Planning and Compulsory Purchase Act 2004
Minerals and Waste Development Framework

WARWICKSHIRE WASTE DEVELOPMENT FRAMEWORK CORE STRATEGY

ISSUES & OPTIONS

DATE: February 2006

WARWICKSHIRE COUNTY COUNCIL

Contents

1 INTRODUCTION

1.1 This Issues and Options Report is the 2nd Stage of consultation that informs the preparation process of the Core Strategy Development Plan Document (DPD) for the Waste Development Framework. This document sets out a number of broad issues on that we are seeking views.

1.2 The aim of this document is to build on the feedback from the preliminary consultation entitled Waste Development Framework – Core Strategy – Preliminary Consultation, that took place between 11th July and 22nd August 2005. It involved sending out a questionnaire asking whether the recipient had any information they felt would be useful in the production of the Waste Core Strategy as well as asking for views on Warwickshire County Council's current waste policies and details of waste issues that were important to the consultee.

1.3 The four stages of consultation as set out in ***Figure 1*** will all contribute to the production of the Waste Core Strategy Development Plan Document (DPD). The Waste Core Strategy will set a long-term vision, objectives and the overall strategy for waste development across the County up to 2021, and provide the framework for waste development control.

1.4 The aim of the Issues and Options consultation is to provide a framework to engage key organisations to discuss and reach a consensus concerning the principal issues and options concerning the treatment and disposal of **all** waste in the county. The purpose of the Waste Development Framework must not be confused with the purpose of the Waste Management Strategy. The Waste Development Framework is concerned with the scale, location and type of facility required to dispose of all waste (i.e. municipal, industrial, commercial, construction and demolition waste). Warwickshire County Council is also directly responsible for the disposal of municipal waste – this is the focus of the Waste Management Strategy.

Format of Issues and Options Paper

1.5 The Issues and Options information is set out as follows:

- Section 2: Provides background information on waste management activities in Warwickshire including an indication of waste arisings
- Section 3: Provides an outline of the policy context within that wastes management planning is undertaken in Warwickshire
- Section 4: Outlines applicable legislation and the key drivers for wastes management practices
- Section 5: Provides information on the responsibilities for wastes management within Warwickshire
- Section 6: Identifies the key objectives for the waste development framework including a vision statement for the Development Framework
- Section 7: Identifies the key issues for wastes management planning within Warwickshire and the potential options for that consultee responses are invited.

How You Can Contribute

1.6 Anybody is welcome to respond to this consultation. You can either:

1. Complete the questionnaire enclosed

2. Complete the on-line questionnaire

3. Obtain a copy from your local Council offices or local library

4. Telephone 01926 412391 or 412538 and request a copy that will be posted to you

5. Write to:

Issues and Options Consultation: Waste Core Strategy

The Strategy Unit

Department of P.T.E.S.

Warwickshire County Council

P O Box 43

Shire Hall

Warwick

CV34 4SX

On-line Availability

1.7 This document and additional technical information is on-line at www.warwickshire/wastecorestrategy. On-line you can click on the document and download it using adobe acrobat or you can use the on-line questionnaire.

Consultation Period

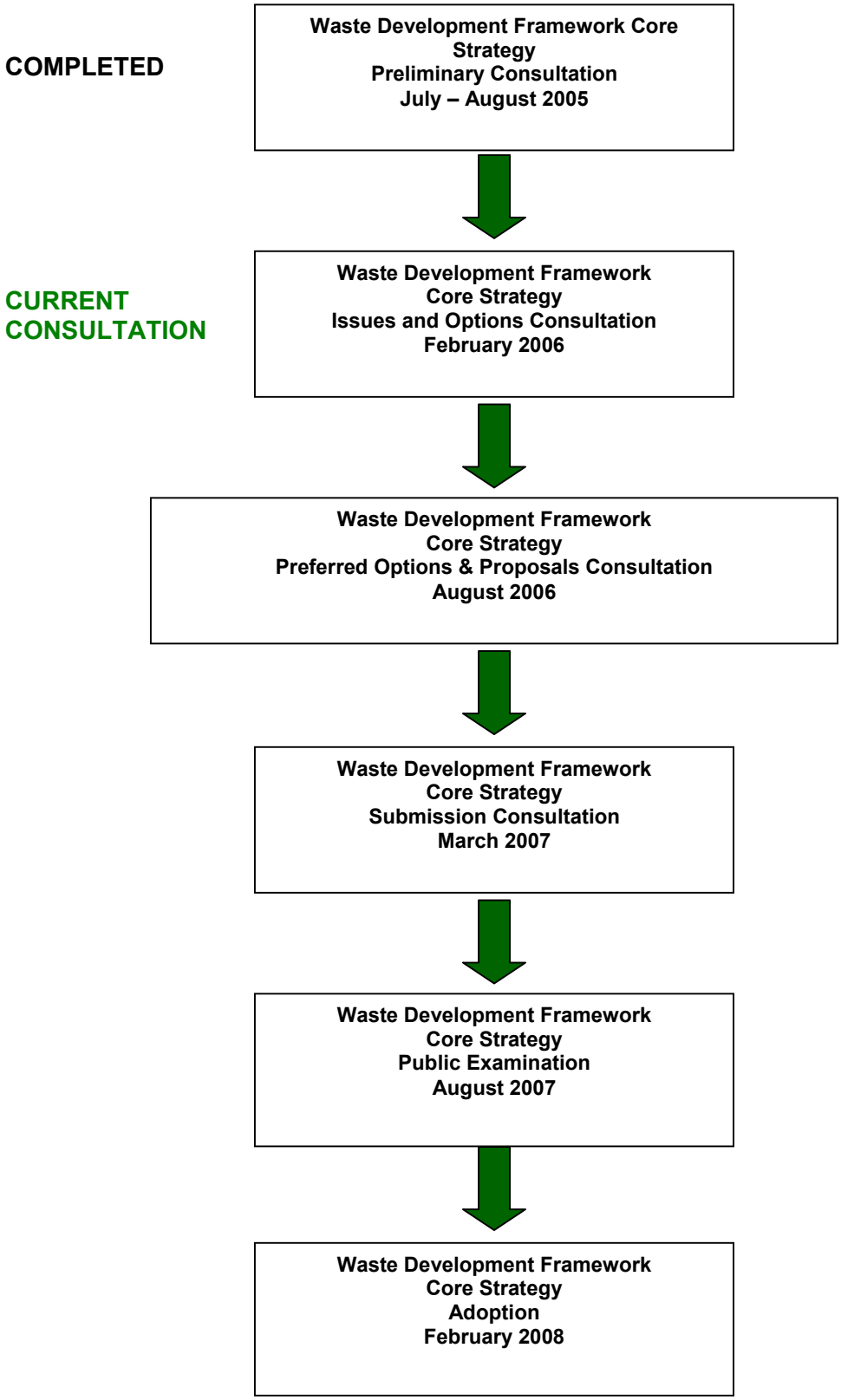
1.8 There is a 6-week consultation period for the Issues and Options Paper from the 27th February to the 10th April 2006.

What Happens Next?

1.9 Following this consultation, all the comments will be collated and a report written summarising the findings. Each representation received during the 6 week statutory consultation period will be considered by Warwickshire County Council. These comments will then be incorporated (wherever possible) in the Preferred Options and Proposals Paper of the Waste Core Strategy and this Paper will be consulted on for a 6 week period commencing in August 2006.

1.10 The next key public consultation date will be January 2007 when the Waste Core Strategy will be submitted to the Secretary of State and the public will again be invited to comment on the document. All representations received during this 6 week consultation period will be made publicly available and considered by an independent Inspector at examination (August 2007). Warwickshire County Council intends to adopt the Waste Core Strategy in February 2008.

Figure 1: The Stages of the production of the Waste Development Framework Core Strategy Development Plan Document (DPD)



2 WASTE MANAGEMENT IN WARWICKSHIRE

Context

2.1 As part of considering the issues and options for sustainable waste management and disposal, it is important to consider the context, in that these issues arise.

2.2 The key contextual factors influencing the future waste management and disposal requirements are:

- Growth of population, number of households
- Changes in employment, businesses
- Waste arisings.

Population of Warwickshire

2.3 Warwickshire has a population of 519,301[1] and covers an area of 1,975Km^2 with just under a quarter of a million households. The bulk of Warwickshire's population lives in the north and centre of the county, that has traditionally been industrial; with towns such as Nuneaton, Bedworth and Rugby whose established industries include (or included) coal mining, textiles, cement production, and engineering. In the centre and west of Warwickshire lie the prosperous towns of Leamington Spa, Warwick, Kenilworth, and Stratford-upon-Avon.

2.4 The South of the county is largely rural and sparsely populated. The largest towns in Warwickshire as of 2004 are: Nuneaton (pop. 77,500), Rugby (62,000), Leamington Spa (42,300), and Bedworth (32,500).

Table 1: Population of Warwickshire

Districts	Population	Number of Households
West Midlands	5,267,308	2,219,893
North Warwickshire	61,900	26,118
Nuneaton and Bedworth	120,300	51,410
Rugby	89,200	39,333
Stratford-on-Avon	115,200	47,000
Warwick	132,700	56,700
Warwickshire	519,300	220,561

Source: Census 2001, partly updated by Districts/Boroughs where figures available.

2.5 The population of Warwickshire has grown by 11% over the past 30 years and is projected to increase by a further 3.6% over the period of 2000-2010. The largest predicted growth over this period is in North Warwickshire followed by Warwick, Stratford and Rugby, however, population decline is projected in Nuneaton and Bedworth over the same interval.

Economic Context

2.6 The economic climate of an area is an influencing factor for the generation of waste. Gross Value Added (GVA) is a measure of the total economic activity in a region and provides an indication of the health of the region's economy. The table below provides a comparison of the GVA per head in Warwickshire, West Midlands and the UK from 1998 – 2002.

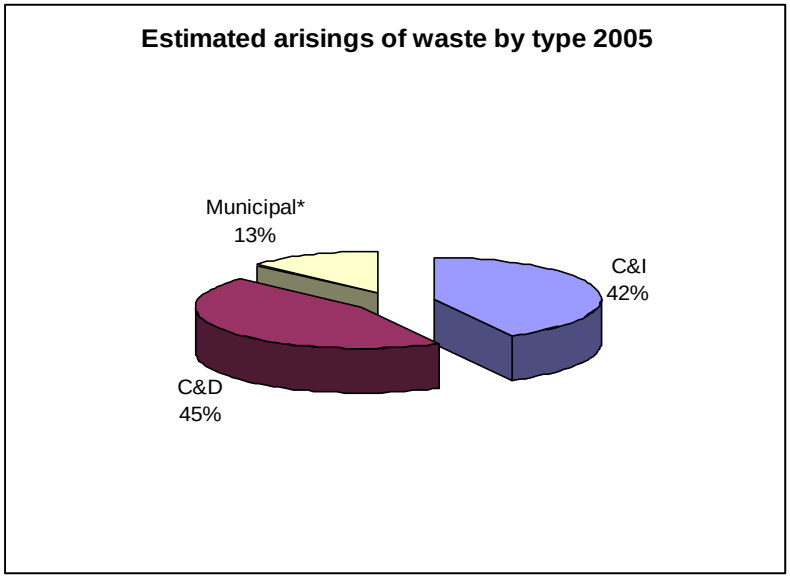
[1] Based on 2003 population estimates

Warwickshire is ranked third behind Birmingham and Solihull in terms of per capita GVA. Between 1995 and 2002 the Warwickshire economy has grown by an average annual rate of 5.9%, that compares favourably with the UK average of 5.1% and the West Midlands figure of 4.6%.

Waste Arisings

2.8 Warwickshire County Council has to make provision for the disposal of all types of waste. This consists of municipal waste, industrial and commercial (I&C) waste and construction and demolition (C&D) waste. *Figure 2* sets out the estimated arisings of each type of waste.

Figure 2: Estimated Arisings of Waste by Type (2005*)



2003/04 Sources: See footnotes[2, 3]

2.9 Contemporary information on waste arisings is not easily accessible for waste types other than municipal as it is no longer the responsibility of the Local Planning Authorities to collect, but Table 2 does provide a tentative picture of waste arisings in Warwickshire.

Table 2: Total Waste Arisings in Warwickshire

	2005	2010	2015	2020
C&I	717,644	694,570	694,464	694,354
C&D	760,885	605,739	566,840	566,840
Municipal*	223,381	-	-	-

* 2003/04 Sources: See footnotes[2,3]

2.10 The Enviros Waste Scenarios Study (July 2005) identifies commercial and industrial waste arisings across the West Midlands region of 1.4 million tonnes that will require managing during 2005. It is suggested that there will be a decline in this figure to 1.37 million tonnes by 2020.

2.11 Similarly it is reported that construction and demolition waste arisings across the region are 1.54 million tonnes in 2005 falling to 1.07 million tonnes by 2020.

[2] Information on construction and demolition waste arisings is published in the Waste Scenarios Study (Enviros, 2005)
[3] Information on municipal waste arisings is published in the Best Practicable Environmental Option for the management of municipal waste in Warwickshire June 2005.

3 POLICY CONTEXT

3.1 As part of producing an Issues and Options report Warwickshire County Council has to show regard for a wide range of policies at international, national, regional and local level. This section contains a summary of these policies.

Sustainable Development

3.2 Since the early 1990's as a result of the Rio Earth Summit, the Government has tried to ensure that sustainable development is at the forefront of planning policy. A number of sustainable development strategies have been published. The aim of this approach is to integrate the Government's sustainable development policies that are:

a) Social progress that recognises the needs of everyone;

b) Effective protection of the environment;

c) Prudent use of natural resources; and

d) Maintenance of high and stable levels of economic growth and employment.

("A Better Quality of Life" – 1999).

3.3 The most recent strategy published is entitled "Securing the Future: Delivering UK Sustainable Development Strategy" (March 2005) that seeks to deliver sustainable development. The strategy identifies four priorities for action:

- Sustainable Communities;
- Sustainable Consumption and Production;
- Natural Resource Protection; and
- Climate Change.

The Planning System

3.4 The Planning and Compulsory Purchase Act came into force in September 2004 and as a result the planning system has undergone a number of major changes. Planning Authorities now have to follow a spatial planning approach. Spatial planning aims to bring together and integrate planning policies and all other policies and programmes that are inter-related.

Planning Policy Statements

3.5 Planning Policy Statements (PPSs) are gradually replacing Planning Policy Guidance Notes (PPGs). PPSs and PPGs set out the Government's national policies on different aspects of planning. These policies complement but will not overrule other national planning policies and should be read in conjunction with other statements of national planning policy. PPSs can be viewed on the following website: www.odpm.gov.uk

Planning Policy Statement 1: Delivering Sustainable Development (PPS1)

3.6 The principles of sustainable development have been translated through the publication of PPS1. (www.odpm.gov.uk/planning) This states that the planning system is required to facilitate, promote sustainable and inclusive patterns of urban and rural development by:

- Making suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life

- Contributing to sustainable economic development
- Protecting and enhancing the natural and historic environment, the quality and character of the countryside, and existing communities
- Ensuring high quality development through good and inclusive design, and the efficient use of resources; and,
- Ensuring that development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed communities with good access to jobs and key services for all members of the community.

Planning Policy Statement 10: Planning for Sustainable Waste Management (July 2005)

3.7 PSS10 sets out the Governments policies on waste. The overall objectives in PSS10 are to:

- Move waste up the waste hierarchy by focusing firstly on waste reduction, reuse, recycling and composting, then recovering energy from waste and finally resorting to landfill disposal only in the last instance
- To protect the environment by producing less waste
- To protect human health
- Use waste as a resource where possible
- Encourage significant new investment in waste management facilities.

3.8 PPS10 focuses on the planning system to help to deliver these changes and to plays an important role in delivering sustainable waste management. The planning system needs to:

- Develop appropriate strategies for growth, regeneration and prudent use of resources
- Provide sufficient opportunities for new waste management facilities of the right type, right place and right time.

