

This is a short evaluation report relating to Phase 2 of our Materials Recovery Project – enhanced collection service Bush / Serpentine area. The report visits what was achieved versus what we hoped to achieve and provides quantitative and qualitative data to support conclusions reached.

# Evaluation Report

Bush / Serpentine Enhance  
Collection Service

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## What we wanted to happen

### Project Aims

- *To increase participation rates from Bush kerbside collection by 20% - currently 28% of households participate<sup>1</sup>.*
- *To increase range of materials collected on kerbside to include all recyclable plastic and textiles*
- *To ensure recognition rates **are high with minimal contamination***
- *To provide qualitative data that will inform island wide role out*

### What we planned to do

- Householder engagement – 550 households
  - Local media and social media
  - Delivery of information leaflet; green bags; and collection calendar
  - Householder survey mid-way through pilot
- Materials recovered
  - Collect Tetra, Pots, Tubs and Trays to plastics range
  - Collect textiles at kerbside
- Data gathering
  - Improved quantitative data – weight by segregated material
  - Improved quantitative data - presentation rates of blue bins and green bags
  - Improved quantitative data – new recycling participation measured by new blue bin requests
  - Qualitative data – understanding of ease of use; choices made to recycle or not; additional materials people would like for kerbside collection

### Outcomes we expected to achieve

#### **Tangible**

- Increased volume of recyclable material diverted from landfill
- Reduced carbon emissions from landfill materials
- Reduced cost of waste management – landfill tax
- Improved understanding of householder waste management behaviour
- Quantitative data on volumes of recyclable materials
- Qualitative data to inform island wide implementation

#### **In-Tangible**

- ***Community sense of well-being and pride of place through people being empowered to address issue of greener waste management***

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<sup>1</sup> Participation Audit 17/07/2014

## What actually happened?

### Householder engagement

We have had good local coverage for the pilot. The Buteman published our launch press release. Fyne Homes published a full page in their newsletter.

Online awareness has increased!

Bute Reduce Reuse Recycle facebook page has grown from 253 friends to 282 and people are interacting with the page more frequently sharing tips on upcycling and reusing.

Towards Zero Carbon Bute facebook page has grown from 234 friends to 261 and people are interacting with the page sharing global posts that include waste as resource.

We have recently added in a statistic counter to our website. October results are very promising.

|       | Page Loads | Unique Visits | First Time Visits | Returning Visits |
|-------|------------|---------------|-------------------|------------------|
| Total | 816        | 558           | 457               | 101              |

550 leaflets and calendars were hand delivered on 27<sup>th</sup> August 2015.

800 green bags were hand delivered on 27<sup>th</sup> August 2015 to ensure that each household had at least two containers to present their recycling in.

550 household surveys and pre-paid envelopes were hand delivered on 8<sup>th</sup> October 2015.

### Materials Recovered

Collect a wider range of materials – tetra, pots, tubs and trays.

The first collection day for the new service took place on 10<sup>th</sup> September 2015. 228 households presented recyclates for collection. All the materials communicated were represented:

- Paper and cardboard presented separately contained small quantity of tetra
- Plastic bottles, tetra, pots tubs and trays presented with aluminium and steel tins and trays

The total volume presented of the new materials was just 14kg.

These results have been confirmed in the final audit with all materials communicated represented in the mix presented. Overall volumes are up; however, the average per household for each material is relatively unchanged. We must conclude from this that volume growth is mainly driven by increased household participation with a tiny amount relating to the new materials.

Collect a wider range of materials – textiles.

We took the decision not to confuse include textiles in this first phase of the pilot. This will be included in the next phase following feedback from the householder survey.

### Data Gathering

#### Weight by segregated material

We previously gathered data on paper/cardboard weights per route and only weighed other materials recovered once it had been palletised. This data was used to support sales of materials.

We are therefore unable to conduct a year on year analysis on all materials but are able to examine paper/cardboard and will maintain the monitor until the financial year end.

| <i>Paper/Cardboard 2014 KG</i> |         |
|--------------------------------|---------|
| Mean                           | 896.0   |
| Standard Error                 | 25.6    |
| Median                         | 880.0   |
| Mode                           | 780.0   |
| Minimum                        | 680.0   |
| Maximum                        | 1240.0  |
| Sum                            | 22400.0 |
| Count                          | 25.0    |
| Confidence Level (95.0%)       | 52.8    |

An average of 40kg of paper/cardboard per household was presented over 25 collections from April 2014 to March 2015. There was some seasonality with peaks occurring on lead up to the festive season and over the festive season.

