

Analysis of NSW Food and Garden Bin Audit Data

August 2023

Important notes

This document has been prepared by Rawtec Pty Ltd (Rawtec) for a specific purpose and client (as named in this document) and is intended to be used solely for that purpose by that client.

The information contained within this document is based upon sources, experimentation and methodology which at the time of preparing this document were believed to be reasonably reliable and the accuracy of this information after this date may not necessarily be valid. This information is not to be relied upon or extrapolated beyond its intended purpose by the client or a third party unless it is confirmed in writing by Rawtec that it is permissible and appropriate to do so.

Unless expressly provided in this document, no part of this document may be reproduced or copied in any form or by any means without the prior written consent of Rawtec or the client.

The information in this document may be confidential and legally privileged. If you are not the intended recipient of this document (or parts thereof), or do not have permission from Rawtec or the client for access to it, please immediately notify Rawtec or the client and destroy the document (or parts thereof).

This document, parts thereof or the information contained therein must not be used in a misleading, deceptive, defamatory or inaccurate manner or in any way that may otherwise be prejudicial to Rawtec, including without limitation, to imply that Rawtec has endorsed a particular product or service.



Executive Summary

The New South Wales Environment Protection Authority (EPA) engaged Rawtec to independently review and analyse kerbside audit results undertaken by councils across NSW. The project objective was to understand the performance of the kerbside residual waste and organics recycling services, including outcomes for:

- Diversion of food and garden material from landfill (kilograms per household per week – kg/hh/wk)
- Diversion efficiency (percentage of material diverted via food and garden organics [FOGO] bins)
- Food and Garden Organics (FOGO) bin contamination levels.

Based on available data from 55 audits, performance was measured at the individual household level, by audited area/council and according to the service configuration (bin size and frequency of residual waste and organics recycling services). The sections below summarise key findings from this analysis. Note that this is the third iteration of this report. The data has been updated from previous reports in March 2020 and May 2018 that involved the analysis of 38 and 26 audits respectively (see Section 6 of this report for a comparison table of the findings across the three reports).

Overall food and garden organics performance

Across the audited areas/councils, the average proportion of available food and garden organics diverted from landfill was 84%, which is a positive result. This performance is mainly driven by the high volume of garden organics diverted from landfill (see below).

Food waste performance

On average, 41% of available food waste (or 1.42 kg/hh/wk) was diverted from landfill across the audited areas/councils. This performance varied largely across audited areas/councils from 5% to 73% (or 0.17 kg/hh/wk to 7.30 kg/hh/wk¹).

In general, councils providing a fortnightly residual waste collection achieved higher food waste diversion efficiencies compared to those on a weekly residual waste service. Additionally, councils providing smaller residual waste bins (120/140 litre) achieved higher food waste diversion efficiencies compared to councils with larger residual waste bins (240 litre). The service configuration that achieved the highest food waste diversion on average was Configuration 4 (small 120/140 litre residual waste bins collected fortnightly and large 240 litre FOGO bins collected weekly) at 56%. However, food diversion performance is not only explained by configuration, as food diversion percentage can vary significantly across councils within a service configuration. For example, Configuration 5 (councils with a 240 litre residual waste bin collected fortnightly and a 240 litre FOGO bin collected weekly) included one council with a food efficiency of 5% while another council within this configuration achieved a food efficiency of 62%.

Analysis was undertaken to determine if variation in food waste diversion performance within service configurations may be explained by how long the FOGO service had been in place. Services that had been in place longer than one year were found to achieve higher food efficiency (46%) than those established

¹ Note that the maximum value of 7.30 kg/hh/wk was a strong outlier. The second highest value was 3.39 kg/hh/wk.

less than one year (41%²) or those in a trial period (28%). The average food diversion for councils with a FOGO service longer than a year was below the food diversion performance for Configuration 4 (120/140 litre residual waste bin collected fortnightly and 240L FOGO bin collected weekly) with 56% diversion.

In this 2023 report an additional analysis was conducted to assess the impact that supply of kitchen caddy liners by council has on food diversion efficiency. Audits from councils that never supplied kitchen caddy liners had the least amount of food waste in the FOGO bin and the lowest average diversion efficiency (21%). Audits from councils that previously supplied caddy liners (e.g. when FOGO service first started), recently supplied liners (e.g. close to time of audit) or provide an ongoing supply of liners all performed similarly, with the average diversion efficiency ranging from 47 - 53%. It was noted however that there is not an even spread of data points for service configurations across the different liner supply statuses. As a result, it was not possible to determine whether the supply status of caddy liners has an impact on the average food diversion efficiency, or if the results are more reflective of service configuration (or other factors).

The food waste results demonstrate that food diversion varies even when accounting for differences in the length of service as well as bin configuration. This highlights that configuration and length of service are not the only factors influencing the results and other factors, such as education, are also important for achieving higher food waste diversion outcomes.

Ten audits had data that also allowed the authors to undertake a bin-by-bin matched pair (FOGO and residual bin) analysis of the same household residence. A total of 2,335 FOGO bins were investigated across the ten audits. The amount of food waste collected in the FOGO bin across the ten audits ranged from 0 to 47.5 kg per bin, with the audit average ranging from 0.7 to 7.3 kg/bin³. A varying proportion of households (15% up to 70% for the ten audits) had no food waste in their FOGO bin⁴, with the remaining households using the FOGO bins efficiently.

Garden organics performance

On average, 98% of available garden organics (or 10.49 kg/hh/wk) was diverted from landfill across the audited areas/councils. This high performance was relatively consistent across councils, which varied from 87% to 99.9% (0.94 - 23.50 kg/hh/wk). There was also consistency in average garden organics efficiency across service configurations, which ranged from 93% to 98% (6.08 - 15.04 kg/hh/wk diverted).

The total amount of garden organics generated varied considerably across the audits, from 1.06 kg/hh/week up to 23.72 kg/hh/week. This large difference in garden organics generation is expected to be due to differences in rainfall, vegetation levels, block size and type, population densities and the time of year the audit was undertaken across the audited areas/councils.

FOGO bin contamination levels

On average, contamination of the FOGO bin was 2.2% by weight (0.26 kg/hh/wk) across the audited areas/councils. However, this ranged significantly, from 0.04% up to 17.83%. The top five contaminants by

² The 'Established <1 year' group food efficiency score is 48% if one apparently high performing council is not removed from the data set. The audit from this council was atypical in many aspects and therefore may not be representative.

³ Note that the maximum value of 7.3 kg/bin was a strong outlier. The second highest value was 3.55 kg/bin.

⁴ This excludes households that did not discard food waste in either the FOGO or residual waste bins.

weight were recorded for each audited area/council. Out of these, the most frequently cited contaminants were⁵:

- plastic
- all other organics (e.g. leather, rubber and oils)
- containerised food
- other miscellaneous (e.g. bagged materials, bulky household goods)
- metals.

Analysis of contamination levels by service configuration showed that Configuration 6 (user select bin size and/or frequency for residual waste bin and large 240 litre FOGO bins collected weekly) had the highest contamination rate on average (3.9%). The remaining configurations all had average contamination rates between 1.5% and 2.0%. An analysis was undertaken to check the strength of the correlation between contamination and food efficiency for all audited areas/councils. It was found that there is weak correlation between these factors.

For the ten audits included in the bin-by-bin analysis the average contamination in the FOGO bin ranged from 0.6 – 5.7%. When considering all 50 audits included in the analysis, the average contamination in the FOGO bin was 2.2% (0.26 kg/hh/wk). A large proportion of bins for the ten bin-by-bin audits contained no contamination at all (49% to 92%). Councils may be able to achieve reductions in contamination through targeting households that are contaminating bins (such as through a bin tagging program) rather than broad education strategies focused on all households.

Conclusion

NSW weekly FOGO services are performing well in diverting organics materials. However, there are opportunities to improve diversion through focusing on education around food waste. Households with less access to landfill disposal options (i.e. residual waste bins are smaller and collected less frequently) and those with a user selected service for residual waste (user select bin size and/or frequency)⁶ had higher food waste diversion on average. Promoting these types of configurations and services could therefore be beneficial for increasing food waste diversion. A key finding from the ten bin-by-bin data sets was that many households are disposing food waste in residual waste bins but not in FOGO bins, with an average of 43% across the ten audits. Food waste diversion is therefore more likely to increase by increasing the number of participating households, rather than encouraging active participants to be more efficient in their source separation.

⁵ Two methods for identifying the top five contaminants were considered. See Section 5.1 for detail on each method.

⁶ Note that for most user selected services, increasing the residual waste frequency of collection (from fortnightly to weekly) or capacity (from 120/140L to 240L) comes at an increased cost. The default system varies between councils.

CONTENTS

- Executive Summary ii**
- Acronyms vi**
- Definitions vi**

- 1. Introduction 1**
 - 1.1. Background 1
 - 1.2. Project scope 1
 - 1.3. Audits and service configurations analysed 2
 - 1.4. Aggregated versus bin-by-bin analysis 3

- 2. Overall food and garden organics efficiency 4**

- 3. Food Waste 5**
 - 3.1. Audit data by council and configuration 5
 - 3.2. Bin-by-bin data 9
 - 3.3. Impact of council supplying kitchen caddy liners to food diversion efficiency 12

- 4. Garden Organics 13**
 - 4.1. Audit data by council and configuration 13
 - 4.2. Bin-by-bin data 16

- 5. Contamination 19**
 - 5.1. Audit data by council and configuration 19
 - 5.2. Bin-by-bin data 23

- 6. Key findings and Recommendations 26**
 - 6.1. Performance of FOGO systems 26
 - 6.2. Comparison to previous reports 29

- Appendix 1 – FOGO Contamination Classification I**
- Appendix 2 – Audit Vignettes IV**



Acronyms

EPA	Environment Protection Authority
FOGO	Food and Garden Organics
Kg/hh/wk	Kilograms per household per week
MUD	Multi-unit dwelling (e.g. residential apartment block)
NSW	New South Wales
SUD	Single-unit dwelling (e.g. residential house)

Definitions

Contamination	A set of standard contaminants in the FOGO bin was agreed with the NSW EPA to enable comparison of contamination levels across audits. The defined contaminants are reflective of what was considered contamination by most councils at the time of the audits (between 2011 - 2022). See Appendix 1 for list of categories defined as contamination.
Diversion efficiency	Weight of waste that is diverted from landfill in a recycling bin divided by the weight of waste generated and disposed of in all kerbside bins.
Grossly contaminated bins	FOGO bins where 20% or more of the contents by weight is contamination.
Other not accepted	In late 2022, NSW EPA released a statement clarifying what should and shouldn't go into the FOGO bin. 'Other not accepted' encompasses items that many councils permitted in the FOGO bin at the time of audit (2011 - 2022), however is no longer permitted. See Appendix 1 for list of categories defined as 'other not accepted'.
Presentation rate	Presentation Rate is a measure of the percentage of households that present their bins at the kerbside for collection per collection cycle.
Residual waste	Residual waste, or general waste, is the waste disposed in red-lidded bins and is either sent to landfill or an alternative waste treatment facility, depending on the council arrangement.



1. Introduction

1.1. Background

Kerbside organics recycling services have increased in New South Wales (NSW) over the past decade. The services provided by councils vary and can range from garden organics, food and garden organics (FOGO) or food only organics services. Bin sizes and collection frequency available to residents also varies across councils. Currently, most FOGO services are provided by councils outside of the Sydney Metropolitan area and are weekly services.

As part of the service provision, councils periodically undertake kerbside bin audits. Audits are generally conducted considering the NSW EPA Guidelines for Conducting Household Kerbside Residual Waste, Recycling and Garden Organics Audits in NSW Local Government Areas.

1.2. Project scope

The NSW Environment Protection Authority (EPA) engaged Rawtec to independently review kerbside audits undertaken by councils. NSW EPA provided audit reports and raw data (where available) for audits undertaken between 2011 and 2022.

Following the review and any necessary adjustments of the data⁷, analysis was undertaken to understand the performance of the kerbside residual waste and organics recycling services (taking into account presentation rates). This analysis included estimation of averages and ranges in:

- Kilograms per household per week (kg/hh/wk) of food and garden material diverted via FOGO bins⁸
- Kg/hh/wk contamination in FOGO bins⁸
- Percentage efficiency of FOGO bins in diverting organics from landfill.

The data analysis and findings of this report provides a greater understanding of FOGO systems operating in NSW and their performance.

⁷ Audit data was checked for errors and standardised into a condensed set of categories.

⁸ Note the average kg/hh/wk considers the weight of all audited materials divided by the number of bins audited, which is then adjusted for the presentation rate of the bins and frequency of collection. In some instances, the auditor provided the kg/hh/wk but did not state the presentation rate. Rawtec was therefore unable to verify whether presentation rate had been accounted for. In these cases, it was assumed that presentation rate had been considered by the auditor in their reported kg/hh/wk.

1.3. Audits and service configurations analysed

A total of 55 kerbside audit results across NSW were analysed which included 20,955 bins (10,607 residual waste bins and 10,348 FOGO bins). Five audits were removed from the analysis, including:

- Four audits that included residual waste bins only (and not FOGO bins).
- One audit that included FOGO bins only and combined food and garden organics as a single category.

The remaining 50 audits represented data from 30 councils, as several councils provided multiple audits. There were a range of service configurations in place, and they have been classified as follows for this project:

- Configuration 1: 240 L FOGO fortnightly and small residual waste bin (120/140L) weekly.
- Configuration 2: 240 L FOGO weekly and small residual waste bin (120/140L) weekly.
- Configuration 3: 240 L FOGO weekly and large residual waste bin (240L) weekly.
- Configuration 4: 240 L FOGO weekly and small residual waste bin (120/140L) fortnightly.
- Configuration 5: 240 L FOGO weekly and large residual waste bin (240L) fortnightly.
- Configuration 6: 240 L FOGO weekly and residual waste other (user select bin size and/or frequency)⁹.

Table 1-1 provides a breakdown of audits analysed by service configuration. Analysis was undertaken to identify any differences in performance of FOGO systems across these configurations.

Table 1-1: Number of kerbside audits analysed by service configuration system.

Configuration system	# kerbside FOGO and residual waste audits analysed	Total # bins audited across the system (residual waste, FOGO)
Configuration 1: FOGO fortnightly and small residual waste bin (120/140L) weekly	1	196 (93, 103)
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly	4	1,988 (958, 1,030)
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly	3 ¹⁰	938 (536, 402)
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly	14	5,554 (2,732, 2,822)
Configuration 5: FOGO weekly and large residual waste bin (240L) fortnightly	12	4,141 (2,064, 2,077)
Configuration 6: FOGO weekly and residual waste Other (user selected bin size and/or frequency)	16	6,107 (3,199, 2,908)
All Configurations	50	18,924 (9,582, 9,342)
Audit data sets removed from the analysis	5	2,031 (1,025, 1,006)
Total including audits removed from the analysis	55	20,955 (10,607, 10,348)

⁹ Note that for most user selected services, increasing the residual waste frequency of collection (from fortnightly to weekly) or capacity (from 120/140L to 240L) comes at an increased cost.

¹⁰ One council with Configuration 3 provided food waste only collection (no garden organics) and hence was excluded from analysis of garden organics volumes but included in all other analyses. The default system varies between councils.

1.4. Aggregated versus bin-by-bin analysis

Two methods are used for auditing kerbside waste and recycling in NSW:

- Aggregated method
- Bin-by-bin method.

The aggregated method involves emptying sampled waste or recycling bins into a waste collection vehicle and sorting through the combined volumes. This method enables analysis of the average waste generation, diversion, and contamination levels across the audited area.

Alternatively, the bin-by-bin method involves separately collecting and auditing each bin. This method enables analysis of individual household performance and identification of outliers that may skew averages.

For this project, 31 audits used the aggregated method and 19 used the bin-by-bin method. Ten audits that used the bin-by-bin method were included in a detailed analysis.¹¹

¹¹ There were various reasons for not including all 19 bin-by-bin audits in the detailed analysis (e.g. raw data not being provided at a bin-by-bin level, sampling not conducted in a randomised way).



2. Overall food and garden organics efficiency

The overall food and garden organics efficiency is the proportion of food waste and garden organics in the residual and FOGO bins, that is placed into the FOGO bins by residents. The results across all audited areas/councils are presented in Table 2-1 below. On average, households discarded 14.2 kilograms per week of food and garden organics and placed 84% (11.9 kg/hh/wk) of this material into the FOGO bins. This is a high diversion rate, although it is important to recognise that this rate is driven mostly by garden organics as this comprises a high proportion of FOGO bin contents. Sections 3 and 4 provide further detail on food and garden organics as separate streams.

Table 2-1: Average proportion of food waste and garden organics discarded into FOGO bins^{12,13}

Item	Performance
Average food waste and garden organics discarded into FOGO bins across all audited areas/councils (kg/hh/wk) ¹⁴	11.9
Average food waste and garden organics discarded into FOGO and residual waste bins across all audited areas/councils (kg/hh/wk)	14.2
Average food waste and garden organics efficiency	84%

¹² Note one council was excluded from the analysis due to collecting food waste only (not garden organics), which would have skewed the results by lowering the average food waste and garden waste discarded in FOGO bins per week (as no garden waste is discarded and traditionally households discard high volumes of this material).

¹³ Average performance was calculated using a weighted average approach (as opposed to a simple average).

¹⁴ Note that this excludes containerised food.



3. Food Waste

Food waste is a key component of the kerbside waste stream, making up an estimated 35% of total waste and recycling volumes.¹⁵ Diverting food waste from landfill represents a significant opportunity to reduce greenhouse gas emissions, turn the waste into valuable products (such as compost) and create jobs in the circular economy.