3.9 PPS10 recognises that industry has its part to play in terms of proposing realistic schemes, that are well conceived, of a good quality design and the proposals have taken into account the relevant planning policy and locational factors. Industry is encouraged to work alongside the local communities, work with the planning department and Environment Agency and to seek to achieve the Governments sustainable development objectives

Planning Policy Statement 12: Local Development Frameworks

3.10 PPS12 sets out the Government's policy on the preparation of Local Development Frameworks. In its companion guide (Creating Local Development Frameworks, 2004) it encourages county councils to ensure consistency between Minerals and Waste Development Frameworks, Regional Spatial Strategies and district council's Core Strategy proposals.

Other Planning Policy Statements and Planning Policy Guidance Notes

3.11 There are a number of PPSs and PPGs, that may be of reference to developing planning policies on waste and assessing planning applications. These include:

Planning Policy Statements

- PPS1: Delivering Sustainable Development
- PPS7: Sustainable Development in Rural Areas

- PPS9: Biodiversity and Geological Conservation
- PPS22: Renewable Energy

Planning Policy Guidance Notes

- PPG2: Green Belts
- PPG13: Transport.

Waste Strategy 2000

3.12 The Government produced its National Waste Strategy in May 2000, setting out its vision and the actions necessary for making waste management in the UK more sustainable, and thereby meeting the requirements of the European Framework Directive on Waste.

3.13 The Waste Strategy 2000 sets national targets to recycle or compost at least:

- 25% of household waste by 2005
- 30% by 2010 and
- 33% by 2015.

A further target has been set to recover value from 67% of municipal waste by 2015. An additional target has been set to reduce the amount of industrial and commercial waste sent to landfill to 85% of that landfilled in 1998 by 2005. A progress report on the review of the Waste Strategy 2000 is due to be published early 2006.

3.14 The Government has used the "Best Value" Performance Framework to set individual performance standards for all local authorities for the years 2003/04 and 2005/06 although further recycling targets may be set to enable the national targets to be met. DEFRA is currently consulting on Local Authority recycling targets for 2007-2008.

West Midlands Regional Spatial Strategy (June 2004)

3.15 The Regional Spatial Strategy for the West Midlands (RSS 11) replaces the former Regional Planning Guidance. Under the Planning and Compulsory Purchase Act the RSS now forms part of the development plan. Policy WD1 incorporates the targets from the Waste Strategy 2000 into the RSS. All Waste Development Frameworks are now required to be in general conformity with the RSS and contribute to achieving its targets.

West Midlands Regional Technical Advisory Body

3.16 The aim of the Regional Technical Advisory Body for the West Midlands (RTAB) is to provide technical advice on the preparation of the waste policies in the Regional Spatial Strategy. In an attempt to identify sub-regional provision of facilities, RTAB has produced two reports entitled 'Waste Scenarios Study' (Enviros, 2005) and 'West Midlands Waste Facilities: Phase 2: Future Capacity Requirements (Shropshire County Council, 2004). The group discusses new waste technologies, waste scenarios, national waste data strategy and annual monitoring. The group meets on a regular basis and is attended by various central and local government organisations, regulators and other groups involved in waste industry. It is the role of the Regional Planning Body and RTAB to co-ordinate a programme of data collection and monitoring.

Warwickshire Structure Plan 1996 - 2011

3.17 The Warwickshire Structure Plan (WASP) was adopted in August 2001. The Wasp is the strategic land use plan for Warwickshire and forms part of the statutory development plan.

Under the Planning and Compulsory Purchase Act the WASP is saved for a period of 3 years until September 2007.

Waste Local Plan for Warwickshire

3.18 The Waste Local Plan for Warwickshire was adopted in August 1999 and under the Planning and Compulsory Purchase Act is saved until 2007.

The District and Borough Local Plans

3.19 There are five District and Borough Councils within Warwickshire and each has to produce a Local Plan for their area. Each waste planning application submitted to the County Council needs to take account of any relevant planning policy in the District or Borough Local Plan. Under the new planning system the District and Borough Councils will still be producing Local Plans under transitional arrangements and then the Councils will start to replace them with Local Development Frameworks.

The Minerals and Waste Development Scheme

3.20 The Minerals and Waste Development Scheme (MWDS) sets out the timetable for the production of the various elements of the Waste Development Framework. This includes the various stages of production of the Waste Core Strategy.

Warwickshire's Joint Municipal Waste Management Strategy (Draft)

3.21 Warwickshire's Municipal Waste Management Strategy provides the framework for managing waste in Warwickshire for the next 15 years. All the authorities in Warwickshire have produced it jointly. The Warwickshire Waste Partnership has managed development of the Strategy. The Council have consulted key stakeholders and the public throughout the development of the Waste Strategy and will continue to inform and seek opinion throughout its implementation.

3.22 The main objective of the Strategy is to provide a sustainable framework for managing waste, moving waste up the waste hierarchy and reducing the reliance on landfill as the primary means of waste disposal. The key strategic objectives of the strategy are:

- To manage our waste in order to move up the waste hierarchy and work towards resource management versus waste management
- To minimise the amount of waste generated in Warwickshire
- To maximise the amount of material recycled and composted in Warwickshire and to meet and exceed our statutory recycling targets
- To limit the amount of waste disposed of to landfill and to ensure that we meet our landfill diversion targets
- To make use of existing waste treatment infrastructure in Warwickshire
- To contribute to the generation of energy from a non-fossil source
- To work in partnership with each other and other stakeholders to implement the Waste Strategy
- Keep the public and key stakeholders informed of our plans and provide opportunities to comment on our proposals.

The Warwickshire Strategic Partnership Plan 2005 – 2008 (Draft)

3.23 The Warwickshire Strategic Partnership Plan focuses on those issues where partnership will have the greatest impact. At a district level Community Plans have been developed through public consultation to ensure local issues are improved through partnership activity. At the same time the five local community plans, recognise and support the Strategic Partnership Plan in their own development. The plan wants to achieve the following: -

- Good quality housing available at an affordable price
- A safe and harm free environment for all those who live, work and visit Warwickshire
- A natural environment, climate and resources that support and enhance life for future generations
- Sustainable economic growth, where jobs are created and retained; and residents are equipped with appropriate skills and competencies
- The best possible health and well-being for all.

Regional Economic Strategy

3.24 The Regional Economic Strategy is produced by the Regional Development Agency for the West Midlands otherwise known as Advantage West Midlands. In order to stimulate investment in particular industries the Regional Economic Strategy identifies a number of clusters throughout the region. The Environmental Technologies Cluster encourages development and innovation in order to give the region international recognition for its use and supply of products, goods and services within this cluster.

3.25 It's themes that directly relate to waste are:

- Facilitating an active regional market through pioneering demonstrator projects in renewable energy and waste areas
- Increasing regional competitiveness by recovering waste and re-using it as input material.

4 LEGISLATION AND KEY DRIVERS

4.1 The environmental impact of waste has increased and as a result there is a range of legislation and guidance that has been issued at European, National and Regional level indicating the ways in that waste should be managed in a more sustainable way. This legislative framework will change the way waste is managed within Warwickshire. Waste management services will need to become more sophisticated, with separate collections of materials, allowing separate treatment. Stricter environmental standards along with taxation and other fiscal measures will lead to an increased cost of dealing with waste.

4.2 The main drivers for change are:

- Sustainable Development
- Waste Hierarchy
- Waste Strategy 2000
- EU Landfill Directive 1999
- Waste Emissions Trading Act 2003 Hazardous Waste Directive
- End of Life Vehicles Directive
- Waste Electrical and Electronic Equipment Directive.

Sustainable Development

4.3 The concept of sustainability underpins the development of the Waste Strategy and the identification of waste treatment/disposal options. Sustainable development, put simply is:

'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'

4.4 It is essential that the development of the Waste Development Framework - Waste Core Strategy incorporate the principles of Sustainable Development to ensure that decisions taken now do not have a negative impact on future generations. It is vital that long-term strategic planning is incorporated and that the social, economic and environmental impacts are considered jointly and not in isolation. It is also possible that decisions made will not only have an impact at a local level, therefore regional, national and even global implications need to be considered.

EUROPEAN LEGISLATION

4.5 The European Union has become a major source of environmental legislation and guidance in relation to the management of waste. A number of relevant European directives and their likely impact on Warwickshire are detailed in the following sections.

Framework Directive on Waste (75/442/EEC)

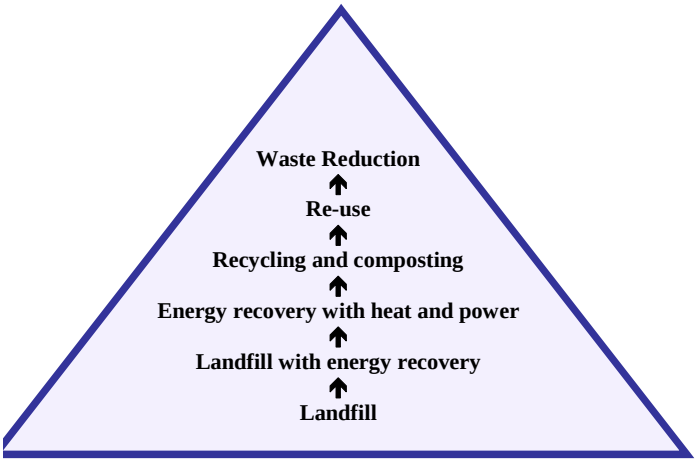
4.6 This Directive established the fundamental principles for waste management in Europe, that must be reflected in national, regional and local strategies. The key principles are as follows.

The Waste Hierarchy

4.7 The waste hierarchy provides a framework of how sustainability in waste management can be achieved. The aim is to move up the waste hierarchy by moving away from a reliance on landfill to increased recycling, reuse, composting and recovery and ultimately waste reduction. It suggests that reducing waste will normally be the best environmental option for waste management and so therefore should be considered before other treatment options.

4.8 This principle has been employed in the development of the Waste Core Strategy. However, when assessing waste management proposals the waste hierarchy should be used as a guide rather than being applied rigidly. A certain amount of flexibility is needed to arrive at the most balanced environmental, social and economic solution and inevitably is likely to contain a mixed solution.

Figure 3: The Waste Hierarchy



Regional Self-Sufficiency

4.9 This principle requires that most waste should be treated or disposed of within the region it is produced. Each region is expected to provide sufficient facilities and services to manage the amount of waste it is expected to produce over the next 10 years. It is recognised that the best solution for some waste may be to transport it to another region where it can be dealt with more effectively. Not all regions have specialist recovery, recycling or treatment facilities, in line with the proximity principal and economy of scale might apply in such cases.

The Proximity Principal

4.10 Waste should generally be managed as close as possible to where it is produced in order to limit the environmental impact of transportation and create a more responsible approach to waste generation. The proximity principle as such is not referred to in PPS10. It is an important consideration, but only one of several material considerations. Priority should still be given to the concept of the Waste Hierarchy to determine the most suitable type of installation (par. 3.6.1). Given a choice of locations Warwickshire County Council must, "enable waste to be disposed of in one of the nearest appropriate installations" (Planning Policy Statement 10, ODPM 2005).

Landfill Directive (1999/31/EC)

4.11 The Landfill Directive requires improvements to landfill management, bans specified hazardous, corrosive and clinical materials from being landfilled together with other waste, requires the pre-treatment of all waste before landfill and sets progressively tighter limits to restrict the amount of biodegradable waste that can be sent to landfill.

4.12 The improvements required to landfill sites used by Warwickshire may result in increased costs of landfill in the medium term. This would make the alternatives to landfill more cost-effective. The ban on certain wastes to landfill is likely to require service changes and therefore increased costs. For example, all tyres will be banned from landfill from July 2006. To meet this obligation specific arrangements will have to be put in place to separate tyres for alternative disposal. What will constitute pre-treatment of waste is yet to be finalised, but

the Environment Agency - the body that regulates waste management - has suggested that conformance with statutory targets under the Landfill Directive and recycling and composting standards are likely to be sufficient for municipal waste. Where treatment does not change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance its recovery then treatment will not be necessary.

4.13 The most significant aspect of the Directive for the Warwickshire authorities is the phased reduction of the amount of biodegradable waste that can be sent to landfill. The Directive requires that the amount of biodegradable municipal waste sent to landfill is reduced. The figures that apply for Warwickshire include a four year period of derogation from the Directive due to the current rates of recovery and recycling within the County. As such, the target dates are as follows:

- To 75% of 1995 levels by 2010
- To 50% of 1995 levels by 2013 and
- To 35% of 1995 levels by 2020.

4.14 The UK implemented this requirement of the Directive through the Waste Emissions Trading Act 2003.

Waste and Emissions Trading Act 2003

4.15 The Government has implemented the requirements of the Landfill Directive through the Waste and Emissions Trading Act 2003. This sets Waste Disposal Authorities (such as Warwickshire County Council) annual allowances limiting how much biodegradable municipal waste (BMW) can be landfilled in any particular year with effect from April 2005.

4.16 Government's Guidance on Trading, Banking and Borrowing Landfill Allowances sets out the procedure for transferring landfill allowances. Authorities can buy more allowances if they expect to landfill more than their allocations and authorities with low landfill rates can sell their surplus allowances. It will also be able to save unused allowances (banking) or bring forward part of their future allocation (borrowing).

4.17 An allocation of the amount of BMW that can be landfilled each year from 2005/06 to 2019/20 has been provided to Warwickshire. The allocation for 2019/20 limits the amount of BMW to 52,897 tonnes that can be landfilled in that specific year. Consequently, Warwickshire will have to reduce the amount of waste sent to landfill from its current level of 216,000 tonnes per year (2003/04) to a maximum of 77,789 tonnes (based on 68% biodegradable content in waste).

4.18 Through the flexibilities of trading, banking and borrowing, authorities can develop the most cost-effective strategy for meeting their waste targets, tailored to their specific circumstances. However, disposal authorities that exceed their limit and cannot purchase any allowances will be fined £150 for every tonne they are over the limit. The implication of this is that most authorities will plan to meet these targets and therefore trading is likely to be minimal in the longer term although there may be potential for a market in the short term whilst infrastructure for waste treatment is developed.

Implications for Warwickshire

4.19 Although there is pressure to reduce the reliance on landfill the Landfill Directive clearly recognizes that there will be landfill beyond 2016 (2020) as the final reduction target does reflect that some biodegradable waste may be deposited in landfill sites. It will therefore be necessary to maintain a sufficient land bank for continued landfilling.

4.20 The studies undertaken by the Regional Technical Advisory Body indicate that there is sufficient landfill void within Warwickshire to provide capacity for Warwickshire's waste well

into the future. However this void space is under immense pressure as much of it is currently utilized for waste that is imported into the county from urban areas. One new site that is already committed to open during the plan period is located so close to the county boundary and near to a significant urban area that much of its input is likely to once again come from outside of the county. Furthermore much of the consented void is not yet the subject of a Pollution Prevention and Control permit and there is no guarantee that the site will be so permitted. Therefore it is important to recognize that the apparent over supply of landfill void may not be realized.

4.21 Currently Warwickshire disposes of 215,000 tonnes of municipal waste to landfill but this will reduce to 77,800 tonnes by 2020 to comply with the biodegradable municipal waste diversion targets set by UK government to enable the UK to be compliant with the Landfill Directive.

Directive on Packaging and Packaging Waste (94/62/EEC)

4.22 The aim of the Directive is to reduce the amount of packaging waste sent for final disposal, by introducing recovery and recycling targets for packaging waste. Producers are also required to reach packaging waste recovery and recycling targets. The UK has implemented the Directive through the Producer Responsibility (Packaging Waste) Regulations 1997 (as amended).

4.23 Legislation relating to packaging waste is currently only applicable to businesses and business waste and hence they have little direct implications for the Warwickshire authorities. However the Warwickshire authorities provide advice and guidance to businesses on the packaging regulations and how to achieve compliance.

4.24 Obligated producers can choose whether to meet their obligations themselves and register individually with the Environment Agency or join a compliance scheme. The majority of obligated businesses have joined compliance schemes.

4.25 This may have the effect of encouraging producers or compliance schemes to fund the enhanced recycling of post-consumer packaging in household waste, and could have an effect on prices for recyclates and the provision of recycling infrastructure.

Waste Electrical and Electronic Equipment Directive (2002/96/EC)

4.26 The aim of the Waste Electrical and Electronic Equipment Directive (WEEE Directive) through producer responsibility is to prevent the generation of electrical and electronic waste and to promote reuse, recycling and other forms of recovery. Restrictions on the use of hazardous substances in the manufacture of electronic equipment are also being imposed from 1 July 2006, through the Restriction of use of Certain Hazardous Substances Directive (RoHS), that was written in conjunction with the WEEE Directive. Manufacturers will need to ensure that their products and their components comply in order to stay on the market.

