

BRIEFING TOPIC

WASTE MINIMISATION AND RECYCLING HOUSEHOLD WASTE

1.0 BACKGROUND

1.1 Plymouth City Council needs to continually improve its waste minimisation, household recycling and composting performance to help meet statutory performance targets and to divert biodegradable waste from landfill to minimise the considerable financial penalties that Local Authorities face under the Landfill Allowance Trading Scheme (LATS) and Landfill Tax.

1.2 The Council adopted its Municipal Waste Management Strategy (MWMS) in April 2007 following an extensive evaluation of options and consultations with stakeholders.

The main objectives in line with the waste hierarchy were:

- To improve waste minimisation and re-use.
- Improve recycling rates to meet national targets (min 50% by 2020) and local targets.

1.3 In addition, the Council, as part of the South West Devon Waste Partnership (SWDWP), were awarded £95 million in Private Finance Initiative (PFI) credits to procure an Energy from Waste (EfW) treatment facility for non recyclable waste. The PFI credits were granted on the understanding that the partnership achieves a minimum of 50% recycling by 2020 to meet revised targets in the national waste strategy. Plymouth's recycling targets for the PFI project are as follows:

PCC Recycling and Composting Targets for PFI	2006/7	2009/10	2014/15	2019/20
	27%	29%	39%	43%

2.0 WASTE MINIMISATION

2.1 Plymouth has been very successful in reducing the amount of waste each household produces and has exceeded its targets. Modelling, completed for the Plymouth Municipal Waste Strategy 2007-2030 has predicted that compound waste growth at the household level would be in excess of 1% per annum in addition to the forecast growth in household numbers of 1000 per annum. However, waste arisings in Plymouth actually fell by over 12% between 2006/7 and 2009/10.

	Household Waste	Municipal Waste
2006/07	127,152.04	155,189.88
2007/08	124,857.53	148,660.88
2008/09	116,353.10	138,256.26
2009/10	112,852.89	132,070.42

- 2.2 Initiatives such as the use of 'real nappies' to minimise waste will continue to be promoted on a priority before recycling and energy recovery in accordance with the waste hierarchy and our Municipal Waste Management Strategy.

3.0 **RECYCLING AND COMPOSTING**

- 3.1 Plymouth has done well to increase its recycling rate from **23%** (2005/06) to **33%** (2010/11) and has achieved this by continually improving the waste management service offered to residents.

- 3.2 The main areas that have been improved are:

Garden Waste: The kerbside collection of green garden waste was expanded by 30,000 properties in summer 2010 to cover the majority of properties with gardens. Over a full year this improvement is likely to increase composting by around 1%.

HWRC Upgrade: The Chelson Meadow Household Waste Recycling Centre has been upgraded to improve health and safety, customer throughput and offer a wider range of recycling opportunities. The Recycling rate at the centre was 75% in 2009/10 compared to 65% before the upgrade. This improvement has delivered an overall recycling improvement of around 2%.

MRF Upgrade: A trommel screen replacement has raised the throughput capacity of the MRF to 12 tonnes per hour from previous 9 to 10 tonnes per hour. Feedback conveyors and an eddy-current separator were installed in early 2010 to improve material separation. Options to process MRF residues have been implemented in 2010 and are estimated to achieve a recycling improvement of 1.5% in 2010/11.

Trade Recycling: A Trade Waste recycling service was introduced from 2008/09. Initial uptake was slow but 203 tonnes have been recycled in 2009/10; up from 66 tonnes in the first year.

- 3.3 Although these new improvements and new initiatives have increased recycling rates the global recession experienced since 2008 has had a detrimental impact. In particular the unexpected collapse of the recycling markets in late 2008 resulted in some recycle outlets ceasing to take material or revising their quality standards for materials taken. This has also increased the percentage of material rejected to landfill.

However, recycling markets have started to recover.

4.0 BENCHMARKING WITH OTHER LOCAL AUTHORITIES

- 4.1 A benchmarking review of the Council's waste and recycling provisions in comparison to top recycling performing authorities and our Audit Commission Family Group has been undertaken.

This review identified that PCC waste infrastructure is comparable with the top performing Unitary Local Authorities that are reaching 36-43% (Plymouth is 9th out of 16 authorities) and therefore potentially capable of producing a higher recyclate capture of between 6-8%. However achieving high end capture rates will not be attainable given the socio-economic and geo demographic nature of Plymouth coupled with the predominantly high density housing stock, blocks of flats and houses in multiple occupancy.

5.0 HOUSEHOLD PARTICIPATION

- 5.1 To achieve higher recycling rates is extremely challenging as we need to influence people's behaviour to recycle more of their household waste. Residents need to see recycling as a key element in being able to 'do their bit' to reduce climate change and dependency on scarce natural resources.

- 5.2 Although in Plymouth 70% of households recycle 70% of everything they. There is strong correlation between areas of deprivation, recycling tonnages collected and levels of contamination. Households in areas of deprivation produce 80% less recycling than more affluent areas.

Although a variety of targeted action has been carried out in these areas (talks, community meetings, school visits, workshops, partnership working etc.) progress in changing behaviour can be slow and resource intensive.

There is also low participation rate with 16-24 year olds including the student population.

6.0 FURTHER INITIATIVES TO INCREASE RECYCLING

- 6.1 Given that Plymouth City Council recycling infrastructure (wheeled bins and kerbside co-mingle collection) is largely in line with the best performers there is further potential to optimise the capture of dry recyclables and the key area likely to have the potential to yield a significant increase in dry recyclate capture is:

- Kerbside glass collection (estimated to contribute 4% to recycling rate). However this will depend on residents using the scheme.

7.0 KERBSIDE GLASS COLLECTION SCHEME

- 7.1 Research is currently being undertaken to assess a viable operational method to collect glass that is likely to achieve the best recycling gains, be acceptable to residents, whilst also ensuring best value for money. This is also dependant on local available technology to sort and process glass. A full cost benefit analysis will then be undertaken on the various options to determine the way forward.