Executive Summary of the Derbyshire Joint Municipal Waste Management Strategy

Derbyshire Waste Management Strategy Executive Summary

Introduction

The joint Municipal Waste Management Strategy provides a framework for strategic decisions to be taken on the management of municipal solid waste (MSW) in Derbyshire and Derby City over the next 20 years and has been jointly prepared by Derbyshire County Council, Derby City Council and the eight Derbyshire Borough/District Councils.

European waste legislation and policy, adopted into UK law has a direct effect on local authority waste collection and disposal practices. The Landfill Directive provides the principal legal framework influencing MSW management and strategy development in the UK. The most significant requirement of the Directive is to significantly reduce the quantity of biodegradable municipal waste (BMW) landfilled over future years as shown below:

Reduce BMW landfilled to 75% (by weight) of that produced in 1995 by 2010;

Reduce BMW landfilled to 50% (by weight) of that produced in 1995 by 2013; and

Reduce BMW landfilled to 35% (by weight) of that produced in 1995 by 2020.

The Landfill Directive is transposed into UK law through the Waste and Emissions Trading Bill and Landfill Allowance Trading Scheme (LATS). Under the scheme, Derbyshire County Council and Derby City Council have been allocated landfill allowances which set the maximum quantity of BMW that the Councils can landfill in each year up to 2020.

Within Derbyshire, there has been a heavy reliance on landfill as the principal disposal route for a high proportion of municipal waste (77%). The situation has to change with the introduction of systems which serve to increase recycling, composting and recovery of waste and therefore, over time, greatly reduce the proportion of the waste stream sent to landfill.

Waste Management Today

In 2004/05, Derbyshire produced more than 500,000 tonnes of MSW. Of this total, Derbyshire County accounted for about 390,000 tonnes, whilst Derby City produced about 125,000 tonnes. Recycling and composting accounted for approximately 23% of MSW waste arisings. Based on current and forecast growth levels it is predicted that waste arisings in Derbyshire (including Derby City) will reach 620,000 tonnes per annum by 2020.

All local authorities in Derbyshire are working together to develop a high profile countywide waste awareness campaign linked to the National Waste Awareness Initiative 'Recycle Now' campaign, and are all promoting and supporting waste minimisation and re-use initiatives and schemes. Additionally, regional initiatives have been identified with potential for being implemented by the councils.

In order to meet their LATS allowances in 2020 the County and the City will need to divert over 330,000 tonnes of biodegradable municipal waste away from landfill through a combination of recycling, composting and residual waste treatment. Failure to achieve the LATS targets will result in significant fines for the councils.

Future Options for Managing Waste

Six potential options have been developed, each comprising a mixture of bring and kerbside recycling, household waste recycling centres, waste facilities for treatment of residual waste and landfill disposal. A detailed options appraisal process has comprised an assessment of the Best Practicable Environmental Option (BPEO), and Sustainable Waste Management Option (SWMO). Each option has been assessed against a set of 21 environmental, economic and social indicators.

The best performing options with respect to BPEO and the SWMO for long-term management of municipal waste in Derbyshire involved a recycling/composting rate between 45 and 55% with the residual waste being treated at an Energy from Waste Facility, or by anaerobic digestion or by autoclaving (steam sterilisation) technology. All three options are considered to offer a sustainable solution for the future management of Derbyshire's and Derby City's municipal waste and allow the council's to meet and indeed exceed the Landfill Directive targets in 2020. These highest scoring options should now form the basis for the development of a more detailed costing and logistical analysis.

Proposed Strategy

The proposed strategy is based on a number of key elements as follows:

A partnership approach between all councils to achieve the visions of the municipal waste strategy.

Introduction of waste minimisation schemes to reduce the growth in waste arisings. Ultimately, it is intended that zero growth in waste arisings will be achieved.

Continued support to and promotion of the benefits of home composting and other waste minimisation schemes.

Support to local and regional schemes that encourage and develop local recycling, composting and reprocessing capacity.

Continued introduction/expansion of the kerbside collection of dry recyclable and organic (compostable) materials.

Enhancement of the Household Waste and Recycling Centre (HWRC) provision.

Provision of Materials Recycling Facilities (MRFs) to deal with recyclable materials as required.

Development of a number of in-vessel composting facilities.

Continued use of open windrow composting for green waste.

Provision of sufficient residual waste handling capacity to treat residual waste.

Provision of sufficient landfill capacity to receive treatment residues and other non-recyclable waste.

Delivering the Strategy

There will need to be a significant increase in the number of waste handling facilities to manage the waste. The estimated number of facilities will depend on the size. The following table gives an indication of the need, including current ones depending on whether they are small, medium or large. In reality it will be a combination to suit the needs of the City and County.

| Size | MRF | Composting | Residual | Landfill | HWRCS | Total |
|--------|-----|------------|-----------|----------|------------|------------|
| | | | Waste | | & | Facilities |
| | | | Treatment | | Transfer | |
| | | | | | Facilities | |
| Small | 17 | 7 | 6 | 1 | 11 | 42 |
| Medium | 7 | 5 | 3 | 1 | 11 | 27 |
| Large | 3 | 3 | 2 | 1 | 11 | 20 |

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