



Shared Waste Service ABCD (Alternative Bin Collection Day) initial project review – planning and design to month 6 of operations.

1.0 Background to project

The Shared Waste Service for Cambridge City and South Cambridgeshire District Council has been operating since 2015. A major step in the original business case to create a truly shared service was the harmonisation of domestic bin rounds across the boundaries. The new bin collection rounds were devised to ensure they are efficient (helping to achieve savings of £700k over 3 years), resilient, and improve our ability to deal with growth. The new rounds make the boundary invisible to our refuse vehicles, and will save an estimated 20,000 refuse vehicle miles per year. These changes meant that 82% of residents had a change in day and / or sequence of bin collections, starting on 27th February 2017. While the vast majority of residents have had a continued good service through this period, there are some who have not received the service we aim for and have been frustrated by this process. We are sorry for any resident who is inconvenienced – every one of their bins is important to us and we will continue to work hard to achieve the normal standard of service and learn from this change.

2.0 Planning the day changes

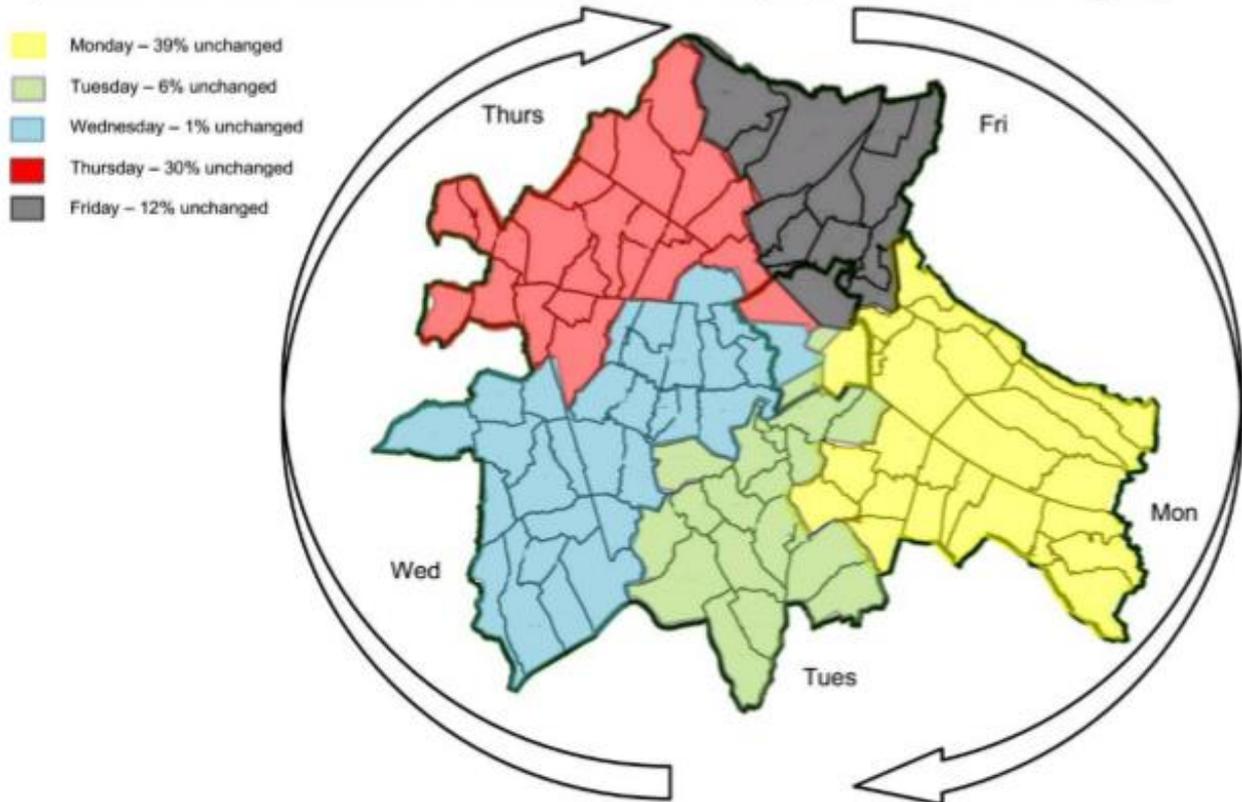
Design and planning work on the bin round changes started in early 2016. The combined domestic operations represent an extremely large and diverse service, with over 100 operatives typically operating 40 vehicles each day, collecting up to 30,000 domestic bins. The services offered in each Authority are different, and the patch covered includes dense urban areas of Cambridge with narrow streets and many flats, through to isolated individual rural properties, with travel across a range of roads from fen tracks to the M11. This presents a challenge for planning changes and for achieving rounds on a daily basis; our collection rates are traditionally extremely good and crews have vast experience. The design and planning process included:

- Ensuring the quality of various datasets across 2 authorities in 2 data management systems (address data; waste quantities; vehicle capacity and journey data; crew pick rates and so on)
- Using bespoke modelling software to design rounds to optimize collections

- Consulting with crews and supervisors to check the 'draft' rounds for achievability and logic (for example to spot access details, to challenge geographical splits, to check total property numbers), and making subsequent changes.
- Resource planning for the lead-up and immediate delivery of day changes, including extra vehicles, drivers and loaders, and options to borrow supervisors from Streets and Open Spaces.
- Planning communications for residents using multiple media, including bespoke approaches to the different geographies and therefore different sets of issues. For example use of village signs and leaflets in SCDC, use of individual letters to residents of houses in City, use of corporate magazines in both.
- Briefing crew members on the lead-up to day changes and working with them on ensuring bin codes and keys for bin stores were transferred to new rounds.

The final 320 rounds are arranged in collection zones which have clearer round boundaries between collection days, and collection areas more logically grouped together. This means that crews are closer to each other and can work across rounds when necessary, and as new developments come on-line we can include these in existing or new rounds more easily. They are also optimised for driving time, so for example on a Friday more bins are collected in the north of the City, which reduces driving time as crews are working closer to the depot and tipping site at Waterbeach. A prerequisite was that residents had one bin day, which did not change whether we operate week 1 or week 2 of the cycle.

New Combined Collection Days and % properties unchanged



3.0 Go-live phase

From February 23rd a daily 'situation reporting' phone conference was held between the Shared Waste Service, Business Support, Customer Services and Communications teams, and senior staff. This ensured at one point in the day all teams shared their updates which enabled swift communication to residents of any problems in service, identified any ways of working across the teams which could be improved, and highlighted what was going well and could be fed back to teams.

From 27th February (when new rounds went live) feedback from crews (from in-cab devices and round sheets) was collated to get quick indications of numbers of houses presenting bins of the right colours on the right days. This quickly showed that residents had responded well to the communications campaign and knew which colours to present when.

Because some sequences were changed, and some crews had entirely new rounds to learn, it meant that the first 4 weeks of weight and round duration data could not be relied on or used as the basis for any significant round changes. For example as part of the planned changes, some residents would not be asked to present a bin for 3 weeks, and others presented the same colour on two consecutive weeks, as sequences changed. This affects weights of refuse and recycling collected for that round, and so the time it takes to complete. However during these first weeks we could learn from crews what they felt would and would not work, and spotted some

smaller anomalies in rounds which could easily be corrected with no impact for residents.

Call volumes – customer service centres at SCDC and City handled their largest call volumes during week 2. Measured as a % increase on the baseline week (2 weeks before the changes), City took 300% more calls (1168 calls) and SCDC 200% (815 calls). These calls also included routine calls (such as extra bin requests, and calls for Streets and Open Spaces), an external overflow call centre was used to support this increase in calls, reducing the impact on residents.

Problems identified in the first few weeks included:

- Some missing ‘collect and return’ or ‘assisted collection’ addresses. The majority of these addresses were up to date in the in-cab displays used in most vehicles. However, those added since May 2016 (the date of the modelling data cut) were on manual lists and could be more easily missed. Also the hired extra vehicles which helped crews out where necessary do not have the in-cab technology, and crews did not always exchange this information. Where these were missed, their re-collection was prioritised as these residents can be the most vulnerable. Crews were reminded of those which had been missed. We created an A-Z of these addresses.
- Differences in crew approach. Some residents fed back that bins were not left in the same places; that some food caddies were being rejected for contamination through use of liners which had previously been accepted; that recycling contamination was now being reported, and so on. The differences in crew members spotting and refusing bins (as we request) has been highlighted. We have explained to residents affected that we have not changed policy but we are now working to it. We are also revisiting to collect contaminated bins on the first occasion whenever possible. We have clarified some of the web content on caddy liners. We raise issues with crews when necessary.