4.27 The WEEE Directive sets targets for the collection, recycling and recovery of all electrical products – everything from mobile phones to washing machines. By December 2005, collection systems must be introduced to separately collect a high level of electrical appliances. A target of 4 kg of household electrical goods per inhabitant per year has been set to be collected for recycling by the end of 2006.

Implications for Warwickshire

4.28 The Government is consulting on how local authorities will be involved in the collection regime and appear to favour a combination of retailer take-back services and local authority separate collections from the kerbside and at household waste recycling centres (HWRCs).

The costs of recycling are to be met by the producers of electrical goods, but the cost of collecting from householders may still fall to Local Planning Authorities.

4.29 Currently, Local Planning Authorities are under no obligation to provide either a collection service for WEEE or provision for its deposit at Household Waste Recycling Centres (HWRC). However, HWRC sites are a logical drop-off point for WEEE although there are concerns regarding the use of these sites for WEEE collection as outlined below:

- Many sites are too small and unable to take increased volumes of waste
- Some sites may be unable to cope with a significant increase in vehicle throughput
- Amendments to waste management licences may be needed for some hazardous materials (such as cathode ray tubes), that has financial and time implications
- Restrictive planning conditions may apply, that may need amending, that again will have time and cost implications.

4.30 To comply with the hazardous waste regulations, the Warwickshire authorities are providing separate collection facilities for computer monitors, televisions (cathode ray tubes) and fluorescent tubes at HWRCs. When the WEEE Directive is introduced, producers will become responsible for recycling and correctly disposing of electrical waste that is classified as hazardous such as televisions.

4.31 Local authorities have to provide sufficient storage capacity for fridges and freezers collected from households or delivered to Household Waste Recycling Centre sites until the white goods can be send to the facilities undertaking the ODS removal prior to recycling. When the WEEE Directive is introduced, producers will become responsible for meeting the costs of the correct disposal.

Hazardous Waste Directive (91/689/EEC)

4.32 The Hazardous Waste Directive (1991) provides the framework for the control of hazardous or 'special' waste. The aim of the Directive is to provide precise and pan-European definitions of hazardous waste to ensure that it is correctly managed and regulated.

4.33 In 1994, a comprehensive list of all wastes, hazardous and otherwise, was produced, that is known as the European Waste Catalogue (EWC). The EWC was revised in 2002 to include a range of newly hazardous wastes, that were not previously consigned in England, including everyday items such as computer monitors, televisions and fridges.

4.34 The Directive was implemented in the UK through the Special Waste Regulations 1996. These regulations have been superseded by the Hazardous Waste Regulations 2005. The regulations implement the European Hazardous Waste Directive 91/689/EEC that has extended the list of hazardous wastes for the United Kingdom. The regulations have also introduced a requirement for the registration of hazardous waste producers.

Implications for Warwickshire

4.35 With the change in definition of hazardous waste it is likely that there will be an increase in the quantity generated in Warwickshire. However much of this will be material that is suitable for recycling and recovery for that there are already recovery options available. There does remain a disposal requirement for 7,000 tonnes per annum of Cement Kiln Dust.

End of Life Vehicles Directive (2000/53/EC)

4.36 The End of Life Vehicles Directive (ELV) came into effect in October 2000. This will oblige manufacturers to arrange for the collection and the take back of motor vehicles. Treatment of all end of life vehicles will have to be carried out at authorised facilities prior disposal.

Potentially damaging liquids (such as oil and break fluid) will be removed prior to recycling. A certificate of destruction must be given to the owner of the vehicle (or the council in the case of abandoned vehicles) to ensure that the vehicle is not re-sold.

4.37 The ELV Directive was partly transposed into national law on 03 November 2003. The implemented part of the new regulation apply new standards to existing sites, require operators working under a registered exemption to apply for a site licence (if accepting vehicles that have not been de-polluted) and set new minimum technical standards for all sites that store or treat ELVs. Other parts of the Directive are still under consultation according to the Department of Trade and Industry including the recycling/recovery targets and the arrangements for the take back of ELVs.

Implications for Warwickshire

4.38 The ELV Regulations 2003 will have an impact on the Warwickshire Authorities with respect to the collection and disposal of abandoned vehicle, because it will no longer be permissible to dispose of ELVs at scrap yards unless they are licensed Authorised Treatment Facilities. Consequently, it was anticipated that this would lead to an increase in the number of vehicles abandoned in the short-term that would place an additional financial burden for Warwickshire Authorities. However, due to the high demand for scrap metal an increase in abandoned vehicles has not occurred yet.

4.39 In 2007 it will become the responsibility of vehicle manufacturers to take-back their own brand vehicles. Although Local Authorities will still have to remove abandoned vehicles from the roadside they will not have to pay for de-pollution.

Draft Directive on Batteries and Accumulators and Spent Batteries and Accumulators (2003)

4.40 The European Commission has adopted a proposal for a new Batteries Accumulators Directive on 20 December 2004. The draft Directive aims to maximise the separate collection and recycling of spent batteries and accumulators, and to reduce the disposal of batteries and accumulators in the municipal waste stream. The proposal, unlike existing EU legislation on batteries, applies (with limited exception) to all batteries and accumulators regardless of chemical composition. It will repeal earlier Directives, that only apply to batteries containing certain quantities of lead, mercury or cadmium. The UK Government anticipates that the Directive will be finally adopted by mid 2006. Once agreed member states will have 24 months to bring into force the laws, regulations and administrative provisions necessary to comply with this Directive.

4.41 The key elements of the draft Directive are:

- A partial ban on portable nickel-cadmium batteries (with some exceptions)
- Collection targets for spent portable batteries
- A ban on the disposal of untreated automotive and industrial batteries in landfill or by incineration.

Implications for Warwickshire

4.42 It is likely that in the future there will be a requirement for local authorities to provide separate collection facilities for batteries. However, household and vehicle battery recycling containers are already in place at HWRC sites in Warwickshire. Both Warwick District Council and Nuneaton and Bedworth Borough Council already collect car batteries as part of their kerbside collection service.

Waste Incineration Directive (2000/76/EC)

4.43 This Directive incorporates and extends the requirements of the 1989 Municipal Waste Incineration Directive and the 1994 Hazardous Waste Incineration Directive into a single document.

4.44 The Directive ensures that incinerators continue to be tightly regulated and stringent operating conditions have been introduced. Minimum technical requirements for waste incineration and co-incineration have been set. The Directive applies to all new incinerators and will apply to all existing incinerators from the 28th December 2005. Implementation in the UK occurs mainly under the present Pollution Prevention and Control (PPC) regime.

Ozone Depleting Substances (Regulation 2037/2000)

4.45 European Council Regulation No. 2037/2000 on substances that deplete the ozone layer came into effect at the end of 2001. The aim of this Regulation is to require the removal of all ozone depleting substances (ODS) (including CFCs and HCFCs) from refrigeration equipment before such appliances are recycled. Ozone depleting substances are present in both the refrigerant liquid and the insulating foam in fridges and freezers, but until this Regulation was introduced, the only requirement was to remove the refrigerant liquid before the appliance was recycled.

Thematic Strategy on Soil Protection

4.46 In 2002, the EU published a working document on the 'Biological Treatment of Biowaste', that aimed to help for the introduction of measures to meet the Landfill Directive targets. The objectives of the document were as follows:

- Promote biological treatment of biowaste, harmonising national measures to reduce negative environmental impacts
- Protect soil and ensure that the use of treated and untreated biowaste results in a benefit to agriculture or ecological improvement
- Ensure that human and plant health is not affected by the use of treated or untreated biowaste
- Ensure that obstacles to trade of treated biowaste are overcome to encourage international trade within the EC.

o In April 2004, the Commission announced that it was no longer going to pursue a specific Directive on Biowaste. Policy regarding biowaste will now be included in the Thematic Strategy for Soil Protection that is due to be finalised in 2005.

Implications for Warwickshire

4.47 Source-segregated biowaste collected by Warwickshire's districts has to be treated in an in-vessel composting system under strictly controlled conditions. There are currently no facilities in Warwickshire that could process this type of waste.

Thematic Strategy on Waste Prevention and Recycling

4.48 In May 2003, the EU published its communication on a "Thematic Strategy on Waste Prevention and Recycling" that sets out priorities and polices for the EU up to 2010. The report was issued in response to a mandate in the Sixth Environmental Action Plan (6EAP) to develop seven thematic strategies for priority areas of environmental policy.

4.49 The report proposes that pan-European recycling and waste prevention targets are set although the report acknowledges that it is difficult to set targets for waste prevention as it is

extremely difficult to measure. The establishment of material specific targets for recyclables are proposed as opposed to blanket targets for end-of-life products. It also raises the issue of whether it is critical for all Member States to achieve the same recycling rates or whether it is more important for the Community to reach an overall level of recycling. Initiatives and schemes are proposed to encourage recycling and sustainable waste management such as:

- Prescriptive instruments
- Landfill taxes
- Producer responsibility
- Tradable certificates
- Pay-as-you-throw schemes
- Incentive schemes

4.50 In addition it has been proposed in a resolution to the Commission that a 'complete' ban on landfill should be implemented with the following timeframe suggested:

- Ban on landfilling of untreated biodegradable waste by 2010
- Ban on landfilling of recyclables by 2015
- Ban on the landfilling of recoverable waste by 2020
- Ban on the landfilling all residual waste by 2025 (except where "unavoidable" or hazardous)

Implications for Warwickshire

4.51 Currently recycling targets for Local Authorities have been set by the Government that are not specific for any particular material type. However, the Thematic Strategy puts forward the proposal of establishing material specific recycling targets that could encourage the recycling of materials such as plastic although this may result in higher collection costs.

4.52 If the proposals outlined in the Thematic Strategy for Waste Reduction and Recycling are implemented the proposal to ban all but hazardous waste to landfill by 2025 will have significant implications for the Warwickshire and the UK as a whole.

NATIONAL LEGISLATION

4.53 There is also a significant amount of national legislation and strategies that impact on waste management. These are detailed in the following sections.

Environmental Protection Act 1990 and Environment Act 1995

4.54 The requirements of the Framework Directive on Waste were implemented in the UK through the Environmental Protection Act 1990, (as amended by the Environment Act 1995). This primary act controls how waste is managed, defining the different categories of waste and how waste should be controlled. The EPA 1990 defines the duties of Waste Collection and Waste Disposal authorities, it also sets out the Duty of Care applicable to all those handling and disposing of waste.

4.55 The Environment Act 1995 also implements various elements of the Waste Framework Directive and is the enabling legislation to cover producer responsibility. The Environment Act facilitated the establishment of the Environment Agency as UK's regulatory authority.

The Financial Act 1996 and Landfill Tax Regulations 1996

4.56 Landfill Tax is a tax payable for each tonne of waste sent to landfill and was introduced by the Government in 1996 as a way of encouraging more sustainable means of waste management through recognising the hidden financial effects of the environmental impact of landfill. There are two rates of tax, a lower rate for inactive waste and a higher rate for active waste (i.e. waste with some biodegradable content).

4.57 Though the landfill tax will encourage more sustainable waste management practices it means that local authorities will have real increases in the cost of waste management for the foreseeable future. The Chancellor has announced that landfill tax levels will increase by at least £3/tonne each year until the tax reaches £35/tonne by 2010/11.

4.58 The landfill tax is currently £18/tonne that will rise to £21 in 2006/2007. Consequently, the increase in landfill tax will cause a significant increase in waste disposal costs and will provide a considerable further incentive to move to alternative more sustainable means of waste treatment in the near future.

Local Government Act 1999 – Best Value Regime

4.59 All Authorities are required under the Local Government Act 1999 to provide "Best Value" services and to secure continuous improvement by regularly reviewing the economics, efficiency and effectiveness of their functions. There are four key principles, that underpin Best Value:

- **Challenge** why and how a service is being provided;
- **Compare** performance with other councils and service providers whether services could be improved;
- **Consult** local stakeholders to determine opinions of the service;
- **Compete** wherever practicable, fairly and openly to provide the best services.

4.60 Authorities have been set 'Best Value Performance Indicators' (BVPI) for their services, on that they are required to report annually. In addition, to ensure that the national WS2000 recycling targets are met, statutory Best Value Performance Indicators (BVPI) have been set for each local authority. The BVPI recycling targets for Warwickshire County Council are 16% by 2003/04 and 24% by 2005/06.

Strategy Unit Report "Waste Not, Want Not" (2002)

4.61 The Prime Minister's Strategy Unit reviewed the progress towards the targets set within Waste Strategy 2000 in a report produced in November 2002. The report suggested that the Waste Strategy 2000 may not be sufficient to move waste onto a more sustainable footing and gave 34 recommendations, including raising the national recycling and composting standard to 35% by 2010 and 45% by 2015, to ensure the United Kingdom's compliance with the requirements of the Landfill Directive. In response to the "Waste Not, Want Not" report, the Government introduced the Waste Implementation Programme to address the recommendations made by the Strategy Unit.

Animal By-Products Order and Regulations 2003

4.62 As a result of the foot and mouth crisis in the UK, the Government amended the Animal By-Products Order in May 2001, that states that composting is not a permitted disposal route for any material that has possibly been contaminated by meat products. This prevents

kitchen material from being composted in open windrows, even if vegetable material only has been targeted for a collection campaign.

4.63 The regulations also place restrictions on the use of compost material (that has been produced by material that has or may have contained meat products) on land where animals (including wild birds) may have access.

Household Waste Recycling Act 2004

4.64 The aim of the Act is to increase recycling of household waste. The Act amends the Environment Protection Act 1990 and requires (with some exceptions) that English waste collection authorities (WCAs) should collect at least two types of recyclable material separately from the remainder of waste. The deadline for implementation is 2010.

4.65 Exception to compliance will apply where the cost of separate collection is unreasonably high or where comparable alternative arrangements are available (such as dense spreading of bring facilities serving flats).

4.66 The Warwickshire WCAs are already well on their way to meeting or exceeding the requirements of the Act. By the deadline of 2010, it is anticipated that all households in Warwickshire will have at least two recyclable materials collected from kerbside.

Waste Minimisation Act 1998

4.67 The Waste Minimization Act enables local authorities to implement schemes to minimize the amount of controlled waste generated. The authority can:

"…do or arrange for the doing of anything that within its opinion is necessary or expedient for the purpose of minimising the quantities of controlled waste or controlled waste of any description, generated in its area."

4.68 The Act does not place an obligation on authorities to carry out such initiatives, nor does it allow councils to impose any requirements on businesses or households in their area. However they can determine both the form of collection and the receptacle from that waste is collected (previously enacted in the 1990 Environment Protection Act).

Strategic Plan for Warwickshire 2005-2008

4.69 The Strategic Plan for Warwickshire includes specific targets for waste reduction and recycling although the recycling targets are in accordance with national targets. The targets for waste reduction and recycling are:

- To recycle or compost 30% of waste by 2005/06;
- To recycle or compost 30.5% of waste by 2006/07; and
- To recycle or compost 31% of waste by 2007/08.

5 RESPONSIBILITIES FOR WASTE MANAGEMENT

Waste Collection Authorities

5.1 In Warwickshire there are five waste collection authorities (WCA) and one waste disposal authority. Warwickshire County Council is known as the Waste Disposal Authority (WDA). The five waste collection authorities are:

- Nuneaton and Bedworth Borough Council
- North Warwickshire Borough Council
- Rugby Borough Council
- Stratford-on-Avon District Council
- Warwick District Council.

Warwickshire County Council – Planning Authority

5.2 Warwickshire County Council is the Mineral and Waste Authority for the County. The County Council has a statutory duty to deal with planning applications involving mineral extraction (sand, gravel, clay, hard rock, coal, limestone and ironstone) and the depositing, recycling and management of waste. The Development Group administers these planning applications. The more contentious or complex decisions to grant or refuse are made by members of the Regulatory Committee

5.3 Warwickshire County Council as the Planning Authority also has a statutory duty to produce the Waste Development Framework and a team of planners within the Strategy Unit carries this out.