3.1. Audit data by council and configuration

Table 3-1 overleaf summarises key outputs from analysis of average food waste diversion volumes (kg/hh/wk) and the percentage of available food waste diverted from landfill via the FOGO bin, by service configuration. Ranges in values (min and max) for average performance of councils are provided for each configuration type.

On average, 41% of available food waste was diverted from landfill across the audited areas/councils. Of the audits included in this analysis, 49 were from councils that have a weekly organics recycling service, and one was from a council with a fortnightly organics recycling service.

Analysis of food waste performance by service configuration shows, in general, councils providing a fortnightly residual waste collection achieved higher food waste diversion efficiencies compared to those on a weekly service¹⁶. In addition, councils providing smaller residual waste bins (120/140 litre) achieved higher food waste diversion efficiencies compared to councils with larger residual waste bins (240 litre). The diversion efficiency performance by configuration (highest to lowest) is as follows:¹⁷

- 56% - Configuration #4: Small bin residual waste fortnightly and large bin FOGO weekly.
- 46% - Configuration #6: User-select residual waste bin size and/or collection frequency and large bin FOGO weekly.
- 29% - Configuration #2: Small bin residual waste weekly and large bin FOGO weekly.
- 29% - Configuration #5: Large bin residual waste fortnightly and large bin FOGO weekly.
- 12% - Configuration #3: Large bin residual waste weekly and large bin FOGO weekly.
- 5% - Configuration #1: Small bin residual waste weekly and large bin FOGO fortnightly.

Performance can vary significantly across audited areas/councils within a service configuration. For example, the food diversion efficiency of councils with Configuration 5 (FOGO weekly and 240 litre residual waste fortnightly) ranged from 5% up to 62%. See Figure 3-2, which includes each audited area/council, and the average food efficiency performance by configuration.

Analysis was undertaken to determine whether this variation in food waste diversion performance may be explained by how long the FOGO service had been in place (and therefore how familiar residents were with using the service). Areas with a FOGO service for more than a year performed marginally better on average (at 46%) than those established less than one year (41%¹⁸) and better than those in the trial groups (28%). The results demonstrate that performance varies when accounting for differences in the

¹⁵ Environment Protection and Heritage Council (2010), National Waste Report. Accessed at: <https://www.environment.gov.au/system/files/resources/af649966-5c11-4993-8390-ab300b081f65/files/national-waste-report-2010.pdf>

¹⁶ Average performance for each configuration was calculated using a weighted average approach (as opposed to a simple average).

¹⁷ Note a small bin is 120 litres or 140 litres and a large bin is 240 litres.

¹⁸ The 'Established <1 year' group food efficiency score is 48% if one apparently high performing council is not removed from the data set. The audit from this council was atypical in many aspects and therefore may not be representative.

length of service, as well as service configuration. This suggests that service configuration and length of FOGO service are not the only contributing factors to food waste performance and other initiatives, such as the quality of community education and the messaging and delivery method, can also be important for influencing food waste diversion outcomes¹⁹.

Table 3-1: Average food in FOGO bins, residual waste bins and total (kg/hh/wk), diversion efficiency (%) by configuration. The range of values (min and max) is provided in brackets.²⁰

Configuration	Food waste in FOGO bin ²¹ kg/ hh / wk	Food waste (containerised) in FOGO bin ²² kg/ hh / wk	All food waste in residual waste bin ²³ kg/ hh / wk	Total food waste kg/ hh / wk	Average Diversion Efficiency (%) ²⁴
Configuration 1: FOGO fortnightly and small residual waste bin (120/140L) weekly. ²⁵	0.17 NA	0.00 NA	3.16 NA	3.33 NA	5% NA
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly.	1.47 (0.37 - 2.78)	0.09 (0 - 0.31)	3.47 (2.94 - 4.14)	5.03 (3.55 - 7.24)	29% (10% - 38%)
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly. ²⁶	0.49 (0.38 - 0.60)	0.01 (0.01 - 0.02)	3.43 (1.48 - 4.73)	3.93 (2.1 - 5.12)	12% (7% - 29%)
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly.	2.16 (0.24 - 7.30)	0.01 (0 - 0.1)	1.68 (0.60 - 3.01)	3.85 (0.84 - 9.99)	56% (17% - 73%)
Configuration 5: FOGO weekly and large bin (240L) residual waste fortnightly.	0.68 (0.17 - 2.62)	0.04 (0 - 0.17)	1.60 (0.91 - 3.55)	2.31 (1.45 - 4.24)	29% (5% - 62%)
Configuration 6: FOGO weekly and residual waste Other (user select bin size and/or frequency).	1.57 (0.59 - 2.69)	0.04 (0 - 0.15)	1.82 (0.83 - 2.83)	3.43 (1.53 - 5.25)	46% (19% - 72%)
All Configurations	1.42 (0.17 - 7.30)	0.03 (0 - 0.31)	1.98 (0.60 - 4.73)	3.43 (0.84 - 9.99)	41% (5% - 73%)

¹⁹ NSW EPA's 'Scrap Together' education campaign was tested in three council areas and was found to increase food waste recovery by an average of 10%. Accessed at: <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wasteregulation/fogo/2021p3123-scraptogogether-evaluation.pdf>.

²⁰ The analysis in Table 3-1 includes 11 audits across Configurations 1, 4, 5 and 6 where grossly contaminated bins (>20%) were found. A separate analysis excluding these grossly contaminated bins was undertaken to check its potential impact on the average performance of each configuration. It was found that if these highly contaminated bins are removed, then the average food waste efficiency for Configuration 5 would increase by 1 percentage point (to 30%) and Configuration 6 would decrease by 1 percentage point (to 45%). The efficiency of the other configurations would remain the same.

²¹ Correctly presented - loose or in compostable bags.

²² The food component of the containerised food category was assumed to be 90% by weight. Note that not all audits included a separate category for containerised food. In 6 of the 50 analysed audits, it was included alongside loose food. While the container and food it contains is considered contamination (and used in the contamination calculations) containerised food in the FOGO bin could reflect householders interested in using the FOGO service but requiring a little more education and effort to separately dispose of the container. The Scraps Together education resources now include a video on this topic.

²³ Food waste in the residual waste bin includes all food regardless of presentation (e.g. loose, in compostable bags, containerised).

²⁴ Average diversion efficiency is calculated by taking food correctly presented in the FOGO bin (i.e. not including containerised food) and dividing it by total food waste across both FOGO and residual waste bins (regardless of presentation). The weight of packaged food waste volumes was adjusted to remove the estimated weight of the packaging (assumed to be 10%).

²⁵ Only one audit was available for Configuration 1, so no range is provided.

²⁶ The analysis for Configuration 3 includes one audit where non-randomised sampling was suspected. A separate analysis excluding this audit was undertaken to check its potential impact on the average performance of Configuration 3. It was found that if this audit is removed then the average food waste efficiency for this configuration would increase slightly by 1 percentage point to 13%.

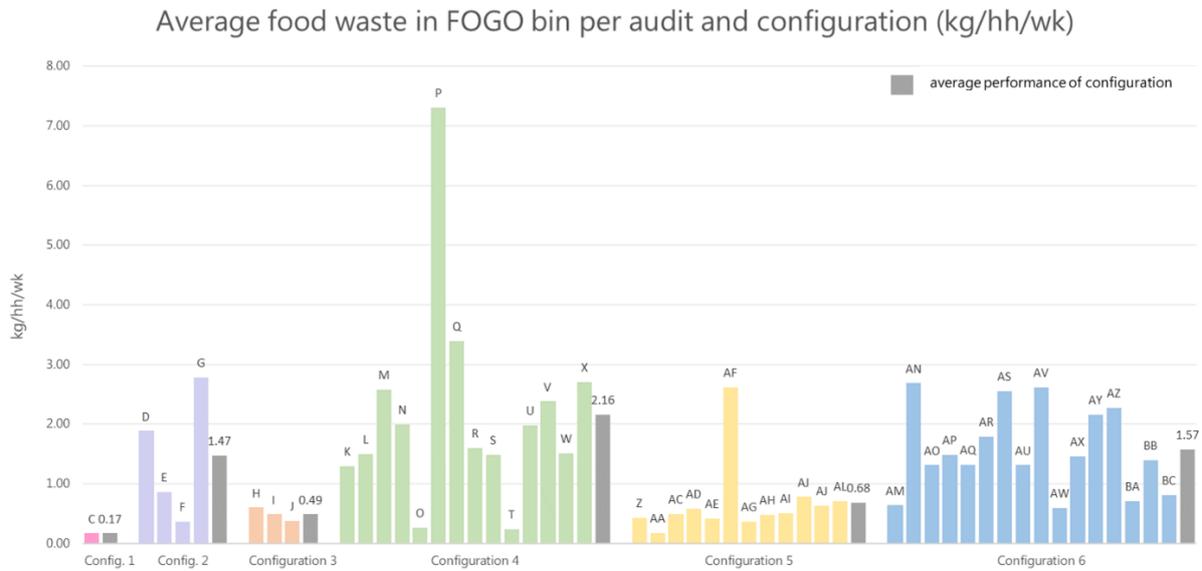


Figure 3-1: Food waste in FOGO bins per audit and configuration (kg/hh/wk), including averages for each configuration²⁷

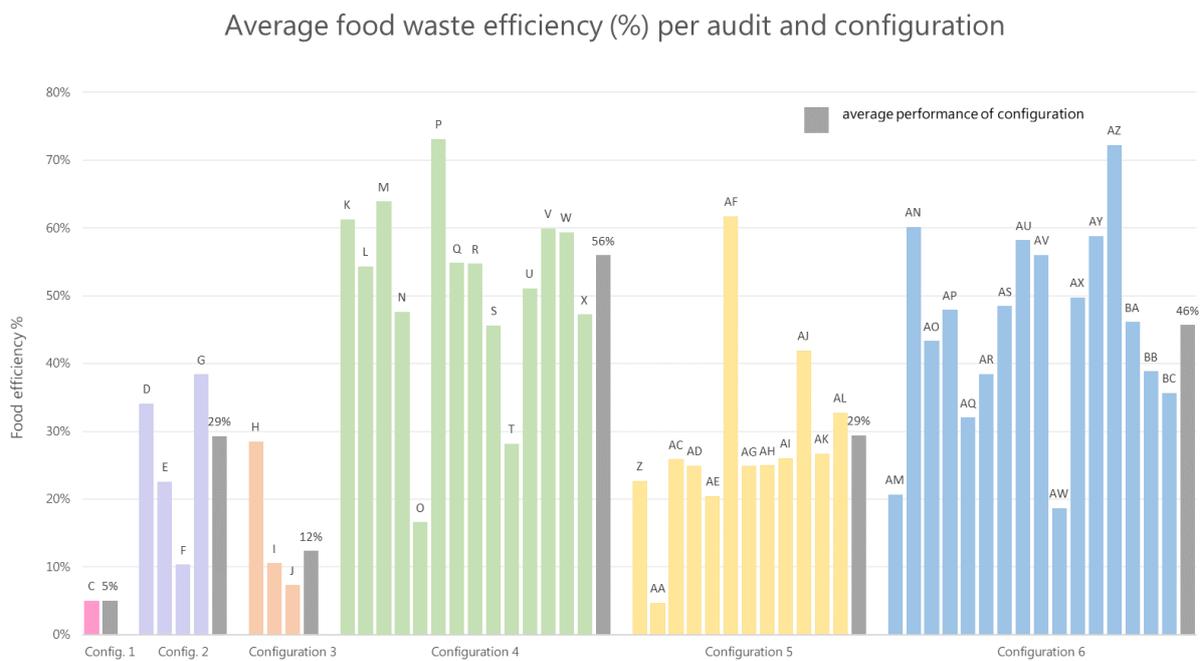


Figure 3-2: Food waste efficiency (% of food waste in FOGO bins out of all food waste discarded), by configuration, including averages for each configuration²⁷

²⁷ Note that the letter above each data point refers to the Audit ID (see Appendix 2). Audits B, Y, AB, AT, BD are not included due to insufficient data.

The range in performance between audits is large, particularly for Configurations 4, 5 and 6 where more audit data is available. This is sometimes a reflection of multiple audits from a single council and improved performance as the service becomes more established. For example audits O, T and V (Configuration 4) are from the same council and in date order.

When the analysis above was repeated but including the top three performing councils from each configuration only (based on highest food diversion efficiency), the average food diversion efficiency increased from 56% to 69% for Configuration 4, from 29% to 50% for Configuration 5 and from 46% to 63% for Configuration 6. The results for Configurations 1 & 2 remained the same due to these configurations containing data from only one and three audits respectively.

Table 3-1a: Average food in FOGO bins of top three performing councils²⁸ in each configuration, residual waste bins and total (kg/hh/wk), diversion efficiency (%) by configuration. The range of values (min and max) is provided in brackets²⁹

Configuration	Food waste in FOGO bin kg/ hh / wk	Food waste (containerised) in FOGO bin ²² kg/ hh / wk	Food waste in residual waste bin ²³ kg/ hh / wk	Total food waste kg/ hh / wk	Average Diversion Efficiency (%) ²⁴
Configuration 1: FOGO fortnightly and small residual waste bin (120/140L) weekly. ²⁵	0.17 NA	0.00 NA	3.16 NA	3.33 NA	5% NA
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly.	1.84 (0.86 - 2.78)	0.12 (0.01 - 0.31)	3.56 (2.94 - 4.14)	5.53 (3.82 - 7.24)	33% (23% - 38%)
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly. ³⁰	0.49 (0.38 - 0.6)	0.01 (0.01 - 0.02)	3.43 (1.48 - 4.73)	3.93 (2.1 - 5.12)	12% (7% - 29%)
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly.	3.72 (1.29 - 7.30)	0.00 (0 - 0)	1.65 (0.81 - 2.68)	5.37 (2.1 - 9.99)	69% (61% - 73%)
Configuration 5: FOGO weekly and large bin (240L) residual waste fortnightly.	1.37 (0.71 - 2.62)	0.06 (0 - 0.17)	1.33 (0.91 - 1.62)	2.75 (1.85 - 4.24)	50% (33% - 62%)
Configuration 6: FOGO weekly and residual waste Other (user select bin size and/or frequency).	2.37 (2.16 - 2.69)	0.08 (0.01 - 0.15)	1.31 (0.87 - 1.63)	3.76 (3.14 - 4.46)	63% (59% - 72%)
All Configurations	1.66 (0.17 - 7.30)	0.05 (0 - 0.31)	2.41 (0.81 - 4.73)	4.11 (1.85 - 9.99)	40% (5% - 73%)

²⁸ Based on highest food diversion efficiency.

²⁹ The analysis in Table 3-1a includes four audits across Configurations 1, 4, 5 and 6 where grossly contaminated bins (>20%) were found. A separate analysis excluding these grossly contaminated bins was undertaken to check its potential impact on the average performance of the top three performing councils in each configuration. It was found that if these highly contaminated bins are removed, then the average food waste efficiency for Configuration 4 would decrease by 1% (to 68%). The efficiency of the other configurations would remain the same.

³⁰ The analysis for Configuration 3 includes one audit where non-randomised sampling was suspected. A separate analysis excluding this audit was undertaken to check its potential impact on the average performance of Configuration 3. It was found that if this audit is removed then the average food waste efficiency of the top three performing councils this configuration would increase slightly by 1 percentage point to 13% (however only two data points would be in use).

3.2. Bin-by-bin data

Table 3-2 and Figure 3-3 overleaf present bin-by-bin data for food waste in FOGO bins across ten audits. The table shows that as few as 1% (Audit 3) and up to 21% (Audit 1) of households did not discard food waste in either the FOGO or residual waste bins³¹. After removing these bins and non-matching households from the analysis, a high proportion of FOGO bins did not contain food waste. This ranged from 15% of bins (Audit 10) up to 70% of bins (Audit 1). Additional gains in food waste recycling volumes for these councils may be achieved if efforts are focused on encouraging greater participation from households not currently participating.

A surprising finding was the variation across the ten audits. This included variation in food waste diversion efficiency (21% for Audit 5 and 73% for Audit 3), proportion of households with no food in FOGO bins (70% for Audit 1 and 15% for Audit 10), the average kilograms of food per FOGO bin (0.4 kg for Audit 6 and 7.3 kg for Audit 3), and the range of these weights in household bins (Audit 1 had a maximum of 7 kilograms food waste in FOGO bin, whereas a household in Audit 3 had almost 50 kilograms of food waste in one bin). This variation suggests that bin-by-bin audits are important to better understand differences at a household level and that larger sample sizes will help gain more accurate estimations of average performance at an audit level and when comparing across audits.

The difference of the range of weights can be seen in Figure 3-3 two pages overleaf, where 75% of Audit 1's bins were less than 0.6 kilograms, and 75% of Audit 3's were less than 12.1 kilograms. The differences cannot be attributed to configuration only. Audits 3, 4, 5 and 6 all had the same configuration, and there was some variance for these audits in average kilograms per bin and maximum kilograms per bin.

Despite these differences, it is worth noting that for most audits there appears to be a high proportion of households that do not discard any food waste in FOGO bins but do discard food in residual waste bins. Also common amongst audits are outliers in each sample, which can be seen in Figure 3-3 based on the number of small circles.

Bin-by-bin data for these ten audits show that food weights bin-by-bin and overall food diversion performance can differ. However, in all cases a select proportion of households are contributing to food diversion, with an average of 43% of audited households per audit discarding food in the residual waste bins but not FOGO bins. Food waste diversion is therefore more likely to be higher through increasing the number of participating households, rather than encouraging active participants to be more efficient in their source separation.

³¹ Households that did not discard any food waste across both the residual waste and FOGO bins were subsequently removed from the bin-by-bin analysis. It was assumed these households were managing their food waste separately to the kerbside system (e.g., home composting).