5.0 Outcomes to date

This is a major operational change project which has had both predictable and unexpected outcomes, many positive and some negative. Key criteria for the changes were to:

- Minimise the impact for residents
- Ensure residents who present their own bins or who have an assisted collection have one bin day (eg Tuesday week 1 and Tuesday week 2)
- Minimise any subsequent day changes
- Rectify any problems within normal service periods
- Deliver the project to time and budget

During the first fortnight there were 2 key priorities – to ensure residents knew which bins to present on which days and to collect the bins as planned. The communications were very successful - only a few hundred addresses presented the wrong bins and the various media used reached a wide and diverse target audience.

Collections

Since 27th February (to w/c 25/09/17) 98.71% of bins have been collected as planned. Each week the Service aims to collect between 155,000 bins (week 1) and 153,000 bins (week 2). The most challenging week was the second week of day changes; 94.21% were collected as planned, and all collections were badly affected on 2 days by problems on the A10 (unplanned roadworks and a fatal accident). The overall trend is encouraging; we can see more rounds being achieved in full and dips in performance are linked to unusual but unavoidable operational issues such as 3 vehicle breakdowns (w/c15/05/17), and staff absence (w/c 29/05/17 & w/c 14/08/17) and the knock-on impacts of these. Our KPI of 99.5% of collections completed as planned.100% is rarely achieved; human error is inevitable and vehicle and traffic problems do happen explaining the fluctuation week on week. In the 6 weeks leading up to day changes, vehicle problems and resurfacing affected collections from over 80 streets (64 on one day due to failure of one vehicle).

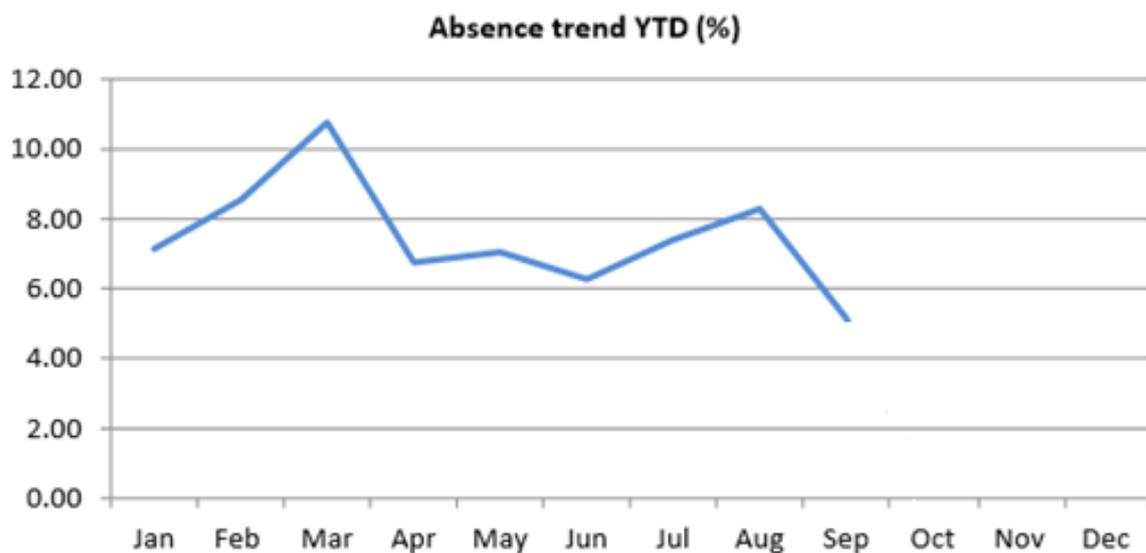
The average percentage of bins completed as planned for Quarter 1 (April – June 2017) it was 98.71% (missed target by 0.79%) and Quarter 2 (July – September 2017) it was 99.55% (exceeded target by 0.05%)

Date	% successfully complete	Total properties on collection round	Total number of collections complete	Operational Missed City	Missed Bins Reported City	Operational Missed South	Missed Bins Reported South
27/02/2017	98.61%	155302	153148	1124	371	440	219
06/03/2017	94.21%	153171	144307	6655	366	1495	348
13/03/2017	97.66%	155302	151664	2721	276	350	291
20/03/2017	95.85%	153171	146817	5134	250	717	253
27/03/2017	97.89%	155302	152020	2347	183	463	289
03/04/2017	96.49%	153171	147789	2660	202	2179	341
10/04/2017	97.35%	123001	119745	2449	198	333	276
17/04/2017	99.45%	151263	150429	289	177	189	179
24/04/2017	99.14%	189511	187887	1074	219	191	335
01/05/2017	99.55%	153171	152484	328	156	19	184
08/05/2017	99.77%	155302	154949	0	165	0	188
15/05/2017	98.40%	153171	150717	2093	166	15	180
22/05/2017	99.58%	155302	154655	338	106	10	193
29/05/2017	97.48%	153171	149312	3506	138	33	182
05/06/2017	98.18%	155302	152475	2102	172	352	201
12/06/2017	99.18%	153171	151915	742	123	232	159
19/06/2017	98.78%	155302	153415	1602	117	48	120