The Environment Agency

5.4 The Environment Agency are responsible for ensuring waste produced in England and Wales is correctly disposed of. They work with industry, local authorities and Government to ensure that hazardous waste is dealt with so that it does not pose a threat to human health or the environment. They encourage reuse and recycling and support the development of facilities to deal with hazardous waste.

5.5 The types of waste regulated by the Environment Agency are called **'controlled wastes'**. These include household, industrial and commercial waste. Other wastes called 'non-controlled' (agriculture, mines and quarries) are not currently regulated in the same way. Certain wastes are classified as **hazardous** - a very broad term for a wide range of substances that present different levels of risk. Some present a serious and immediate threat to the population and the environment and others pose little immediate threat but may cause long-term damage over a period of time.

Department for Environment, Food and Rural Affairs (DEFRA)

5.6 DEFRA is the Government department that is responsible for the Environment including waste and waste management. DEFRA's aims are to encourage sustainable development, that means a better quality of life for everyone, now and for generations to come, including: better environment at home and internationally, and sustainable use of natural resources; economic prosperity through sustainable farming, fishing, food, water and other industries that meet consumers' requirements; and thriving economies and communities in rural areas and a countryside for all to enjoy.

5.7 The national Government provides through the Waste and Resources Action Programme (WRAP) publicity/education programmes that aim to encourage a reduction in the amount of waste produced and to increase the amount that is recycled.

Waste Management Companies

5.8 These companies are responsible for operating waste management services that treat Warwickshire's residual waste, and to provide landfill capacity for any waste that has to be landfilled.

Commerce and Industry

5.9 This sector needs to be aware of the requirement to reduce waste arisings by, for example, reducing the amount of packaging required for products, increasing the amount of material that they recycle and to reduce any reliance on landfill for the disposal of residues.

Regional Economic Strategy

5.10 The Regional Economic Strategy identifies a number of clusters throughout the region. The Environmental Technologies Cluster encourages development and innovation in order to give the region international recognition for its use and supply of products, goods and services within this cluster.

Voluntary Groups and the Public

5.11 These groups offer a vital service by providing facilities for repairing disused items, thereby reducing the need for disposal. They can also provide and support additional recycling services.

6 KEY OBJECTIVES FOR THE WASTE DEVELOPMENT FRAMEWORK

Introduction

The following section identifies the key objectives that will guide the Waste Development Framework. These objectives have been derived through a thorough, systematic review of the context for waste management within Warwickshire, and the challenges that lie ahead in applying sustainable solutions to waste treatment and disposal. In order to gain consultee feedback, this section invites stakeholders to comment both on a strategic vision that has been developed for the Waste Development Framework and key objectives that will guide its formulation.

Vision for the Waste Development Framework

6.1 In order to guide the Waste Development Framework, a vision has been proposed that encapsulates all aspects of waste management planning that the Framework seeks to deliver. In order to elicit stakeholder feedback, responses to the consultation questions are encouraged.

'Ensure that sustainable waste management practices are delivered in accordance with the requirements of the waste hierarchy taking reasonable measures to safeguard human health and the environment and seeking opportunities to develop economic prosperity within Warwickshire'.

6.2 Consultation Question:

Question 1: Do you agree with this vision?
Question 2: What amendments would you make to the Waste Development Framework vision?

Objectives for the Waste Development Framework

6.3 The following key objectives have been developed for the Waste Development Framework. These objectives have been identified following a detailed review of applicable planning policies and through a consideration of the waste management challenges for Warwickshire County Council with due consideration of the sustainable development context.

- To help deliver sustainable development by moving waste up the waste hierarchy, by looking to landfill disposal as a last option but one that must be adequately catered for;
- To enable sufficient and timely provision of waste management facilities to meet an identified need;
- To protect the natural and historic environment and mitigate potential adverse effects associated with the provision of facilities;
- To have regard for the most efficient means of transportation of waste in locating facilities;
- To have regard for the concerns and interests of local communities;
- To prevent inappropriate development in the greenbelt.

6.4 Consultation Question:

Question 3: Do you agree with the objectives as set out in this Issues and Options Paper?

Question 4: What additional objectives (if any) should be used to guide the evolving Issues and Options Paper?

7 KEY ISSUES AND OPTIONS

Introduction

7.1 This section identifies the primary issues that have been identified by Warwickshire County Council as critical in delivering an effective Waste Development Framework. In addition to outlining the context for each of the issues, a series of options have been put forward as to how the Framework may address the issues. Consultees are encouraged to provide feedback in respect of each of these options. In addition, a Sustainability Appraisal (SA) has been applied to each of the options in accordance with the requirements of the Strategic Environmental Assessment (SEA) Directive[4] and Planning and Compulsory Purchase Act 2004. Section 39 of the Act requires that a Sustainability Appraisal is undertaken. The Sustainability Appraisal is a systematic and iterative process and incorporates the requirements of the Strategic Environmental Assessment Directive.

7.2 As explained in PPS12 the purpose of Sustainability Appraisal is to appraise the social, environmental and economic effects of strategies and policies in a Local Development Document that starts during the preparation process. The aim of this is to ensure that decisions are made that meet the requirements of sustainable development.

7.3 The sustainability appraisal has been conducted for each of the options and using criteria and a Sustainability Appraisal Framework captured within a Sustainability Appraisal Scoping Report produced in accordance with the SEA Directive.

Key Issue 1: Delivering Sustainable Waste Management Practices

7.4 The UK Strategy for Sustainable Development (1999) includes a headline indicator for waste indicating that 'tackling waste is important if we are to achieve improved resource efficiency, essential for sustainable development'. A key aspect in the delivery of sustainable waste management practices is the planning process that should aim to deliver a cohesive and complementary mix of waste management facilities. It is recognised that there is an inherent balance between responding to an increasing volume of waste with appropriately designed and located facilities, whilst protecting the natural, semi-natural and built environment as well as preserving human health.

7.5 A key aspect of the delivery of sustainable waste management practices is therefore greater linkage with supporting policies including transport and a need to consider beyond the operational lifespan of the facility to make provision for restoration and subsequent re-use. A fundamental tenet of achieving sustainable waste management practices is to drive waste up the waste hierarchy, with the aim of diverting waste from landfill and promoting recycling and the achievement of re-use and recovery targets. In addition, there is a need to empower communities to address waste issues at source, dealing with waste as close to the site of production as possible in accordance with the 'proximity principal'.

Implications for Warwickshire

7.6 The following table provides an indication of the effects of waste growth in Warwickshire and the challenge that this places upon sustainable methods of waste treatment.

Table 3: Projected Waste Growth Rates in Warwickshire

Year	Household Waste Growth Rate (%)	Other Waste Growth Rate (%)	Overall Waste Growth Rate (%)
2003	2.07	0.32	2.4
2004	0.92	1.40	2.3
2005	0.91	1.40	2.3

[4] European Directive 2001/42/EC (SEA Directive) enacted through *The Environmental Assessment of Plans and Programmes Regulations 2004* (SI2004/1633)

Year	Household Waste Growth Rate (%)	Other Waste Growth Rate (%)	Overall Waste Growth Rate (%)
2006	0.91	1.40	2.3
2007	0.90	1.40	2.3
2008	0.89	1.40	2.3
2009	0.88	1.30	2.2
2010	0.87	1.30	2.2
2011	0.87	1.30	2.2
2012	0.8	1.20	2.0
2013-2019	0.8	1.20	2.0
2020-2032	0.8	1.1	2.9

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005

7.7 The table indicates a gradual slowing in growth rate of household waste, although there is a relatively constant level of growth during the period 2003 – 2008 in respect of other waste streams. Notwithstanding this slowing in overall growth, there is an expected additional burden on existing waste management facilities and a need for future modes of sustainable treatment and disposal.

Options for Addressing Key Issue 1

7.8 The following options have been identified as solutions to this key issue:

Option A: Support a site selection approach that conforms to the requirements of applicable legislation and good practice only (including the UK Waste Strategy and PPS 10 Planning and Sustainable Waste Management);

Option B: Allow waste management facilities to be brought forward by waste management companies / developers and respond to individual merits on a case by case basis;

Option C: Pursue a site selection approach that fully integrates other planning policy considerations including transport, protection of the environment and a desire to secure economic prosperity. This approach would aim to deliver sites based on a quantified need linked to geography and waste production.

7.9 Consultation Questions:

Question 5: In the development of the Waste Development Framework, should Warwickshire County Council adopt a site selection approach based on Option A, Option B or Option C?

Question 6: Should Warwickshire County Council pursue a strategy to move waste as far as possible up the waste hierarchy? If not, why not and what other options should be pursued?

Question 7: Do you support the idea of the 'proximity principal' with the aim of delivering waste management practices that address waste as close to the point of origin as possible? What other options are there for managing waste according to sustainable waste management practices but that do not include managing waste as close to the source as possible?

Sustainability Appraisal

7.10 A sustainability appraisal has been undertaken of the options for Issue 1 in accordance with the SA Framework.

Table 4: Sustainability Appraisal (SA) for Issue 1 Delivering Sustainable Waste Management Practices

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (++, +, 0,-, --, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	0	+	+/+	0	?	?	+	+	+/+	Option A would offer some benefits in terms of sustainable waste management practices through adherence to good practice. It may however miss opportunities to deliver ecological enhancement. Option B would allow the market a good degree of flexibility in terms of site selection but would offer limited protection to existing biodiversity assets. Option C would deliver the greatest adherence to the SA Objective, integrating a wider set of environmental, social and economic variables to the site allocation and design process.
2	Protect and improve water resources	0	+	+/+	0	?	?	0	+	+/+	Option A would provide some benefit in terms of possible incorporation of SUDs and good practice. Option B would allow the market a greater degree of freedom but may miss opportunities to preserve water resources at the strategic level. Option C would deliver the greatest potential benefit through incorporation of a broader more holistic approach to site development.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	+	+/+	0	-	-	0	+/+	+/+	Option C would be in greater conformity to the objective given the broader approach to integrating all relevant planning aspects including those targeted at preserving environmental quality. Option B is likely to provide a continuation of current practices but is unlikely to exploit opportunities to involve the community. Option A would deliver adherence to good practice but may miss opportunities to safeguard environmental resources at a strategic level.
4	To conserve and enhance the quality of the natural and built environment	+	+	+/+	-	-	-	+	+/+	+/+	Option C would deliver the greatest benefits in conserving the natural and the built environment. Option A would miss the opportunity to influence at a strategic level but is likely to be in greater conformity to the objective than Option B that may fail to exploit enhancement opportunities at a local level.
5	Protect sites and features of cultural heritage importance	0	+	+	0	+	+	+	+	+/+	Option C would deliver the greatest benefit through integrating national, regional and planning guidance on historic resource into sustainable waste management practices.
6	Protect soil resources	-	0	+	0	0	0	+	+	+/+	Option C represents the most appropriate option in protecting soil resources.
7	To promote the delivery of energy efficiency and carbon reduction targets	-	0	+	-	-	-/-	0	+	+	Option C would deliver the greatest benefit in reducing energy usage and contributing to carbon reduction targets associated with waste management facilities.

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (++, +, 0,-, --, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
8	Reduce consumption of natural resources	-	0	0	-	-	-/-	0	+	+	Option C would provide the greatest control to assist in prudent use of natural resources.
9	To promote adherence to the movement of waste up the waste hierarchy	0	+	+/+	0	+	+	+	+/+	+/+	Both Options A and C would deliver similar benefits. Option B would place a greater degree of emphasis on the market that may not fully integrate social and environmental issues into waste management practices.
10	Enfranchise the community in improving the local environment	-	-	-	-	-	-	0	+	+	Both options A and B would deliver limited benefits in respect of stakeholder or community engagement. Option C would deliver the greatest benefit.
11	Improve accessibility to waste management services and facilities	0	0	0	-	-	-	0	+	+	Option C would be the only true mechanism to secure improved accessibility to waste management facilities.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	-	-	-	-	-	-	0	+	+	Only Option C would deliver real benefits in respect of this objective.
13	To explore linkages between the waste and minerals sectors	0	+	+	0	0	+	0	0	+	Option C represents the most appropriate options in satisfying this objective. Options A performs marginally better than Option B.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	+	+	0	0	0	0	+	+/+	Option C would deliver the greatest benefit in encouraging developers to explore new technologies.

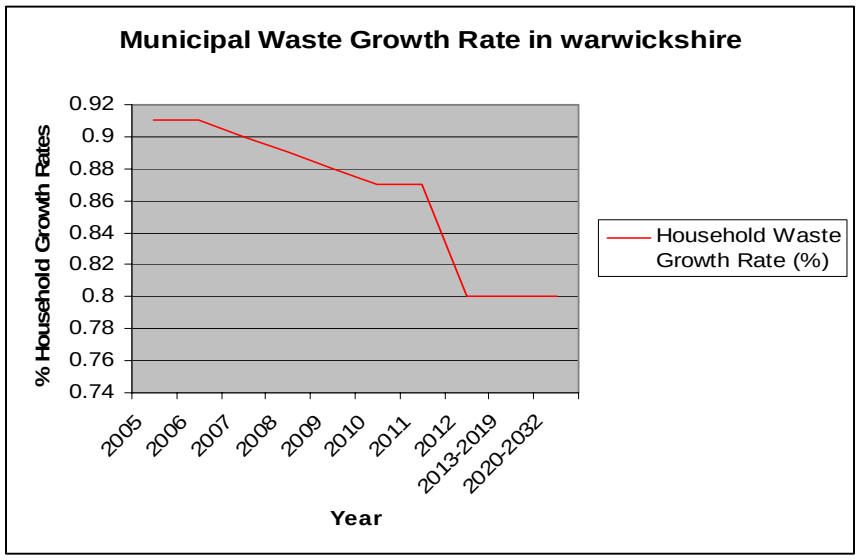
Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No.)									
++			7			0			9
+			13			5			23
0			13			13			10
-			9			18			0
--			0			2			0
?			0			4			0
Summary of Appraisal	The cumulative effects of Option C are significantly positive in the medium and long-term, and this option therefore is considered to be the most sustainable option.								

Key Issue 2: Municipal Waste Management Practices

7.11 Municipal waste includes household and other wastes that are collected by the Waste Collection Authorities within Warwickshire. Warwickshire County Council is the Waste Disposal Authority with a responsibility for the disposal of waste once collected. The following graph and table illustrate the projected growth rates for municipal wastes within Warwickshire.

Figure 4: Municipal Waste Growth Forecast within Warwickshire



7.12 The above graph illustrates a possible growth scenario for municipal solid waste within Warwickshire. The red line indicates a gradual slowing in total growth rates over time.

Table 5: Municipal Waste Growth Rates in Warwickshire

Year	Household Growth Rate (%)
2005	0.91
2006	0.91
2007	0.90
2008	0.89
2009	0.88
2010	0.87
2011	0.87
2012	0.8
2013-2019	0.8
2020-2032	0.8

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005

7.13 As a figure, the cumulative quantity of municipal waste that is likely to be generated within Warwickshire between the periods 2001 and 2021 has been calculated at 6,253,000 tonnes. This is likely to place a considerable burden on the existing facilities within Warwickshire. The additional capacity required has been calculated and is included within the following tables captured within the WCC / DEFRA documents.

