic waste and compost products could challenge viability, indicating a facility closer to Port Lincoln is likely to be preferred.

5.3.4 Capy Hardy Precinct

In April 2022 the Eyre Peninsula Cooperative Bulk Handling (EPCBH) Peats Group signed a Memorandum of Understanding¹² regarding green waste composting to produce fertiliser for lower emissions food production.

The vision for the precinct includes that Peats Group:

- Develop a composting operation making feedstock for the manufacture of their UnEarth product for storage and distribution to Eyre Peninsula farmers;
- Provide EP councils with a commercially viable option to divert their green organics and food waste, which currently goes to landfill; and
- Work together to incorporate green ammonia, generated by H2U's Hydrogen production, into Peats Group's engineered compost-based granule, 'UnEarth by Peats', for use in agriculture.

No submission was received by the parties to this MOU, Any facility at Cape Hardy would likely be contingent on completion of the port development and associated industrial projects such as Northern Water.

5.4 Post-collection management options

In the context of potential locations on lower Eyre Peninsula, and given Council's operational profile and skillsets, the following are assumed to be the primary models for processing materials from any Council kerbside FOGO collection:

1. A contract with a local commercial composting facility, newly established for receipt of kerbside FOGO materials and responsible for all aspects of processing, market development and sale of finished products; or
2. A joint venture or similar partnership between Council and an interested party for establishment of local composting operations capable of processing FOGO, including market development and sale of finished products.

These options can be considered in the context of any approach to market for tender of FOGO processing services and relevant EPA approvals.

¹² <https://epcbh.com.au/epcbh-and-peats-soils-sign-mou/>

6. The Business Case

This section sets out the business case for council-wide roll-out of a three-bin kerbside collection service, looking both the GISA best practice “fortnightly 3 bin” and “weekly FOGO” options, including impacts of both kerbside collection changes and post-collection management.

Feedback from FOGO Pilot participants suggests that some residents may prefer the metro best-practice model with weekly FOGO collection to reduce unwanted odours. In order to balance the benefits of this request with the increased collection cost, consideration has also been made below for costings of a weekly FOGO service.

It should be noted that FOGO Pilot audit findings and projected volumes were based on a fortnightly 3 bin system and as such may not reflect the volumes of an alternative weekly model. Additionally weekly FOGO collection will not address concerns raised by other residents about frequency of red lid general waste bin collection.

6.1 Kerbside Collection Changes

Introduction of a third kerbside bin will impact the cost of kerbside collection services due to changes to the number and configuration of collections each property receives, impacting truck movements and logistics. The following table gives indicative annual collection numbers for each option.

Kerbside Collections Per Year					
	General Waste	Recycling	FOGO	Additional	TOTAL
Current System	52	26	0	0	78
Fortnightly 3 bin	26	26	26	6	84
Weekly FOGO	26	26	52	6	110

During the FOGO Pilot, introduction of “fortnightly 3 streams” kerbside collection required no additional truck movements however residents experienced difficulty coping with fortnightly collection of general waste bin during peak holiday periods. To address this some additional collections are proposed under this model.

Additionally, changes to the kerbside collection regime on a city-wide scale are subject not only to the number of additional collections, but also impacts on logistics such as truck and driver configurations, collection rounds, and post-collection transport schedules. Council has engaged with Veolia to review these impacts and has received high level cost impacts of each option. These impacts have been included in the operational cost comparison below.

6.2 Operational Cost Comparison

Modelling projected changes to kerbside collection quantities and resulting impacts on operational costs is a complex and interdependent process, subject to many possible

inaccuracies. A range of possible impacts were considered, with the following three scenarios providing a simple overview of the quantum of change and sensitivity to assumptions regarding processing costs, transport costs and diversion rates. Note that in each case the same 5.1% in “additional material” presented at the kerb during the FOGO Pilot due to available space and the dedicated green waste stream has been included.