For the purposes of this pilot we decided it would be useful to understand the mix of materials presented for the route. This did take some time and we will not continue this practise.

| Date       | Paper / Cardboard Kg | Mixed Plastic Bottles Kg | HDPE Kg | Aluminium Kg | Steel Kg | Tetra | Tubs & Trays | Black Tubs & Trays | Total  |
|------------|----------------------|--------------------------|---------|--------------|----------|-------|--------------|--------------------|--------|
| 2/7/2015   | 880                  | 50.5                     | 29.5    | 16.5         | 31       | n/a   | n/a          | n/a                | 1007.5 |
| 10/9/2015  | 1120                 | 65                       | 31      | 24.5         | 42       | 3     | 10           | 1                  | 1296.5 |
| 19/11/2015 | 980                  | 68                       | 22      | 35           | 44       | 4     | 10           | 2                  | 1164   |

Baseline data was gathered before the pilot was communicated on collection service 2<sup>nd</sup> July 2015. We had seen a rising trend on paper/cardboard volumes during 2015 versus 2014. However, it was not clear whether this was reflected in the other materials. Data collected on first day of the new service, 10<sup>th</sup> September 2015, indicated an increase on all materials collected and small volumes of the new materials were present. Data collected on 19<sup>th</sup> November 2015 suggests that volumes overall have increased on the baseline. This is not completely driven by the new materials and therefore we might conclude that recognition rates of all recycling materials have increased.

This data will be useful in extrapolating potential volumes in planning for island wide roll out.

### **Presentation rates of blue bins and green bags**

We use a simple 5 bar tally system to measure presentation of recycling containers and participating households. We have conducted 2 audits of presentation rates previously. These had shown very modest year on year increases from 24% 2013 to 27.45% 2014. Anecdotally our crews report that some household only present blue bins when full with varying frequency from fortnightly to every 6

weeks whilst others present faithfully every fortnight regardless of quantity. There are less green bags presented on windy days and less participation overall on wet and wild days.

| Date       | Blue bins | Bags | Total Households Presenting | % Participation |
|------------|-----------|------|-----------------------------|-----------------|
| 17/7/2014  | 142       | 106  | 151                         | 27.45%          |
| 2/7/2015   | 182       | 183  | 220                         | 40%             |
| 10/9/2015  | 150       | 206  | 228                         | 41.45%          |
| 24/9/2015  | 116       | 170  | 178                         | 32.36%          |
| 19/11/2015 | 137       | 163  | 205                         | 37.27%          |

### **New recycling participation**

Snapshot of containers presented on 2<sup>nd</sup> July 2015 suggested that participation rates had risen on the previous year from 27.45% to 40%. This was very encouraging following on from a year of higher awareness raising activity.

The crew noted on snapshot audit of 24<sup>th</sup> September 2015 that 62 households had presented the new green bags which had been delivered to householder on 27<sup>th</sup> August 2015. The householder survey which was sent out 8<sup>th</sup> October 2015 had at the bottom of the page a call to action. This was request for people to provide name and address in order to have a blue bin delivered. On 9<sup>th</sup> November 2015 we sent an order to Argyll & Bute Council for delivery of 51 blue bins to householders in Bush/Serpentine area. Although our snapshot presentation audits show variances when looking at any single collection date in comparison to another, we can say with confidence:

- 11% of total households presented the new green bags
- an additional 9% of total households in the area are wishing to participate in recycling for paper/cardboard

We did not take note of weather conditions! Perhaps something we should consider doing in future.

### **Understanding choices**

The householder survey was a very simple one-side of A4 questionnaire with 7 questions and a call to action. 550 surveys were hand delivered with pre-paid envelopes on 8<sup>th</sup> October 2015. By 6<sup>th</sup> November 2015 there had been a return of 118 completed surveys – a remarkable 21.45% rate of return. This is an encouraging indication that people are very engaged with the project.