Table 6: Additional Capacity and Facilities Required to Treat / Recover Municipal Waste by 2005 and 2021 ('000 tonnes)

Additional Capacity Required by 2005	Equivalent Number of Facilities (@250ktpa)	Equivalent Number of Facilities (@25ktpa)	Additional Capacity Required by 2021	Equivalent Number of Facilities (@250ktpa)	Equivalent Number of Facilities (@25ktpa)
58	0	2	116	1	5

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 7: Indicative Minimum Cumulative Annual Landfill Capacity Required to Dispose of Municipal Waste 2001-2021 ('000 tonnes)

Capacity 2005	Capacity 2010	Capacity 2015	Capacity 2021
1,112	2,017	2,679	3,210

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Figure 5: Landfill Allowance Allocation for Warwickshire County Council

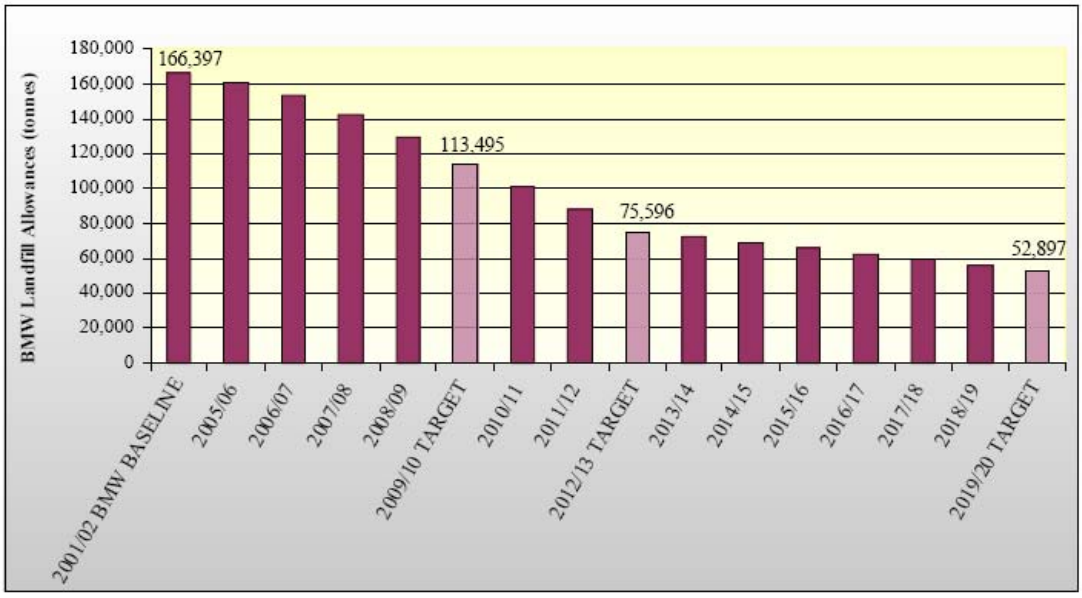


Table 8: Indicative Cumulative Minimum Annual Throughput Capacity Required to Recycle or Compost Municipal Waste 2001-2021 ('000 tonnes)

Capacity 2005	Capacity 2010	Capacity 2015	Capacity 2021
75	104	117	119

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

7.14 Recycling targets have been established for Warwickshire through DEFRA's Waste Implementation Programme. The following table captures these targets and indicates the extent of the shortfall in terms of the target and the rate achieved during 2003 / 2004.

Table 9: Recycling Targets for Warwickshire

	Recycling Target				
	Recycling rate achieved 2003/04	2003/04	2005/06	2010/11	2015/16
Waste strategy 2000			25%	30%	33%
BVPI and Warwickshire's municipal waste strategy	21.5%	16%	24%	35-45%	

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Options for Addressing Key Issue 2

7.15 Whilst the growth scenarios provide supporting information for analytical purposes, they do not, in isolation, provide a mechanism for the delivery of a sustainable waste management policy. The data has been used to assist in the formulation of options as outlined below:

- **Option A**: Whereby the provision of sub-regional municipal waste facilities is determined by a consideration of waste management developer proposals on a case by case basis but in accordance with legislation and good practice;
- **Option B**: Whereby a quantitative approach based on the 'proximity principal' and the sub-regional need for municipal waste strategies is used to determine the location and mix of municipal waste treatment facilities;
- **Option C**: Where the provision of municipal waste facilities is also allied to the waste hierarchy with a view to imposing targets on the volume of each type of waste treated and that disposed.

7.16 Consultation Questions:

> Question 8: Should Option A, Option B or Option C be selected in terms of identifying future need for municipal waste management in the County?
>
> Question 9: What other options are there in terms of determining the geographical need for municipal waste management treatment facilities? Is the growth scenario considered optimistic or pessimistic and should it be considered in formulating strategy?

Sustainability Appraisal

7.17 A sustainability appraisal has been undertaken of the options for Issue 2 in accordance with the SA Framework.

Table 10: Sustainability Appraisal (SA) for Issue 2 Municipal Waste Management Practices

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	0	+	+/+	0	?	?	+	+	+/+	Option C would deliver the greatest benefit in municipal waste management practices as it would provide an opportunity to reduce the reliance on landfill that has the potential for longer term effects on biodiversity resources over a larger area. Adherence to the proximity principal under Option B may deliver benefits through securing waste management facilities close to the source of waste. Conversely, this approach may lead to waste management facilities being proposed in close proximity to biodiversity resources.
2	Protect and improve water resources	0	+	+	0	?	?	0	+	+/+	Option A may miss opportunities to enhance water resources at the strategic level. Option B may lead to waste management facilities being delivered in conflict with the aim of enhancing water resources. Option C would provide the opportunity to improve waste practice and through innovative treatment techniques in recover and recycling, direct waste away from landfill that has positive implications for water resources and the broader environment.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	+	+	0	-	-	0	+	+/+	Option A and C would perform comparably where it was possible to exert a suitable level of control on potential sources of nuisance associated with waste handling and disposal. In the longer term, Option C would deliver enhanced benefits. Strict adherence to Option B may lead to conflicts between the producers of the waste and the proximity of the waste treatment technology.
4	To conserve and enhance the quality of the natural and built environment	0	0	-	-	-	-	+	+	+/+	Option C would present the most sustainable approach to waste management and would deliver the greatest adherence to the conservation and enhancement of the built and natural environment.
5	Protect sites and features of cultural heritage importance	0	+	+	0	+	+	+	+	+/+	Option A and B would be comparable in respect of preserving features of archaeological and built heritage. Option C would potential deliver the greatest benefit with its accent on innovative practices to divert waste up the hierarchy and provide greater flexibility in the scale and location of waste management treatment facilities. It is possible that sites of cultural heritage importance will be less exposed to disruption generated by landfill practices as landfill will be less favoured under the waste hierarchy.
6	Protect soil resources	-	0	+	0	+	+	+	+	+/+	Option A may not achieve the preservation of soil resources on a County-wide basis. Option B may achieve some benefits in locating waste close to the source of production. Option C would deliver the greatest benefits through a reduced reliance on landfill and induced preservation of soil resources.
7	To promote the delivery of energy efficiency and carbon reduction targets	-	0	+	0	+	+	0	?	?	Option B would deliver the most immediate benefits in respect of delivering energy efficiency. The effect of Option C would be unclear as it would be dependent on the success of reducing waste produced at source and the mix of technologies used in recovery and recycling. Option A would deliver some benefits at the local level but may miss opportunities across the whole County.

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
8	Reduce consumption of natural resources	-	0	+	0	+	+	0	+	+/+	Option C delivers the greatest benefit in reducing pressures on natural resource use. Under Option B, the reduced dependency on transport of waste over long distances would reduce consumption of hydrocarbons. The success of Option A would depend on the extent to that good practice is applied.
9	To promote adherence to the movement of waste up the waste hierarchy	0	+	+	-	-	0	+	+/+	+/+	Option C delivers the most significant benefit in moving waste up the hierarchy. Option A may deliver some benefits. The proximity principal would deliver few benefits in respect of the waste hierarchy, although there may be indirect attempts to recover and reuse waste at source over the longer term.
10	Enfranchise the community in improving the local environment	-	-	0	-	0	+	0	+	+	Option C presents the greatest opportunity to involve the community in the delivery of future waste management facilities. Options A and B offer little benefit with the exception of involvement at a local level. Option A, that places the responsibility for delivering sustainability through a consideration of developer proposals on a case by case basis is likely to deliver few benefits, that only be realised over time.
11	Improve accessibility to waste management services and facilities	0	0	+	+	+/+	+/+	0	+	+	Option B would deliver the most marked performance in respect of providing enhanced accessibility. Option C would deliver indirect benefits due to the need for a greater distribution of recycling facilities. Option A would deliver some benefits that would increase with time.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	-	-	-	0	0	+	0	+	+	There are minimal opportunities to positively respond to this objective under Option A. Both Option B and C would deliver a degree of adherence to the objective with time.
13	To explore linkages between the waste and minerals sectors	0	0	0	0	0	+	0	0	+	Option B and C perform comparably in respect of this objective. Option A would provide little opportunity to consider synergies or interrelationships between the minerals and waste sectors.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	+	0	+	+	0	+	+/+	Option C delivers the greatest adherence to the requirements of this objective. Both Options A and B however, may also require waste developers to undertake a fundamental re-think of how waste is treated.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)										
++			1			2			10	
+			14			14			20	
0			17			13			0	
-			10			9			0	
--			0			0			0	
?			0			4			2	
Summary of Appraisal	Option C performs in closest adherence to the sustainability objectives									

Key Issue 3: Industrial and Commercial Waste Management Practices

7.18 The Environment Agency Strategic Waste Management Assessment Study conducted during 2000 estimated that there was approximately 683,000 tonnes of commercial and industrial waste produced in Warwickshire, of that , 430,000 tonnes was industrial waste and 253,000 tonnes commercial waste.

7.19 In respect of treatment, the following table provides a summary of current facility capacity for industrial and commercial wastes.

Table 11: Deposits of Commercial and Industrial Waste at Open Gate Facilities ('000s tonnes)

Biological Waste	Metal Recycling Waste	Physical Treatment Waste	Thermal Treatment Waste	Total Waste Deposits
104	59	0	36	199

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

7.20 Predictions for industrial and commercial waste growth are identified in the following table.

Table 12: Commercial and Industrial Waste Predictions up to 2020 in tonnes (Phase 2 Report)

Growth at 2005	Growth at 2010	Growth at 2015	Growth at 2020
1,434,000	1,377,000	1,377,000	1,377,000

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

7.21 The additional capacity required to address this industrial and commercial waste through conventional means and the equivalent number of facilities is identified in the following tables.

Table 13: Indicative Additional Capacity Required to Recycle and Recover Industrial & Commercial Waste 2005 and 2021 ('000 tonnes)

Capacity 2005	Capacity 2010	Capacity 2015	Capacity 2021
413	424	435	446

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 14: Indicative Minimum Cumulative Landfill Capacity Required to Dispose of Industrial and Commercial Waste 2001 - 2021 ('000 tonnes)

Capacity 2001 - 2005	Capacity 2001 - 2010	Capacity 2001 - 2015	Capacity 20001- 2021
2,102	3, 969	5,759	7,506

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 15: Additional Capacity and Facilities Required to Recycle and Treat Industrial and Commercial Waste 2005 & 2021 ('000 tonnes)

Capacity 2005	Equivalent Number of Facilities @25,000 tonnes / year	Capacity 2021	Equivalent Number of Facilties @25,000 tonnes / year
206	8	239	10

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Options for Addressing Key Issue 3

7.22 The data contained within the above tables has been used to inform the development of options for the Waste Development Framework. The options are listed below:

- **Option A**: Whereby the provision of sub-regional industrial and commercial waste management facilities is determined through consideration of waste management developer proposals on a case by case basis and in accordance with legislation and good practice;
- **Option B**: Whereby criteria is established through policy aimed at delivering the 'proximity principal' but where no specific targets are set in respect of recovery and re-use and there are no restrictions on waste being disposed to landfill;
- **Option C**: Strategies aimed at delivering the waste hierarchy with limitations placed on the amount of industrial and commercial waste that is sent to landfill. Limits placed on the total treatment and disposal capacity.

7.23 Consultation Questions:

> Question 10: Should Option A, Option B or Option C be selected in identifying the provision of future industrial and commercial waste facilities within the County?
>
> Question 11: Is the growth scenario considered appropriate? What is the suggested mechanism for future waste growth scenario in industrial and commercial wastes?

Sustainability Appraisal

7.24 A sustainability appraisal has been conducted of the options for Issue 3 in accordance with the SA Framework.

Table 16: Sustainability Appraisal (SA) for Issue 3 Industrial and Commercial Waste Management Practices

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	0	+	+	0	?	-	+	+	+/+	It is anticipated that Option C would deliver the greatest adherence to the objective, given that it would reduce the reliance on landfill that has the potential for longer term effects on biodiversity resources distributed over a greater area.
2	Protect and improve water resources	0	0	?	0	?	+	0	+	+/+	Option A may fail to enhance water resources across the County. Option B may provide a greater desire to re-use materials that would otherwise be considered as waste within new development. Option C is likely to deliver the greatest benefit through specific policies aimed at reducing waste at source and recovering / recycling within purpose-designed facilities.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	+	+	0	0	?	0	+	+/+	Both Options A and C perform comparably where it was possible to exert a suitable level of control on potential sources of nuisance associated with industrial and commercial waste handling and disposal. Option C is likely to deliver greater conformance to the objective over time as a consequence of the strict adherence to limits of waste processed at treatment facilities.
4	To conserve and enhance the quality of the natural and built environment	0	0	-	0	?	?	+	+	++	Option C would deliver the greatest adherence to the conservation and enhancement of the built and natural environment. Option B would be more difficult to determine at this stage, given locational constraints on delivering the proximity principal. Under Option A there may be partial losses at a local scale that may cumulatively lead to more significant effects on a County-wide basis.
5	Protect sites and features of cultural heritage importance	0	+	+	0	0	?	+	+	++	Option A and C are likely to deliver the most tangible benefits in respect of the preservation of cultural heritage. The extent to that the proximity principal can be adhered to for these waste types makes longer-term prediction problematic. However, Option C is likely to lead to a lower reliance on landfill and in turn may serve to assist in the preservation of near surface buried remains.
6	Protect soil resources	-	0	+	0	+	+	+	+	+/+	Option A may fail to deliver County-wide improvements. Option B may achieve some benefits in locating waste close to the source of production where this is possible. Option C would deliver the greatest adherence to the objective through a reduced reliance on landfill.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	+	0	+	+	0	?	?	Option B is likely to deliver the most immediate benefits in respect of delivering energy efficiency provided that locational factors do not prove to be a significant barrier. The proximity principal would assist in reducing energy intensive activities associated with the transport of waste. It is difficult to predict the effect of Option C as it would be dependent on the success of reducing waste produced at source and the mix of technologies used to recover and recycle industrial and commercial wastes.
8	Reduce consumption of natural resources	-	0	+	0	+	+	0	+	+/+	Option C is likely to deliver the most significant benefit in reducing pressures on natural resource use. Under Option B, the reduced dependency on transport of waste over long distances would reduce consumption of hydrocarbons where this could be achieved. The success of Option A would depend on the adherence to good practice at a local level.

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
9	To promote adherence to the movement of waste up the waste hierarchy	0	+	+	-	-	0	+	+/+	+/+	Option C is predicted to deliver the most marked benefit in moving waste up the hierarchy. Option A may deliver some benefits. Adherence to the proximity principal, in isolation, under Option B would deliver few benefits with the exception of a greater requirement for treatment of waste at source that may lead to an increase in recycling over time.
10	Enfranchise the community in improving the local environment	-	-	0	-	0	+	0	+	+	Option C is predicted to deliver the most significant opportunity to involve the community in the delivery of future industrial and commercial waste management facilities and practices. Options A and B offer little benefit with the exception of involvement at a local level. It may be difficult to enfranchise the community on a case by case basis at the purely local level. Over time there may be some increase in community involvement.
11	Improve accessibility to waste management services and facilities	0	+	+/+	+	+/+	+/+	0	+	+	Option B would deliver the most marked performance (provided that there are no significant barriers to achieving the proximity principal) in respect of providing enhanced accessibility. Option C would deliver indirect benefits due to the need for a greater distribution of recycling facilities. Option A would deliver some benefits that are likely to be required by developers and included within specific applications.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	0	0	+	0	0	+	0	+	+	There are some opportunities to positively respond to this objective under Option A. Both Option B and C would deliver a degree of adherence to the objective with time.
13	To explore linkages between the waste and minerals sectors	0	0	0	0	0	+	0	0	+	Option B and C perform comparably in respect of this objective. Option A would provide few opportunities to consider synergies or interrelationships between the minerals and waste sectors at a County-wide level.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	+	0	+	+	0	+	+/+	Option C is in most conformity to the requirements of this objective. Both Options A and B also provide waste developers with an opportunity to consider how industrial and commercial waste may be managed.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)										
++			1			2			9	
+			14			13			21	
0			20			17			10	
-			6			4			0	
--			0			0			0	
?			1			6			2	
Summary of Appraisal	Option C performs in closest adherence to the sustainability objectives									

Key Issue 4: Construction and Demolition Waste Management Practices

7.25 The types of waste that are included within construction and demolition wastes include asbestos, paper, general commercial and industrial and healthcare wastes. Within Warwickshire, the total volume of construction and demolition waste at 2005 has been evaluated as 1,542,000 tonnes. The following tables identify the breakdown of each waste type that may be considered as construction and demolition waste and future growth scenarios.

