

## **Appendix 2 - Measures and feedback**

As outlined in the decision report on the 6<sup>th</sup> July 2016, officers have collected data on a number of different measures to identify the impact of the trial. Officers have interpreted this data and given a recommended view of the trial. However the weight that any one measure or piece of information has in the overall assessment of the trial will be for decision-makers to determine.

### **Summary**

- The amount of tonnage collected has reduced by approximately 15% (2.3 tonnes) since the start of the trial. This compares with there being no significant change across the whole city.
- Some of this waste has been transferred into the recycling stream, with a rise of 0.5tonnes per fortnight. The overall kerbside recycling rate for the area has changed from 20.7% before the start of the trial, to 24.7% during the trial (upto 23<sup>rd</sup> December 2016).
- On the first week of collection 91.5% of houses put all of their waste in the bin correctly and presented it at the right place for collection. This figure has risen to 99% over the first two months of the trial.
- The standard of cleanliness was found to be high before the trial, and audits during the trial have found that it has been maintained. The survey of residents shows that 61% consider the roads to be cleaner since the trial began.
- It is not possible to show if residents are taking their waste to the Household Waste Recycling Centre. However, probably due to other changes at the site, the overall tonnage at the HWRC has fallen compared to the same period in 2015.
- There has not been a recorded change in the amount of household rubbish being dumped or fly-tipped.
- The survey shows that the majority of residents (74%) would rather keep the wheelie bin for rubbish than return to sacks on the streets.
- The total cost of the trial was £28,105. Of this £21,089 was spent on bins, with the rest being spent on communications and council officer time, which was diverted from other duties
- The total saving from reduction in rubbish, and small increase in recycling, collected is approximately £9,000pa. There are no savings associated with the collection of the waste.

### Participation on the first day of the trial (23<sup>rd</sup> September 2016)

1364 properties were recorded as having a collection. Of this:

- 101 were not out (i.e. they had empty bins)
- 15 were bin in wrong place (i.e. the bins were 50%+ full but not at the front boundary)
- 73 had additional or side waste (i.e. black bags next to the bin)
- 20 had black bags but no bin out
- 8 had overflowing bins (i.e. we took a bag off of the top of a full bin)

This meant that only 8.5% of the properties did not present their rubbish correctly on the first day of the trial.

### Subsequent collections

Officers undertook observations of the Highbury round for nine consecutive Fridays. Over this time the following was observed.

Date	Wrong location	Extra/Side waste	Bags no bin	Overflowing Bin	Quantity Bags	Repeat offender
23-Sep	15	73	20	8	>150	0
30-Sep	0	44	1	13	80	7
07-Oct	0	19	4	7	40	7
14-Oct	0	8	1	5	30	0
21-Oct	0	9	0	5	36	1
28-Oct	0	15	15	Not measured	37	0
04-Nov	0	13	2	11	23	0
11-Nov	0	8	9	Not measured	17	0
18-Nov	0	14	3	11	22	3

The number of properties presenting side waste has dropped to a consistent amount, with very few repeat offenders. This shows that within two months the number of problems in the area has reduced to a minimal level.

### Street cleansing

The council's highways team undertook a survey of the street cleanliness of the trial area before and during the trial. This showed that the area is generally clean before the bin collections, remains relatively clean between the bin collections and street cleanse, and is clean after the street cleanse.

Feedback from the council's cleansing inspectors and, through them, the highways contractor indicates that during the first week of the trial there were a few problems from black bags being left on the street. However in the following weeks there have been no significant problems with the street cleansing. This is supported by the perception of residents surveyed.

### Fly tipping

Analysis of the council's Clean City team data shows that since August 2015 there have been 113 reports of waste dumping, fly-tipping or early refuse in the Cosham ward. This has been plotted on a Winchart, which provides a statistical analysis, and

shows that there has not been a statistically significant change in the number of such incidents since the start of the trial.

Of all of the incidents of waste and fly-tipping which were in this area, 13 were in roads within the trial area. Of this four had occurred since the start of the trial and only two were clearly linked to black bag dumping. Therefore it has been assessed that the amount of fly tipping of household rubbish has not changed in a statistically significant way since the start of the trial.