Table 3-2: Summary of bin-by-bin data for food waste in FOGO bins

Item	Audit 1	Audit 2	Audit 3	Audit 4	Audit 5	Audit 6	Audit 7	Audit 8	Audit 9	Audit 10 ³²
Configuration	Configuration 5 (240L residual waste fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 4 (120L/140L red bin fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 5 (240L residual waste fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)			
Number of FOGO bins sampled	225	234	216	436 ³³	220	211	223	225	220	125
Number bins excluded due to no food waste across all bins	47 (21% of sample)	24 (10% of sample)	3 (1% of sample)	48 (11% of sample)	4 (2% of sample)	52 (26% of sample)	12 (22% of sample)	17 (8% of sample)	4 (2% of sample)	0 (0% of sample)
Number bins excluded due to non-matched hhs	1	1	12	61	82	3	37	1	2	0
Bins remaining in sample	177	209	201	327	134	156	174	207	214	125
Length of service	>1 Year	<1 Year	<1 Year	>1 Year	<1 Year	>1 Year	>1 Year	>1 Year	>1 Year	<1 Year
Bin-by-bin data										
Average kg/bin	0.67	1.85	7.31	1.63	1.27	0.43	1.15	1.57	1.60	3.55
No. bins with food waste weights above the average food waste kg/bin	43 (24%)	74 (35%)	88 (44%)	113 (35%)	41 (31%)	40 (26%)	50 (29%)	70 (34%)	79 (37%)	60 (48%)
Min kg/bin (if food present)	0.02	0.21	0.32	0.02	0.01	0.03	0.01	0.06	0.04	0.11
Max kg/bin	7.06	15.05	47.50	31.00	10.58	6.45	8.77	12.13	13.14	15.75
% FOGO bins with no food present	70.1%	39.2%	26.9%	48.3%	38.1%	62.8%	54.0%	30.0%	43.9%	15.2%
Interquartile range in Figure overleaf (first and third quarters containing the middle 50% of data points)	(0 - 0.6)	(0 - 2.8)	(0 - 12.1)	(0 - 2.4)	(0 - 1.7)	(0 - 0.5)	(0 - 1.9)	(0 - 2.4)	(0 - 2.6)	(1.2 - 4.9)
Aggregated data										
Food waste diversion efficiency %	28%	58%	73%	61%	21%	28%	46%	42%	36%	72%
Average food waste kg/hh/wk	0.36	1.31	7.30	1.29	0.63	0.24	0.71	0.78	0.81	2.27

³²Note that this audit included only SUD bins from a council that is predominately MUDs.

³³436 datapoints were used from 222 households as households were sampled over two weeks.



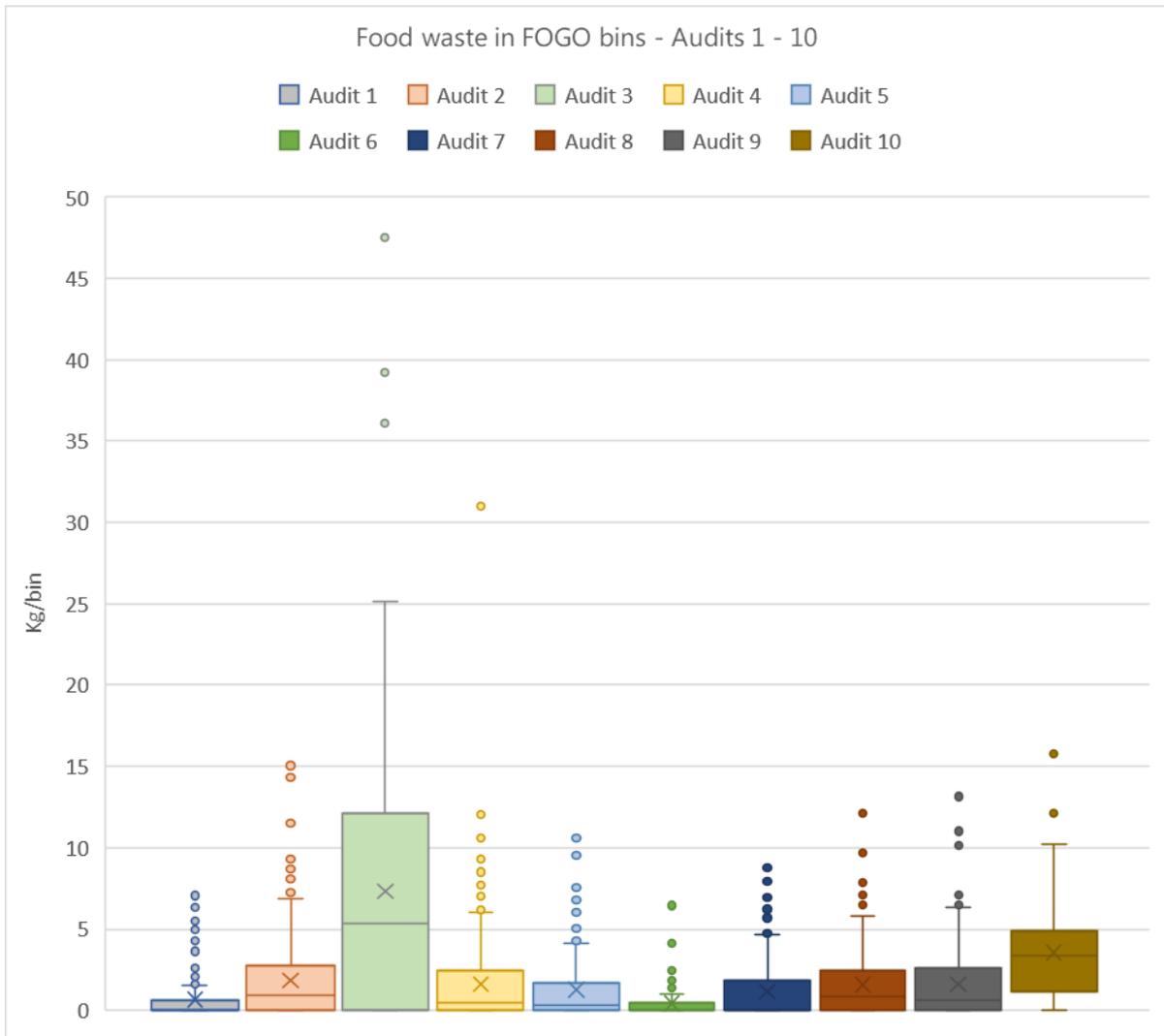


Figure 3-3: A box and whisker plot of the bin-by-bin data for food waste in FOGO bins. Note the rectangle is the interquartile range (IQR) and comprises 50% of the data, the 'x' is the average and the whisker edge captures data within 1.5 times the width of the IQR (any data points outside of this range are considered outliers and are represented by small coloured circles). The median is the line within the rectangle.



3.3. Impact of council supplying kitchen caddy liners to food diversion efficiency

An analysis was conducted to try to assess the impact that supply of kitchen caddy liners by council has on food diversion efficiency. Supply of caddy liners was grouped into four categories: (1) never supplied, (2) previously supplied (e.g. when the FOGO service first started), (3) recently supplied (e.g. close to the time of the audit), or (4) on-going supply. The status regarding the supply of kitchen caddy liners was known for 38 audits and only these were included in the analysis below.

Audits from councils that never supplied kitchen caddy liners had the least amount of food waste in the FOGO bin (0.55 kg/hh/wk) and the lowest average diversion efficiency (21%). Audits from councils that previously supplied caddy liners, recently supplied or provide an ongoing supply of liners all performed similarly, with the average diversion efficiency ranging from 47 - 53%.

It should be noted however that there is not an even spread of data points for service configurations across the different supply status. The 'Never supplied' category is dominated by audits from lower performing configurations (Configuration 5 & Configuration 2) and 'Previously supplied' exclusively contains audits from Configuration 4, which is the best performing configuration. As a result, it is not possible to determine whether the supply status of caddy liners has an impact on the average food diversion efficiency, or if the results are more reflective of service configuration (or other factors).

Table 3-3: Average food in FOGO bins, residual waste bins and total (kg/hh/wk), diversion efficiency (%) by supply status of kitchen caddy liners. The range of values (min and max) is provided in brackets.³⁴

Supply status of caddy liners	Configurations of audits included in analysis ³⁵	Food waste in FOGO bin kg/ hh / wk	Food waste (containerised) in FOGO bin ³⁶ kg/ hh / wk	Food waste in residual waste bin ²³ kg/ hh / wk	Total food waste kg/ hh / wk	Average Diversion Efficiency (%) ²⁴
Never supplied	Configuration 2 (2)	0.55	0.04	2.08	2.66	21%
	Configuration 5 (8)	(0.36 - 0.78)	(0 - 0.17)	(0.91 - 4.73)	(1.45 - 5.12)	(7% - 42%)
	Configuration 6 (2)					
Previously supplied	Configuration 4 (3)	1.53	0.00	1.36	2.89	53%
		(0.24 - 2.38)	(0 - 0)	(0.6 - 1.89)	(0.84 - 3.97)	(28% - 60%)
Recently supplied	Configuration 4 (3)	1.45	0.05	1.57	3.07	47%
	Configuration 5 (1)	(0.27 - 2.69)	(0 - 0.15)	(0.81 - 2.18)	(1.6 - 4.46)	(17% - 61%)
	Configuration 6 (4)					
Ongoing supply	Configuration 2 (1)	1.96	0.04	2.00	3.99	49%
	Configuration 4 (4)	(0.71 - 3.39)	(0 - 0.31)	(0.73 - 4.14)	(1.53 - 7.24)	(32% - 72%)
	Configuration 6 (10)					

³⁴ The analysis in Table 3-3 includes nine audits across the 'Never supplied', 'Recently supplied' and 'Ongoing supply' statuses where grossly contaminated bins (>20%) were found. A separate analysis excluding these grossly contaminated bins was undertaken to check its potential impact on the average performance of each supply status. It was found that if these highly contaminated bins are removed, then the average food waste efficiency for 'Never supplied' would decrease by 1% (to 20%). The efficiency of the other supply statuses would remain the same.

³⁵ The number in brackets next to each Configuration indicates the number of audits for that configuration included in the analysis.

³⁶ Note that not all audits included a separate category for containerised food. In 5 of the 38 analysed audits, it was included alongside loose food.



4. Garden Organics

4.1. Audit data by council and configuration

Table 4-1 overleaf provides key outputs from analysis of garden organics diversion volumes (kg/hh/wk) and the percentage of available garden organics diverted from landfill via the residual waste stream (%), by service configuration³⁷. Ranges in values (min and max) for average performance of councils are provided for each configuration type.

The total amount of garden organics generated varies considerably by council, from 1.06 kg/hh/week up to 23.72 kg/hh/week. This large difference in garden waste generation is likely due to differences in rainfall, vegetation levels, block size and type and population densities. The time of year that the audit took place could also impact the results.

On average, 98% of available garden organics waste was diverted from landfill across the audited areas/councils. Analysis of garden waste performance by service configuration shows there is little difference in diversion efficiency performance, ranging between 93% and 98%. See Figure 4-2 two pages overleaf. There was also little variation in performance at individual council level, which ranged from 87% up to 99.9%.

³⁷Average performance for each configuration was calculated using a weighted average approach (as opposed to a simple average).

Table 4-1: Average garden organics in FOGO bins, residual waste bins and total (kg/hh/wk), diversion efficiency (%) by configuration. Note that the range of values (min and max) is provided in brackets.³⁸

Configuration	Garden organics in FOGO bin kg/ hh / wk	Garden organics in residual waste bin kg/ hh / wk	Total garden organics kg/ hh / wk	Average Diversion Efficiency (%) ³⁷
Configuration 1: FOGO fortnightly and small residual waste bin (120/140L) weekly. ²⁵	6.08 NA	0.48 NA	6.56 NA	93% NA
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly.	12.67 (3.23 - 19.32)	0.51 (0.21 - 1.09)	13.17 (3.43 - 19.75)	96% (92% - 98%)
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly. ^{39, 40}	15.04 (10.66 - 19.42)	1.06 (0.59 - 1.53)	16.10 (12.19 - 20.01)	93% (87% - 97%)
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly.	11.65 (0.94 - 23.5)	0.18 (0.01 - 0.47)	11.83 (1.06 - 23.72)	98% (89% - 99.9%)
Configuration 5: FOGO weekly and large residual waste bin (240L) fortnightly.	11.28 (4.39 - 14.99)	0.21 (0.03 - 0.69)	11.49 (4.57 - 15.34)	98% (95% - 99.8%)
Configuration 6: FOGO weekly and residual waste Other (user select bin size and/or frequency).	8.06 (3.11 - 13.21)	0.20 (0.02 - 0.76)	8.26 (3.14 - 13.5)	98% (89% - 99.8%)
All Configurations	10.49 (0.94 - 23.5)	0.26 (0.01 - 1.53)	10.76 (1.06 - 23.72)	98% (87% - 99.9%)

³⁸ The analysis in Table 4-1 includes ten audits across Configurations 1, 4, 5 and 6 where grossly contaminated bins (>20%) were found. A separate analysis excluding these grossly contaminated bins was undertaken to check its potential impact on the average performance of each configuration. Removing these highly contaminated bins had no notable impact on garden organics diversion efficiency.

³⁹ Removed audit data from one council within this configuration as it had food bins only (no garden waste accepted) and is therefore not relevant.

⁴⁰ Non randomised sampling was suspected in one audit with Configuration 3. A separate analysis excluding this audit was undertaken to check its potential impact on the average performance of Configuration 3. If this audit was removed, the average garden organics efficiency for this configuration would reduce to 87% (with only one audit remaining for the configuration).

Average garden waste in FOGO bin per audit and configuration (kg/hh/wk)

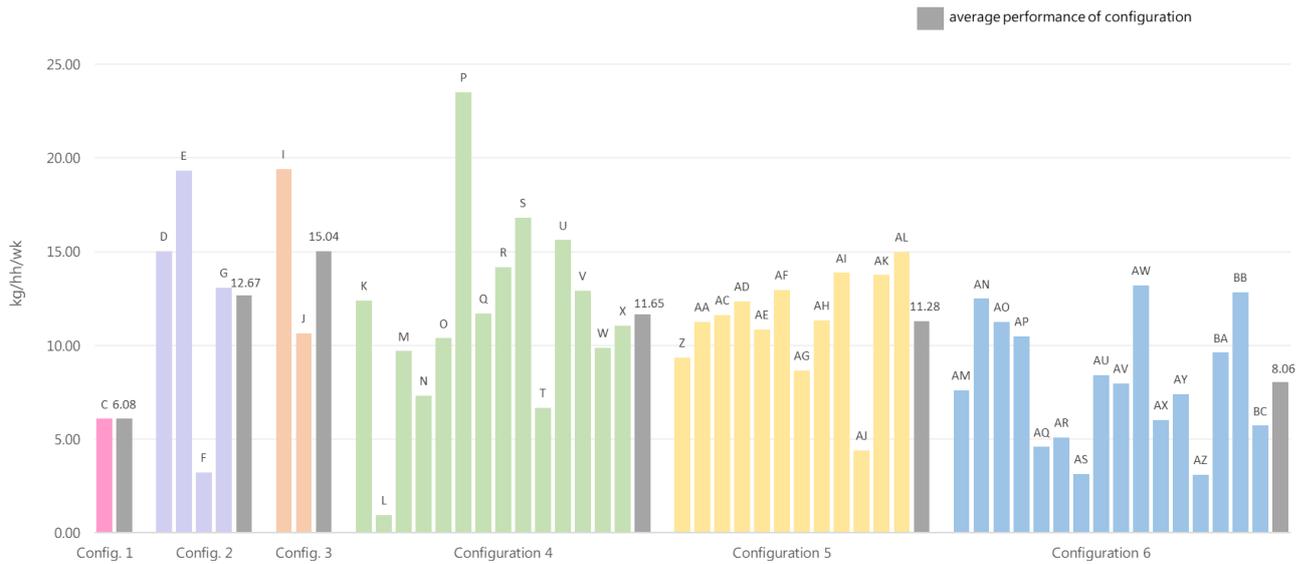


Figure 4-1: Garden organics in FOGO bins by configuration (kg/hh/wk), including averages for each configuration⁴¹

Average garden waste efficiency (%) per audit and configuration

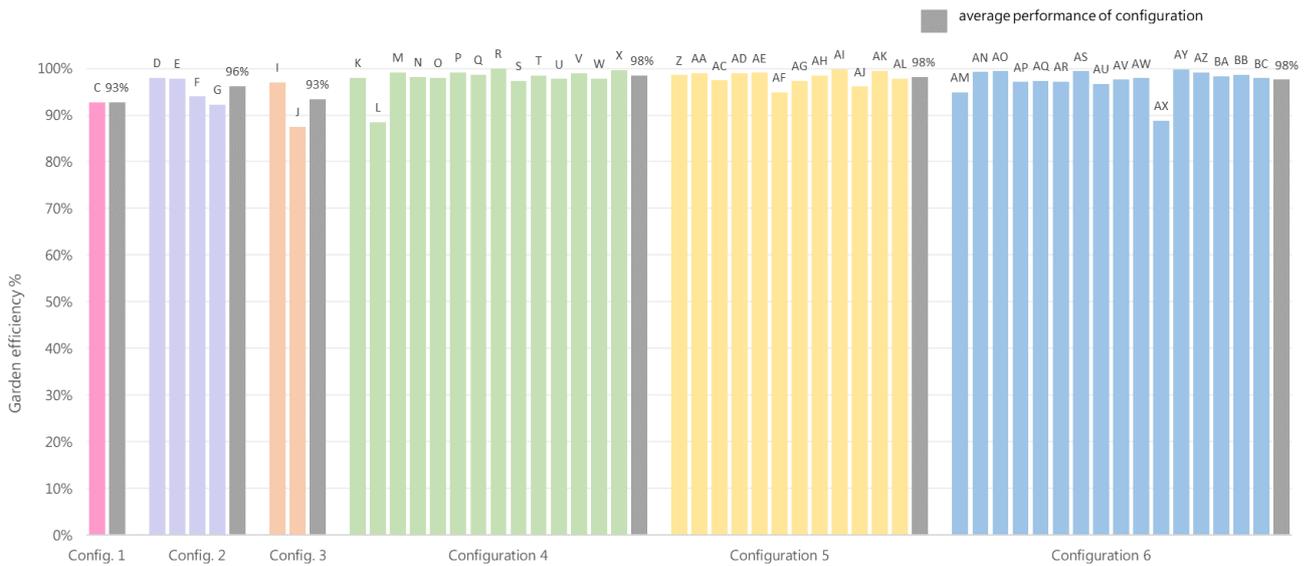


Figure 4-2: Garden organics efficiency (% of garden organics in FOGO bins out of all garden organics discarded), by audit and by configuration⁴¹

⁴¹ Note that the letter above each data point refers to the Audit ID (see Appendix 2). Audits B, Y, AB, AT, BD are not included due to insufficient data. Audit H is excluded due to having a food organics service only (no garden permitted).