Table 17: Type of Construction and Demolition Waste Produced ('000 tonnes)

Inert	Asbestos (C&D)	Paper & Card	Food	General Commercial	General Industrial	Mineral Waste & Residues	Metals & Scrap	Chemical & Other
15	21	40	19	185	103	10	65	200

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 18: Cumulative Construction and Demolition Waste Growth Predictions (tonnes)

2005	2010	2015	2020
1,542,000	1,179,000	1,066,000	1,066,000

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

7.26 The above table indicates that it is anticipated that there will be an increasing growth to the end of 2010 with a gradual lessening in growth between 2010 and 2020. The following tables illustrate the additional capacity that would be required in order to address the construction and demolition waste produced within Warwickshire to 2021.

Table 19: Minimum Capacity Required to Recycle C&D Waste 2005-2021 ('000 tonnes)

Annual Capacity Required by 2005	Annual Capacity Required by 2010	Annual Capacity Required to 2015	Annual Capacity Required to 2021
594	500	490	490

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 20: Indicative Non-Hazardous Landfill Capacity Required to Dispose of C&D Waste 2001-2021 ('000 tonnes)

Cumulative Void Capacity Required by 2005	Cumulative Void Capacity Required by 2010	Cumulative Void Capacity Required 2015	Cumulative Void Capacity Required by 2020
303	588	844	1,099

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 21: Additional Capacity and Facilities Required to Recycle C&D Waste 2005 and 2021 ('000 tonnes)

Capacity Required by 2005	Equivalent No. of Facilities (@100ktpa)	Additional Capacity Required by 2021	Equivalent no. of Facilities (@100ktpa)
594	6	490	5

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Options for Addressing Key Issue 4

7.27 The data contained within the above tables, and supplemented by additional desk-based research has been used to develop options for the Waste Development Framework. The options are listed below:

- **Option A**: Provision of sub-regional construction and demolition waste facilities determined through a consideration of developer proposals on a case by case basis but in accordance with legislation and good practice;
- **Option B**: Policy delivered with the aim of delivering waste management practices in accordance with the 'proximity principal'. No targets established in respect of diverting the waste away from landfill;
- **Option C**: Strategies aimed at delivering the waste hierarchy and limits placed on the amount of waste sent to landfill with targets set for treatment (recovery and re-use) to encourage developers to re-use construction and demolition wastes in new build where practicable.

7.28 Consultation Questions:

> Question 12: Should Option A, Option B or Option C be selected in identifying the provision of future construction and demolition waste facilities within the County?
>
> Question 13: Is the growth scenario considered appropriate? What is suggested in terms of a more appropriate growth scenario in construction and demolition wastes?

Sustainability Appraisal

7.29 A sustainability appraisal has been conducted of the options for Issue 4 in accordance with the SA Framework.

Table 22: Sustainability Appraisal (SA) for Issue 4 Construction and Demolition Waste Management Practices

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	0	+	+	0	+	+	+	+	+/+	Option C would deliver the greatest adherence to the objective, as it would minimise the reliance on landfill that has the potential for longer term effects on biodiversity resources distributed over a greater area.
2	Protect and improve water resources	0	0	?	0	+	+	0	+	+/+	Option A may not provide County-wide benefits in the protection of water resources. Option B may provide a greater desire to re-use materials that would otherwise be considered as waste within new development. Option C is likely to deliver the greatest benefit through targets on the recovery and reuse of waste at the site of production.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	+	+	0	0	+	0	+	+	Both Options A and C are predicted to be similar in their adherence to the objective. Option C is likely to deliver the greatest benefit through recovering material to be used as an asset rather than disposed of as a waste.
4	To conserve and enhance the quality of the natural and built environment	0	0	+	0	0	+	+	+	+/+	Option C is predicted to deliver adherence to the objective aim of conserving and enhancing the built and natural environment. Both Option B and A are likely to perform comparably for this waste type.
5	Protect sites and features of cultural heritage importance	0	+	+	0	0	?	+	+	+/+	Option C, and to a lesser extent Option A are likely to deliver benefits in respect of preserving cultural heritage. It is difficult to predict the effect of the proximity principal as this may induce positive or negative effects on a site-specific basis.
6	Protect soil resources	-	0	+	0	+	+	+	+	+/+	Option A would deliver some benefits for the protection of soil resources through good practice. Option B may achieve some benefits in locating waste close to the source of production. Option C would deliver the greatest adherence to the objective through a reduced reliance on landfill.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	+	0	+	+	0	?	?	Option B is likely to deliver the most immediate benefits in respect of delivering energy efficiency. It is difficult to predict the effect of Option C as it would be dependent on treatment technologies required for construction and demolition wastes.

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
8	Reduce consumption of natural resources	-	0	+	0	+	+	0	+	+/+	Option C is likely to deliver the most benefit in reducing pressures on natural resource use. Under Option B, the reduced dependency on transport of waste over long distances would reduce consumption of hydrocarbons. Option A would deliver some benefit where good practice was enforced.
9	To promote adherence to the movement of waste up the waste hierarchy	0	+	+	-	-	0	+	+/+	+/+	It is predicted that Option C would deliver the most marked benefit in moving waste up the hierarchy. Option A may deliver some benefits. Adherence to the proximity principal, in isolation, under Option B would deliver few benefits.
10	Enfranchise the community in improving the local environment	-	-	0	-	0	+	0	+	+	Option C presents the most significant opportunity to involve the community in the delivery of future construction and demolition facilities and practices. Options A and B offer little benefit with the exception of involvement at a peripheral level.
11	Improve accessibility to waste management services and facilities	0	+	+/+	+	+	+/+	0	+/+	+/+	Option C would deliver the most marked performance in respect of providing enhanced accessibility.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	-	0	+	0	0	+	0	+	+	Option C would provide the greatest support for this objective. However, both Options A and B would deliver a degree of adherence to the objective with time.
13	To explore linkages between the waste and minerals sectors	0	0	0	0	0	+	0	0	+	Option B and C would be comparable. Option A would provide few opportunities to consider synergies or interrelationships between the minerals and waste sectors at a County-wide level.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	+	0	+	+	0	+	+/+	Option C would provide the most support to the objective. Both Options A and B also provide construction and demolition waste producers with an opportunity to consider how waste may be recovered and reused.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)										
++			1			1			11	
+			15			19			19	
0			20			18			10	
-			5			3			0	
--			0			0			0	
?			1			1			2	
Summary of Appraisal	Option C would be most supportive of the objectives.									

Key Issue 5: Hazardous Waste Management Practices

7.30 The cumulative quantity of hazardous waste arising within Warwickshire for the period 2001 to 2021 has been estimated at 1,379,000 tonnes. Due to its nature this waste is difficult to treat and dispose of.

7.31 The following tables provide an indication of the additional capacity required to re-use and recycle hazardous waste and the indicative cumulative landfill capacity that would be required.

Table 23: Indicative Capacity Required to Re-Use and Recycle Hazardous Waste 2001-2021 ('000 tonnes)

Annual Capacity Required by 2005	Annual Capacity Required by 2010	Annual Capacity Required by 2015	Annual Capacity Required by 2021
15	18	18	18

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 24: Indicative Cumulative Landfill Capacity Required to Dispose of Hazardous Waste 2001-2021 ('000 tonnes)

Cumulative Capacity Required by 2005	Cumulative Capacity Required by 2010	Cumulative Capacity Required by 2015	Cumulative Capacity Required by 2020
430	871	1,294	1,717

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Table 25: Additional Capacity Required to Recycle and Treat Hazardous Waste by 2005 and 2021 ('000 tonnes)

Additional Capacity Required by 2005	Equivalent No. of Facilities (@25ktpa)	Additional Capacity Required by 2020	Equivalent No. Facilities (@25ktpa)
15	1	18	1

Source: WCC / DEFRA Waste Implementation Programme (LASU) June 2005 and WMRA Scenarios Study

Options for Addressing Key Issue 5

7.32 Data contained within the above predictions, supplemented by additional study, has been used to develop options for this issue. The options are as follows:

- **Option A**: Policy developed to guide future hazardous waste sites development through development control i.e. limited intervention other than via a case by case consideration of planning hazardous waste facilities;
- **Option B**: A quantitative and geographic approach establishing the type of facility and general area for hazardous waste facilities.

7.33 Consultation Questions:

Question 14: Should Option A or Option B be selected in identifying the provision of future hazardous waste facilities within the County?

Question 15: Is the growth scenario considered appropriate? What is suggested in terms of a more appropriate growth scenario in hazardous wastes?

Sustainability Appraisal

7.34 A sustainability appraisal has been conducted of the options for Issue 5 in accordance with the SA Framework.

Table 26: Sustainability Appraisal (SA) for Issue 5 Hazardous Waste Management Practices

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	0	-	-	0	0	+	Option B would be more supportive of this objective. It is considered that a strategic County-wide approach is preferable in determining future hazardous waste capacity.
2	Protect and improve water resources	0	0	0	0	+	+	Neither Option A or Option B are likely to lead to a significant impact upon water resources although a greater understanding of the County's resources would be gained under option B.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	+	+	0	+	+	Both Options A and B are predicted to be similar in their adherence to the objective.
4	To conserve and enhance the quality of the natural and built environment	0	0	+	0	+	+	Option B is predicted to deliver marginally greater benefits to the objective aim of conserving and enhancing the built and natural environment.
5	Protect sites and features of cultural heritage importance	0	+	+	0	+	+	Both Option A and B would perform comparably in respect of this objective.
6	Protect soil resources	0	0	+	0	0	+	Both Option A and B would perform comparably in respect of this objective.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	+	0	+	+	Option B is likely to deliver marginally greater adherence to this objective.
8	Reduce consumption of natural resources	0	0	0	0	0	+	Option B would be marginally more in conformity with this objective than Option A.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	+	0	+	+	Option B would perform better than Option A under this objective given the potential for larger scale facilities and recovery operations.
10	Enfranchise the community in improving the local environment	-	-	0	-	0	+	Neither Option A or B would be substantially supportive of this objective. This is a reflection of the nature of hazardous waste and the specific requirements in terms of designing new facilities. Over the longer term Option B would lead to greater conformity to the objective.
11	Improve accessibility to waste management services and facilities	0	+	+	+	+	+/+	Option B is likely to deliver the most marked performance in respect of providing enhanced accessibility.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	-	0	+	0	0	+	Both Option A and B are likely to provide employment opportunities for hazardous waste management.
13	To explore linkages between the waste and minerals sectors	0	0	0	0	0	+	Option B would perform marginally better under this objective.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	+	0	+	+	Option B would provide the most support to the objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			0			1	
+			12			20	
0			25			19	
-			5			1	
--			0			0	
?			0			1	
Summary of Appraisal	Option B would be most supportive of the objectives.						

Key Issue 6: Waste Management Treatment and Disposal Options

7.35 The West Midlands Regional Assembly carried out a study into future capacity requirements across the region in the report entitled 'West Midlands Waste Facilities: Phase 2: Future Capacity Requirements' (Shropshire County Council, 2004). Table 27 extracts the requirements for Warwickshire, setting out the number of facilities required in Warwickshire in order to make adequate provision for waste disposal between 2001 and 2021.

7.36 Most of the facilities will have to deal with approximately 25 kilotonnes of waste per annum, but there is also a requirement for one construction and demolition recycling facility to deal with 100 kilotonnes per annum and one municipal recovery facility to deal with 250 kilotonnes per annum.

Table 27: Additional Waste Management Facilities Required to Manage Waste in the West Midlands Region by Type of Capacity 2001-2021

Municipal Recycling Facilities	Municipal Recovery Facility	Municipal Recovery Facility	Industrial & Commercial Recycling and Recovery	Construction & Demolition Recycling	Construction & Demolition Engineering & Voids	Hazardous Waste Recycling & Recovery	Non-Hazardous Landfill	Hazardous Landfill
(25 ktpa)	(25 ktpa)	(250 ktpa)	(25 ktpa)	(100 ktpa)	(Cumulative Void)	(25 ktpa)	(Cumulative Void)	(Cumulative Void)
4	5	1	10	5	4,336	1	1,114	1,717

7.37 The main waste treatment processes are biological, mechanical, thermal, advance thermal and landfill. The following section provides additional detail on these treatment processes to supplement consideration of the options for this issue.

Biological Processes

7.38 This section provides details on the biological processes that have been considered in developing options for this issue.

Windrow Composting

7.39 This is the aerobic decomposition of mixed and shredded organic waste using open linear heaps called "windrows", that stand at approximately 3 metres in height and 4 to 6 metres across the base. This composting process involves the mechanical turning of waste until the desired temperature and residence times are achieved to enable effective degradation with the process taking about three months. The result of this process is a bulk-reduced, stabilised residue known as compost although it would be better described as a soil improver. Windrow composting can take place outside or in a large building.

In-vessel Composting

7.40 In-vessel composting involves aerobic digestion undertaken within an enclosed container and the control systems for material degradation are fully automated. The odour, moisture and temperature can be regulated and the resultant product is biologically stable compost. This process is quicker than windrow composting. More usually this process is used for the composting of food waste including those from animal sources.

Anaerobic Composting (Digestion)

7.41 This is a process in that biodegradable material is encouraged to break down in the absence of oxygen. The waste is broken down in an enclosed vessel under controlled conditions that results in the production of digestate and biogas. The biogas is captured and converted to energy. The digestate can be used as a soil improver either directly as a liquid or dried and then applied as a dried solid.

Mechanical Processes

7.42 This section outlines the available options in respect of mechanical processes for waste treatment.

Clean/Dry Materials Recovery Facility (MRF)

7.43 This is where dry recyclables are taken to a purposely-designed building for secondary sorting and processing prior to export to specialist industry processing facilities. Sorting is often undertaken manually but with improved technology mechanical sorting will become commonplace.

Mechanical Biological Treatment (MBT)

7.44 Mechanical Biological treatment (MBT) is a term that encompasses a very wide range of technologies, that aim to process waste by a mixture of mechanical and biological separation. The two approaches are:

- Mechanical biological (MBT) – Waste is mechanically sorted followed by composting or anaerobic digestion (AD) of the separated biodegradable fraction;
- Biological mechanical (BMT) – Biological treatment (biological drying through composting) of the waste stream is undertaken before mechanical sorting of the waste.

7.45 Generally, the outputs from the MBT processes are:

- Recyclable materials such as metals and glass;
- An organic rich fraction that can be composted or treated in AD to produce a compost product/digestate;
- A fuel product that can either be burnt in an on site combustion unit, sent for combustion off-site such as cement kilns, power stations, or treated by gasification to produce a gas that is then burnt to produce electricity;
- Rejects that have to be landfilled.

7.46 There are three main types of MBT process:

- Production of both a refuse derived fuel (RDF) product and a compost product;
- Production of a RDF product;
- Production of a compost product.

Thermal Processes

7.47 The following section identifies the predominant thermal processes that have been considered within this issues and options report.

Large-scale Thermal Treatment (Incineration)

7.48 The most common Energy from Waste (EfW) systems are based on grate technology and are capable of burning waste that has not been pre-treated. Other technologies such as rotary and oscillating kilns are also used with untreated waste. The waste is delivered to the site where it is tipped into a concrete pit. From there it is loaded by grab-crane into a hopper. From the hopper the waste is fed onto the grate, where it burns in an updraft of air blown into the combustion zone by fans from below. Combustion air is also added to the combustion chamber above the grate to burn the volatile gases evolved. Waste continuously enters one end of the furnace and ash is continuously discharged at the other. The hot combustion gases then flow across banks of boiler tubes where heat is transferred to water, generating steam. The steam can be passed through a steam turbine that can be used to drive an electrical generator, may be supplied to heating networks, or in combination as Combined Heat and Power (CHP).

7.49 An alternative is fluidised bed combustion (FBC). In fluidised beds the burning fuel is suspended in an upward flowing stream of air. This takes place in a furnace section containing a bed of refractory sand or limestone supported by an air distributor plate or nozzle system. The bed resembles a violently boiling liquid. The refractory sand or limestone bed material is usually present in larger quantities than the waste itself, and this gives it a high thermal mass, that allows operation with waste of highly variable properties.

