Agenda No

Warwickshire Waste Partnership – 3rd October 2006

Defra Funded Waste Analysis Project

Report of the Strategic Director for Environment and Economy on behalf of the Officers Group

Summary

This report details the proposed methodology of a countywide waste composition analysis funded by the Department of Environment, Food and Rural Affairs (Defra) through their Direct Consultancy Support programme.

Recommendation

That Members note the contents of this report and be aware of the proposals in the event of queries from members of the public.

1. Introduction

1.1 The Waste Implementation Programme (WIP), Local Authority Support Unit (LASU) has extended their Direct Consultancy Support by a further two years to continue assisting local authorities in improving their waste management performance.

1.2 The funding is available for specialist support on projects looking at waste planning, waste strategy development, procurement, or waste composition analysis, and as a County and District/Borough Partnership we are entitled to bid for up to £50,000 per year.

1.3 The projects submitted to Defra were evaluated on the benefit derived, the impact the support would have on overcoming barriers, and the level of commitment shown by the Authorities to acting on the results of the work. It was felt that the project chosen would be the most appropriate to submit as it would be used to overcome barriers currently experienced by the District and Borough Councils, and will be of great benefit to the Partnership in improving performance.

2. Details of Project

2.1 The relevant officers from each of the partner authorities came to a unanimous decision that the most appropriate project to submit would be a countywide waste composition analysis. This analysis will look at the types and quantities of waste streams arising in each District or Borough across a selection of properties, and at the recycling centres, and any trends or changes over the

duration of the survey. The consultants will be asked for specific recommendations on how to increase the recycling and participation rates, and to model the effect of the recommendations, along with any planned changes in the collection methodology, on the residual waste arisings. They will then model the tonnage and calorific value of the residual waste until at least 2009/10, which can then be used to provide baseline data for implementing the Waste Strategy.

3. Appointed Consultants

3.1 The consultants appointed by Defra to carry out the work are AEA Technology. They have been working with Warwickshire on the development of our waste management strategy. They have also conducted similar projects (both LASU WIP funded) for Suffolk in 2004/5 and North Lincolnshire (2005/6) in which the performance of kerbside schemes was evaluated and a model was then used to predict how increases in recycling rate would affect both the category and chemical (including calorific value) composition of the residual waste stream.

3.2 The waste analysis work will be sub-contracted to Waste Research Ltd, who have worked with AEA Technology on a significant number of waste analysis studies in the last five years; these include the LASU funded studies in Suffolk and North Lincolnshire.

4. Methodology

4.1 The analyses that will be conducted are:-

(i) Household collected waste – two analyses for each of the five Waste Collection Authorities in Warwickshire.

(ii) Recycling centres – one analysis at each of six of the household waste recycling centres in Warwickshire.

4.2 The proposed sampling plan for monitoring the kerbside schemes will be for each Waste Collection Authority to select an area of a minimum of 50 households that they consider to be representative of the authority. The analyses will then be conducted by collecting waste and recyclables from these properties, bulking them in bags and taking waste to a facility for analysis. Once there the bulk density of each collected waste stream will be determined, and each waste stream will then be hand sorted to determine its composition. Two sets of analyses will be conducted in each District; the first in September/October 2006 and the second in February 2007.

4.3 There are nine recycling centres in Warwickshire. Three of these are sufficiently constrained for space to make it difficult to conduct the analysis. Consequently, analyses will be conducted at six sites by analysing waste brought to the site by 50 visitors to determine the input waste composition. This data and information on the amounts of material recycled will be used to estimate the residual waste composition and thus the capture rate for each targeted material. This enables the analysis team to assess the operation of each site as they are conducting the analyses and identify options, such as improved signage or rearrangement of containers, which could increase the current recycling rate. This will be carried out during September/October 2006 and should enable the average percentage of garden waste to be determined.

4.4 The report, which will be produced by AEA Technology, will present the results of the analyses, compare them with other recent data, and identify options for improving the performance of each authority's kerbside schemes and each of the six recycling centres. This report will make recommendations on improvements to the services that could help Warwickshire meet its 40-45% recycling target.

4.5 AEA Technology will use a model that it has developed to assess the impact of future increases in recycling rate on both the category and chemical (including calorific value) composition of the residual waste. This will use the baseline composition data obtained during the analysis work. Modelling will be conducted for each of the five Waste Collection Authority areas to assess the impact of increasing the recycling rate on the composition of the residual household collected waste. Three scenarios will be modelled; alternate week collection, collection of recyclables in 240 litre wheeled bins with sorting at a MRF, and biowaste collection (collected separately and with green waste). The final output from the modelling will be an estimated category and chemical composition of overall residual waste arisings in Warwickshire for each of these scenarios. The potential issues regarding treatment of the resulting residual waste by a number of different types of treatment technology will also be discussed.

4.6 There should be little impact on members of the public unless they object to their waste being used. If this is the case they can ask not to be included and their property will not be analysed, however we are not able to give advance warning of the analysis in case it distorts the results. A letter from Warwickshire County Council explaining the process will be given to Waste Research Ltd for their use while carrying out the sampling, and a press release will be issued after each stage of sampling.

4.7 Please note that no household will be in any way identified by the analysis as it is only quantities of different materials in the waste streams that are being assessed and all of the waste collected will be bulked up before undergoing detailed segregation into material type. This information will then only be used to improve facilities for recycling and recovering waste. There will also be no weighing of bins using microchips.

4.8 The results of the waste composition analysis will be presented to a future meeting of the Warwickshire Waste Partnership.

Enquiries:-about this report should be made to Jo Ingle, Project Manager, 01926 418064, email joingle@warwickshire.gov.uk

Background Papers

None

JOHN DEEGAN
Strategic Director for Environment and Economy
Shire Hall
Warwick

18th September 2006