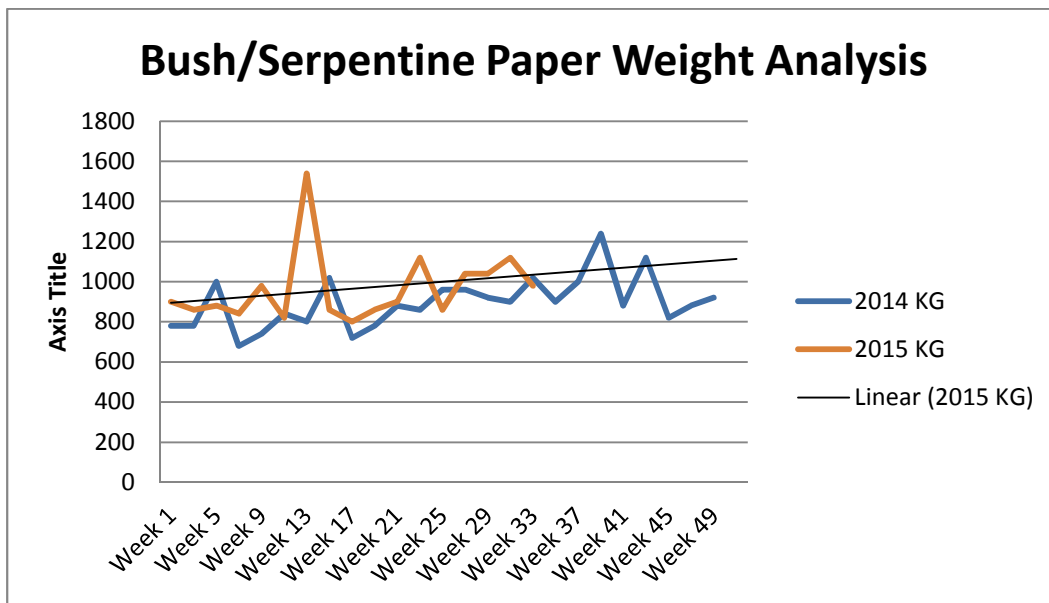
- 95 respondents indicated that they were recycling
- 21 respondents indicated that they had just started recycling
- 13 respondents who were not recycling indicated that access to collection products such as blue bin, boxes for glass and other containers would encourage them to start
- There were around 6 comments from multi-occupancy households that highlighted the issue of storage space for collection products
- 87 respondents felt that their recycling volume had increased
- The majority of respondents felt that recycling was an easy action however 6% indicated that it was slightly hard with a further 2% indicating very hard

- In response to choice of other items people would like to collected at the kerbside we were told in order of preference:
  - Glass
  - Food and garden waste
  - Textiles and household goods
  - Other items included small WEEE and batteries
- A small number of responses asked for collection of items that we already collect, indicating that our messages are not always being received as we would like
- Storage being the biggest issue stopping people from recycling: there was one complaint specifically about communal bins being misused

## Review

### What worked well?

We have increased the volume of recyclates being collected with resulting carbon savings and reductions in landfill tax! Year to date paper/cardboard volume has increased by 1,760 kg. The snapshot audits suggest that the other dry recyclates have increased too!



We have increased participation rates! All households have recycling bags to enable participation. An additional 62 households are recorded as new participants. By end of November 42% of households will have blue bins.

We have more detailed data on recyclates volumes! We can see that volumes have increased through additional participation.

We have additional data on what drives people to choose or not choose to recycle.

We can say with confidence that people are empowered to take action and have responded positively to the project.

## What didn't work well?

We had two theories of change:

1. Householders pro-actively provided with collection products would be more inclined to participate

Every household was provided with a basic recycling kit: green bags, information leaflet and collection calendar. We did see a good response to this and believe we have achieved our target for the pilot however it would have been good to achieved more. The response from multi-occupancy households was disappointing although not unexpected.

2. Extending the range of materials collected would drive increased participation rates

This theory has been born out, although the volume of new materials is not significant. People have the perception that recycling is easier when you don't have to work out what to put in the bin.

We delivered 800 green bags to achieve the results outlined. Although this is not hugely expensive, it did take a lot of man hours to implement. As the pilot continues we may continue to see participation rates increase because these resources are in place however, we need to reflect on whether this approach is right for an island wide roll out.

Engaging with the multi-occupancy households is an area that we will work on next. We had previously conducted an inventory of the tenements however the recommendations were not taken forward by Argyll & Bute Council. This is an area that we can look at.

We have delayed the roll out of textile kerb-side collection pilot; in retrospect we should have been braver. This will be implemented but will take further resources. The benefit of delay will be reflected in the awareness raising materials which will be developed utilising learning from this exercise.

## Conclusion and Next Steps

The pilot has been successful in achieving the stated aim which included increasing participation rates and volumes of materials recovered. It has provided useful data that will be used positively as Zero Waste Bute programme continues.

The next steps are to continue collecting the additional materials until the financial year end March 2016. Measure the impact of the materials on total volumes and monitor the impact on revenues gained when sold to market. Another communication piece will go out to householders to celebrate the successes, confirm the continuance of the pilot and announce the addition of textile collection service.

An island wide roll out will be delayed until April 2016.