

Appendix E - Performance data on Greater Cambridge Shared Waste Service (GCSWS) trial

What was the experience of the trial and what was the key learning?

1. There were two parts to the trial: an eleven-month planning period (October 2022 – September 2023) and the trial itself (September 2023 – December 2023.)
GCSWS spent the first part of the trial working through a route optimisation exercise, to make informed decisions on the most efficient way of delivering new routes that would future proof waste collections, increase wellbeing and recruitment and retention whilst simplifying the service for residents.
2. Collection day changes were made to 79% of households across the Greater Cambridge area. (This compares with the previous route optimisation exercise conducted in February 2017 when 82% of households were affected).
3. As with the changes in 2017, clerical lists of bin store codes were checked with managing agents and provided to crews, temporary hire vehicles were secured to manage potential disruptions whilst new collection rounds became firmly embedded. An external contact centre provided additional support for six weeks to ensure that residents enquiries were dealt with in a timely way.
4. Taking account of lessons learned from the previous route optimisation exercise, crews were engaged to review proposed rounds and provide feedback. Where rounds looked heavy, these were tested and where necessary corrected. Pre-emptive collections were conducted in locations where residents would experience extended collection waiting times due to the change in day or week or both.
5. Overall, the aim was to create compact rounds that improved and maximised productivity.
6. Engaging specialist consultants (ISL), the Service developed a Geographical Information System based simulation model to reflect the existing five-day week (10-day collection cycle), which was verified using data collated by existing vehicles. The “As-is” model was then used to develop the optimised four-day week collection scenarios (8-day collection cycle).
7. This design approach and the theoretical simulation models showed that the total mileage travelled by the vehicles on the five-day week cycle was 19,916 miles; whilst vehicles would travel 19,636 miles under the four-day week cycle. The four-day week cycle also included capacity for growth that occurred during the planning stages and also future housing growth, up to a total of 4,000 properties over two years.
8. Refuse and recycling routes were optimised to enable the crews to collect more waste containers in the working day - this has reduced the amount of travel time and increased tonnages collected on second loads, resulting in a reduction in overall travel. Crews are averaging more collections per day.
9. New collection zones have been created to enable 70% of the crews to return for their own missed bins, if any. This approach aims to encourage crews to complete rounds and ultimately reduce the number of bins missed in the first place.



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10. Refuse (black) and recycling (blue) bins are now collected by the same crews on alternate weeks. This “mirroring” approach has enabled crews to learn new routes quickly. It has reduced the number of bin store keys needed and meant that crews have got to grips with bin store codes and assisted collection locations more readily.
11. Prior to the trial, the Service operated 320 domestic collection rounds (3 waste streams) over a 2-week / 10-day cycle using 32 vehicles, with each vehicle collecting an average of 1,123 containers per day.
12. Since the trial began, the Service has operated 288 domestic collection rounds (3 waste streams) over a 2-week / 8-day cycle using 36 vehicles, with each vehicle collecting an average of 1,248 containers per day.
13. GCSWS collects a total of 359,307 domestic waste containers. **Table 1** below summarises the number of containers collected, and vehicles utilised pre-trial and post-trial.

GCSWS collects 359,307 domestic containers (all waste streams)			
Number of Collection days	Number of collection rounds	Number of vehicles	Average number of containers collected per round
Five-day week (pre-trial)	320	32	1,123
Four-day week (trial)	288	36	1,248

Table 1: Domestic collections summary

14. Organic routes have been optimised to reduce the number of annualised hours¹ and overtime required to cover seasonal highs in the summer months. This has enabled the service to save three hours per week per employee on an organic round which is a 60% reduction.

Residents’ Communications

15. Over a four-week period leading up to the go-live date, GCSWS communicated changes to residents using digital channels and print materials.
16. A key piece of communication was a tailored letter to each household that was affected (90,000). This detailed their change (whether change of day, change of order/sequence, or both) and

¹ Annualised hours: Under five-day week arrangements operational crews (drivers and loaders) on the organic (green) waste collection rounds, work five additional hours during the week (between April and October) to meet the demands of the service at these peak seasonal times, and then accrue the hours as annual leave which they then take in the winter months (December to March) when the service transitions to monthly organic waste collections, ie the crews work for two weeks, then have two weeks off as leave.