These costs are estimates only and will vary subject to the assumptions stated in Appendix 1.

6.2.1 Scenario 1: Pilot Results

Using Pilot audit results for diversion of materials, adjusted for measured participation rates, and using known costs for transport and disposal, the below scenario projects a fortnightly 3 bin system would achieve a modest overall saving, whereas opting for a weekly FOGO service would costs approximately \$290,000 more to deliver per year.

SCENARIO 1: Pilot Results	Collection, processing, transport and gate fees (\$)				Overall Savings / Costs	
	Landfill	FOGO @ \$150/t	Collection increase	Depr. increase	City-wide	Per Property
Current baseline (Landfill \$230/tonne)	\$940,240	-	-	-	-	-
"Fortnightly 3 Bins" (Landfill \$245/tonne)	\$494,022	\$349,369	\$50,243	\$65,910	-\$19,305	-\$2
Weekly FOGO (Landfill \$245/tonne)	\$494,022	\$349,369	\$343,318	\$65,910	-\$312,380	-\$38
Weekly Landfill (Landfill \$237/tonne)	\$707,885	\$202,007	\$291,061	\$65,910	-\$326,624	-\$39

With respect to environmental impacts, it is important to note that despite the additional transport burden of sending materials to Dublin in the short to medium term, due to the significant benefits of diverting materials from landfill for composting, 85% (800 tonnes) abatement of emissions would still be achieved, equivalent to permanently taking 190 cars off the road.

6.2.2 Scenario 2: Lower Diversion Success

Building on the assumptions in Scenario 1, the below table considers impacts of a “worst case” scenario achieving organic diversion rates of 20% below those achieved during the FOGO Pilot (ie. 43% reduction in general waste quantities). This scenario is considered “worst case” given diversion rates reflect systems using weekly general waste bin services, demonstrating the 3-bin system would still be close to achieving cost neutrality whilst still achieving significant resource recovery and environmental outcomes.

SCENARIO 2: 20% Less Diversion	Collection, processing, transport and gate fees (\$)				Overall Savings / Costs	
	Landfill	FOGO @ \$150/t	Collection increase	Depr. increase	City-wide	Per Property
"Fortnightly 3 Bins"	\$585,568	\$288,876	\$50,243	\$65,910	-\$50,358	-\$6

Lower diversion rates assumed in this scenario could be due either to variation in allotment sizes and usage, composition of waste or variation in demographic or user uptake. Education and support for residents would help mitigate this risk and could lead to improvement over time.

6.2.3 Scenario 3: Future Local Processing

Costs of post-collection processing costs are a significant component of kerbside waste management. The below table demonstrates a potential scenario if a local FOGO composting facility is established with gate fee approximately 10% above current gate fees in Whyalla, as well as removal of haulage costs. This option is not currently available and would be subject to approvals, market offering and contract negotiations.

SCENARIO 3: Future Local Processing	Collection, processing, transport and gate fees (\$)				Overall Savings / Costs	
	Landfill	FOGO @ \$90/t	Collection increase	Depr. increase	City-wide	Per Property
Current baseline (Landfill \$230/tonne)	\$940,240	-	-	-	-	-
"Fortnightly 3 bins" (Landfill \$245/tonne)	\$494,022	\$209,621	\$50,243	\$65,910	\$120,443	\$15
Weekly FOGO (Landfill \$245/tonne)	\$494,022	\$209,621	\$343,318	\$65,910	-\$172,632	-\$21
Weekly Landfill (Landfill \$237/tonne)	\$707,885	\$121,204	\$291,061	\$65,910	-\$245,821	-\$30

6.2.4 Summary of Best Practice Scenarios

The above scenarios demonstrate a range of impacts of a fortnightly 3 bin model from a \$50,000 added cost under a 'worst case' diversion outcome with no local processing, and up to \$120,000 in savings where a local processing facility is available. Contrastingly, the weekly FOGO model demonstrates a range of cost increases from \$245,000 with future local processing to \$327,000 with currently available processing facilities. Notably, the cost difference between each kerbside model is consistent under each scenario with the weekly FOGO service coming at a \$290,000 premium to the fortnightly 3 bin service.