4.2. Bin-by-bin data

The bin-by-bin data for garden organics in FOGO bins for ten audits is presented below. The average kilograms of garden organics per FOGO bin ranges across the audits from 6.07 kg/bin to 26.32 kg/bin.

Five audits had almost no FOGO bins containing no garden organics, while the other five audits ranged from 1.1% to 13.3% of FOGO bins with no garden organics (after excluding those that did not discard any garden organics across the FOGO and residual waste bins). Figure 4-3 displays the box and whisker plots for the ten audits.



Table 4-2: Summary of bin-by-bin data for garden organics

Item	Audit 1	Audit 2	Audit 3	Audit 4	Audit 5	Audit 6	Audit 7	Audit 8	Audit 9	Audit 10 ³²
Configuration	Configuration 5 (240L residual waste fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 4 (120L/140L red bin fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 5 (240L residual waste fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)			
Number of FOGO bins sampled	225	234	216	436 ³³	220	211	223	225	220	125
Number bins excluded due to no food waste across all bins	4 (2% of sample)	13 (6% of sample)	21 (10% of sample)	14 (3% of sample)	1 (0.5% of sample)	1 (0.5% of sample)	12 (5% of sample)	36 (16% of sample)	26 (12% of sample)	25 (20% of sample)
Number bins excluded due to non-matched hhs	1	1	12	61	82	3	37	1	2	0
Bins remaining in sample	220	220	183	361	137	207	174	188	192	100
Length of service	>1 Year	<1 Year	<1 Year	>1 Year	<1 Year	>1 Year	>1 Year	>1 Year	>1 Year	<1 Year
Bin-by-bin data										
Average kg/bin	12.98	11.40	26.32	14.10	12.87	9.03	13.86	8.09	12.19	6.07
No. bins with food waste weights above the average food waste kg/bin	87 (40%)	89 (40%)	73 (40%)	155 (43%)	58 (42%)	84 (41%)	72 (41%)	80 (43%)	77 (40%)	27 (27%)
Min kg/bin (if food present)	0.01	0.02	0.75	0.04	0.04	0.30	0.07	0.03	0.01	0.01
Max kg/bin	54.95	66.42	67.20	62.20	45.41	29.73	77.36	37.68	55.98	35.39
% FOGO bins with no food present	0.5%	0.5%	1.1%	13.3%	0%	0%	0%	5.3%	6.8%	5.0%
Interquartile range in Figure overleaf (first and third quarters containing the middle 50% of data points)	(3.9 - 19.0)	(3.9 - 15.8)	(12.2 - 41.0)	(2.5 - 23.0)	(3.5 - 19.6)	(5.0 - 11.7)	(4.5 - 20.8)	(1.3 - 13.2)	(2.6 - 18.8)	(0.6 - 6.3)
Aggregated data										
Food waste diversion efficiency %	97%	97%	99%	98%	95%	98%	98%	96%	98%	99%
Average food waste kg/hh/wk	8.66	8.42	23.50	12.39	7.61	6.67	9.61	4.39	5.72	3.11



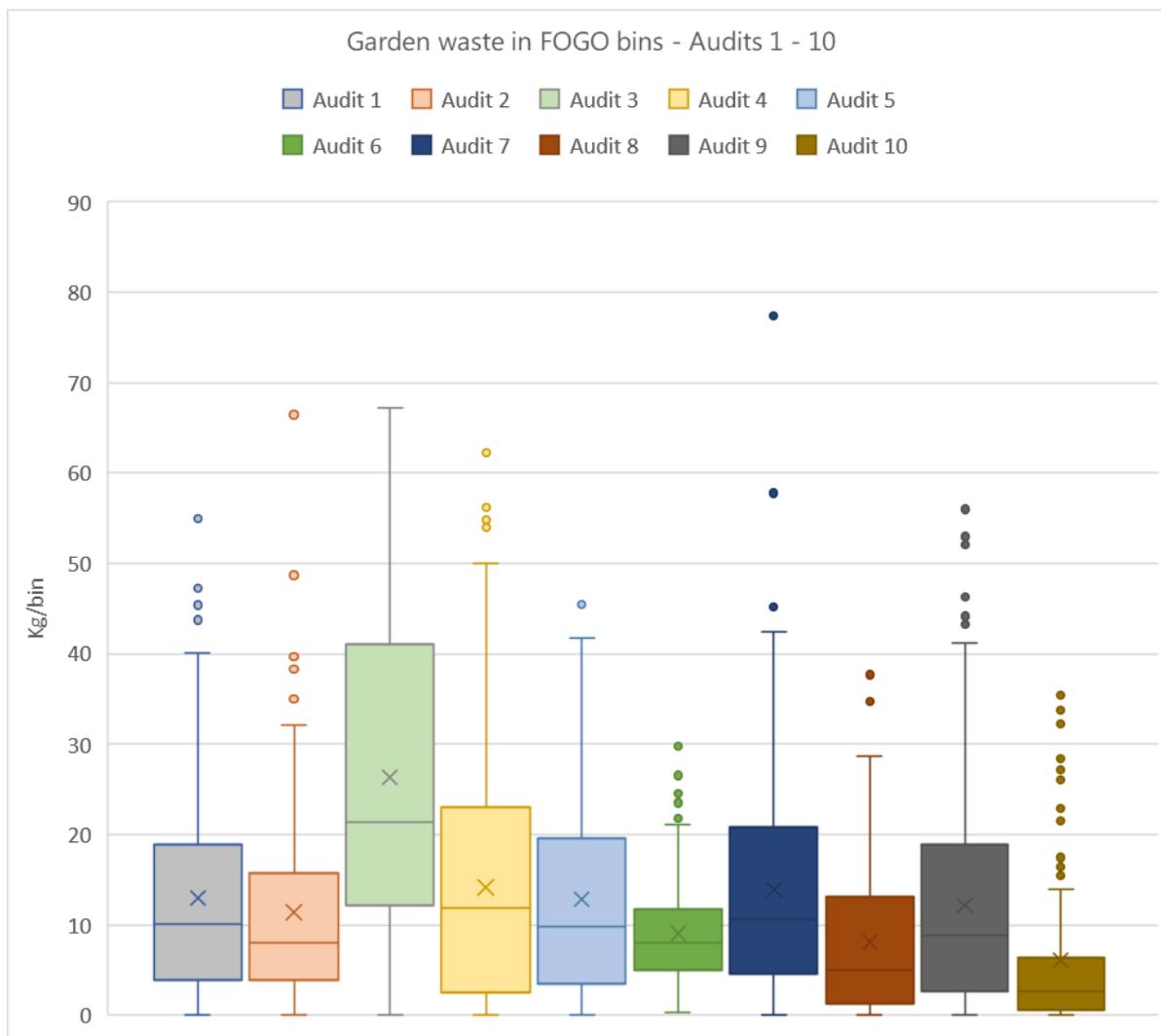


Figure 4-3: Box and whisker plot of the bin-by-bin data for garden organics in FOGO bins. Note the rectangle is the interquartile range (IQR) and comprises 50% of the data, the x is the average and the whisker edge captures data within 1.5 times the width of the IQR on either side of the IQR (data points outside of this range are considered outliers). The median is the line within the rectangle.



5. Contamination

Contamination of FOGO bins is undesirable because it requires further processing, incurs higher costs to remove the contaminants and/or results in a lower value recycled product.

In late 2022, NSW EPA released a statement clarifying what should and shouldn't go into the FOGO bin. The statement stipulated that only food scraps, garden organics and kitchen caddy liners (fibre based or certified compostable) should be put in the FOGO bin. Other organics that were previously permitted in the FOGO bin by many councils such as soiled paper, compostable packaging and pet waste now need to be placed in the residual waste bin. All audits analysed in this report were conducted prior to the release of this statement by NSW EPA.

For this report (and the 2020 and 2018 reports), a set of standard contaminants was agreed with the NSW EPA to enable comparison of contamination levels across audits. The list of contaminants is reflective of what was considered contamination by most councils at the time of the audits. In this 2023 report, materials identified as no longer acceptable in FOGO bin (e.g. soiled paper, pet waste) were classified as 'other not accepted'. 'Contamination + other not accepted' encompasses all materials not permitted in the FOGO bin as per NSW EPA's 2022 statement. Refer to Appendix 1 for classifications.

Most data sets received were in aggregated format as opposed to bin-by-bin data. Therefore, grossly contaminated bins could not be identified and potentially removed to assess the impact these bins were having on the data sets and whether the grossly contaminated bins were skewing the data. Where data sets were not in aggregated format, the impact of grossly contaminated bins (>20% contamination) has been considered and is mentioned within this section.

5.1. Audit data by council and configuration

Two methods were used to assess the top five contaminants. The first involved a counting methodology where the number of times a contaminant appeared in the top five contaminants by weight was summed and the top ranked reported. Using this method, the most frequently cited contaminants were:

- plastic
- all other organics (e.g. leather, rubber and oils)
- containerised food
- other miscellaneous (e.g. bagged materials, bulky household goods)
- metals.⁴²

An alternative method involved summing the weight (kg/hh/wk) of the contaminants that appeared in the top five heaviest contaminants in each audit (rather than counting the number of times each contaminant appeared in the top five heaviest contaminants). This method found the top contaminants were:

- miscellaneous (e.g. bagged materials, bulky household goods)
- earth-based materials (e.g. dust, dirt, rock, ash)
- containerised food
- plastic
- all other organics (e.g. leather, rubber and oils).⁴³

⁴² The order did not change with grossly contaminated bins removed.

⁴³ The order did not change with grossly contaminated bins removed.

The above was repeated with contamination + other not accepted materials. Using the counting methodology, the most frequently cited contaminants + other not accepted were:

- plastic
- contaminated soiled paper
- other putrescible (e.g. pet waste)
- newspaper
- earth-based (e.g. dust, dirt, rock, ash).⁴⁴

When summing the weight (kg/hh/wk) of the contaminants + other not accepted that appeared in the top five heaviest in each audit, the top contaminants + other not accepted were:

- miscellaneous (e.g. bagged materials, bulky household goods)
- contaminated soiled paper
- newspaper
- other putrescible (e.g. pet waste)
- earth-based (e.g. dust, dirt, rock, ash).⁴⁵

Table 5-1 below provides key outputs from analysis of average contamination and contamination + other not accepted volumes (kg/hh/wk) and the percentage of contamination and contamination + other not accepted (%) in the FOGO bins, by service configuration. Ranges in values (min and max) for average performance of councils are provided for each configuration type.

The average level of contamination in the FOGO bin was 2.2% by weight across the audited areas/councils. Although this value ranged significantly, from 0.04% up to 17.83%, the middle 50% of contamination rates across audited areas/councils fell between a much narrower range (0.81% to 3.24%). Note that bin-by-bin data suggests contamination appears to be driven by a low proportion of the population, which is discussed in Section 5.2.

The average level of contamination + other not accepted in the FOGO bin was 4.1% by weight across the audited areas/councils. This value ranged from 0.36% to 27.82% with the middle 50% falling between 0.52% to 2.69%.

Analysis of contamination by service configuration showed that Configuration 6 had the highest contamination rate at 3.9% (6.0% for contamination + other not accepted). The contamination rate for the other configurations ranged from 1.3% - 2.0% (2.1% - 3.8% for contamination + other not accepted). The higher result for Configuration 6 could reflect the high number of audits from this configuration (16 audits) and variability in contamination at household and council level as well as over time, however we lack insights to draw a definitive conclusion here.

An analysis was undertaken to check the strength of the correlation between food efficiency and contamination for the audited councils. The correlation was found to be weak (see Figure 5-2).

⁴⁴ Earth-based, containerised food and cardboard / package board all tied 5th with grossly contaminated bins removed.

⁴⁵ Cardboard / package board placed 5th (instead of earth-based) with grossly contaminated bins removed.

Table 5-1: Average⁴⁶ contamination and contamination + other not accepted in FOGO bins (kg/hh/wk), average contamination and contamination + other not accepted as a percentage of FOGO bin weight (%), and most common contaminants and contamination + other not accepted by configuration.

Configuration	Contamination in FOGO bin Kg/hh/week	Contamination in FOGO bin (%)	Most common contaminants cited	Contamination + other not accepted in FOGO bin Kg/hh/week	Contamination + other not accepted in FOGO bin (%)	Most common contaminants + other not accepted cited
Configuration 1: FOGO weekly and small residual waste bin (120/140L) weekly	0.12 NA	1.9% NA	<ul style="list-style-type: none"> • Earth-based • All Other Organics • Plastic 	0.13 NA	2.1% NA	<ul style="list-style-type: none"> • Newspaper • Earth-based • Corrugated Carboard
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly	0.30 (0.05 - 0.59)	2.0% (0.37% - 3.39%)	<ul style="list-style-type: none"> • Plastic • Containerised food • Earth-based 	0.43 (0.08 - 0.91)	3.0% (0.57% - 5.42%)	<ul style="list-style-type: none"> • Newspaper • Plastic • Containerised food
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly	0.17 (0.10 - 0.26)	1.6% (1.27% - 12.87%)	<ul style="list-style-type: none"> • Plastics • Metals • All other organics 	0.38 (0.14 - 0.65)	3.5% (1.7% - 18.37%)	<ul style="list-style-type: none"> • Plastics • Newspaper • All other organics
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly	0.21 (0.01 - 0.62)	1.5% (0.04% - 17.83%)	<ul style="list-style-type: none"> • Plastics • All other organics • Miscellaneous 	0.54 (0.04 - 1.59)	3.8% (0.36% - 27.82%)	<ul style="list-style-type: none"> • Contaminated soiled paper • Other putrescible • Miscellaneous
Configuration 5: FOGO weekly and large residual waste bin (240L) fortnightly	0.16 (0.02 - 0.44)	1.3% (0.20% - 5.75%)	<ul style="list-style-type: none"> • Plastics • Containerised food • Miscellaneous 	0.36 (0.11 - 0.94)	3.0% (0.88% - 10.01%)	<ul style="list-style-type: none"> • Newspaper • Plastics • Other protrusible
Configuration 6: FOGO weekly and residual waste Other (user select bin size and/or frequency)	0.40 (0.07 - 0.93)	3.9% (0.70% - 12.36%)	<ul style="list-style-type: none"> • Plastic • Containerised food • Miscellaneous 	0.62 (0.1 - 1.91)	6.0% (1.01% - 15.86%)	<ul style="list-style-type: none"> • Plastic • Other putrescible • Contaminated soiled paper
All Configurations	0.26 (0.01 - 0.93)	2.2%⁴⁷ (0.04% - 17.83%)	<ul style="list-style-type: none"> • Plastic • All other organics • Containerised food 	0.50 (0.04 - 1.91)	4.1%⁴⁸ (0.36% - 27.82%)	<ul style="list-style-type: none"> • Plastic • Contaminated soiled paper • Other putrescible

⁴⁶Average for each configuration was calculated by a weighted average approach (as opposed to a simple average).

⁴⁷ This value changed to 2.0% with the removal of grossly contaminated bins (contamination >20%).

⁴⁸ This value changed to 3.9% with the removal of grossly contaminated bins (contamination >20%).