### **Impact on the Household Waste Recycling Centre (HWRC) at Port Solent**

Unfortunately it is not possible to tell if the trial is having an impact upon the waste arising at the HWRC. This is for the following reasons:

- The tonnage taken into the HWRC on a monthly basis ranges between 190 and 370 tonnes per month, which is much larger than the 8-10 tonnes per month change in rubbish seen in Highbury. This suggests that any extra waste from Highbury would be within the natural variation of the HWRC tonnage.
- There have been other changes to the HWRC (such as charging for some waste streams and opening times) which will also have restricted the waste volumes.
- It is not possible to identify the specific residents of Highbury visiting the HWRC.

From the residents survey it was seen that 32 people who responded said that they take waste to the tip/Port Solent.

Evidence of the impact on the HWRC will only come from the wider use of wheelie bins for rubbish, which would lead to a much larger volume in rubbish being diverted from bins.

### **Analysis of the waste and recycling**

An analysis of the rubbish and recycling in this area has been undertaken by the Materials Analysis Facility (MAF) provided, through the disposal contract, by Veolia. Each recycling round is analysed at least once per calendar year, and rubbish on an infrequent basis. However there are a number of analysis done on rubbish and recycling from this round as shown in the following table.

Date	% Recycling in kerbside rubbish	% rubbish in kerbside recycling
2014		7.78%
2015		6.48%
April 2016		10.34%
June 2016	5.34%	
<b>Pre-trial average</b>	<b>5.34%</b>	<b>8.20%</b>
November 2016 (during the trial)	3.90%	5.90%
<b>Difference</b>	<b>-1.44%</b>	<b>-2.30%</b>

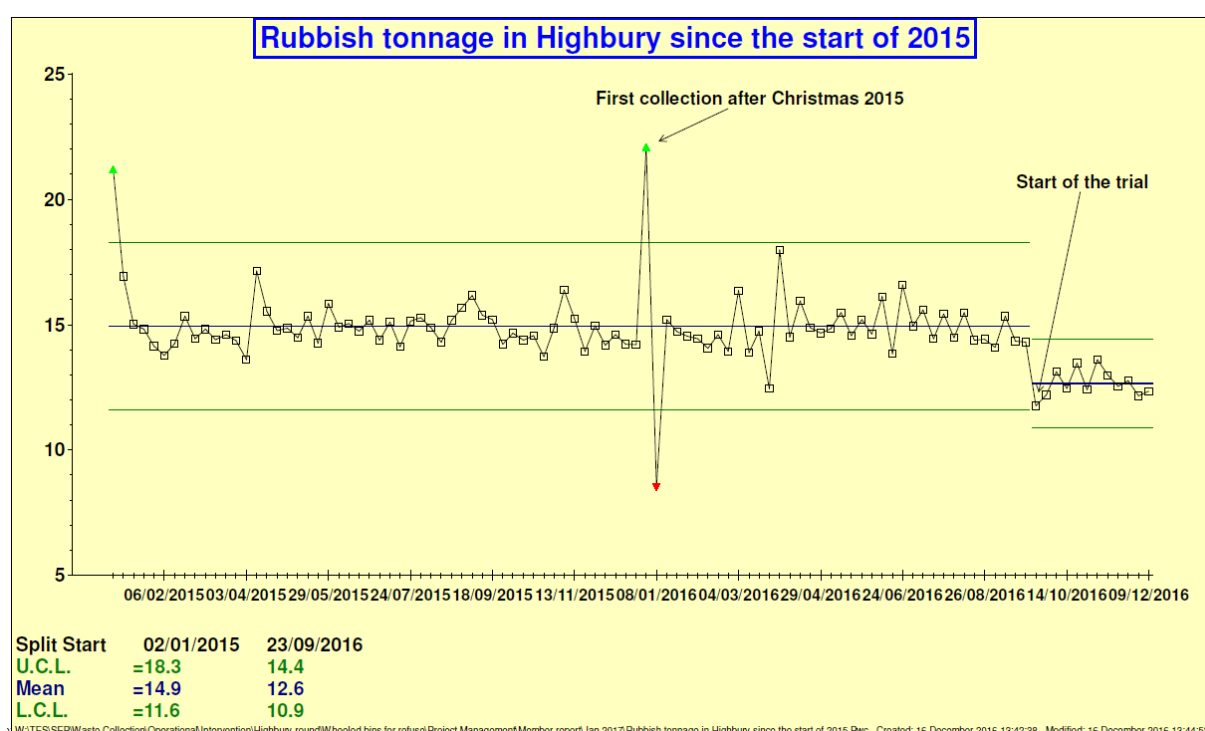
The figures in the table suggest that contamination of the recycling has not risen as a result of the trial. It also suggests that residents are more aware of what they can recycle and taking more from their black bag and putting it in their bin. This is critical as an increase in contamination rates has a financial cost to PCC. A reduction has a financial benefit.