In each of the above tables the following key assumptions underpin projections:

- Presentation rates for each waste stream in line with FOGO Pilot;
- Kerbside material quantities for each waste stream in line with FOGO Pilot;
- Current landfill contracted rates and available market rates;
- 6 extra collections in peak season under fortnightly 3 bin and weekly FOGO models.

A full list of assumptions used to generate the projections has been included in Appendix 1.

6.2.5 Weekly General Waste Bin

Weekly general waste with fortnightly recycling and FOGO is not recommended best practice, with many Councils in South Australia in the process of moving away from this model, therefore it has not been a focus of this report. To demonstrate cost impacts for this service model FOGO Pilot diversion rates cannot be accurately applied therefore 2023/24 measured diversion rates from Whyalla's weekly waste and fortnightly FOGO/Recycling service were applied to Port Lincoln's kerbside volumes, resulting in weekly waste service coming at a \$307,000 cost premium to the fortnightly 3 bin service.

Also critically under this model landfill quantities projected would be 48% higher, and FOGO quantities 42% lower than what was achieved in the FOGO Pilot, resulting in significantly lower overall kerbside diversion, higher carbon emissions and a generally poor environmental outcome not in line with the objectives of City of Port Lincoln's adopted Waste & Resources Management Strategy. For these reasons this model is not recommended for Port Lincoln.

6.3 Upgrade of Recycling Bins

Statistics obtained from the FOGO Pilot demonstrated approximately 66% of all recycling bins have green lids, 11% of properties do not have access to a recycling bin, and 7% of properties require a replacement bin.

To support introduction of a fortnightly 3 bin kerbside model and reduce pressure on the general waste bin, upgrade of existing recycling bin stock and transition to a Council owned bin model is recommended. This will ensure all properties have access to kerbside recycling and are supported with clear messaging and educational materials, a fundamental step in supporting household recycling, particularly for more vulnerable residents in low socio-economic households, rentals and short term-accommodation.

6.4 Roll-out costs & funding

Costs to roll-out a 3-bin kerbside collection service include upgrades to recycling bins, rollout of FOGO bins, caddies and liners as well as provision of education and support materials for residents. Funding for the roll-out would include primarily capital contributions from Council along with some targeted grant funding through GISA, as per the below table.

3 Bin System Rollout Costs	Total cost
Recycle Bins	\$192,708
FOGO Bins	\$446,630
Caddies & liners	\$191,639
Workshops, education & contingency	\$157,676
Total Cost	\$988,654
Potential GISA Funding (caddies & liners)	-\$78,060
Potential Cost (With Funding)	\$910,594

Above estimates exclude staff costs for project management and administrative tasks associated with the roll out.

6.4.1 Grant funding programs

Green Industries SA (GISA) provides a range of grant opportunities and Council can make application for the following in support of upgrades to kerbside services. It should be noted Council was awarded funding under each of these grant rounds for the FOGO Pilot:

GISA Council Modernisation Grant

This funding is provided by GISA for councils to introduce measures to improve operational efficiencies and benefits for the community. Council can apply for a maximum of \$100,000 (ex-GST) as 50% matched funding, however due to the planned rollout over 4 years this funding cannot be relied on for project budget planning.

GISA Kerbside Food Waste System Grant

Council can apply for funding under this program on a 'per serviced tenement' basis. GISA will provide up to 50% of the costs, up to a maximum of \$10 per tenement, with Council required to demonstrate satisfactory performance within 12 months of the system rollout.

GISA's grant programs are typically fully subscribed and there is no guarantee that Council can be allocated the full amount allowable under funding guidelines.