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provided an eight-week collection calendar on the reverse of the letter and supporting Frequently Asked Questions (FAQs).

17. Dedicated webpages also provided FAQs, an online calendar, and an explanation of the changes.
18. Other communication avenues included regular social media posts, lamp post signs, poster boards, press releases and a flyer drop.
19. Prior to go-live Business Support teams and Contact Centres were provided with all necessary information to answer queries.

Performance

20. The Council’s usual suite of key performance indicators (KPIs) is the first measure used to assess how well the trial is going. A successful trial would show that performance across the KPIs has been maintained.
21. The key performance indicators being monitored are:
 - a. % of bins collected as scheduled
 - b. % of waste recycled and composted

In addition, we have also monitored levels of public contact, complaints, and compliments to the waste service.

22. **Table 2** below shows that recycling performance is on par with the same three-month period in the previous year (2022) allowing for natural fluctuations e.g the quantity of garden waste collected fell in October and November. Whilst the performance is largely due to residents’ recycling, reuse, and composting (i.e., overall household waste management) practices, the inference is that the change in collection days has not negatively impacted behaviour.

Monthly Recycling Rate	August	September	October	November	End of year/ Year to date
2022	47.7%	49.8%	50.5%	50.8%	48.8% EOY
2023	54.0%	51.7%	49.2%	49.3%	51.7% YTD

Table 2: % of waste recycled and composted. (Target for end of year is 52%)

23. **Table 3** below shows that we have been able to meet our target of 99.7% of bins collected on time, and that the performance is comparable to the same period in the previous year (2022.) The average collection rate across September, October and November 2022 was **99.63%**.

For the same period in 2023 the average collection rate was **99.76%**.

Monthly Bins collected on schedule	September 2022	October 2022	November 2022
% collected on schedule	99.61%	99.65%	99.64%
	September 2023 Month 1 of trial	October 2023 Month 2 of trial	November 2023 Month 3 of trial
% collected on schedule	99.79%	99.72%	99.78%

Table 3: % of bins collected on time. (Target is 99.7%)

Performance in 2017 (bins collected on time)

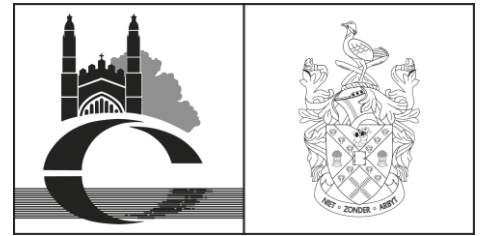
24. Following the 2017 route optimisation exercise service disruption was considerably higher (based on level of missed bins) and for six months following the change. The number of bins collected on schedule was typically between 96-98%.

Tonnages, Mileage, and fuel usage

25. Due to seasonal trends, temporary transitional changes, and housing growth, tonnages, mileage and fuel consumption data will require a longer monitoring period before evaluation can be completed and reported on.

Environment Operations Team (services for SCDC only)

26. The Awarded Watercourses, Envirocrime and Streets teams have all adopted the four-day week working pattern effectively.
27. For the Watercourses team, vital service provision for flooding and running of the pumping station remain in place 24 hours per day over seven days. The Watercourses team are on schedule with their annual seasonal works, but exceptionally wet weather conditions have required significant levels of response to flooding and maintaining of infrastructure due to continual high-water levels.
28. Using modern technologies, an aerial drone has been used to assist with surveying watercourses and identify maintenance requirements as well as a new program of works that provides single visit solutions. This approach has enabled the team to maintain and sustain the program of watercourses surveys and inspections. They have also been able to deliver a significant increase from eight inspections in the period 18th Sept – 18th Dec 2022 to 22 inspections for the same period during 2023.