### Rubbish tonnage

Once a collection round has been finished, the Biffa collection vehicle takes all of the waste to the Energy Recovery Facility (ERF) in Copnor, where the vehicle is weighed into site, the waste is tipped in preparation of incineration, and then weighed again as it leaves.

The data from the weighbridge tickets has been collected every week during the trial and provides the following Winchart showing the total volumes of rubbish collected each week, in the trial area, since the start of 2015.

It is clear that the trial has made a significant change on the volume of waste that has been collected, with the mean value of the tonnage collected dropping from 14.9 to 12.6 tonnes per week. This is a reduction of 15% in the tonnage of rubbish collected.



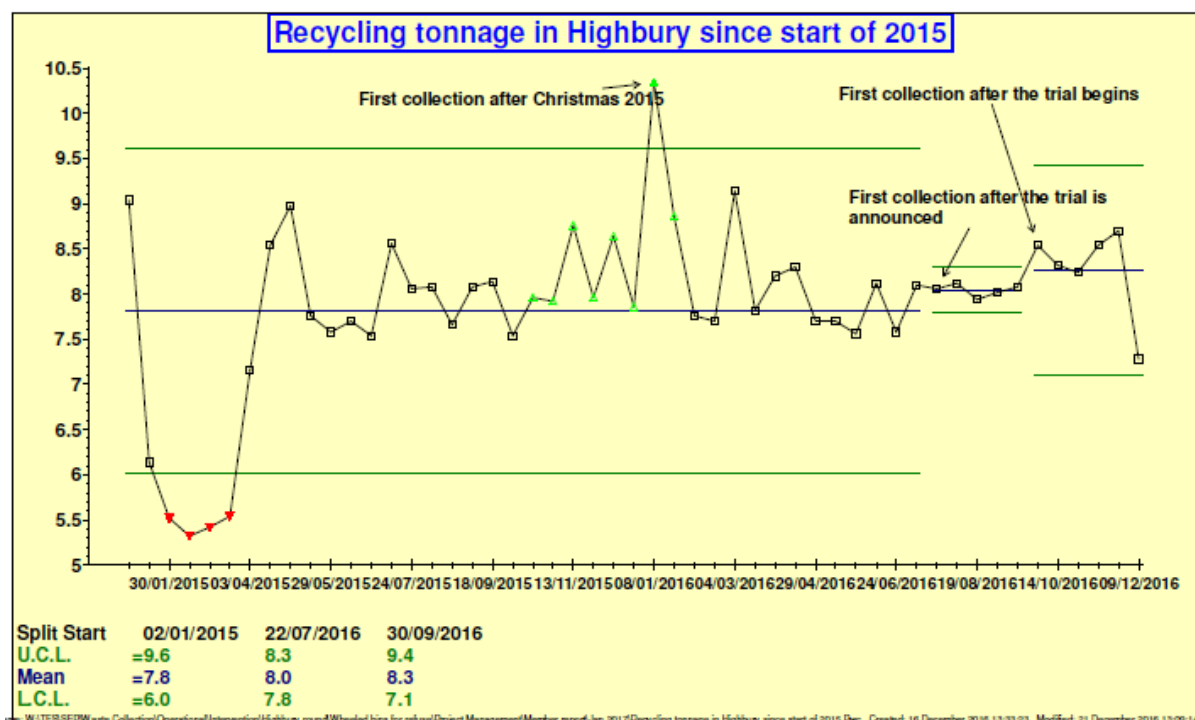
This compares to the figures for the whole city which show, over the last two years, less than 2% (i.e. normal) variation.

### Recycling tonnage

Once a collection round has been finished, the Biffa collection vehicle takes all of the waste to the Materials Recovery Facility (MRF) in Copnor, where the vehicle is weighed into site, the waste is tipped for reprocessing, and then weighed again as it leaves.