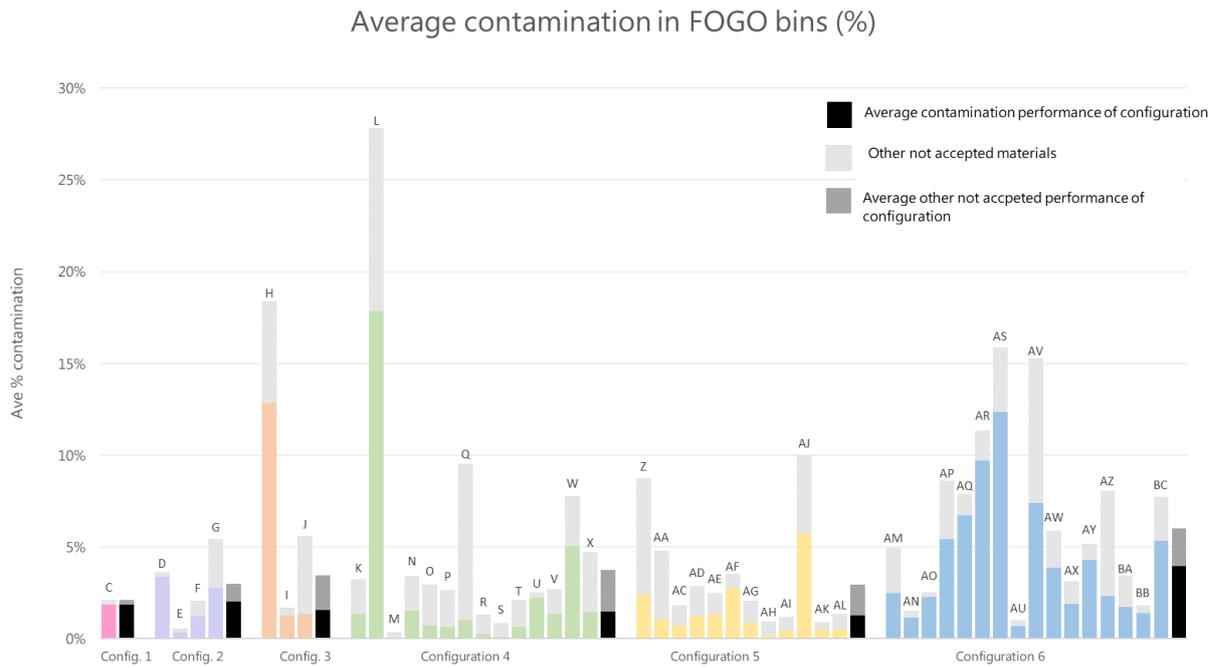


Figure 5-1: Average contamination in FOGO bins (% of bin weight) by audit and by configuration^{27,46}

Correlation between contamination of FOGO bin (%) and food waste diversion efficiency (%)

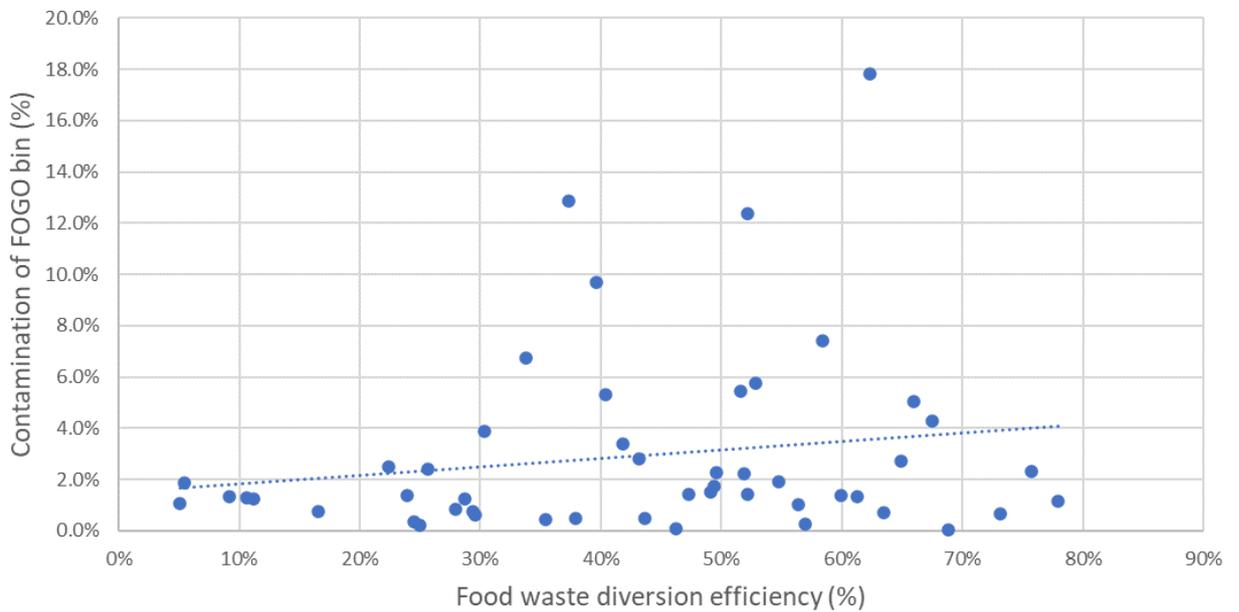


Figure 5-2: Correlation between contamination of FOGO bin (%) and food waste diversion efficiency (%) for audited councils/areas



5.2. Bin-by-bin data

A high proportion of bins did not contain any contamination (over 48% for all councils and up to 92% for Audit 3). This is reflected in Table 5-2 below and Figure 5-3 overleaf. Most data points sit in the '0 kg/bin' range. Figure 5-3 also shows the remaining contamination weights per bin are spread from 0 - 0.1 through to 3+ kg/bin. One bin in Council 4's data had 44 kilograms of earth-based contaminants, and one bin from Council 6's data had 51 kilograms of miscellaneous contamination, both of which can be considered a very high volume of contamination.

Analysis was undertaken to estimate the average weight of contamination only in bins that contained contamination. In these cases, the average kilograms of contamination per bin ranged from 0.19 to 2.51 for Councils 6 and 3 respectively (versus 0.05 and 0.58 kilograms when all bins are considered). This suggests that when a household does contaminate FOGO bins, the volumes are much higher (in the cases below, 2 - 12 times more) than the average kilograms per households when considering an entire council.



Table 5-2: Summary of bin-by-bin data for contamination

Item	Audit 1	Audit 2	Audit 3	Audit 4	Audit 5	Audit 6	Audit 7	Audit 8	Audit 9	Audit 10 ³²
Configuration	Configuration 5 (240L residual waste fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 4 (120L/140L red bin fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 5 (240L residual waste fortnightly, FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)	Configuration 6 (Other (user selected bin size and/or frequency), FOGO weekly)			
Number of FOGO bins sampled	225	234	216	436 ³³	220	211	223	225	220	125
Length of service	>1 Year	<1 Year	<1 Year	>1 Year	<1 Year	>1 Year	>1 Year	>1 Year	>1 Year	<1 Year
Bin-by-bin contamination data										
Average kg/bin	0.11	0.09	0.21	0.20	0.35	0.05	0.12	0.22	0.58	0.16
Min kg/bin (if contamination present)	0.005	0.004	0.02	0.01	0.006	0.004	0.005	0.002	0.003	0.001
Max kg/bin	13.61	7.44	12.40	44.00	15.91	2.23	5.57	10.54	51.28	4.11
% bins with no contamination present	84.4%	85.9%	91.7%	87.4%	67.7%	72.0%	84.3%	52.0%	75.9%	48.8%
Average contamination (kg/bin) all bins with contamination present	0.73	0.62	2.51	1.62	1.10	0.19	0.76	0.47	2.40	0.31
Interquartile range in Figure overleaf (first and third quarters containing the middle 50% of data points)	(0 - 0)	(0 - 0)	(0 - 0)	(0 - 0)	(0 - 0.02)	(0 - 0.01)	(0 - 0)	(0 - 0.10)	(0 - 0)	(0 - 0.09)
Aggregated data										
Average contamination %	0.8%	0.7%	0.7%	1.4%	2.5%	0.6%	1.7%	5.7%	5.3%	2.3%
Average kg/hh/wk	0.08	0.07	0.21	0.19	0.22	0.04	0.19	0.33	0.38	0.14



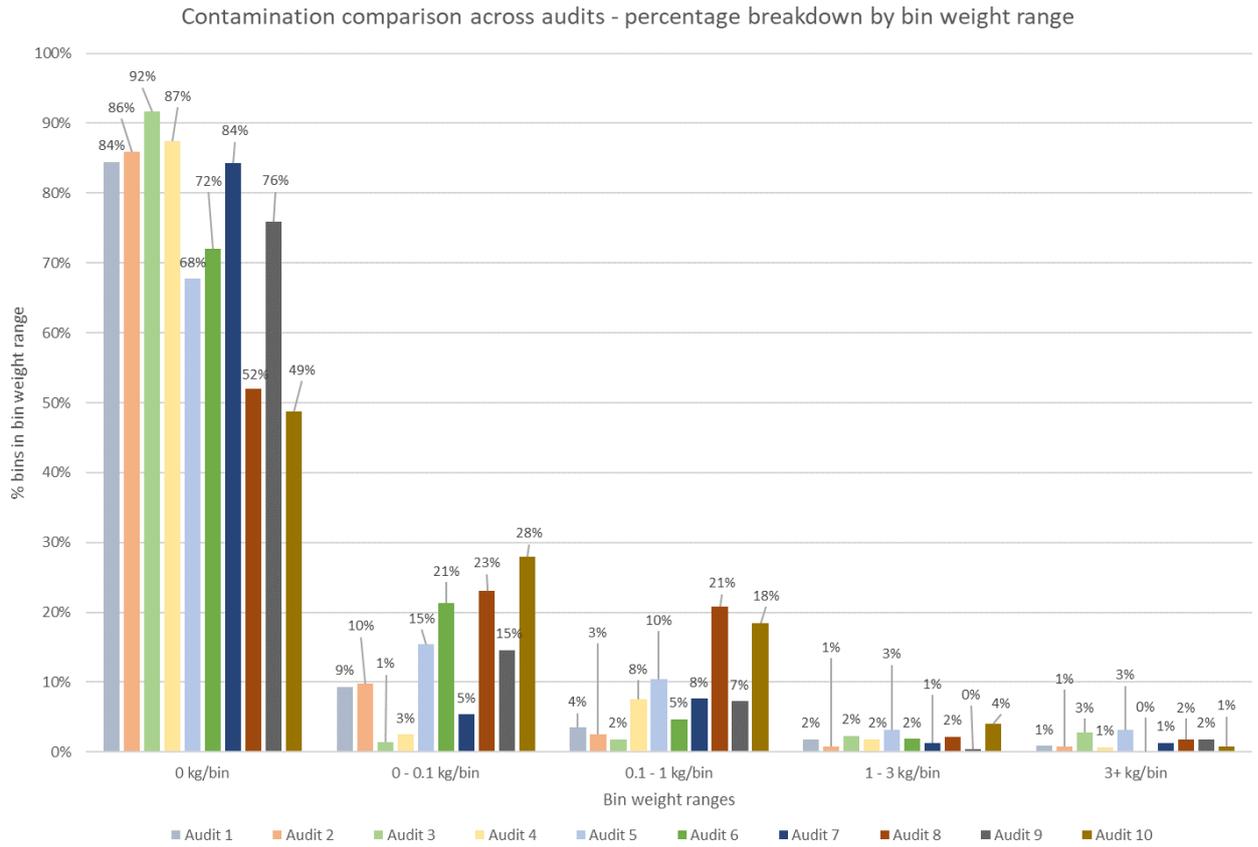


Figure 5-3: Percentage breakdown of bin contamination weight ranges by audit



6. Key findings and Recommendations

6.1. Performance of FOGO systems

This project identified the performance of FOGO systems at the individual household level, by council, and according to the service configuration (bin size and frequency of residual waste and organics recycling services).

Overall, the analysis considered data from 55 audits, of which five were removed⁴⁹. The remaining 50 audits (30 councils) included a total of 18,924 FOGO and residual waste bins collected from NSW households. On average, residents were found to be diverting 84% of their food waste and garden organics by weight into FOGO bins.

When it comes to food waste, it was found that:

- 41% of available food waste (1.42 kg/hh/wk) was diverted from landfill across the audited areas/councils. This performance ranged significantly across councils from 5% to 73%.
- The average food efficiency across configurations ranged from 5% to 56%. In general, councils providing a fortnightly residual waste collection achieved higher food waste diversion efficiencies compared to those on a weekly service. In addition, councils providing smaller residual waste bins (120/140 litre) achieved higher food waste diversion efficiencies compared to councils with larger residual waste bins (240 litre).
- Performance can vary significantly by council within a service configuration. Therefore, service configuration is not the only contributing factor to food waste diversion performance.
- Analysis was undertaken to determine whether the variation in food waste diversion performance may be explained by how long the FOGO service had been in place (and therefore how familiar residents were with using the service). On average, longer established FOGO services performed better (46% for >1 year) than less established services (41%² for those <1 year and 28% for those in the trial period). Performance was found to vary across councils with the same length of service or with the same service configuration.
- Analysis was conducted to assess the impact that supply of kitchen caddy liners by Council has on food diversion efficiency. Audits from councils that never supplied kitchen caddy liners had the least amount of food waste in the FOGO bin and the lowest average diversion efficiency (21%). Audits from councils that previously supplied caddy liners (e.g. when FOGO service first started), recently supplied liners (e.g. close to time of audit) or provide an ongoing supply of liners all performed similarly, with the average diversion efficiency ranging from 47 - 53%. It was noted however that there is not an even spread of data points for service configurations across the different supply status. As a result, it was not possible to determine whether the supply status of caddy liners has an impact on the average food diversion efficiency, or if the results are more reflective of service configuration (or other factors).

⁴⁹ Four were excluded from the analysis due to the audits including residual waste bins but not FOGO bins. One was excluded because only FOGO bins were audited, and food and garden organics were combined as one category.

- Other factors, such as waste education, can be important for influencing food waste diversion outcomes⁵⁰.
- The bin-by-bin analysis revealed the proportion of households with no food waste in FOGO bins but food in residual waste bins varied from 15% to 70%, with an average of 43% across the ten analysed audits. Additional gains in food waste recycling volumes for these audited areas/councils may be achieved if efforts are focused on encouraging greater participation for those not currently using the service.

With regard to garden waste:

- 98% (ranging from 87% to 99.9% across audits) of available garden organics (10.49 kg/hh/wk) was diverted from landfill across the audited areas/councils.
- This high performance was relatively consistent across councils and system configurations. Average performance by service configuration ranged between 93% and 98% diversion.
- The total amount of garden organics generated varied considerably by council, from 1.06 kg/hh/week up to 23.72 kg/hh/week. This large difference in garden waste generation is likely due to differences in rainfall, vegetation levels and population densities, and the time of year the audit was taken across the audited councils/areas.

On FOGO bin contamination:

- On average, contamination of the FOGO bin was 2.2% by weight (0.26 kg/hh/wk) across the audited areas/councils. However, this ranged significantly by from 0.04% up to 17.83% (although note that the middle 50% of contamination rates across all audited areas/councils was a much smaller range, falling between 0.81% and 3.24%).
- The most common contaminants observed across audited councils were plastic, all other organics (e.g. leather, rubber and oils), containerised food, other miscellaneous (e.g. bagged materials, bulky household goods) and metals.
- When considering contaminants by weight, the top five were miscellaneous (e.g. bagged materials, bulky household goods), earth-based materials, containerised food (e.g. glass and plastic containers and the food they contained), plastic, and all other organics.
- The bin-by-bin analysis of ten councils found a large proportion of FOGO bins contained no contamination (from 49% to 92%). Reductions in contamination for these councils may be achieved by targeting households that contaminate (such as through a bin tagging program). Education campaigns or other behaviour change strategies that target all residents may be less effective given the majority of the population appear to not be contaminating their FOGO bins.

Other considerations:

- The above analysis demonstrates that the average food waste diversion and contamination rates vary greatly across councils and service configurations.
- Bin-by-bin audits enable the most comprehensive analysis to be undertaken and the best understanding of variance within a council. As a number of residents may not be actively participating in the FOGO service, overall averages across the audit do not necessarily reflect

⁵⁰ NSW EPA's 'Scrap Together' education campaign was tested in three council areas and was found to increase food waste recovery by an average of 10%. Accessed at: <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wasteregulation/fogo/2021p3123-scraptogogether-evaluation.pdf>.

those who are engaged in diverting food and garden organics via FOGO bins or the proportion of residents who are contaminating FOGO bins. This type of data can help guide education campaigns and other methods for influencing behaviour.

NSW councils appear to be performing well regarding diverting organics materials via FOGO bins. However, there are opportunities to improve diversion rates by focusing on food waste. Higher performing councils appear to be those with less available residual waste disposal options for residents (i.e. residual waste bins are smaller or collected less frequently), or that offer a user selected service (user selects bin size and/or frequency)⁵¹. Up to three quarters of residents are not diverting any food waste and most often it is only a minority of residents contaminating FOGO bins according to the bin-by-bin data analysed. Tailoring education campaigns to focus on these individuals may be more effective than continuing broader interventions targeting all residents.

⁵¹ Note that for most user selected services, increasing the residual waste frequency of collection (from fortnightly to weekly) or capacity (from 120/140L to 240L) comes at an increased cost. The default system varies between councils.

6.2. Comparison to previous reports

This is the third iteration of this report. The data has been updated from previous reports in March 2020 and May 2018 that involved the analysis of 38 and 26 audits respectively. Increasing the sample size in this 2023 report should again increase the accuracy of results, however it is to be noted that the 2023 report included changes to the methodology which should be considered when comparing results across reports. These changes are as follows:

- Change to garden waste category – wood/timber was grouped with garden waste for the first time in 2023. This change has resulted in a decrease in garden waste efficiency across select audits (as some audits had a significant amount of wood/timber in the residual stream), however it had no significant impact on the overall average result.
- Inclusion of containerised food in food efficiency calculation – previous reports did not include containerised food in the food efficiency calculation. Including containerised food in this calculation increases the amount of food that is considered unrecovered, hence a drop in food efficiency is observed. Had the food efficiency been calculated by the same method as in 2020 and 2018, the overall result in 2023 would be 45% (instead of 41%).
- Inclusion of data on containerised food waste in the FOGO bin – audits are increasingly including containerised food as a sorting category for FOGO bins and residual waste bins. Containerised food waste in the FOGO bin is contamination. Separately listing this contamination type helps understand where behaviour has changed sufficiently to place containerised food waste into the FOGO bin, but further behavioural changes are needed to empty the food waste from the container and dispose of the container separately.
- Reclassification of ‘Composite (mostly paper)’ to contamination – the category of ‘Composite (mostly paper)’ was classified as a contaminant for the first time in 2023. This category had a low presence in the FOGO bin, so the change had no notable impact on any results.
- Reallocation of past audits between configurations – one audit previously allocated to Configuration 4 (FOGO weekly and small residual waste bin fortnightly) and three audits previously allocated to Configuration 5 (FOGO weekly and large bin residual waste fortnightly) were moved to Configuration 6 (FOGO weekly and user selected residual waste service) for the 2023 analysis. These audits were previously allocated based on the configuration in use by the majority of households, however upon review these audits were from councils offering a user selected service. With the inclusion of additional audits from these councils, an increased variance in the selected configuration between households has been observed as councils continue to promote the options available. This change has most notably effected the food efficiency performance of Configuration 5 (decrease in performance) due to the reallocation of one particularly high performing audit away from Configuration 5.

