

**Environment Scrutiny Committee - 7<sup>th</sup> September 2011**

**Report of The Director Of The Urban Environment**

**Recycling Trial Collection Scheme**

**Purpose of Report**

1. To update Committee on the outcome of the plastic and card recycling trial and give details in relation to a possible Borough-wide roll out.

**Background**

2. In March 2010 WRAP (Waste and Resources Action Programme) produced a report evaluating different methods of collecting recyclable materials within the Dudley Borough. A total of 10 options were examined, the likely financial implications of these options, as well as the potential recycling rates were investigated. The option highlighted as the most cost effective was implemented in certain trial areas in September 2010.
3. Our trial serviced approximately 11,000 properties where plastic bottles and cardboard were collected along with glass, cans and papers. An existing collection round on each day was converted to collect these additional materials and each household was issued with a green and blue reusable bag to compliment their existing black box. Residents were asked to place cans and plastics into the green bag, mixed papers and cardboard into the blue bag and mixed glass into the box. Those streets and areas where the trial is taking place are listed on the Council's internet site for information.
4. The 6 month trial period came to its conclusion at the end of March 2011; however, the trial service has continued to operate. The response from the public in the areas where the trial has taken place has been very good with high levels of participation experienced in those areas. The introduction of additional materials seems to have stimulated interest from residents who, historically, have never recycled due to the fact that we have not offered a comprehensive service compared to other authorities. Participation rates in the trial areas have increased to an average of 87%, and a maximum of 96% on one of the trial rounds; there has also been a significant increase of around 65% in the tonnage of material collected from the trial rounds. Performance figures for pre and post trial are outlined in the appendices to this report. It is evident that the decline in recycling tonnages experienced in the previous years has been reversed and that recycling performance is slowly improving. It is also important to note that injuries to operatives in relation to cuts

and abrasions in the trial areas has reduced significantly due to the fact that operatives no longer have to handle and sort materials.

5. The trial will continue in the current areas and the feasibility of a phased expansion to this scheme across the whole Borough is being explored. The current recycling fleet has 11 collection vehicles. 9 of these are 7 years old and in need of urgent replacement. New vehicles will be procured with a view to accommodating the new service from Autumn 2012. The current fleet of kerbsiders will be replaced with a universal type of recycling vehicle that can be used on both the existing and proposed collection methods. Further vehicles will only be acquired subject to the viability of this scheme beyond the 2012/13 financial year.
6. To introduce an extensive Borough-wide recycling service an adequate waste infrastructure is essential. The new Blowers Green Recycling Depot has been designed to accommodate an expansion of our recycling service with modern, well designed storage and segregation facilities. This major project was completed in May 2011.
7. Any expansion into the remainder of the borough would require some additional funding as 'pump priming' in order to acquire new bags, additional boxes, and equipment. However, these initial costs would be recovered in future years after full implementation, providing prices for the sale of materials do not fall.
8. The benefit of rolling out this new service would be an increased recycling rate. This in turn will see an increase in the amount of recycling income received and also a corresponding decrease in the amount of waste sent for disposal. This would lead to a reduction in the costs of waste disposal. Prudence needs to be observed as the Council still needs to fulfil its obligations on tonnages delivered into the Energy from Waste plant at Lister Road. Providing the service performance is optimised, the initial set up costs will be cancelled out by the extra income and savings, and in time this could produce an overall saving in the service budget.
9. WRAP commissioned a life cycle assessment (LCA) to examine the impact of various waste management options (including incineration with energy recovery) for domestic mixed plastic waste. The report does consider the impact of incinerating separately collected mixed plastic waste but draws the conclusion that "recycling scenarios are generally the environmentally preferable options for all impact categories considered", favouring the recycling of plastic over incineration. Neighbouring local authorities which incinerate domestic waste include Coventry, Solihull, Stoke, Wolverhampton and Birmingham. All of these authorities collect plastic bottles for recycling from the kerbside.
10. There is a high demand to recycle plastic bottles given the number of customer requests. This may be driven on the back of an initiative between WRAP and the British Retail Consortium, whereby all plastic bottles are being labelled as "widely recycled". The on pack labelling is aimed at making recycling simpler and more consistent across the UK, however, this will inevitably cause confusion in Dudley as we don't offer extensive kerbside facilities for certain materials. Based on data from the UK Household Plastics Packaging Survey carried out by Recoup, 90% of local authorities offered a kerbside recycling collection for plastic bottles in 2009.

11. All newspaper, magazines, card, glass and plastic collected by Dudley MBC is processed in the UK for re-use. Aluminium and steel is processed within the UK but may end up servicing a world-wide market.

## **Finance**

12. A full Borough roll-out of the new service could result in an additional 10,440 tonnes of recycling each year, with a corresponding reduction in incineration (based on a borough-wide participation rate of 87% as evidenced from the trial area).