6.5 Timeline for roll-out

The Pilot commenced in March 2024 with an anticipated timeframe of 12 months. Council resolved at the February 2025 Council meeting to continue operation of the kerbside Pilot service pending a resolution on a citywide service rollout, and for this reason a timely resolution would give certainty to those residents currently using the FOGO Pilot kerbside service. However due to available funding and resources, roll-out of a 3-bin system would occur in a staged manner according to collection areas. Timeframes will be subject to confirmation at each budget cycle, noting the current target of completion over 4 years.

6.6 Combined Operational & Capital Cost Impacts

Due to the potential for modest savings under a 3-bin kerbside model, it is possible to demonstrate payback periods for capital rollout of additional bin. Under the current waste services charge for cost recovery, the following are simple projections of impacts on cashflow and profit and loss.

Impact on Cashflow	Rollout cost (with GISA funding)	Service Impact	Payback Period
"Fortnightly 3 bins"	-\$910,594	\$46,605	20 years
Weekly FOGO	-\$910,594	-\$246,470	No payback
Weekly General Waste	-\$988,654	-\$260,713	No payback

Impact on Income	Whyalla / Dublin		Future Local Processing	
	Overall Savings / Cost	Per Property Savings / Cost	Overall Savings / Cost	Per Property Savings / Cost
"Fortnightly 3 bins"	-\$19,305	-\$2	\$120,443	\$15
Weekly FOGO	-\$312,380	-\$38	-\$172,632	-\$21
Weekly General Waste	-\$326,624	-\$39	-\$245,821	-\$30

In simple terms, the above modelling demonstrates capital outlay for kerbside system upgrade would likely be recovered over the life of the asset, indicating the fortnightly 3-bin model is almost a cost neutral proposition, with future local processing offering potential significant budget savings.

7. Conclusions and Recommendations

This report demonstrates roll-out of a kerbside FOGO service is immediately viable, with processing available at existing composting facilities, and acceptable overall cost impacts of the kerbside service change.

7.1 Kerbside Model

Based on FOGO Pilot results and case studies from other Councils, a fortnightly 3 bin system with additional peak season collections has the potential to deliver an improved service level for residents, significant environmental benefits, and potential future cost savings. In the event weekly FOGO collection is preferred it reduce time between organics collections, although not recommended for the reasons stated, it can be provided for a \$290,000 premium, or approximately \$35 per rateable property.

7.2 Resourcing and Support

The FOGO Pilot demonstrated as shown in Figure 3 the divergent nature of experiences for different households following changes to their kerbside collection model. Supporting the community through this process will be key to success; the better the kerbside system works, the higher the benefits will be.

To achieve this Council's kerbside waste management policy must be amended to include adequate provision for hardship, user-pays options to increase bin volumes for households producing higher levels of waste, and a range of other items to support residents.

7.3 Local Processing

To further improve the benefits of a kerbside FOGO service, feedback from industry and regulators indicates multiple options are available for establishing a local FOGO-ready composting facility in the future pending the necessary regulatory approvals, however concerns over low volumes negatively impacting available economy of scale would need to be overcome to establish a successful commercial model.

If these challenges can be met, the local community of lower Eyre Peninsula would benefit from the economic and environmental benefits of both reduced landfill volumes and circular organic compost production in Port Lincoln. Council and in particular kerbside FOGO will play a foundational role as without this organic material the economy of scale and contract certainty is unlikely to be achieved. Leveraging additional volumes from adjacent Council areas, as well as commercial sectors such as aquaculture, food and hospitality businesses will also play a key role.

7.4 Recommendations

The following are key recommendations of this feasibility assessment to support introduction of a 3-bin kerbside system including FOGO collection:

1. Commit to introduction of a fortnightly 3-bin system including FOGO, and roll-out over the next 3 financial years;

2. Update Council's Waste Management Policy to reflect the fortnightly 3-bin transition, including Council-owned kerbside bins for all 3 waste streams, hardship provisions, and additional collections during holiday periods;
3. Upgrade existing recycling bins to ensure universal access to recycling;
4. Support residents during the transition with information packs, promotion and education;
5. Monitor performance and provide ongoing support for residents to improve landfill diversion rates over time.