Note that the 2018 and 2020 results below are as presented in the previous reports and were not recalculated to account for methodology changes. The audits included in the previous reports were again included in the 2023 report however they were re-analysed to account for the methodology changes. The table below lists the key results from the 2018 and 2020 reports alongside results from the current (2023) report.

Table 6-1: Key data across 2023 (current), 2020 (second iteration) and 2018 (first iteration) reports

Item	2023 report	2020 report	2018 report
Total audits in the sample	55	38	26
Total vignettes ⁵²	54	37	25
Total audits included in the analysis ⁵³	50	34	23
Total bins (FOGO and residual) included in the analysis	18,924	12,239	8,119
Average food waste and garden organics discarded into FOGO bins across all audited areas/councils (kg/hh/wk)	11.9	12.3	11.4
Average food waste and garden organics efficiency	84%	85%	83%
Bin-by-bin analyses:			
Number of councils included in the bin-by-bin analysis	10	5	2
Total FOGO bins collected	2,335	1,331	654
Repeat councils	Councils 1 - 5 are the same between the 2023 and 2020 reports. Councils 4 and 5 in 2020 were titled Councils 1 and 2 in the 2018 report.		
Key food data ⁵⁴			
Ave kg/hh/wk food in FOGO bins (plus kg/hh/wk range by audit)	1.42 (0.17 - 7.30)	1.45 (0.17 - 7.30)	1.2 (0.17 - 2.69)
Ave kg/hh/wk food in residual waste bins	1.98	1.86	1.97
Food diversion efficiency score as a % (plus % range of all audits)	41% (5% - 73%)	44% (5% - 78%)	38% (5% - 78%)
Food diversion efficiency score by configuration:			
Configuration 1: FOGO fortnightly and small residual waste bin (120/140L) weekly.	5%	NA	NA
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly.	29%	28%	28%
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly.	12%	14%	14%
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly.	56%	57%	54%
Configuration 5: FOGO weekly and large bin (240L) residual waste fortnightly.	29%	38%	41%
Configuration 6: FOGO weekly and residual waste Other (user select bin size and/or frequency).	46%	47%	45%
Food diversion efficiency score by length of service:			
Trial	28%	28%	28%
Established <1 Year	41% ⁵⁵	34% ⁵⁶	22%
Established >1 Year	46%	46%	46%

⁵² One audit was excluded as a vignette in all reports as the vignette data allowed the council to be identified.

⁵³ Select audits were included in the vignettes and not the analysis due to these audits not including sufficient data.

⁵⁴ Note that 2023 was the first time that containerised food was accounted for in kg/hh/wk of food values and food efficiency calculations. Prior to the 2023 report, it was only accounted for if the auditor did not form a separate category for containerised food, and instead included it with the 'food/kitchen' category (in 2020 this was the case for 5 of the 34 audits included in the analysis). In the 2023 analysis, containerised food did not have a major presence in the FOGO bin (average of 0.04 kg/hh/wk) however it was more notably present in the residual waste bin (average of 0.31 kg/hh/wk).

⁵⁵ The 'Established <1 year' group food efficiency score is 48% in 2023 if one apparently high performing council is not removed from the data set. The audit from this council was atypical in many aspects and therefore may not be representative.

⁵⁶ The 'Established <1 year' group food efficiency score is 45% in 2020 if one apparently high performing council is not removed from the data set. The audit from this council was atypical in many aspects and therefore may not be representative.

Key garden data			
Ave kg/hh/wk garden in FOGO bins (plus kg/hh/wk range by audit)	10.49 (0.94 - 23.5)	10.81 (0.94 - 23.5)	10.14 (0.94 - 19.42)
Ave kg/hh/wk garden in residual waste bins	0.26	0.22	0.24
Garden diversion efficiency score as a % (plus % range based on each audit)	98% (87% - 99.9%)	98% (89% - 99.9%)	98% (89% - 99%)
Garden diversion efficiency score by configuration:			
Configuration 1: FOGO fortnightly and small residual waste bin (120/140L) weekly.	93%	NA	NA
Configuration 2: FOGO weekly and small residual waste bin (120/140L) weekly.	96%	98%	98%
Configuration 3: FOGO weekly and large residual waste bin (240L) weekly.	93%	94%	94%
Configuration 4: FOGO weekly and small residual waste bin (120/140L) fortnightly.	98%	99%	99%
Configuration 5: FOGO weekly and large bin (240L) residual waste fortnightly.	98%	98%	98%
Configuration 6: FOGO weekly and residual waste Other (user select bin size and/or frequency).	98%	98%	98%
Key contamination data			
Ave % contamination of FOGO bins (plus average kg/hh/wk contamination)	2.2% (0.26)	2.2% (0.27)	2.6% (0.30)
Range of contamination levels across all audits	(0.04% - 17.83%)	(0.04% - 17.83%)	(0.04% - 17.83%)
Key contamination + other not accepted data			
Ave % contamination + other not accepted of FOGO bins (plus average kg/hh/wk contamination + other not accepted)	4.1% (0.50)	NA	NA
Range of contamination + other not accepted levels across all audits	(0.36% - 27.82%)	NA	NA



Appendix 1 – FOGO Contamination Classification

	Material Classification	Considered as contamination for this project	Acceptable materials ⁵⁷	Other not accepted ⁵⁸
Paper/Cardboard	Newspaper			X
	Magazine/Brochures	X		
	Misc. Packaging	X		
	Corrugated Cardboard			X
	Cardboard/Package Board			X
	Liquid Paperboard Containers	X		
	Disposable Paper Products			X
	Print/Writing/Office Paper			X
	Composite (mainly paper)	X		
	Nappies Disposable	X		
	Contaminated Soiled Paper			X
Organics	Food/Kitchen ⁵⁹		X	
	Garden/Vegetation		X	
	Other Putrescible			X
	Wood/Timber		X	
	Textile/ Rags	X		
	Leather	X		
	Rubber	X		
	Oils	X		
Glass	Glass Beverage Containers	X		
	Glass Non-Beverage Containers/Other Packaging Glass	X		
	Miscellaneous/ Other Glass	X		
	Mixed Glass / Fines	X		
Plastic	PET Beverage Containers	X		
	PET Packaging (excluding beverage containers)	X		
	PET Other Non Beverage / Non Packaging	X		
	HDPE Beverage Containers	X		

⁵⁷ These are the materials that are deemed acceptable in the FOGO bin as per NSW EPA's 2022 contamination statement.

⁵⁸ Materials in this category were previously permitted in the FOGO bin in most councils in NSW, however they were classed as contamination in a statement released by NSW EPA in late 2022. Given that all audits considered in this report were conducted prior to the release of this statement, the materials were classified separately as 'other not accepted' for this project.

⁵⁹ Note that compostable kitchen caddy liners are allocated to the 'Food/Kitchen' category.

	Material Classification	Considered as contamination for this project	Acceptable materials ⁵⁷	Other not accepted ⁵⁸
	HDPE Packaging (excluding beverage containers)	X		
	HDPE Other Non Beverage / Non Packaging	X		
	PVC Beverage Containers	X		
	PVC Other Non Beverage / Non Packaging	X		
	PVC Packaging (excluding beverage containers)	X		
Plastic	LDPE Packaging	X		
	LDPE Non-Packaging	X		
	PP Packaging	X		
	PP Non-Packaging	X		
	PS & EPS Packaging	X		
	PS & EPS Non-Packaging	X		
	Other plastics	X		
	Composite (mostly plastic)	X		
Ferrous	Steel Beverage Containers	X		
	Steel Packaging (excluding beverage containers)	X		
	Steel Other Non-Packaging	X		
	Composite (mostly ferrous)	X		
Non-Ferrous	Aluminium Beverage Containers	X		
	Aluminium Packaging (excluding beverage containers)	X		
	Aluminium Non-Packaging	X		
	Other Non-Packaging	X		
	Non-ferrous Composite (mostly non-ferrous)	X		
Hazardous	Paint	X		
	Fluorescent tubes	X		
	Dry cell and car batteries (non-rechargeable)	X		
	Dry cell and car batteries (rechargeable)	X		
	Vehicle batteries	X		
	Household chemicals	X		
	Asbestos	X		
	Clinical Pathogenic Infectious	X		
	Gas Bottles	X		
	Hazardous Other	X		



	Material Classification	Considered as contamination for this project	Acceptable materials ⁵⁷	Other not accepted ⁵⁸
Building Waste	Building materials and fittings	X		
Earth Based	Ceramics, Dust, Dirt, Rock, Inert Ash	X		
E-Waste	Computer Equipment	X		
	TVs	X		
	Mobile Phones	X		
	Electrical Items and Peripherals	X		
	Toner Cartridges	X		
Misc.	Containerized Food & Liquid	X		
	Other	X		



Appendix 2 – Audit Vignettes

The following pages include the Audit Vignettes, which provide detail about each of the audit data points referred to in the report above.



Audit B

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>120L</p> <p>Weekly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Fortnightly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	August 2015
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	216
		FOGO:	Did not audit
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
NA	NA	NA

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	NA	2.16	NA	NA
Garden Waste ²	NA	0.06	NA	NA
Total FOGO	NA	2.22	NA	NA

Contamination ³		Top 5 Contaminants (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	4	NA	
		3	NA	
		4	NA	
		5	NA	

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	4	NA	
		3	NA	
		4	NA	
		5	NA	

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit C

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>120L</p> <p>Weekly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Fortnightly Collection</p>	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	May 2022
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	93
		FOGO:	103
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.33 kg 5% is recycled	6.56 kg 93% is recycled	65% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	0.17	3.16	3.33	5%
Garden Waste ²	6.08	0.48	6.56	93%
Total FOGO	6.25	3.64	9.89	65%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.12 kg/hh/wk	1.88%	1	Earth-based 0.102
		2	All Other Organics 0.010
		3	Plastic 0.006
		4	Composite (mainly paper) 0.001
		5	All Other Paper 0.0004

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.13 kg/hh/wk	2.10%	1	Earth-based 0.102
		2	All Other Organics 0.010
		3	Plastic 0.006
		4	Cardboard / Package Board 0.006
		5	Contaminated Soiled Paper 0.003

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit D

Service Configuration		Audit Details	
 <p>120L</p> <p>Weekly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Trial
		Date:	September 2016
		Method:	Aggregated
		Sample size:	
		Red lid bin:	206
		FOGO:	206
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
5.53 kg 34% is recycled	15.33 kg 98% is recycled	85% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.93 (0.04 containerised)	3.60	5.53	34%
Garden Waste ²	15.02	0.31	15.33	98%
Total FOGO	16.95	3.91	20.86	85%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.59 kg/hh/wk	3.39%	1	Earth-based
		2	Building waste
		3	Containerised Food
		4	Plastic
		5	Composite (mainly paper)
			0.409
			0.067
			0.048
			0.022
			0.021

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.64 kg/hh/wk	3.64%	1	Earth-based
		2	Building waste
		3	Containerised Food
		4	Plastic
		5	Corrugated Carboard
			0.067
			0.048
			0.022
			0.022

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit E

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Weekly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Trial
		Date:	November 2011
		Method:	Aggregated
		Sample size:	
		Red lid bin:	400
		FOGO:	400
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.82 kg 23% is recycled	19.75 kg 98% is recycled	87% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	0.88 (0.01 containerised)	2.94	3.82	23%
Garden Waste ²	19.32	0.43	19.75	98%
Total FOGO	20.2	3.37	23.57	87%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.08 kg/hh/wk	0.37%	1	Miscellaneous 0.055
		2	Containerised Food 0.015
		3	Commingled Containers 0.005
		4	NA
		5	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.12 kg/hh/wk	0.57%	1	Miscellaneous 0.055
		2	Newspaper 0.035
		3	Containerised Food 0.015
		4	Contaminated Soiled Paper 0.005
		5	Commingled Containers 0.005

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit F

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>120L</p> <p></p> <p>Weekly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p></p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Trial
		Date:	May 2017
		Method:	Aggregated
		Sample size:	
		Red lid bin:	132
		FOGO:	204
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.55 kg 10% is recycled	3.43 kg 94% is recycled	54% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.37	3.19	3.55	10%
Garden Waste ²	3.23	0.21	3.43	94%
Total FOGO	3.60	3.39	6.99	54%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.05 kg/hh/wk	1.24%	1	Miscellaneous 0.020
		2	Earth-based 0.015
		3	Composite (mainly paper) 0.004
		4	Plastic 0.003
		5	Glass 0.001

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.08 kg/hh/wk	2.07%	1	Newspaper 0.021
		2	Miscellaneous 0.020
		3	Earth-based 0.015
		4	Contaminated Soiled Paper 0.009
		5	Composite (mainly paper) 0.004

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit G

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Weekly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established <1 Year	
		Date:	April 2019
		Method:	Aggregated
		Sample size:	
		Red lid bin:	220
		FOGO:	220
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
7.24 kg 38% is recycled	14.18 kg 92% is recycled	77% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	3.09 (0.31 containerised)	4.14	7.24	38%
Garden Waste ²	13.09	1.09	14.18	92%
Total FOGO	16.19	5.23	21.42	77%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.47 kg/hh/wk	2.81%	1	Containerised Food 0.349
		2	Plastic 0.071
		3	All Other Organics 0.028
		4	Disposable Nappies 0.014
		5	Metals 0.005

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.91 kg/hh/wk	5.42%	1	Containerised Food 0.349
		2	Newspaper 0.210
		3	Cardboard / Package Board 0.113
		4	Other Putrescible 0.084
		5	Plastic 0.071

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit I

Service Configuration		Audit Details	
 Red lid Landfill 240L  Weekly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: March/April 2017
		Method: Aggregated	Sample size:
		Red lid bin: 206	FOGO: 158
		Matched pairs: No	

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.58 kg 11% is recycled	20.01 kg 97% is recycled	81% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.49 (0.01 containerised)	4.08	4.58	11%
Garden Waste ²	19.42	0.59	20.01	97%
Total FOGO	19.91	4.67	24.58	81%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.26 kg/hh/wk	1.27%	1	All Other Organics 0.150
		2	Plastic 0.026
		3	Earth-based 0.026
		4	Metals 0.018
		5	All Other Paper 0.016

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.34 kg/hh/wk	1.70%	1	All Other Organics 0.150
		2	Newspaper 0.061
		3	Plastic 0.026
		4	Earth-based 0.026
		5	Metals 0.018

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit J

Service Configuration		Audit Details	
 Red lid Landfill 240L  Weekly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established <1 Year	Date: March 2017
		Method: Aggregated	Sample size:
		Red lid bin: 220	FOGO: 220
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
5.12 kg 7% is recycled	12.19 kg 87% is recycled	68% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.39 (0.01 containerised)	4.73	5.12	7%
Garden Waste ²	10.66	1.53	12.19	87%
Total FOGO	11.05	6.26	17.31	68%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.16 kg/hh/wk	1.35%	1	Plastic
		2	All Other Organics
		3	Glass
		4	Containerised Food
		5	Metals

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.65 kg/hh/wk	5.60%	1	Newspaper
		2	Cardboard / Package Board
		3	Plastic
		4	All Other Organics
		5	Glass

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	March 2011
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	222
		FOGO:	436
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.10 kg 61% is recycled	12.64 kg 98% is recycled	93% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.29	0.81	2.10	61%
Garden Waste ²	12.39	0.26	12.64	98%
Total FOGO	13.67	1.07	14.75	93%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.19 kg/hh/wk	1.36%	1	Earth-based
		2	All Other Paper
		3	Plastic
		4	Metals
		5	Glass
			0.101
			0.037
			0.017
			0.010
			0.007

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.46 kg/hh/wk	3.24%	1	Newspaper
		2	Earth-based
		3	Corrugated Carboard
		4	Other Putrescible
		5	All Other Paper
			0.147
			0.101
			0.043
			0.042
			0.037

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit L

Service Configuration		Audit Details	
 <p>120L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	May 2016
		Method:	Aggregated
		Sample size:	
		Red lid bin:	220
		FOGO:	220
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.75 kg 54% is recycled	1.06 kg 89% is recycled	70% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.59 (0.10 containerised)	1.16	2.75	54%
Garden Waste ²	0.94	0.12	1.06	89%
Total FOGO	2.53	1.28	3.82	70%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.60 kg/hh/wk	17.83%	1	Miscellaneous
		2	Containerised Food
		3	All Other Organics
		4	Building waste
		5	Disposable Nappies
			0.361
			0.107
			0.044
			0.031
			0.027

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.94 kg/hh/wk	27.82%	1	Miscellaneous
		2	Print / Writing / Office Paper
		3	Containerised Food
		4	Contaminated Soiled Paper
		5	All Other Organics
			0.361
			0.275
			0.107
			0.060
			0.044

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit M

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	September 2017
		Method:	Aggregated
		Sample size:	
		Red lid bin:	52
		FOGO:	65
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.03 kg 64% is recycled	9.77 kg 99% is recycled	91% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.57	1.45	4.03	64%
Garden Waste ²	9.69	0.08	9.77	99%
Total FOGO	12.26	1.54	13.8	91%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.01 kg/hh/wk	0.04%	1	Miscellaneous
		2	Plastic
		3	Metals
		4	Glass
		5	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.04 kg/hh/wk	0.36%	1	Contaminated Soiled Paper
		2	Disposable Paper Products
		3	Miscellaneous
		4	Plastic
		5	Metals