The data from the recycling round in the trial area has been collected on a fortnightly basis. There have been six collections since the start of the trial (as of 09/12/16).

Whilst there has not been a statistically significant rise in recycling, it does appear there is an upward trend for increasing in recycling with a 0.5 tonne per fortnight between the stable period of the start of 2015 to June 2016, and the start of the trial



This is a 6.5% rise in recycling in this area, compared to a 2.5% rise during the same period across the whole of the city.

Due to the fortnightly nature of the recycling collections, more data may be needed to be sure that recycling is on a stable rise.

The overall kerbside recycling rate for the area has changed from 20.7% before the start of the trial, to 24.7% during the trial (upto 23<sup>rd</sup> December 2016)

It has not been possible to measure the tonnage impact of the additional glass bring banks which have been put in the area during 2016. However it is known that these banks are being used so may explain where some of the rubbish tonnage has been transferred to.

Biffa have also reported providing 180 new bins for garden waste to this area since June 2016. This suggests that some may be switching their garden waste from rubbish to the garden waste bins.

### Resident survey

The council wanted to ensure that residents within the trial area had an opportunity to provide feedback on their experience of the trial and its impact on their waste habits.

The survey was collected by officers in early November 2016. The team door knocked houses in the trial area and asked the residents on the doorstep a series of questions. If the resident was not in, information was posted on how the survey could be accessed online via Survey Monkey. There were 340 respondents, of which 70 were seen on the doorstep and 270 provided feedback online. There were some differences between the results given on the doorstep and those online, with a lower

level of positive comments about the trial coming from the self-selecting online group.

The council's market research officer has calculated the margin of error on those numbers and based on a 95% confidence rate the margin of error on the data is 5%.

The main results from the survey were as follows:

- Q1 - 89% felt that the overall waste collection service had stayed the same or improved. From those asked on the doorstep this figure was over 98%.
- Q2 - The majority of respondents (almost 61%) felt that the street cleanliness had improved. Whilst this needs to be compared to the review undertaken by the council's own street cleansing team, it shows that, regardless of any actual physical change, streets are perceived to be cleaner with bins.
- Q5 - 28% of respondents said that they are not able to dispose of all of their rubbish in the wheelie bin. From those asked on the doorstep his figure was only 10%. However when surveying on the collection day we found that less than 1% actually put out any side waste.
- Q6 - 77% of those surveyed were satisfied with out the trial has been introduced. Of those spoken to on the doorstep the figure was 92%.
- Q7 - 74% of all those who responded would prefer to keep the new system, rather than return to sacks. Of those spoken to on the doorstep the figure was 89%.
- Q8 - 74% of residents believe that they are not doing anything different with their refuse, and 18% believe they are actually recycling more since the trial started.
- Q12 shows that residents would recycle more if it was able to be taken within the waste stream.
- Q14 showed that the communications before the trial were deemed as adequate by the residents, with the letter and leaflet being the largest influence.

There were 115 comments (from the 340 respondents) to Question 16, regarding improvement of the trial. Of these comments, over 90% related to having a larger bin.

## **Financial appraisal**

### **Costs**

Analysis of the budget showed that the total costs to waste management for the trial was £28,105. Of this approximately £3,530 were revenue costs (staff) from within the current budget.

There are some costs which would not be repeated if the service is rolled out elsewhere, such as design costs for communications. However the majority of the costs of the trial, and would be the same for any further rollout, are related to capital.

During the trial the existing fleet of vehicles were able to collect the waste without any adaption. However any further collection of wheelie bins in other areas would require vehicles to be fitted with bin lifting equipment.

### **Savings**

There are financial savings from the reduction in revenue spend on the disposal of the rubbish at the Veolia Energy Recovery Facility (ERF), income from selling that capacity to other local authorities, and a small amount from the handling of the small increase in recycling.

The savings from a reduction in rubbish equate to £75.82 per tonne. Recycling gives a financial benefit to the council of £4.86 per tonne. Both figures are based upon a number of variables which change every year.

The overall savings from the Highbury are estimated to be approximately £9,000 per annum.

**Assumption for the trial**

- Significant amounts of waste has not be transferred into the HWRC.
- Survey responses are accurate, but being an option survey figures will differ from the empirical data, such as street surveys and recorded tonnage.
- Changes in rubbish and recycling volumes would be sustained on a long-term basis.