BIRMINGHAM CITY COUNCIL WASTE CAPACITY STUDY BRIEFING NOTE

1. INTRODUCTION

Birmingham City Council is in the process of producing a Core Strategy which needs to be underpinned by a robust evidence base. A fundamental part of the evidence base for waste management is establishing the need and capacity for waste management facilities, which is a complex process that must be based on the best available information.

There are a number of elements that influence the capacity need within an area including:

– The arisings of different waste streams (including municipal, commercial and industrial, construction, demolition and excavation and hazardous);

– The potential growth in these waste streams which will be affected by planned growth within an area but also the effects of waste prevention and minimisation, reuse and resource efficiency;

– The type, number and capacity of existing facilities, including those facilities which are not required to hold an environmental permit but play an integral role in the waste management infrastructure;

– The demand for recycled materials which can drive the need for new facilities, this is of particular interest in Birmingham in terms of utilising secondary and recycled aggregate in supporting the construction and future growth in the city.

The capacity assessment study seeks to provide the technical evidence base to allow informed discussions on the Core Strategy Preferred Option. In order to inform discussion at the Consultation workshop on the 22nd October 2009, this briefing note has been prepared to provide some background information and details of the assumptions associated with the capacity study work and to provide an indication of some of the questions that will be discussed at the workshop. Further more detailed information is available in the draft Birmingham Waste Capacity report, which will be available at http://www.birmingham.gov.uk/wastestudy on the 19th October. More detailed data will also be provided at the workshop in order to inform group discussions.

2. WASTE ARISINGS

2.1. Municipal Waste Arisings

In 2008/09, approximately 544,000 tonnes of municipal waste was produced in Birmingham. Over the last five years there has been a decrease in the amount of household waste generated per household, which has contributed to a reduction in the overall municipal waste arisings.

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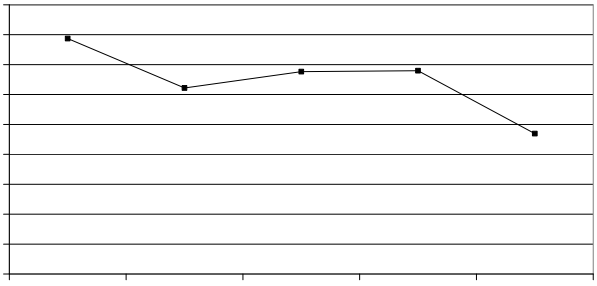

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Table 1. Options for housing growth being considered in Birmingham

Option	Description	Proposed additional households up to 2026
1 (a)	No change to current policy approach & no change to green belt boundary	50,000
2 (b)	Higher levels of housing growth than minimum RSS figure but without any physical expansion of built up area of the city/ building on the green belt.	55,600
(c)	*Panel recommended figure for RSS*	*57,500*
3 (d)	Higher level of housing growth than Option 2, partly accommodated through extension into the green belt areas.	65,000

Three scenarios of how waste arisings per household may change in the future were generated, including:

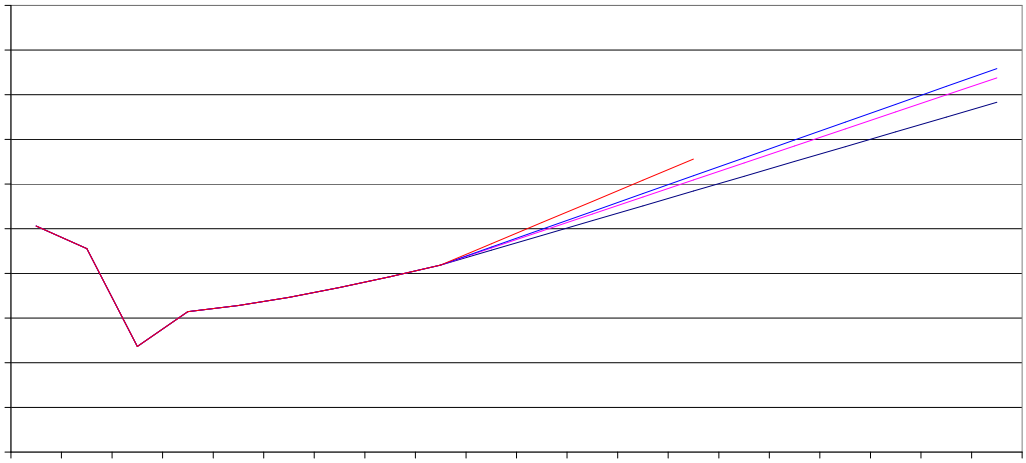
– Scenario 1 - No change in waste arising/household/year from 2008/09 levels with non-household waste levels remain constant;

– Scenario 2 - Variation over time in level of waste arising/household/year based on the historical trend with non household waste levels remain constant; and

– Scenario 3 - Levels of household waste growth as per targets in Birmingham City Council's Municipal Waste Management Strategy (which is based on anticipated household growth) and with non household levels remain constant.