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit N

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	July 2016
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	277
		FOGO:	121
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.18 kg 48% is recycled	7.47 kg 98% is recycled	81% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.00 (0.01 containerised)	2.18	4.18	48%
Garden Waste ²	7.33	0.14	7.47	98%
Total FOGO	9.33	2.32	11.65	81%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
	0.15 kg/hh/wk 1.53%	1	All Other Organics 0.073
		2	Plastic 0.024
		3	Earth-based 0.020
		4	Containerised Food 0.008
		5	Hazardous 0.007

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
	0.33 kg/hh/wk 3.4%	1	Other Putrescible 0.115
		2	All Other Organics 0.073
		3	Print / Writing / Office Paper 0.034
		4	Plastic 0.024
		5	Contaminated Soiled Paper 0.023

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit O

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p></p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p></p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	November 2017
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	220
		FOGO:	220
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.60 kg 17% is recycled	10.60 kg 98% is recycled	87% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	0.27	1.33	1.60	17%
Garden Waste ²	10.39	0.21	10.60	98%
Total FOGO	10.65	1.55	12.20	87%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.08 kg/hh/wk	0.74%	1	All Other Organics 0.027
		2	Plastic 0.026
		3	E-Waste 0.018
		4	All Other Paper 0.006
		5	Earth-based 0.005

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.32 kg/hh/wk	2.95%	1	Newspaper 0.185
		2	Cardboard / Package Board 0.036
		3	All Other Organics 0.027
		4	Plastic 0.026
		5	Contaminated Soiled Paper 0.019

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit P

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	November 2018
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	216
		FOGO:	216
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
9.99 kg 73% is recycled	23.72 kg 99% is recycled	91% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	7.30	2.68	9.99	73%
Garden Waste ²	23.50	0.22	23.72	99%
Total FOGO	30.80	2.90	33.70	91%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.21 kg/hh/wk	0.66%	1	Earth-based 0.139
		2	Miscellaneous 0.027
		3	Plastic 0.021
		4	All Other Organics 0.013
		5	Metals 0.007

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.84 kg/hh/wk	2.65%	1	Other Putrescible 0.440
		2	Earth-based 0.139
		3	Contaminated Soiled Paper 0.095
		4	Newspaper 0.076
		5	Miscellaneous 0.027

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit Q

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established <1 Year	Date: April/May 2019
		Method: Aggregated	Sample size:
		Red lid bin: 308	FOGO: 308
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
6.18 kg 55% is recycled	11.87 kg 99% is recycled	84% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	3.44 (0.05 containerised)	2.74	6.18	55%
Garden Waste ²	11.71	0.16	11.87	99%
Total FOGO	15.15	2.90	18.05	84%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.17 kg/hh/wk	1.02%	1	All Other Organics 0.064
		2	Containerised Food 0.057
		3	Plastic 0.016
		4	Disposable Nappies 0.014
		5	Metals 0.008

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
1.59 kg/hh/wk	9.52%	1	Contaminated Soiled Paper 0.410
		2	Cardboard / Package Board 0.388
		3	Other Putrescible 0.335
		4	Newspaper 0.288
		5	All Other Organics 0.064

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit R

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established >1 Year	Date: September 2019
		Method: Aggregated	Sample size:
		Red lid bin: 52 FOGO: 65	Matched pairs: No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.91 kg 55% is recycled	14.18 kg 100% is recycled	93% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.59	1.32	2.91	55%
Garden Waste ²	14.17	0.01	14.18	100%
Total FOGO	15.77	1.33	17.09	93%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.04 kg/hh/wk	0.26%	1	Miscellaneous
		2	All Other Organics
		3	Glass
		4	Plastic
		5	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.21 kg/hh/wk	1.33%	1	Other Putrescible
		2	Contaminated Soiled Paper
		3	Cardboard / Package Board
		4	Miscellaneous
		5	All Other Organics

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit S

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	September 2019
		Method:	Aggregated
		Sample size:	
		Red lid bin:	52
		FOGO:	65
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.25 kg 46% is recycled	17.29 kg 97% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.48	1.77	3.25	46%
Garden Waste ²	16.82	0.47	17.29	97%
Total FOGO	18.3	2.24	20.54	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)		
Weight	Percentage			
0.02 kg/hh/wk	0.09%	1	Miscellaneous	0.017
		2	NA	
		3	NA	
		4	NA	
		5	NA	

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)		
Weight	Percentage			
0.16 kg/hh/wk	0.87%	1	Other Putrescible	0.064
		2	Cardboard / Package Board	0.047
		3	Contaminated Soiled Paper	0.031
		4	Miscellaneous	0.017
		5	NA	

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit T

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	November 2019
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	228
		FOGO:	211
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
0.84 kg 28% is recycled	6.77 kg 98% is recycled	91% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.24 (0.003 containerised)	0.60	0.84	28%
Garden Waste ²	6.67	0.10	6.77	98%
Total FOGO	6.91	0.70	7.61	91%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.04 kg/hh/wk	0.63%	1	All Other Organics 0.019
		2	Plastic 0.011
		3	Disposable Nappies 0.007
		4	Containerised Food 0.003
		5	All Other Paper 0.003

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.15 kg/hh/wk	2.11%	1	Contaminated Soiled Paper 0.042
		2	Other Putrescible 0.023
		3	All Other Organics 0.019
		4	Newspaper 0.018
		5	Plastic 0.011

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit U

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established >1 Year	Date: February 2022
		Method: Aggregated	Sample size:
		Red lid bin:	308
		FOGO:	308
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.87 kg 51% is recycled	15.97 kg 98% is recycled	89% recovery

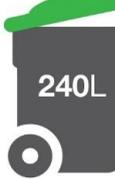
Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.98	1.89	3.87	51%
Garden Waste ²	15.61	0.36	15.97	98%
Total FOGO	17.60	2.25	19.85	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.41 kg/hh/wk	2.25%	1	Miscellaneous
		2	All Other Organics
		3	Glass
		4	Building waste
		5	Plastic
			0.314
			0.082
			0.004
			0.004
			0.003

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.46 kg/hh/wk	2.53%	1	Miscellaneous
		2	All Other Organics
		3	Cardboard / Package Board
		4	Contaminated Soiled Paper
		5	Other Putrescible
			0.314
			0.082
			0.032
			0.011
			0.005

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit V

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	November 2021
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	107
		FOGO:	117
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.97 kg 60% is recycled	13.05 kg 99% is recycled	90% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.38	1.59	3.97	60%
Garden Waste ²	12.92	0.13	13.05	99%
Total FOGO	15.30	1.72	17.02	90%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.22 kg/hh/wk	1.37%	1	Earth-based
		2	All Other Paper
		3	Plastic
		4	All Other Organics
		5	Metals
			0.192
			0.014
			0.006
			0.002
			0.002

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.46 kg/hh/wk	2.53%	1	Earth-based
		2	Contaminated Soiled Paper
		3	Other Putrescible
		4	Corrugated Carboard
		5	Newspaper
			0.192
			0.053
			0.049
			0.046
			0.028

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit W

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	March 2022
		Method:	Aggregated
		Sample size:	
		Red lid bin:	220
		FOGO:	220
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.54 kg 59% is recycled	10.09 kg 98% is recycled	92% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.51	1.03	2.54	59%
Garden Waste ²	9.88	0.22	10.09	98%
Total FOGO	11.39	1.25	12.64	92%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.62 kg/hh/wk	5.05%	1	Miscellaneous 0.475
		2	Plastic 0.079
		3	All Other Organics 0.031
		4	Metals 0.027
		5	Composite (mainly paper) 0.006

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.96 kg/hh/wk	7.76%	1	Miscellaneous 0.475
		2	Contaminated Soiled Paper 0.175
		3	Newspaper 0.083
		4	Plastic 0.079
		5	Cardboard / Package Board 0.076

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit X

Service Configuration		Audit Details	
 <p>140L</p> <p>Fortnightly Collection</p>	 <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	September 2020
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	250
		FOGO:	250
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
5.71 kg 47% is recycled	11.11 kg 100% is recycled	82% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.70	3.01	5.71	47%
Garden Waste ²	11.06	0.04	11.11	100%
Total FOGO	13.76	3.06	16.82	82%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.21 kg/hh/wk	1.44%	1	Earth-based
		2	Plastic
		3	Glass
		4	Composite (mainly paper)
		5	Metals
			0.124
			0.024
			0.017
			0.016
			0.013

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.68 kg/hh/wk	4.74%	1	Other Putrescible
		2	Contaminated Soiled Paper
		3	Earth-based
		4	Cardboard / Package Board
		5	Plastic
			0.240
			0.172
			0.124
			0.064
			0.024

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit Y

Service Configuration		Audit Details	
 240L  Fortnightly Collection	 240L  Weekly Collection	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	November 2016
		Method:	Aggregated
		Sample size:	
		Red lid bin:	145
		FOGO:	Did not audit
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
NA	NA	NA

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	NA	1.49	NA	NA
Garden Waste ²	NA	0.21	NA	NA
Total FOGO	NA	1.70	NA	NA

Contamination ³		Top 5 Contaminants (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	NA	NA	NA
		3	NA	NA
		4	NA	NA
		5	NA	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	NA	NA	NA
		3	NA	NA
		4	NA	NA
		5	NA	NA

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit Z

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established <1 Year	Date: March 2017
		Method: Aggregated	Sample size:
		Red lid bin: 220	FOGO: 220
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.88 kg 23% is recycled	9.5 kg 99% is recycled	88% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.54 (0.11 containerised)	1.34	1.88	23%
Garden Waste ²	9.36	0.14	9.5	99%
Total FOGO	9.9	1.48	11.37	88%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.26 kg/hh/wk	2.42%	1	Containerised Food 0.125
		2	Plastic 0.070
		3	Glass 0.058
		4	Metals 0.005
		5	All Other Paper 0.000

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.94 kg/hh/wk	8.75%	1	Cardboard / Package Board 0.407
		2	Newspaper 0.246
		3	Containerised Food 0.125
		4	Plastic 0.070
		5	Glass 0.058

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AA

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established <1 Year	Date: March 2017
		Method: Aggregated	Sample size:
		Red lid bin: 220	FOGO: 220
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.72 kg 5% is recycled	11.37 kg 99% is recycled	77% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.17	3.55	3.72	5%
Garden Waste ²	11.26	0.11	11.37	99%
Total FOGO	11.43	3.66	15.10	77%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.13 kg/hh/wk	1.07%	1	Plastic 0.083
		2	Glass 0.021
		3	All Other Organics 0.014
		4	Metals 0.009
		5	Disposable Nappies 0.001

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.58 kg/hh/wk	4.81%	1	Cardboard / Package Board 0.355
		2	Newspaper 0.094
		3	Plastic 0.083
		4	Glass 0.021
		5	All Other Organics 0.014

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AB

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established <1 Year	Date: November 2016
		Method: Bin-by-bin	Sample size:
		Red lid bin: 214	FOGO: Did not audit
		Matched pairs: Unsure	

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
NA	NA	NA

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	NA	1.77	NA	NA
Garden Waste ²	NA	0.08	NA	NA
Total FOGO	NA	1.85	NA	NA

Contamination ³		Top 5 Contaminants (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	NA	NA	NA
		NA	NA	NA
		NA	NA	NA
		NA	NA	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	NA	NA	NA
		NA	NA	NA
		NA	NA	NA
		NA	NA	NA

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AC

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: March 2017
		Method: Aggregated	Sample size:
		Red lid bin: 150	FOGO: 150
		Matched pairs: Yes	

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.89 kg 26% is recycled	11.92 kg 97% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.49 (0.01 containerised)	1.39	1.89	26%
Garden Waste ²	11.61	0.31	11.92	97%
Total FOGO	12.11	1.70	13.81	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.09 kg/hh/wk	0.74%	1	Building waste
		2	Plastic
		3	Earth-based
		4	Disposable Nappies
		5	Containerised Food

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.23 kg/hh/wk	1.83%	1	Print / Writing / Office Paper
		2	Building waste
		3	Other Putrescible
		4	Plastic
		5	Earth-based

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AD

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	March 2017
		Method:	Aggregated
		Sample size:	
		Red lid bin:	151
		FOGO:	151
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.33 kg 25% is recycled	12.48 kg 99% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	0.65 (0.06 containerised)	1.68	2.33	25%
Garden Waste ²	12.36	0.12	12.48	99%
Total FOGO	13.00	1.80	14.81	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.16 kg/hh/wk	1.23%	1	Containerised Food 0.072
		2	Building waste 0.047
		3	Miscellaneous 0.020
		4	Earth-based 0.014
		5	Plastic 0.007

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.38 kg/hh/wk	2.87%	1	Contaminated Soiled Paper 0.208
		2	Containerised Food 0.072
		3	Building waste 0.047
		4	Miscellaneous 0.020
		5	Earth-based 0.014

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AE

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	March 2017
		Method:	Aggregated
		Sample size:	
		Red lid bin:	150
		FOGO:	150
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.05 kg 20% is recycled	10.95 kg 99% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.47 (0.05 containerised)	1.58	2.05	20%
Garden Waste ²	10.84	0.10	10.95	99%
Total FOGO	11.31	1.69	12.99	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.16 kg/hh/wk	1.38%	1	Building waste 0.078
		2	Containerised Food 0.051
		3	Plastic 0.019
		4	Metals 0.004
		5	Glass 0.002

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.29 kg/hh/wk	2.51%	1	Print / Writing / Office Paper 0.109
		2	Building waste 0.078
		3	Containerised Food 0.051
		4	Other Putrescible 0.020
		5	Plastic 0.019

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AF

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: September 2017
		Method: Aggregated	
		Sample size:	
		Red lid bin:	52
		FOGO:	65
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.24 kg 62% is recycled	13.65 kg 95% is recycled	88% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.62	1.62	4.24	62%
Garden Waste ²	12.96	0.69	13.65	95%
Total FOGO	15.58	2.32	17.89	88%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.44 kg/hh/wk	2.74%	1	Miscellaneous 0.250
		2	All Other Organics 0.125
		3	Plastic 0.025
		4	Hazardous 0.022
		5	Metals 0.012

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.57 kg/hh/wk	3.53%	1	Miscellaneous 0.250
		2	All Other Organics 0.125
		3	Disposable Paper Products 0.098
		4	Plastic 0.025
		5	Other Putrescible 0.024

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AG

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	
		Date: November 2018	
		Method: Bin-by-bin	
		Sample size:	
		Red lid bin:	225
		FOGO:	225
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.45 kg 25% is recycled	8.89 kg 97% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.36	1.09	1.45	25%
Garden Waste ²	8.66	0.24	8.89	97%
Total FOGO	9.02	1.33	10.34	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.08 kg/hh/wk	0.84%	1	All Other Paper 0.043
		2	Disposable Nappies 0.023
		3	Plastic 0.010
		4	Metals 0.002
		5	All Other Organics 0.001

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.19 kg/hh/wk	2.09%	1	Contaminated Soiled Paper 0.049
		2	All Other Paper 0.043
		3	Disposable Nappies 0.023
		4	Cardboard / Package Board 0.022
		5	Other Putrescible 0.019

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AH

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: November 2017
		Method: Bin-by-bin	
		Sample size:	
		Red lid bin:	220
		FOGO:	220
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.93 kg 25% is recycled	11.50 kg 99% is recycled	88% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.48	1.45	1.93	25%
Garden Waste ²	11.32	0.17	11.50	99%
Total FOGO	11.81	1.62	13.43	88%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.02 kg/hh/wk	0.20%	1	Earth-based
		2	All Other Organics
		3	Metals
		4	Plastic
		5	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.11 kg/hh/wk	0.93%	1	Cardboard / Package Board
		2	Contaminated Soiled Paper
		3	Earth-based
		4	Newspaper
		5	Other Putrescible

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AI

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: March 2021
		Method: Aggregated	Sample size:
		Red lid bin:	150
		FOGO:	150
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.93 kg 26% is recycled	13.90 kg 100% is recycled	94% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.53 (0.03 containerised)	1.40	1.93	26%
Garden Waste ²	13.88	0.03	13.90	100%
Total FOGO	14.41	1.43	15.84	94%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.06 kg/hh/wk	0.43%	1	Containerised Food
		2	Building waste
		3	Earth-based
		4	Miscellaneous
		5	Plastic

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.17 kg/hh/wk	1.18%	1	Newspaper
		2	Containerised Food
		3	Other Putrescible
		4	Building waste
		5	Earth-based

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AJ

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	August 2022
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	225
		FOGO:	225
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.85 kg 42% is recycled	4.57 kg 96% is recycled	86% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.94 (0.17 containerised)	0.91	1.85	42%
Garden Waste ²	4.39	0.18	4.57	96%
Total FOGO	5.33	1.09	6.42	86%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.33 kg/hh/wk	5.75%	1	Containerised Food 0.185
		2	Earth-based 0.066
		3	Plastic 0.038
		4	All Other Organics 0.022
		5	Miscellaneous 0.008

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.57 kg/hh/wk	10.01%	1	Containerised Food 0.185
		2	Earth-based 0.066
		3	Other Putrescible 0.059
		4	Newspaper 0.051
		5	Contaminated Soiled Paper 0.048