Advanced Thermal Processes

Pyrolysis

7.50 Pyrolysis is thermal degradation of a material in the complete absence of an oxidising agent (e.g. air or oxygen). In practice, complete elimination of air is very difficult and some oxidation is likely to occur. Typically the process occurs at temperatures in the range 400-800^{o}C. When applied to waste materials, the action of heat breaks complex molecules into simpler ones. This results in the production of gas, liquid and chars. These products can have several uses depending on the nature of the feedstock, however for waste based feedstocks the most likely use is as a fuel for energy generation.

Gasification

7.51 Gasification is the conversion of a solid or liquid feedstock into a gas by partial oxidation under the application of heat. Partial oxidation is achieved by restricting the supply of oxidant that is normally air. For organic based feedstock's, such as most wastes, the resultant gas is typically a mixture of carbon monoxide, carbon dioxide, hydrogen, methane, water, nitrogen and small amounts of higher hydrocarbons. However, the gas will contain tars and particulate matter, that may need to be removed before the gas is suitable for combustion. The degree of this contamination will depend on the gasification technology used.

Steam treatment (Autoclave)

7.52 The main type of steam treatment process uses an autoclave system, where waste and steam are fed into a drum together. The combination of water and heat provided by the steam causes the paper and organic materials in the waste to break down and produce a "crumb" type of material. This process is undertaken in batches and takes about 45 minutes. The processed waste is discharged from the drum and fed into a mechanical

sorting circuit that segregates a paper/organic product (Refuse Derived Fuel), glass, plastic and metal for recycling.

7.53 An alternative approach is to use a combination of water and heat rather than steam. The residual waste is initially mixed with water and the heat is provided by warm air. These differences allow the process to operate continuously rather than in a batch mode. Once this stage of the processing has been completed the remaining mechanical sorting circuit will be the same as for the steam treatment.

Landfill

7.54 Landfill is the controlled deposit of waste into or onto land. Minerals workings and extraction sites are used as landfills providing a means to restore the land. Where excavations for landfill are not available it may be possible to deposit waste onto the ground surface and create a waste disposal site this known as landraising.

Other Processes

Household Waste Recycling Centres (Civic Amenity Sites)

7.55 A Household Waste Recycling Centre is a facility where the public can dispose of bulky household waste. They include the provision of recycling points for the opportunity to recycle a range of materials.

Bring Sites

7.56 Bring sites include bottle and paper banks and are facilities provided at supermarkets and other locations that are visited regularly by householders in that recyclable waste may be deposited.

Waste Transfer Stations

7.57 This is a facility to that waste is delivered for bulking / handling / sorting prior to transfer to another place for recycling, treatment or disposal. Waste from collection vehicles may be stored temporarily prior to onward movement in bulk to a treatment or disposal site.

Future Capacity Requirements

7.58 The following tables provide an indication of the future capacity requirement to 2021 for Warwickshire.

Table 28: Indicative Future Capacity Required 2001 – 2021 ('000 tonnes)

Future Requirement by Type of Capacity	Existing Capacity (2001)	Capacity required at 2005	Capacity Required at 2010	Capacity Required at 2015	Capacity Required at 2021
Recycling / Recovery and Treatment					
Municipal Recycling	14	75	104	117	119
Municipal Recovery	0	58	49	114	116
Industrial and Commercial Recycling and Recovery	207	413	424	435	446

Construction and Demolition Recycling	0	594	500	490	490
Construction and Demolition Engineering Uses	705	1,500	2,289	2,908	3,527
Hazardous Recycling and Recovery	0	15	18	18	18
Disposal					
Non-Hazardous	9,260	2,995	5,689	8,049	10,374
Hazardous	0	430	871	1,294	1,717

Table 29: Number of Additional Recycling and Recovery Facilities Required 2005 and 2020 ('000 tonnes)

Future Requirement by Type of Capacity	Existing Capacity	Additional Capacity Required by 2005	Equivalent No. of Facilities	Additional Capacity Required by 2021	Equivalent No. Facilities
Municipal Recycling	0	61	2	105	4
Municipal Recovery (Recycling)	0	58	2	116	5
Industrial and Commercial Recycling and Recovery	207	206	8	239	10
Construction and Demolition Recycling	0	594	6	490	5
Hazardous Recycling and Recovery	0	15	1	18	1
Total	207	934	19	968	25

Options for Addressing Key Issue 6

7.59 The above tables have been used to develop potential options for the Waste Development Framework. The options are listed below:

- **Option A**: Policy focussed on the delivery of a predominantly landfill-based approach with some composting and recycling (largely of municipal waste with limited adherence to the waste hierarchy). This option would provide a framework for the management of waste that would allow Warwickshire to achieve the targets set by legislative requirements. Although these legislative requirements are primarily focused on Municipal Waste there are certain targets in the Waste Strategy 2000 that apply to industrial waste. Although not strictly a legislative requirement Waste Strategy 2000 was used by the UK Government to demonstrate how it was going to comply with the provisions of the Landfill Directive. This option would rely on the continued use of landfill for industrial and commercial waste with reducing inputs to landfill of municipal

waste. The reduction of municipal waste would come about as a result of on going recycling initiatives and windrow composting;

- **Option B**: Policy focussed on a mixture of alternative technologies, recycling and composting taking precedence ahead of landfill (delivery of aspects of the waste hierarchy). This option will allow for the achievement with the legislative requirements but with a wide use of alternative technologies to deliver those requirements. Such an option will result in the provision of alternative waste management arrangements such as materials recovery facilities, large-scale thermal treatment facilities (incineration), transfer stations and Mechanical Biological Treatment (MBT) plants;
- **Option C**: Policy focussed on predominantly advanced thermal treatment and recycling excluding landfill (full adherence to the principles of the waste hierarchy). Option C would provide for advanced technologies for the treatment of waste such as the production of refuse derived fuel, advanced thermal treatment and autoclaving.

7.60 Consultation Questions:

> Question 16: Should Option A, Option B or Option C be pursued in respect of policy support for the waste hierarchy?
>
> Question 17: What other alternative technology approaches should be considered?

Sustainability Appraisal

7.61 A sustainability appraisal has been conducted of the options for Issue 6 in accordance with the SA Framework

Table 30: Sustainability Appraisal (SA) for Issue 6 Waste Management Treatment and Disposal Options (Technology Mix)

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	-	-	-/-	0	+	+/+	0	+	?	Whilst Option C has significant potential, it is considered that a prudent mix of technologies including some landfill under Option B would be the most supportive of this objective.
2	Protect and improve water resources	0	-	-/-	0	+	+/+	0	+	?	Option B would deliver the greatest adherence to this objective that may be meaningfully predicted at this time.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	0	0	0	+	+	0	+	?	Option B is likely to lead to the greatest potential for achieving this objective through adherence to the waste hierarchy but some reliance on landfill where appropriate. None of the options are likely to lead to conflicts with the desire to protect community health.
4	To conserve and enhance the quality of the natural and built environment	-	-/-	-/-	+	+	++	+	+	?	Option B would deliver the greatest adherence to the conservation and enhancement of the built and natural environment. Option C would be more difficult to determine at this stage, as the types of innovative technologies may have some effects upon the natural and built environment that may not be predicted at this stage.
5	Protect sites and features of cultural heritage importance	0	-	-	+	+	+	0	+	?	Option B would deliver the greatest support for this objective. It is possible that Option C would necessitate the delivery of innovative technologies that may have indirect effects on historic resources. This will be a function of the scale and type of facility that is to be employed. This may not be predicted with any degree of certainty at this stage.
6	Protect soil resources	-/-	-/-	-/-	+	+	+/+	+	+	+	Option B would be in greatest conformity to the objective allowing a reduced accent on landfill and using known technology for recovery and recycling. Option C is likely to deliver similar benefits although indirect, visual effects associated with innovative treatment facilities is less certain.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	-	0	+	?	0	+	?	Both Option B and C present appropriate solutions to reducing carbon emissions although the longer-term implications of both strategies would need to be investigated in greater detail.
8	Reduce consumption of natural resources	-	-	-	0	+	+	0	+	+/+	Option C is likely to deliver the most significant benefit in reducing pressures on natural resource use.

SA Objective		Option A			Option B			Option C			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	ST	MT	LT	
9	To promote adherence to the movement of waste up the waste hierarchy	-/-	-/-	-/-	+	+	+/+	+	+/+	+/+	Option C is predicted to deliver the most marked benefit in moving waste up the hierarchy. Option B would deliver some benefits. Option A would be in direct conflict with objective.
10	Enfranchise the community in improving the local environment	-	-	-	+	+	+/+	0	+	+	Option B is predicted to deliver the most significant opportunity to involve the community in the delivery of future waste disposal options. Option C would also deliver marginal benefits although the accent on high technology may dissuade some with a more general interest.
11	Improve accessibility to waste management services and facilities	0	+	+/+	+	+/+	+/+	0	+	+	Option B would deliver the most marked performance (provided that there are no significant barriers to achieving the proximity principal) in respect of providing enhanced accessibility.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	+	0	-	0	0	+	0	+	+	Option C would present the greatest opportunity given that there would be an enhanced need for skilled workers to support the innovative technologies.
13	To explore linkages between the waste and minerals sectors	0	+	+	0	0	+	0	-	-	Due to increasing land pressures, Option A would require waste and minerals sectors to examine potential linkages that would allow a landfill-based disposal approach to continue without impacting on mineral resources.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	-	-/-	-/-	0	+	+	0	+	+/+	Option C is in most conformity to the requirements of this objective. Option B would also provide waste developers with an opportunity to consider the use of innovative technologies.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)									
++			1			8			4
+			4			23			19
0			10			10			11
-			15			0			2
--			12			0			0
?			0			1			6
Summary of Appraisal	Option B performs in closest adherence to the sustainability objectives								

Key Issue 7: Waste Management Location Options

7.62 The legislative framework and policy drivers put pressure on the Local Planning Authority to make provision for certain types of waste management facility i.e. no longer permitting Local Planning Authorities to place undue reliance on landfill as a disposal option.

7.63 In addition to these pressures the Local Planning Authority must also deal with issues relating to the siting of these facilities. One such issue relates to location i.e. should Warwickshire County Council focus on predominantly urban development; a mixture of urban and rural development or predominantly rural development?

7.64 The following table outlines the current facilities being considered by Warwickshire County Council.

Table 31: Plans for New Facilities

Current Facilities	Plans for New Capacity
5 x landfill sites 6 x treatment / transfer stations 3 x green waste composting sites	4 x materials recycling facilities (MRF) sites are proposed 3 x composting facilities proposed 1 x landfill

7.65 The following options have been considered for the Waste Development Framework:

- **Option A:** Policy developed to focus new waste management facilities within predominantly urban locations (where proximity principal is adhered to);
- **Option B**: Policy developed to focus new waste management facilities within predominantly rural locations (where proximity principal is adhered to).

7.66 Consultation Questions:

Question 18: Should Option A or Option B be selected in defining the approach to locating future waste management treatment locations?

Question 19: Should the proximity principal be the overriding feature in determining locational characteristics of new facilities?

Sustainability Appraisal

7.67 A sustainability appraisal has been conducted of the options for Issue 7 in accordance with the SA Framework.

Table 32: Sustainability Appraisal (SA) for Issue 7 Waste Management Location Options

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	+	+	+	0	-	-	Option A would be in closest adherence to the sustainability objective.
2	Protect and improve water resources	0	+	+	0	-	-	Option A would be preferable in respect of this objective
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	-	-	0	+	+	Option B would be in greatest conformity to the objective in terms of the total numbers of population potentially affected by waste treatment facilities.
4	To conserve and enhance the quality of the natural and built environment	0	-	-	0	-	-	Neither Option A or B would be in conformity with this objective i.e. a mix of locations would be required.
5	Protect sites and features of cultural heritage importance	0	0	?	0	0	?	Neither Option A or B would be in total conformity to this objective. Development control would need to be exerted to avoid conflicts.
6	Protect soil resources	0	0	+	0	0	-	Option A would be in greater conformity to the objective.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	+	-	0	0	Option A is likely to deliver marginally greater adherence to this objective.
8	Reduce consumption of natural resources	0	0	-	-	-	-	Option A would be more supportive to the objective.
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
10	Enfranchise the community in improving the local environment	0	0	0	0	0	-	Option A would be marginally more supportive of this objective.
11	Improve accessibility to waste management services and facilities	0	+	+	0	0	+	Option A would deliver the most marked performance in respect of providing enhanced accessibility.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	-	0	+	-	0	0	Both Option A and B are likely to provide employment opportunities although access to sites of employment within the rural sector may be a barrier to those without private means of travel.
13	To explore linkages between the waste and minerals sectors	0	-	-	0	0	+	Option B would perform better under this objective.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	+	0	+	+	Option B would provide the most support to the objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			0			0	
+			11			6	
0			22			22	
-			8			13	
--			0			0	
?			1			1	
Summary of Appraisal	Option A would be most supportive of the objectives.						

Key Issue 8: Scale of Waste Management Facilities

7.68 In addition to waste management location options, Warwickshire County Council must also identify an appropriate scale for waste management facilities. The following options have been considered for the Waste Development Framework:

- **Option A**: Policy developed to focus on large, centralised facilities supported by sub-regional dispersed facilities dealing with all waste types in accordance with the proximity principal;
- **Option B**: Policy focussed on smaller, dispersed facilities delivered in accordance with the requirements of the proximity principal.

7.69 Consultation Questions:

> Question 20: Should Option A or B be selected in determining the scale of waste management facilities?
>
> Question 21: How far should external factors (transport infrastructure, protection of the environment and human health) guide the scale of waste management facilities?

Sustainability Appraisal

7.70 A sustainability appraisal has been conducted of the options for Issue 8 in accordance with the SA Framework.

Table 33: Sustainability Appraisal (SA) for Issue 8 Scale of Waste Management Facilities

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	-	0	+	0	-	?	Option A would be in closest adherence to the sustainability objective.
2	Protect and improve water resources	0	+	+	0	-	-	Option A would be preferable in respect of this objective
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	0	+	0	+	+	Option B would be in greatest conformity to the objective.
4	To conserve and enhance the quality of the natural and built environment	-	0	+	0	-	-	Option A would be in greater conformity with the objective to the longer term.
5	Protect sites and features of cultural heritage importance	-	0	+	0	0	-	Option A would be preferable in terms of reducing County-wide conflicts with historic resources.
6	Protect soil resources	-	0	0	0	0	-	Option A and Option B perform comparably under this objective. Option A may be subject to initial short term effects. Option B may be subject to longer term effects.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	-	-	0	+	Option B is likely to deliver marginally greater adherence to this objective.
8	Reduce consumption of natural resources	0	-	-	0	0	0	Option B would be more supportive to the objective.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	+	0	0	-	Option A would be the most supportive of this objective.
10	Enfranchise the community in improving the local environment	+	0	0	-	0	0	Option A would be marginally more supportive of this objective.
11	Improve accessibility to waste management services and facilities	-	0	0	0	0	+	Option B would deliver the most marked performance in respect of providing enhanced accessibility.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	+	0	0	0	0	0	Option A is likely to provide sustained employment opportunities due to issued of scale.
13	To explore linkages between the waste and minerals sectors	+	+	+	0	0	+	Both Option A and B would perform comparably under this objective although Option A is likely to deliver linkages at a faster rate than Option B.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	+	0	0	0	0	0	Option A would provide the most support to the objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			0			0	
+			13			5	
0			21			26	
-			8			10	
--			0			0	
?			0			1	
Summary of Appraisal	Option A would be most supportive of the objectives.						

Key Issue 9: Utilisation of Existing Sites and Novel Sites

7.71 Warwickshire County Council must consider whether it is appropriate to utilise existing sites or develop new sites. This issue is linked to both the location and scale of waste management facilities.

7.72 The following options have been considered for the Waste Development Framework:

- **Option A**: Policy focussed on extending existing waste management facilities;
- **Option B**: Policy focussed on encouraging the development of new sites.

7.73 Consultation Questions:

> Question 22: Should Option A or B be supported in respect of waste management policy?