Based on these assumptions municipal waste is predicted to increase from 543,600 tonnes in 2008/09 to between **544,700 - 614,900 tonnes/annum (scenario dependent) by 2025/26** which represents an increase in municipal waste arisings of between 0.2 - 14% over the period, Figure 1.

Figure 1. Municipal Waste Growth Projections (2006/07- 2025/26) all scenarios



2.2. Commercial & Industrial Waste Arisings

In 2006/07, it was estimated that 967,700 tonnes of Commercial and Industrial (C&I) waste arose in Birmingham[2]

2.3. Construction, Demolition & Excavation Waste Arisings

In 2006/07, it was estimated that over 1.65 million tonnes of construction, demolition and excavation (CD&E) waste arose in Birmingham[3].

In order to predict future waste arisings for CD&E waste, two scenarios were considered:

– Scenario 1: was taken from a previous West Midlands study in 2004[3] which predicted future arisings based on information in the 2003 Office of the Deputy Prime Minister (now Communities and Local Government – CLG) report[4] and used a disaggregation index based on RPG policy on existing and future housing development rates.

– Scenario 2: due to the current economic downturn, a second growth scenario was considered for CD&E arisings based on current market news and information, as shown in Table 3.

Table 3. Growth Rate Assumptions used for CD&E arising projections (Scenario 2)

Year	

Table 5. Breakdown of Hazardous Waste Arisings 2007

EWC Chapter Headings	2007 ('000s tonnes)
01: Mining and Minerals	<0.1
02: Agricultural and Food Production	<0.1

3. ASSESSMENT OF EXISTING WASTE MANAGEMENT FACILITIES

3.1. Assessment of existing permitted waste facilities

In order to assess the number and capacity of existing waste facilities within Birmingham, data was obtained from the Environment Agency on permitted facilities operating within the Birmingham City Council boundary. The following information was requested:

– location of existing waste management facilities, including post code;

– type of facility e.g. transfer station; and

– permitted capacity (which is provided in bands, e.g. 25,000 to 74,999 tonnes) and actual capacity throughput.

The data received from the Environment Agency was assessed and any non-operational sites removed from the list. 106 permitted waste facilities are recorded as being operational in Birmingham. The majority of facilities are either:

– A11: Household, Commercial and Industrial Waste Transfer Stations – 36 facilities; or;

– A19a: End of Life Vehicle Facilities – 31 facilities.

The tonnage of waste received at operational sites was analysed based on waste returns made to the Environment Agency for 2007[5.]

An assessment was also undertaken of the tonnage facilities were permitted to take on an annual basis in order that a comparison could be made of actual throughput against permitted capacity.

Based on 2007 waste returns to the Environment Agency, it is estimated that 2.3 million tonnes of waste was managed (the waste may or may nor arise in Birmingham) at permitted waste facilities in Birmingham. When comparing this to the permitted capacity of 3.4 million tonnes, this would infer theoretically only 67% of available permitted capacity is being utilised. However, realistically some facilities may not have the infrastructure to operate at the maximum tonnage of their permitted tonnage band.

4.3. Construction, Demolition & Excavation Waste

The capacity requirements for the two different CD&E waste scenarios projected in Section 2.3 were broken down according to the method of management for CD&E waste in the West Midlands used in the CLG survey. Data for the first scenario and methods of management was taken from a previous West Midlands study in 2004[9], i.e. based on the methods of management used in the 2003 CLG survey[10]. Whereas, Scenario 2, which projected lower CD&E arisings due to the economic downturn, was split according to the methods of management in the 2005 CLG survey[11].

Table 8 provides an indication of the breakdown of the tonnages by management method to handle the range of CD&E arisings in Birmingham.

Table 8. Future waste treatment requirements for CD&E waste

Methods of management	2006/07