The potential annual income/savings that could be achieved are:

- On the basis of the tonnages above, a full Borough roll out of the new service is estimated to bring in up to an additional £500,000 of recycling income, assuming existing participation rates and market rates could be maintained. The market rates are currently quite favourable due to high scrap metal prices. There are no guarantees that these prices can be maintained nor the demand for the product. Because of the unpredictable nature of the market, the service will be implemented in phases, allowing time to gauge participation and market factors.
  - The new service will result in less materials being incinerated and so a corresponding cost saving of £530,000 per annum. However, some contract renegotiation will have to be undertaken as any significant decrease in incineration would trigger the 80,000 tonne contractual deminimus. This is likely to involve us having to broker third party waste to meet the contract requirement and administer accordingly.
  - The additional revenue cost of replacing the existing fleet with the same number of new One Pass vehicles over two years, together with the necessary realignment of staffing levels is £375,000.
  - Extra revenue is required for the continued replacement of damaged or lost receptacles. And this is estimated to be in the region of £35,000 per annum.
  - Capital costs for bags and boxes, as well as advertising costs for a full Borough roll-out would be £401,000. As there is no funding currently available for this, Prudentially borrowing over 5 years will add a further £90,000 per annum to the revenue cost base.
13. Consequently, additional revenue costs of full rollout are estimated to total £500,000. Incineration cost savings (assuming no contract penalty) of £530,000 and additional income of £500,000 would provide a cushion of up to £530,000 per annum to offset the risk of reduced recycling prices in the event of a deterioration of the market price. Participation rates are assumed to be in the region of 87% and price levels at least maintained. A phased approach to service implementation will allow us to monitor margins and minimise risk.

14. Any savings in disposal and additional income need to be reinvested and used to fund the expansion of the service. Without this expansion of the service, the savings in disposal and obviously increased recycling revenue cannot be realised - we need to re-invest to save long-term.

### **Law**

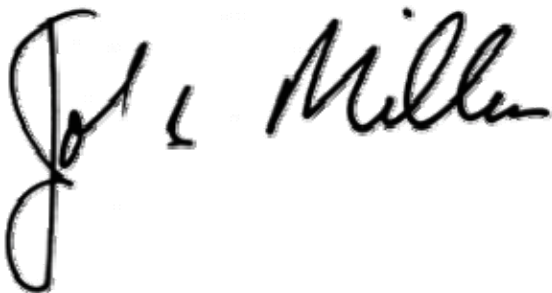
15. The Council's duties and powers regarding waste management, including recycling, and the collection and disposal of waste, are set out in Part II of the Environmental Protection Act 1990, as amended.
16. The Council may also do anything which is likely to achieve the promotion or improvement of the economic, social and environmental wellbeing of its area under Section 2 of the Local Government Act 2000.

### **Equality Impact**

17. There are no equality issues arising from this report, the extension of the service should be of benefit to all groups.

### **Recommendation**

18. That the Scrutiny Committee notes the success of the recycling trial and makes appropriate recommendation to the Cabinet Member for Environment and Culture.



.....  
**John Millar**  
**Director of the Urban Environment**

Contact Officer: Matt Williams: Telephone Number 01384 814760

Email: [matt.williams@dudley.gov.uk](mailto:matt.williams@dudley.gov.uk)

**Table 1**  
**Prices and tonnages of material collected from the trial areas**

Material	October tonnage	November tonnage	December tonnage	January tonnage	February tonnage	March tonnage	April tonnage	May tonnage	Monthly average	Agreed rate (per tonne)	Average monthly Income
Paper & cardboard	108	127	112	125	108	141	103	123	118	£67.50 (July average)	£7,965
Plastic bottles & cans	20	31	28	38	22	31	27	20	27	£38	£1,026
Mixed glass <i>estimated</i>	29	23	33	68	25	15	28	35	32	£7.50	£240
Total	157	181	173	231	155	187	158	178	179	n/a	<b>£9,231</b>

Average price per tonne of material collected = £51.57 (£9,231 / 179 tonnes)

**Table 2**  
**Participation Rates Before And After The Introduction Of The Recycling Trial**

*A resident is classed as participating in the recycling service if they place recyclable material out for collection at least once during three collections. This is to allow for residents who may be on holiday, or may not have enough material to warrant placing the containers out every fortnight.*

Round	Area	Pre-Trial Participation	Post Trial Participation	Increase
K1-1	Hurst Green	66.09%	82.79%	16.70%
K2-4	Hasbury	85.46%	94.70%	9.24%
K3-8	Brierley Hill	66.63%	95.66%	29.03%
K4-3	Pensnett	66.34%	89.45%	23.11%
K5-1	Coseley	47.65%	78.40%	30.75%
K6-2	Pedmore	80.66%	88.21%	7.55%
K7-1	Kingswinford	80.64%	90.84%	10.20%
K8-6	Wordsley	72.40%	85.25%	12.85%
K9-4	Lower Gornal	82.08%	91.94%	9.86%
K10-1	Sedgley	48.38%	71.79%	23.41%
<b>Average</b>		<b>69.63%</b>	<b>86.90%</b>	<b>17.27%</b>

**Table 3**  
**Tonnages Of Material Collected On The Different Rounds Before And After**  
**The Introductions Of The Trial**

<b>Round</b>	<b>Area</b>	<b>Pre-trial Weight (tonnes)</b>	<b>Trial Weight (tonnes)</b>	<b>Increase (tonnes)</b>	<b>% Increase</b>
K1-1	Hurst Green	4.971	7.720	2.749	55.30%
K2-4	Hasbury	4.852	8.786	3.934	81.08%
K3-8	Brierley Hill	4.874	8.853	3.979	81.64%
k4-3	Pensnett	4.696	7.301	2.605	55.47%
K5-1	Coseley	3.724	7.033	3.309	88.87%
K6-2	Pedmore	5.001	8.246	3.245	64.89%
K7-1	Kingswinford	7.219	10.044	2.825	39.13%
K8-6	Wordsley	5.351	9.564	4.213	78.73%
K9-4	Lower Gornal	5.343	8.244	2.901	54.30%
K10-1	Sedgley	4.222	7.099	2.877	68.14%
<b>Totals</b>		<b>50.253</b>	<b>82.890</b>	<b>32.637</b>	<b>64.95%</b>