APPENDICES

APPENDIX 1: Business Case Assumptions

APPENDIX 2: SWOT Analysis Kerbside FOGO Collection

APPENDIX 3: SWOT Analysis Local Composting Facility

APPENDIX 4: Additional Quantities of Organics

APPENDIX 5: Action Plan

APPENDIX 1: Business Case Assumptions

Results presented in this Feasibility Report are based on a calculation model that is sensitive to a range of variables including for example occupancy behaviour and participation, total tonnages of material collected, contamination rates, changes to diesel pricing, gate fees and government charges & contractual cost impacts. Results presented should be read in the context of the following assumptions:

KEY FOGO PILOT DATA

- 54% reduction in amount of material presented in the red bin;
- 78% of organics diverted from the red bin to the FOGO bin;
- a further 47% of material remaining in the red bin could be diverted from landfill;
- increase in the recovery rate of recycling from 69% to 75%;
- 5.1% increase in waste generated across all waste streams due to additional organics.

Kerbside Presentation Rates	General waste	Recycling	FOGO
Pre-FOGO Pilot	83% ¹³	59% ¹⁴	NA
FOGO Pilot	89%	66% ¹⁵	63%

KESAB Audits Bin Composition:

	Pre-Pilot February 2024	During Pilot November 2024	
	kg per household per fortnight		% change
Landfill Bins	28.1	13	-54%
Recyclables	2.6	1.9	-27%
Organics	17	3.8	-78%
Landfill	8	6.9	-14%
Other/Special Collections	0.5	0.4	-20%
Recycling Bins	6.4	5.8	-9%
Recyclables	5.3	4.7	-11%
Unseparated + bagged recyclables	0.2	0.4	+100%
Contamination	0.9	0.7	-22%
Organics Bins		17	N/A
Food/other compostables	N/A	3.2	N/A
Garden	N/A	13.3	N/A
Contamination	N/A	0.5	N/A

Table 1: Composition of waste samples pre and during FOGO pilot

- Data from kerbside collections, including weights, contamination levels, presentation rates as well as observations by drivers and from visual audits were recorded and reviewed together with KESAB audit findings;

^{13 2} Due to unavailability of data, pre-Pilot presentation rates for general waste and recycling were calculated for Port Lincoln as a whole.

¹⁵ calculated presentation rate based on net change in presentation across Monday collections

- The use of the kerbside systems depends on a range of factors, including seasonal variances, structure of dwellings, property size and the type and use of gardens, size and composition of households, information and education provided to householders, etc.;
- In areas with larger gardens, householders may generate additional organics that were not previously captured in kerbside data; Conversely in areas with smaller or no gardens, the composition of FOGO, bin presentation rates and fill levels may be lower than the Pilot area;

WEEKLY GENERAL WASTE PROJECTIONS:

- City of Whyalla's 3 bin system is based on weekly general waste and fortnightly FOGO/Recycling. To project potential volume of material under a similar model in Port Lincoln, the following kerbside collection material quantity breakdown from Whyalla was used:

Kerbside stream	Whyalla Composition
Landfill (red bin)	56.6%
Recycling	17.9%
FOGO	25.5%

GENERAL ASSUMPTIONS:

- Steady state kerbside services have been assumed: during the transition period and over the first 12 months following the roll-out performance may not reflect projected figures. Regular visual kerbside checks, review and monthly analysis of collection data at least monthly against the commercial assumptions is recommended;
- Solid waste levy has been based on the current 2024/25 amount of \$80.50/tonne; a change in this levy would have a corresponding impact on the business case;
- Based on ABS data for the 2022/23 financial year, the population growth for regional SA was 0.7%, resulting in approximately 100 residents. This is a minor increase in magnitude, with an assumed proportional impact on all three waste streams therefore has not been included in modelling.

