Research Information Note: ***Modelling the Impact of Lifestyle Changes on Household Waste Arisings (WR0107)***

The innovative input-output model (forecasting tool) that has been constructed by this research was developed using the most up-to-date data on waste arisings available in 2005, at the project start, i.e. up to and including data for 2003/04. Following completion of the initial research and model development in July 2006, new data on waste arisings became available, which indicated that waste growth rates were slowing down. Further work was commissioned to investigate possible refinements to the model to improve the correlation. In particular the model was re-run using data up to 2000 only to predict arisings up to 2006 for which actual data was now available. This additional research was concluded in August 2007 and confirmed that, for the years 2002-2006, the model would have predicted a continuing annual growth in waste arisings, while the reported data show a distinct slow-down in waste growth. In order to obtain accurate modeled predictions, the further research showed it would be necessary to change a range of data assumptions and factors within the model, which are not yet fully understood (as opposed to simple adjustment to one or two factors).

The divergence observed between the model forecasts and recent waste growth limited the initial application of the WR0107 model for policy purposes. Defra have therefore subsequently commissioned separate research in order to better understand factors related to local waste policies that may have influenced changes in waste growth patterns (WR0121), by examining policies in a number of case study local authorities.

With the weight of waste producing goods likely to continue to grow at around 1.5% pa to 2020, it is important that we understand why waste growth has recently slowed down, and whether or not that trend will continue.

In reading the WR0107 reports, the reader should bear in mind that the reports cover both the original work (2006) and the additional work in 2007, and that **the results in terms of predicting the absolute quantities of future waste arisings should be treated with caution**. However, this project still allows exploration of future trends in waste **composition**, if not total quantity. By linking the relative quantities of different waste components of household waste to a number of explanatory variables associated with changing lifestyles, the model may still be useful in allowing the exploration of **relative** rather that absolute trends in future waste composition.

Links to reports:

- *Understanding Waste Growth at a Local Authority Level (WR0121)*

http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=15487#Description

- *Modelling the Impact of Lifestyle Changes on Household Waste Arisings (WR0107)*

http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=14661#Description