26/06/2017	99.48%	153171	152382	384	73	169	163
03/07/2017	99.59%	155302	154663	396	112	0	131
10/07/2017	99.31%	153171	152119	682	70	182	118
17/07/2017	99.80%	155302	154994	0	108	67	133
24/07/2017	99.84%	153171	152933	0	96	0	142
31/07/2017	99.33%	153171	152142	95	99	685	150
07/08/2017	99.77%	155302	154952	97	138	0	115
14/08/2017	97.68%	153171	149622	2847	107	403	192
21/08/2017	99.73%	155302	154878	0	105	160	159
28/08/2017	99.34%	153171	152165	207	86	591	122
04/09/2017	99.29%	155302	154203	385	177	344	193
11/09/2017	99.60%	153171	152556	0	106	324	185
18/09/2017	99.78%	155302	154954	104	105	0	139
25/09/2017	99.45%	153171	152332	478	85	137	139

Staff Sickness

During this last year the service has experienced high levels of sickness, this has cause addition pressure on the service, due to have to rely on agencies staff to backfill post were possible. The worst of the sickness spike coincided with the start of the new service.



Note:- Data only Jan to September

6.0 Ongoing activity

Operational work on improving rounds is ongoing. On a daily basis team managers track the progress of rounds and send early completing crews to assist where possible; we also aim to minimise the repeat of missed streets by asking crews to start in different locations. We are issuing drivers with detailed maps and reminders

of individual repeat missed bins and keep this under review; supervision of crews on the road is also increasing.

In terms of project work:

- We have changed drivers on some rounds to see if different experience and approaches will make a difference. We will continue to swap drivers to test achievability of rounds.
- We ask crews for feedback and have made smaller changes to make logistics and timings easier.
- We are analysing the results of the 'meaningful' round data (week 6 onwards, durations, number of tips and weights collected).
- Further changes to rounds (within day) have been made based on how they are operating; we will be using internal and external support to review this. Areas we are looking at include Trumpington Meadows and Clay Farm (blue and green), Paragon Estate, Chesterton (domestic), Queen Ediths / Hills Road (green and blue), Sawston (SCDC) (green and blue).
- Based on crew feedback, missed bins and resident feedback we will continue to identify any odd spots where changing the day for a few addresses will solve problems.
- We have our 3 software suppliers supporting us on data changes and getting us ready for an update to the in-cab data which crews see; this will also update latest new builds to the rounds.
- Collect and returns (or 'assisted collections') and flats remain high priority to prevent repeated missed bins.
- While we are not using spare vehicles every day, we will keep these available while we make further changes to ensure we have resources available if needed; we will continually review the need for spare vehicles and remove them as soon as possible.
- Focused activity at location with communal collections via bin stores, looking a contamination collections.
- Focused activity at properties that have had repeated missed collections.

7.0 Lessons Learnt

The following learning points below represent a selection of those logged to date, and should be adopted or avoided in future change projects.

Adopt:

- Varied and bespoke approaches to resident communications –this worked very well.
- Standardised project management approach from the start.

- Alternative approaches to crew consultation – maps were not suitable for all. Take more crew members off rounds to support the work.
- ‘Walk through’ week 1 to pre-empt some of the logistical issues that could have been foreseen.
- Wider stakeholder group eg housing, colleges, which may have picked up flats issues and challenged our assumptions.
- Involve a 3C ICT and Northgate rep from the start.
- We took on extra resources to support changes; we supported our crews and residents this way and would do it again.
- Investing in change with extra vehicles and staffing at the change point – not to cut resources too early.

Avoid:

- Testing the current software integration now (not possible before go-live but not ideal afterwards).
- Doing day changes before software changes (necessary as these may not happen for another year, but not ideal).
- Missing the learning loop on missed individual bins; involve the regular crews from the start.
- Staff restructuring during a service change.