OTHER REFERENCE DATA:

Bin Fill Levels	Audit 1 (Pre-Pilot)			Audit 2 (Mid-Pilot)		
	Fill Level (%)	Full Bins (#)	Material in Correct Bin	Fill Level (%)	Full Bins (#)	Material in Correct Bin
Landfill (red bin)	76%	20	29%	86%	25	53%
Recycling	70%	15	86%	72%	13	88%
FOGO	-	-	-	59%	5	97%

- Current gate fees and transport costs to waste processing facilities; contractual landfill charges including transport and EPA Levy, as noted in the report.
- Carbon emission estimates were produced using the National Greenhouse Account Factors 2023 and assume a landfill gas capture efficiency of 75% at the Veolia Glenfield facility, average haulage diesel consumption of 100 L/100km and average load size of 60 tonnes.

APPENDIX 2: SWOT Analysis for Kerbside FOGO Service

Strengths	Weaknesses	Mitigation Strategies
Aligns with waste management strategies & demonstrates regional leadership; Reduces landfill waste; Strong kerbside Pilot audit results; Improve service levels for residents; Positive community feedback from FOGO pilot; Favourable economic and environmental outcomes.	Community concerns not fully resolved during Pilot, particularly with respect to fortnightly general waste collection; Changes to kerbside collection system can lead to confusion in the community; Contamination in FOGO stream.	Develop a comprehensive communication strategy with multiple information channels (information sessions, printed handouts, FAQ pages, collection calendars). Staff should be trained to handle community queries during the peak phase. Implement a community outreach campaign with clear and easy-to-understand information, especially around changes to collection days. Conduct targeted mini-bin audits and offer door-to-door education, with a focus on contamination management. Review and update the Council's waste management policy to support households. Ensure it is consulted with key stakeholders ahead of implementation.
Opportunities	Threats	Mitigation Strategies
Significant waste diversion from landfill Cost savings and resource recovery Engagement with local sectors like hospitality and tourism Access to government grant funding for local infrastructure improvements	Increased gate fees for processing Fuel price fluctuations Service interruptions by contractors (processing facility, transport or kerbside collection) Variable grant funding availability	Regularly review and benchmark gate fees at local composting facilities. Develop a reference database and conduct quarterly trend analysis. Include a rise and fall clause in contracts with suppliers. Calculate scenarios based on recent market performance and include a safety margin in costings Incorporate business continuity components into contracts with service providers for transport, collection, and processing services. Develop a business case that accounts for no-grant or partial grant funding. Maintain strong communication with grant agencies for clarity on release schedules and criteria.

APPENDIX 3: SWOT Analysis for Local Composting Facility

Strengths	Weaknesses	Mitigation Strategies
Interest from commercial operators Place based solutions with local economic benefits (e.g. employment) Potential environmental benefits by reducing transport impacts Tailored product opportunities for local and regional markets (eg. broadacre soil improvement)	Low volumes of organic waste may impact cost-efficient facility operation Limited availability of suppliers due to remote location and long transport distances Limited number of reference projects for low-volume composting in remote areas Uncertainty around the full potential of compostable feedstock and markets for compost.	Develop clear terms and conditions for the economic and environmental feasibility of the composting facility. In the interim, divert FOGO material to existing facilities for processing. Engage in early consultation with stakeholders and industry experts to identify local supply chains and explore joint ventures with external suppliers. Build a working group to consult with stakeholders and leverage any available similar projects for guidance. Conduct further studies to assess feedstock potential. Tailor processing to the composition and quantity of available materials.
Opportunities	Threats	Mitigation Strategies
Improved general viability of organic waste diversion from landfill may benefit adjacent Councils and business sectors Development of new markets for organic diversion and compost products Environmental improvements at landfill sites Potential for funded R&D in agricultural applications Regional leadership on lower Eyre Peninsula	Competing facilities may reduce gate fees and increase competition Long regulatory approval times for establishing the facility Lack of firm commitments from neighbouring councils and commercial entities Uncertain feedstock supply and potential contamination risks Longer-than-anticipated lead time in market development for finished products	Conduct regular gate fee trend analysis and benchmark the local facility against competitors. Develop a contingency plan for longer approval times. Engage with regulators early in the process to ensure alignment and reduce delays. Establish clear communication protocols with stakeholders. Regular meetings and contracts should specify feedstock delivery frequency, quantity, and quality. Set clear contracts for feedstock quality and consistency. Include provisions for the supply of adequate and contamination-free materials. Develop an early-stage market analysis and focus on regional promotion of the compost products. Build awareness through partnerships with local agricultural sectors.