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29. Streets service levels are being monitored and maintained using the Land Audit Management System (LAMS) provided by the Association of Public Service Excellence (APSE). LAMS is designed to monitor street cleansing levels and measure the quality of service delivery.
30. LAMS has also been used in the streets service to monitor service standards and demands, enabling resources to be targeted more effectively and proactively. The team has maintained the required level of site surveys and inspections under the four-day week.

Health & Safety Key Performance Indicators

31. As part of the Health and Safety Executives plan, 'do, check, act,' effective health and safety model, GCSWS has in place a monitoring and supervision programme to conduct service checks for operational staff. This monitoring program has a target of 65 service checks per quarter. For the trial period 18th September 2023 – 18th December 2023, 76 (116.9%) checks were carried out against the expected target of 65.

Commercial Collections

32. Routes were reconfigured using a staggered approach once domestic collection changes were introduced. Businesses are usually serviced over seven days, and it was recognised that some would continue to require this. The team therefore took a different approach to changing routes, redistributing most Friday collections throughout the remainder of the week. This has enabled the team to participate in the trial. Transition to a predominantly non-Friday working arrangement commenced on 16th October 2023.

Customer services

33. As with the previous route optimisation exercise in 2017, GCSWS outsourced telephone calls to an external contact centre for six weeks. This was to ensure that residents were able to get through on phones where they were uncertain about their new collection arrangements or were concerned that their bin had been missed.
34. As can be seen at **Appendix F**, call volumes were low throughout the six-week period. The launch of new routes coincided with renewals for green bin permits and most calls were business as usual calls from residents wanting to renew that service or requesting additional bins.
35. **Appendix F** also highlights that call volumes were higher in 2017. It should also be noted that in 2017 the external contact centre only managed calls for SCDC, Cambridge City Contact Centre managed their own calls and there are no records held for those call volumes. Therefore, the rate of calls relating to the changes is significantly lower than in 2017.
36. The level of complaints and compliments can be seen at **Appendix G**. Complaints received in the 12-week period following collection changes are comparable with those from the previous quarter. Some complaints related to unavoidable operational issues such as roads or bins being inaccessible due to roadworks or parked cars.



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A slight increase in repeat missed bins was noted, primarily attributed to crews being unfamiliar with new rounds. This decreased during the second half of the trial period as collection round knowledge improved.

While there were no official complaints specifically about route optimisation, there were complaints relating to issues stemming from the changes, for example, change of collection times or change of crews.

Recruitment and agency staff financial implications

- 37. It is expected that improved recruitment due to the adoption of a four-day week will in time deliver savings by reducing GCSWS reliance on agency staff. However, following the launch of new routes, GCSWS employed temporary additional agency staff to manage changes efficiently whilst new routes embedded. Staff were tasked with making additional pre-emptive collections to reduce the number of residents experiencing extended waiting times, and to operate temporary additional vehicles to ensure any missed bins were collected promptly. This is common practice where additional workloads are temporary as is the case after a route optimisation exercise. It is therefore too early to understand if the four-day week is reducing the reliance GCSWS has on agency staff.
- 38. GCSWS has been running staff recruitment and retention schemes for two years. The rationale for the schemes was to overcome the acute driver shortages due to a backlog of HGV driving tests (post Covid) and the much higher cost of living in and around Cambridge (which was unattractive to the few drivers that were in the market). We have now been able to attract drivers more readily and retain them, and this has enabled the service to cancel the schemes and start to realise savings from doing so. The costs for the two schemes in 2022/23 totalled £110,900.
- 39. **Table 4** below shows the costs for the past two years of running the recruitment and retention schemes which have now ceased.
- 40. It is recommended that recruitment and retention rates continue to be monitored over the next 12 months so that the position can be fully established and reported on once more data is available.

Payments up to	Scheme	Total paid
31/03/2022	Retention Payment	£21,800
31/03/2022	Golden Hello	£7,500
31/03/2023	Retention Payment	£33,900
31/03/2023	Golden Hello	£13,150
31/10/2023	Retention Payment	£27,050
31/10/2023	Golden Hello	£7,500
	Total	£110,900

Table 4: Recruitment and retention scheme costs 2022/23