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AK

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: March 2021
		Method: Aggregated	
		Sample size:	
		Red lid bin:	150
		FOGO:	150
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.35 kg 27% is recycled	13.84 kg 99% is recycled	93% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.65 (0.02 containerised)	1.70	2.35	27%
Garden Waste ²	13.76	0.08	13.84	99%
Total FOGO	14.40	1.78	16.19	93%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.07 kg/hh/wk	0.51%	1	Plastic 0.037
		2	Containerised Food 0.023
		3	Glass 0.005
		4	Miscellaneous 0.004
		5	Building waste 0.003

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.13 kg/hh/wk	0.88%	1	Newspaper 0.053
		2	Plastic 0.037
		3	Containerised Food 0.023
		4	Glass 0.005
		5	Miscellaneous 0.004

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AL

Service Configuration		Audit Details	
 Red lid Landfill 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: March 2021
		Method: Aggregated	
		Sample size:	
		Red lid bin:	151
		FOGO:	151
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.16 kg 33% is recycled	15.34 kg 98% is recycled	93% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.71	1.45	2.16	33%
Garden Waste ²	14.99	0.34	15.34	98%
Total FOGO	15.7	1.79	17.49	93%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.08 kg/hh/wk	0.51%	1	Building waste 0.037
		2	All Other Organics 0.023
		3	Plastic 0.008
		4	Miscellaneous 0.005
		5	Containerised Food 0.003

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.22 kg/hh/wk	1.36%	1	Newspaper 0.137
		2	Building waste 0.037
		3	All Other Organics 0.023
		4	Plastic 0.008
		5	Miscellaneous 0.005

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AM

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	February 2017
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	215
		FOGO:	218
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.06 kg 21% is recycled	8.02 kg 95% is recycled	76% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.64	2.43	3.06	21%
Garden Waste ²	7.61	0.41	8.02	95%
Total FOGO	8.25	2.84	11.08	76%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.22 kg/hh/wk	2.51%	1	Miscellaneous
		2	Earth-based
		3	All Other Paper
		4	Plastic
		5	Metals
			0.107
			0.070
			0.017
			0.009
			0.005

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.43 kg/hh/wk	4.95%	1	Miscellaneous
		2	Earth-based
		3	Contaminated Soiled Paper
		4	Other Putrescible
		5	Newspaper
			0.070
			0.052
			0.046
			0.043

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AN

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	October 2017
		Method:	Aggregated
		Sample size:	
		Red lid bin:	100
		FOGO:	100
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.46 kg 60% is recycled	12.59 kg 99% is recycled	95% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	2.83 (0.15 containerised)	1.63	4.46	60%
Garden Waste ²	12.49	0.10	12.59	99%
Total FOGO	15.32	1.73	17.05	95%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.18 kg/hh/wk	1.17%	1	Containerised Food 0.165
		2	Plastic 0.010
		3	Metals 0.002
		4	Building waste 0.001
		5	All Other Organics 0.001

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.23 kg/hh/wk	1.52%	1	Containerised Food 0.165
		2	Other Putrescible 0.027
		3	Contaminated Soiled Paper 0.021
		4	Plastic 0.010
		5	Print / Writing / Office Paper 0.007

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AO

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	February 2017
		Method:	Aggregated
		Sample size:	
		Red lid bin:	215
		FOGO:	215
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.03 kg 43% is recycled	11.32 kg 99% is recycled	90% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.41 (0.09 containerised)	1.63	3.03	43%
Garden Waste ²	11.25	0.07	11.32	99%
Total FOGO	12.65	1.70	14.35	90%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.29 kg/hh/wk	2.28%	1	Building waste 0.126
		2	Containerised Food 0.102
		3	Plastic 0.020
		4	Hazardous 0.014
		5	Miscellaneous 0.012

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.33 kg/hh/wk	2.55%	1	Building waste 0.126
		2	Containerised Food 0.102
		3	Contaminated Soiled Paper 0.029
		4	Plastic 0.020
		5	Hazardous 0.014

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AP

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L OR 240L</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>●●●●</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	March 2017
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	385
		FOGO:	161
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.10 kg 48% is recycled	10.80 kg 97% is recycled	88% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	1.50 (0.02 containerised)	1.60	3.10	48%
Garden Waste ²	10.49	0.32	10.80	97%
Total FOGO	11.99	1.91	13.90	88%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.71 kg/hh/wk	5.45%	1	Earth-based 0.232
		2	Plastic 0.193
		3	All Other Organics 0.077
		4	Disposable Nappies 0.055
		5	All Other Paper 0.033

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
1.13 kg/hh/wk	8.63%	1	Earth-based 0.232
		2	Plastic 0.193
		3	Other Putrescible 0.146
		4	Newspaper 0.081
		5	All Other Organics 0.077

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AQ

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L OR 240L</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	November 2015
		Method:	Aggregated
		Sample size:	
		Red lid bin:	100
		FOGO:	98
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.12 kg 32% is recycled	4.70 kg 97% is recycled	69% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.34 (0.02 containerised)	2.78	4.12	32%
Garden Waste ²	4.58	0.13	4.70	97%
Total FOGO	5.92	2.90	8.82	69%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.43 kg/hh/wk	6.72%	1	Miscellaneous
		2	All Other Organics
		3	Plastic
		4	Glass
		5	Containerised Food
			0.274
			0.045
			0.038
			0.029
			0.021

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.51 kg/hh/wk	7.91%	1	Miscellaneous
		2	Print / Writing / Office Paper
		3	All Other Organics
		4	Plastic
		5	Glass
			0.274
			0.065
			0.045
			0.038
			0.029

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AR

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L OR 240L</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>●●●●</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	March 2016
		Method:	Aggregated
		Sample size:	
		Red lid bin:	160
		FOGO:	116
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.65 kg 38% is recycled	5.25 kg 97% is recycled	71% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	1.81 (0.03 containerised)	2.83	4.65	38%
Garden Waste ²	5.10	0.15	5.25	97%
Total FOGO	6.92	2.98	9.90	71%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.75 kg/hh/wk	9.71%	1	Miscellaneous 0.423
		2	All Other Organics 0.148
		3	Disposable Nappies 0.067
		4	Plastic 0.048
		5	Containerised Food 0.030

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.88 kg/hh/wk	11.36%	1	Miscellaneous 0.423
		2	All Other Organics 0.148
		3	Print / Writing / Office Paper 0.104
		4	Disposable Nappies 0.067
		5	Plastic 0.048

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AS

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L OR 240L</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	May 2016
		Method:	Aggregated
		Sample size:	
		Red lid bin:	110
		FOGO:	110
		Matched pairs:	Unsure

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
5.25 kg 48% is recycled	3.15 kg 99% is recycled	71% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.60 (0.05 containerised)	2.65	5.25	48%
Garden Waste ²	3.13	0.02	3.15	99%
Total FOGO	5.73	2.67	8.41	71%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
	0.83 kg/hh/wk 12.36%	1	Miscellaneous 0.627
		2	Plastic 0.063
		3	Containerised Food 0.060
		4	All Other Organics 0.036
		5	Metals 0.017

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
	1.07 kg/hh/wk 15.86%	1	Miscellaneous 0.627
		2	Other Putrescible 0.126
		3	Print / Writing / Office Paper 0.097
		4	Plastic 0.063
		5	Containerised Food 0.060

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AT

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L OR 240L</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>●●●●</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	April – November 2016
		Method:	Aggregated
		Sample size:	
		Red lid bin:	450
		FOGO:	Did not audit
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
NA	NA	NA

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	NA	1.10	NA	NA
Garden Waste ²	NA	0.02	NA	NA
Total FOGO	NA	1.13	NA	NA

Contamination ³		Top 5 Contaminants (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	4	NA	
		3	NA	
		4	NA	
		5	NA	

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)		
Weight	Percentage	1	2	3
NA	NA	2	NA	
		3	NA	
		4	NA	
		5	NA	

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AU

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established <1 Year
		Date:	November 2018
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	233
		FOGO:	233
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.25 kg 58% is recycled	8.71 kg 97% is recycled	90% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.32 (0.01 containerised)	0.94	2.25	58%
Garden Waste ²	8.42	0.29	8.71	97%
Total FOGO	9.74	1.22	10.96	90%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.07 kg/hh/wk	0.70%	1	Earth-based 0.056
		2	Containerised Food 0.006
		3	Plastic 0.004
		4	All Other Organics 0.001
		5	Metals 0.001

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.10 kg/hh/wk	1.01%	1	Earth-based 0.056
		2	Other Putrescible 0.024
		3	Containerised Food 0.006
		4	Plastic 0.004
		5	Contaminated Soiled Paper 0.004

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AV

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L OR 240L</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	March 2018
		Method:	Aggregated
		Sample size:	
		Red lid bin:	102
		FOGO:	100
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
4.67 kg 56% is recycled	8.17 kg 98% is recycled	84% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.66 (0.05 containerised)	2.01	4.67	56%
Garden Waste ²	7.97	0.20	8.17	98%
Total FOGO	10.64	2.20	12.84	84%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.93 kg/hh/wk	7.41%	1	Plastic 0.334
		2	All Other Organics 0.240
		3	Disposable Nappies 0.103
		4	Metals 0.095
		5	Containerised Food 0.052

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
1.91 kg/hh/wk	15.27%	1	Contaminated Soiled Paper 0.629
		2	Plastic 0.334
		3	Print / Writing / Office Paper 0.240
		4	All Other Organics 0.240
		5	Other Putrescible 0.112

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AW

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	February 2019
		Method:	Aggregated
		Sample size:	
		Red lid bin:	221
		FOGO:	221
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.16 kg 19% is recycled	13.50 kg 98% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.65 (0.06 containerised)	2.51	3.16	19%
Garden Waste ²	13.21	0.28	13.50	98%
Total FOGO	13.86	2.79	16.65	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.57 kg/hh/wk	3.87%	1	Earth-based 0.352
		2	Plastic 0.129
		3	Containerised Food 0.069
		4	All Other Organics 0.007
		5	Miscellaneous 0.006

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.87 kg/hh/wk	5.90%	1	Earth-based 0.352
		2	Contaminated Soiled Paper 0.159
		3	Newspaper 0.135
		4	Plastic 0.129
		5	Containerised Food 0.069

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AX

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	May 2021
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	415
		FOGO:	393
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.16 kg 19% is recycled	13.50 kg 98% is recycled	89% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	0.65 (0.06 containerised)	2.51	3.16	19%
Garden Waste ²	13.21	0.28	13.50	98%
Total FOGO	13.86	2.79	16.65	89%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.57 kg/hh/wk	3.87%	1	Earth-based 0.352
		2	Plastic 0.129
		3	Containerised Food 0.069
		4	All Other Organics 0.007
		5	Miscellaneous 0.006

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.87 kg/hh/wk	5.90%	1	Earth-based 0.352
		2	Contaminated Soiled Paper 0.159
		3	Newspaper 0.135
		4	Plastic 0.129
		5	Containerised Food 0.069

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AY

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	March 2021
		Method:	Aggregated
		Sample size:	
		Red lid bin:	156
		FOGO:	156
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.67 kg 59% is recycled	7.40 kg 100% is recycled	90% recovery

Estimated Average Volumes ¹				
	FOGO bin <i>Average Kg/hh/wk</i>	Residual waste bin <i>Average Kg/hh/wk</i>	Total <i>Average Kg/hh/wk</i>	FOGO Efficiency <i>(% diverted from landfill via FOGO)</i>
Food Waste	2.24 (0.08 containerised)	1.43	3.67	59%
Garden Waste ²	7.39	0.02	7.40	100%
Total FOGO	9.62	1.45	11.08	90%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.43 kg/hh/wk	4.30%	1	Earth-based 0.165
		2	Containerised Food 0.087
		3	All Other Paper 0.082
		4	Building waste 0.064
		5	Miscellaneous 0.023

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.52 kg/hh/wk	5.16%	1	Earth-based 0.165
		2	Containerised Food 0.087
		3	All Other Paper 0.082
		4	Building waste 0.064
		5	Newspaper 0.053

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit AZ

Service Configuration		Audit Details	
 Red lid Landfill 140L or 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established <1 Year	Date: June 2021
		Method: Bin-by-bin	
		Sample size:	
		Red lid bin:	125
		FOGO:	125
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.14 kg 72% is recycled	3.14 kg 99% is recycled	88% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	2.28 (0.01 containerised)	0.87	3.14	72%
Garden Waste ²	3.11	0.03	3.14	99%
Total FOGO	5.38	0.90	6.28	88%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.14 kg/hh/wk	2.31%	1	Plastic
		2	All Other Organics
		3	Metals
		4	All Other Paper
		5	Containerised Food
			0.080
			0.015
			0.013
			0.010
			0.007

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.47 kg/hh/wk	8.07%	1	Contaminated Soiled Paper
		2	Plastic
		3	Other Putrescible
		4	Cardboard / Package Board
		5	Newspaper
			0.119
			0.080
			0.076
			0.050
			0.039

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit BA

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit: Established >1 Year	
		Date:	December 2021
		Method:	Bin-by-bin
		Sample size:	
		Red lid bin:	238
		FOGO:	238
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
1.53 kg 46% is recycled	9.77 kg 98% is recycled	92% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.71	0.83	1.53	46%
Garden Waste ²	9.61	0.16	9.77	98%
Total FOGO	10.32	0.99	11.31	92%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.19 kg/hh/wk	1.74%	1	Disposable Nappies 0.102
		2	Miscellaneous 0.057
		3	Plastic 0.023
		4	All Other Paper 0.004
		5	NA

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.37 kg/hh/wk	3.46%	1	Disposable Paper Products 0.106
		2	Disposable Nappies 0.102
		3	Miscellaneous 0.057
		4	Other Putrescible 0.034
		5	Cardboard / Package Board 0.026

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit BB

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	March 2021
		Method:	Aggregated
		Sample size:	
		Red lid bin:	186
		FOGO:	186
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
3.59 kg 39% is recycled	13.02 kg 99% is recycled	91% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	1.50 (0.11 containerised)	2.09	3.59	39%
Garden Waste ²	12.85	0.17	13.02	99%
Total FOGO	14.35	2.26	16.61	91%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.20 kg/hh/wk	1.41%	1	Containerised Food 0.118
		2	Building waste 0.041
		3	Earth-based 0.021
		4	Plastic 0.015
		5	All Other Organics 0.005

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.26 kg/hh/wk	1.82%	1	Containerised Food 0.118
		2	Newspaper 0.059
		3	Building waste 0.041
		4	Earth-based 0.021
		5	Plastic 0.015

- Totals may not equate due to rounding.
- Garden waste includes Garden / Vegetation and Wood / Timber.
- Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
- Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit BC

Service Configuration		Audit Details	
 Red lid Landfill 140L or 240L  Fortnightly Collection	 Green lid FOGO 240L  Weekly Collection	Length of FOGO Service at time of audit: Established >1 Year	Date: October 2022
		Method: Bin-by-bin	
		Sample size:	
		Red lid bin:	238
		FOGO:	238
		Matched pairs:	Yes

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
2.28 kg 36% is recycled	5.84 kg 98% is recycled	83% recovery

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	0.83 (0.02 containerised)	1.45	2.28	36%
Garden Waste ²	5.72	0.12	5.84	98%
Total FOGO	6.55	1.57	8.12	83%

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.38 kg/hh/wk	5.34%	1	Miscellaneous 0.277
		2	Disposable Nappies 0.057
		3	Containerised Food 0.022
		4	All Other Paper 0.014
		5	Plastic 0.007

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.55 kg/hh/wk	7.72%	1	Miscellaneous 0.277
		2	Disposable Nappies 0.057
		3	Other Putrescible 0.054
		4	Cardboard / Package Board 0.040
		5	Contaminated Soiled Paper 0.037

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.

Audit BD

Service Configuration		Audit Details	
 <p>Red lid Landfill</p> <p>140L or 240L</p> <p>Fortnightly Collection</p>	 <p>Green lid FOGO</p> <p>240L</p> <p>Weekly Collection</p>	Length of FOGO Service at time of audit:	Established >1 Year
		Date:	1 February 2022
		Method:	Aggregated
		Sample size:	
		Red lid bin:	Did not audit
		FOGO:	1006
		Matched pairs:	No

Audit Findings		
		
Food Waste (Average hh/wk)	Garden Waste (Average hh/wk)	FOGO efficiency
NA	NA	NA

Estimated Average Volumes ¹				
	FOGO bin Average Kg/hh/wk	Residual waste bin Average Kg/hh/wk	Total Average Kg/hh/wk	FOGO Efficiency (% diverted from landfill via FOGO)
Food Waste	NA	NA	NA	NA
Garden Waste ²	NA	NA	NA	NA
Total FOGO	12.87	NA	NA	NA

Contamination ³		Top 5 Contaminants (kg/hh/wk)	
Weight	Percentage		
0.10 kg/hh/wk	0.76%	1	Miscellaneous
		2	All Other Organics
		3	NA
		4	NA
		5	NA
			0.015

Contamination + Other Not Accepted ⁴		Top 5 Contaminants + Other Not Accepted (kg/hh/wk)	
Weight	Percentage		
0.11 kg/hh/wk	0.83%	1	Miscellaneous
		2	All other organics
		3	Other putrescible
		4	Newspaper
		5	NA
			0.015
			0.007
			0.001

1. Totals may not equate due to rounding.
2. Garden waste includes Garden / Vegetation and Wood / Timber.
3. Contamination includes Containerised food, Disposable Nappies, Composite (mainly paper), All Other Paper, All Other Organics, Glass, Plastic, Metals, Hazardous, Building waste, Earth-based, E-Waste and Miscellaneous.
4. Other Not Accepted includes Newspaper, Corrugated Cardboard, Cardboard/Package Board, Disposable Paper Products, Print/Writing/Office Paper, Other Putrescible and Contaminated Soiled Paper.



info@rawtec.com.au

+ (618) 8294 5571

11 Paringa Ave, Somerton Park, South
Australia 5044