APPENDIX 4: Additional Quantities of Organics

Feasibility of local organic processing facility depend on achieving an economy of scale with sufficient quantities to achieve a commercially viable business model. Kerbside FOGO from City of Port Lincoln will provide a base level of materials for processing, however additional quantities from adjacent Council areas and industry are expected to improve viability.

FOGO diversion potential of surrounding councils

Only potential FOGO quantities from Lower Eyre Council have been considered at this stage based on the existing 2-bin system and the total general waste collected via the kerbside system. Other councils within the catchment zone have either very low tonnages of general waste at the kerb (DC Elliston and DC Cleve) or only have a one bin kerbside system and relatively low tonnages (DC Tumby Bay).

The following high-level scenario for the diversion of FOGO from the general kerbside waste stream has been calculated for Lower Eyre Council. Note this information is based on known quantities and projections, and was not supplied by Lower Eyre Council:

- Assumed diversion potential 17kg/ household / fortnight
- Applied to 1,540 households (80% of 2021 census numbers to represent townships)
- Recyclables assumed at steady state.

Diversion Scenario for Lower Eyre Council (tonnes/annum)				
	General Waste	Recycling	FOGO	Total
Baseline: 3-year average	1,650	160	0	1,810
Fortnightly 3 bin model	970	160	770	1,900

The planned export facility at Cape Hardy alone is expected to create almost 5,000 jobs during its development peak and more than 1,000 positions when fully operational.¹⁶ Waste generated from contractor accommodation and new housing developments is expected to be managed through the kerbside system in the main but could also involve the existing transfer station network in areas with restricted kerbside services. As more information and data comes to hand, the forecasting should be updated accordingly.

Green waste and untreated timber managed through transfer stations

All councils on the Eyre Peninsula offer drop off services for green waste (typically consisting of garden waste, shrubs and small trees) as well as untreated timber. Across the peninsula green waste and compostable timbers are generated by residents, commercial operators (e.g. garden services) and Council maintenance. Those materials are received, stockpiled and periodically processed into mulch across a network of 19 transfer stations and at participating landfills. Materials often vary in composition and quantity and campaigns might be spaced over one to two years. Typically, neighbouring councils work together in engaging a mulching contractor in a 'milk-run' scenario to achieve better cost efficiencies. Councils have experienced difficulties with engaging mulching contractors as well as the timely delivery of services and finding a market for the finished product.

¹⁶ RDA Eyre Peninsula Annual Report 2023/24



Based on recent data, the combined tonnage of green waste directly delivered to transfer stations across all EP councils has been recorded as follows:

- **2021/22 Financial Year:** 3,341 tonnes
- **2022/23 Financial Year:** 4,548 tonnes

Noteworthy that some green waste is currently managed outside of transfer stations (e.g. on private land) and this material could potentially become available if an alternative management option was accessible. By way of example for the lower Eyre Peninsula sub-region, the following tonnages have been reported for Port Lincoln and neighbouring councils for the three previous financial years:

LGA	Green waste & Untreated Timber for Mulching (tonnes)		
	21/22	22/23	23/24
Lower Eyre	137	108	64
Port Lincoln	428	1,211	1,098
Tumby Bay	155	148	235
TOTAL	730	1,467	1,397

Green waste and untreated timbers dropped off at transfer stations are generally free of contamination and those tonnages could further support feasibility of a sub-regional composting facility.

Under the current system, customers take their green waste to a transfer station or participating landfill and may pay a fee for this service. There is no logistical involvement for councils other than on-site stockpile management and the coordination of the mulching campaign ‘milk run’ at their respective sites from time to time.

Taking material from transfer stations to a composting facility will add cost for bulk-haul transport which might not be completely offset by savings from not undertaking mulching campaigns.

When considering a sub-regional composting facility, the development of local markets is not only critically important for the circularity of managing that waste stream but also for the financial viability through sales of quality finished products to local and regional end users.

Compostable material from primary industry, hospitality, and other industries

During the development of the EP LGA Waste and Resources Strategy, initial data was collected for waste generated through operations and end-of-life equipment and materials as part of the broader commercial and industrial waste. The focus was on materials that had the potential to be co-managed with recyclable materials collected from residential premises, including of compostable organics.

Several new industries and major projects such as Northern Water, SA Water Desalination Plant, Hydrogen, Space and the Cape Hardy Industrial Export Precinct will be adding to the strong economic profile of the Eyre Peninsula. Currently there is no reliable data for compostable organics from industries such as fisheries, aquaculture, farming and hospitality and tourism venues, with the exception of known quantities of 2,000 tonnes fish waste processed at the local Hallett facility, and 30 tonnes fish waste received at Council's RRC. There appears to be a strong case to continue the collaboration with key stakeholders to establish a baseline for quantities and the composition of recoverable compostable waste. The following two examples demonstrate the potential within the hospitality and fisheries:

Hospitality Case study

A case study in the recently published *Sustainability Guide for the South Australian Hospitality Industry* (June 2024) provides a good example for the untapped potential within the hospitality sector alone:

'The Maylands Hotel collaborated with their waste service providers to analyse their waste composition, revealing that organic food waste comprised approximately 38% of their general waste. By implementing an organic waste management service, the hotel successfully diverted significant amounts of waste from landfill, reducing greenhouse gas emissions and lowering weekly waste management costs. Following the introduction of the organics service, the venue decreased their general waste collection frequency from twice per week to once, resulting in a net annual savings of \$2,600...'

Port Lincoln and surrounding councils have significant number of restaurants, cafes, wineries and breweries, catering not only for the local population but also for and increasing demand from the tourism sector.

Conclusion

The feasibility of a local organic processing facility on the Eyre Peninsula is largely dependent on the successful capture and processing of organic waste from the City of Port Lincoln, neighbouring councils, and key industries. The data presented here highlights the significant potential for organic waste diversion from the FOGO kerbside collection, green waste, and various commercial sectors.

APPENDIX 5: Draft Action Plan

Date	Action
Q2 25/26	Elected Members receive feasibility report and adopt recommendations: 1. Commit to 3 bin system and roll out over 3 years; 2. Update Waste Management Policy 3. Upgrade existing recycling bins; 4. Support residents with education; 5. monitor performance. Prepare rollout plan over next 3 years including: ▪ alterations to collection areas & schedule; ▪ liaise with service providers to confirm logistics; ▪ review changes to waste service charges on rates notice; ▪ education package to accompany each stage of the rollout; ▪ communication plan with key stakeholders for rollout.
Q3 25/26	Adoption of updated kerbside policy; Procurement for 25/26 rollout. Update procedures, administer exceptional circumstances, etc; Inform and train customer support team; Plan community information campaign & workshops.
Q4 25/26	Roll out FOGO bins & recycle bin upgrades to next tranche; Monitor performance, troubleshooting, resident support;
26/27	Continue roll out of 3 bin system (Tuesday area)
27/28	Continue roll out of 3 bin system (Wednesday/Thursday area)
28/29	Continue roll out of 3 bin system (Thursday/Friday area)