Sustainability Appraisal

7.74 A sustainability appraisal has been conducted of the options for Issue 9 in accordance with the SA Framework.

Table 34: Sustainability Appraisal (SA) for Issue 9 Utilisation of Existing Sites and Novel Sites

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	-	0	+	-	-	0	Option A would be more supportive of the sustainability objective.
2	Protect and improve water resources	0	+	+	-	-	0	Option A would be preferable in respect of this objective
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	0	+	-	0	+	Option A would be in greatest conformity to the objective.
4	To conserve and enhance the quality of the natural and built environment	-	0	+	-	-	0	Option A would be in greater conformity with the objective to the longer term.
5	Protect sites and features of cultural heritage importance	0	0	+	-	0	0	Option A would be preferable in terms of reducing County-wide conflicts with historic resources.
6	Protect soil resources	-	0	0	-	-	0	Option A would be in greater conformity to the objective but only in the medium term.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	0	-	0	0	Option A is likely to deliver marginally greater adherence to this objective.
8	Reduce consumption of natural resources	0	0	0	-	0	0	Option A would be marginally more supportive to the objective.
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	+	0	0	+	Both Option A and B would perform comparably in respect of this objective.
10	Enfranchise the community in improving the local environment	-	0	0	+	0	0	Option B would be more supportive of this objective.
11	Improve accessibility to waste management services and facilities	-	0	0	0	0	+	Option B would deliver the most marked performance in respect of providing enhanced accessibility.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	+	0	0	+	+	0	Option B is likely to provide more sustained employment opportunities.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
13	To explore linkages between the waste and minerals sectors	+	+	+	0	0	+	Both Option A and B would perform comparably under this objective although Option A is likely to deliver linkages at a faster rate than Option B.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	0	+	0	0	Option B may provide the most support to the objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			0			0	
+			11			8	
0			26			22	
-			5			12	
--			0			0	
?			0			0	
Summary of Appraisal	Option A would be most supportive of the objectives.						

Key Issue 10: Protection of Environmental Resources

7.75 In developing new waste management facilities, Warwickshire County Council must have due regard to the need to protect environmental resources. In considering new or existing sites, the following options are put forward for consideration:

- **Option A**: Policy includes specific protection measures for sites afforded statutory protection at a national, regional or local level;
- **Option B**: Deliver policy that seeks to provide protection for sites of local significance as well as statutorily protected sites.

7.76 Consultation Questions:

> Question 23: Should Option A or B be pursued in respect of preserving environmental resources and delivering sustainable waste management practices?
>
> Question 24: What decommissioning and restoration measures should be adopted following the cessation of waste management practices?

Sustainability Appraisal

7.77 A sustainability appraisal has been conducted of the options for Issue 10 in accordance with the SA Framework.

Table 35: Sustainability Appraisal (SA) for Issue 10 Protection of Environmental Resources

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	-	0	+	+	+	+/+	Option B would be more supportive of the sustainability objective. Under Option A the biodiversity resource is likely to be protected where it has a statutory protection. This option may create pressures on non-statutorily protected sites that nonetheless have a high intrinsic value. This is less likely under Option B.
2	Protect and improve water resources	-	0	+	+	+	+	Option B would be preferable in respect of this objective. Option A may result in effects upon water resources or a lack of their enhancement where they are not subject to statutory protection. This would be unlikely under the proposals given in Option B.
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	0	0	+	+	+	Option B would be in greatest conformity to the objective. In respect of Option A, safeguarding environmental quality may be partially achieved through acknowledgement of statutory protection afforded to sites. However, effects may still be sustained in areas that are not protected. This is less likely under Option B.
4	To conserve and enhance the quality of the natural and built environment	0	0	+	+	+	+/+	Option B would be in greater conformity with the objective to the longer term. Option A would ensure that sites afforded statutory protection are protected from inappropriate waste development but not necessarily none protected sites. For this reason, Option B is in greater conformity to the objective.
5	Protect sites and features of cultural heritage importance	0	0	+	+	+	+/+	Option B would be preferable in terms of reducing Countywide conflicts with historic resources. Option A would deliver protection against inappropriate development affecting sites afforded statutory protection but little protection for sites without this protection.
6	Protect soil resources	-	0	0	0	+	+/+	Option B would be in greater conformity to the objective. Developing an approach that considers the value of resources prior to development would ensure the soil resources were protected as far as possible from inappropriate development.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	0	0	0	0	Options A and Option B are comparable under this objective.
8	Reduce consumption of natural resources	0	0	0	0	0	0	Options A and Option B are comparable under this objective.
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	0	0	0	0	Both Options A and B would perform comparably in respect of this objective.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
10	Enfranchise the community in improving the local environment	+	0	0	+	0	0	Both Options A and B would perform comparably in respect of this objective.
11	Improve accessibility to waste management services and facilities	0	0	0	0	0	0	Both Options A and B would perform comparably in respect of this objective.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	0	0	0	0	0	0	Option A and B perform comparably in respect of this objective.
13	To explore linkages between the waste and minerals sectors	+	0	0	0	0	0	Option A is likely to deliver greater linkages than Option B and performs marginally better in respect of the objective.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			0			4	
+			6			24	
0			33			22	
-			3			0	
--			0			0	
?			0			0	
Summary of Appraisal	Option B would be most supportive of the objectives.						

Key Issue 11: Transport Infrastructure

7.78 In considering the locations of future waste management facilities, due consideration must be paid to the existing or future planned transport infrastructure. The following options have been developed by Warwickshire County Council to assist in determining the impact of transport infrastructure on waste management planning:

- **Option A**: Deliver policy aimed at minimising traffic impacts through siting waste management facilities in proximity to the source of waste;
- **Option B**: Set out specific requirements on a sustainable mix of transport strategies to be incorporated within site selection (allocation) policies but no restriction on siting waste management facilities in proximity to the source of waste.

7.79 Consultation Questions:

> Question 25: Should Option A or Option B be included within the policy?
>
> Question 26: Should transportation effects be considered in planning new waste management facilities?

Sustainability Appraisal

7.80 A sustainability appraisal has been conducted of the options for Issue 11 in accordance with the SA Framework.

Table 36: Sustainability Appraisal (SA) for Issue 11 Transport Infrastructure

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	-	0	?	0	+	+	On balance Option B would appear to be most supportive of the sustainability objective.
2	Protect and improve water resources	+	+	+	0	0	+	Option A would be preferable in respect of this objective
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	?	?	?	0	+	Option B would be in greatest conformity to the objective.
4	To conserve and enhance the quality of the natural and built environment	-	0	+	0	+	+	Option B would be in greater conformity with the objective to the longer term.
5	Protect sites and features of cultural heritage importance	-	0	+	0	+	+	Option B would be preferable in terms of reducing County-wide conflicts with historic resources.
6	Protect soil resources	0	0	0	0	0	0	Option A and B are likely to be comparable in respect of this objective.
7	To promote the delivery of energy efficiency and carbon reduction targets	+	+	+/+	-	0	+	Option A performs better under this objective.
8	Reduce consumption of natural resources	+	+	+/+	-	0	+	Option A would perform better under this objective.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.
10	Enfranchise the community in improving the local environment	+	0	0	+	0	0	Both Option A and B would perform comparably in respect of this objective.
11	Improve accessibility to waste management services and facilities	0	+	+/+	0	0	+	Option A would be more supportive of this objective.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	0	0	0	0	0	0	Option A performs marginally better in respect of this objective.
13	To explore linkages between the waste and minerals sectors	0	0	0	0	0	+	Both Option A and B would perform comparably under this objective although Option B is likely to deliver greater linkages than Option A.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	0	0	0	0	+	+/+	Option B would perform better in respect of this objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			3			1	
+			11			14	
0			22			24	
-			3			2	
--			0			0	
?			3			1	
Summary of Appraisal	Option B would be marginally more supportive of the objectives.						

Key Issue 12: Site Decommissioning and Restoration

7.81 Whilst the primary focus of policy may be directed at waste management facility planning, Warwickshire nonetheless recognise the importance of decommissioning and restoration activities both for current sites nearing their end of life and to build into future waste management site provision. The following options are put forward:

- **Option A**: Policy to deliver a strategic approach to restoration in adherence to core principals for protection of natural, semi-natural and built environment;
- **Option B**: Policy aimed at delivering specific site decommissioning and restoration practices linked to the waste treatment and / or disposal facility type.

7.82 Consultation Questions:

> Question 27: Should Option A or Option B be pursued within the policy?
>
> Question 28: Should the Council include specific measures aimed at ensuring site developers enter into agreements for site restoration.
>
> Question 29: Should communities be involved in decisions on restoration aimed at delivering local improvements to the public realm?

Sustainability Appraisal

7.83 A sustainability appraisal has been conducted of the options for Issue 12 in accordance with the SA Framework.

Table 37: Sustainability Appraisal (SA) for Issue 12 Site Decommissioning and Restoration (Future Uses)

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
1	Conserve and enhance biodiversity	0	+	+/+	0	+	+	Option A would be more supportive of the sustainability objective.
2	Protect and improve water resources	0	+	+	0	0	+	Option A would be preferable in respect of this objective
3	To safeguard environmental quality in order to minimise potential impacts on community health	0	+	+	?	0	+	Option A would be in greatest conformity to the objective.
4	To conserve and enhance the quality of the natural and built environment	0	+	+/+	0	+	+	Option A would be in greater conformity with the objective to the longer term.
5	Protect sites and features of cultural heritage importance	0	0	0	0	0	0	Option A and B are likely to be comparable in respect of this objective.
6	Protect soil resources	0	+	+	0	0	+	Option A performs better under this objective.
7	To promote the delivery of energy efficiency and carbon reduction targets	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.
8	Reduce consumption of natural resources	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.

SA Objective		Option A			Option B			Comparison of Options
		Effect (+/+, +, 0,-, -/-, ?)			Effect (+/+, +, 0,-, -/-, ?)			
		ST	MT	LT	ST	MT	LT	
9	To promote adherence to the movement of waste up the waste hierarchy	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.
10	Enfranchise the community in improving the local environment	+	+	0	+	0	0	Option A is likely to stimulate a longer-term involvement and performs marginally better than Option B against this objective.
11	Improve accessibility to waste management services and facilities	0	0	0	0	0	0	Both Option A and B would perform comparably in respect of this objective.
12	To ensure that the waste and minerals industry plays a central role in the sustainable economic development of Warwickshire	0	0	0	0	0	0	Option A and B perform comparably in respect of this objective.
13	To explore linkages between the waste and minerals sectors	+	+/+	0	+	0	0	Option A is likely to deliver greater linkages than Option B under this objective.
14	To encourage waste and minerals operators to explore new and innovative environmental technologies.	+	0	0	0	0	0	Option A would perform better in respect of this objective.

Summary of Sustainability Appraisal

Occurrence of Significant Long Term Effects (No)							
++			3			0	
+			12			9	
0			27			30	
-			0			2	
--			0			0	
?			0			1	
Summary of Appraisal	Option A would be most supportive of the objectives.						

Key Issue 13: Monitoring Regime and Stakeholder Engagement

7.84 Warwickshire County Council recognise the importance of monitoring the activity of waste management treatment facilities to ensure that they remain within agreed operational practices and guidelines. In addition, stakeholder and community engagement is seen as critical in ensuring that public realm issues are appropriately considered in future waste management practices.

7.85 Consultation Questions:

Question 30: Should the effectiveness of policy be monitored?

Question 31: Should the resident liaison committees be involved in the monitoring programme for all waste treatment facilities?

Question 32: Should developers encourage community and stakeholder engagement in delivering waste management facilities?

A1 GLOSSARY AND ABBREVIATIONS

2004 Act	Planning and Compulsory Purchase Act 2004
6EAP	Sixth Environmental Action plan
AAP	Area Action Plan
AD	Anaerobic Digestion
BMW	Biodegradable Municipal Waste
BVPI	Best Value Performance Indicator
C&D Waste	Construction & Demolition Waste
C&I Waste	Commercial and Industrial waste
CFCs	Chlorofluorocarbons
CHP	Combined Heat and Power
DMC	Decision Making Criteria
DPD	Development Plan Document
EfW	Energy from Waste
ELV	End of Life Vehicle Directive
EWC	European Waste Catalogue
FBC	Fluidised Bed Combustion
GIS	Geographic Information System
GVA	Gross Value Added
HCFC	Hydrochlorofluorocarbons
HWRC	Household Waste Recycling Centres
Interim Advice, 2005	Interim Advice Note on Frequently Asked Questions, OPDM 2004
JSP	Joint Structure Plan for Kingston Upon Warwickshire and the East Riding of Yorkshire
LDD	Local Development Document
LDF	Local Development Framework
LDF	Local Development Framework
LPA	Local Planning Authority
MBT	Mechanical Biological treatment
MRF	Minerals Recovery Facility
MWDF	Minerals and Waste Development Frameworks
MWDS	Minerals and Waste Development Scheme
ODPM	Office Deputy Prime Minister
ODPM SA Guidance, 2005	Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents - Guidance for Regional Planning Bodies and Local Planning Authorities November ODPM 2005.
ODS	Ozone Depleting Substance
PPC	Pollution Prevention Control
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
RDF	Refuse Derived Fuel
RoHS	Restriction of use of Certain Hazardous Substances Directive

RSDF	Regional Sustainable Development Framework
RSS	Regional Spatial Strategy
SA	Sustainability Appraisal
SEA	Strategic Environment Assessment
SEA Directive	European Directive 2001/42/EC
SPD	Supplementary Planning Document
WCAs	Waste collection Authorities
WCC	Warwickshire County Council
WCS	Waste Core Strategy
WDA	Waste Disposal Authority
WDF	Waste Development Framework
WEEE Directive	Waste Electrical and Electronic Equipment Directive
WMS	Waste Management Strategy

B USEFUL CONTACTS

Key Stakeholders	Contact Details
English Nature	Mr J. Blowers Conservation Officer English Nature Attingham Park Shrewsbury
English Heritage	Ms A Smith English Heritage 112 Colemore Row Birmingham B3 3AG
The Countryside Agency	Ms S Rawlings Countryside Agency 1st Floor Vincent House 92-93 Edward Street Birmingham B1 2RA
The Environment Agency	Tim Williams Environment Agency Sentinel House 9 Wellington Crescent Fradley Park Lichfield WS13 8RR
GOWM	Mr R Colbourne GOWM SED Planning Team 5 St Philip's Place Colemore Road Willes
RICS	RICS Contact Centre Surveyor Court Westwood Way Coventry CV4 8JE
Warwickshire District Council Waste Forum	
Friends of the Earth	Mr D Passingham Stratford on Avon Friends of the Earth 11 The Green Stretton-on-Fosse Moreton-in-Marsh GL56 9SQ
	Mr M Hammond Rugby Friends of the Earth 34 Poplar Grove Rugby CV21 2QR
	Mr J Brightly Nuneaton and District Friends of the Earth 236 Nuneaton Road Bulkington Road Bulkington Bedworth CV12 9RZ
	Chris Crean West Midlands Friends of the Earth

	The Warehouse Allison Street Digbeth B5 5TH
DEFRA	77 Paradise Circus Queensway Birmingham B1 2DT
CPRE	Environment Officer Warwickshire CPRE 41A Smith Street Warwick CV34 4JA
Warwickshire and West Midlands Association of Local Councils (ask for a rep from the County Committee)	WALC 25 Stoneleigh Deer Park Stareton Kenilworth CV8 2LY
Coventry and Warwickshire Chamber of Commerce	Oak Tree Court Binley Business Park Harry Weston Road Coventry CV3 2UN
Federation of Small Businesses	Warwickshire Coventry Region PO Box 3786 Coventry CV7 8YB
Quarry Products Association	Duncan Pollock Quarry Products Association Gillingham House 38-44 Gillingham Street London SW1V 1HU
British Aggregates Association	Peter Huxtable British Aggregates Association 10 Brookfields, Culver Hope Valley Lanark Derbyshire S32 3XB
National Stone Federation	Ms Buxey The Stone Federation Construction House 56/64 Leonard Street London EC2A 4JX
Operators/Consultants	
	Andrew Ambrose ALP Ambrose Mineral Planning Asfare Business Park Hinckley Road Wolvey Leicestershire LE10 3HQ 01455 221881
	Tim Deal Lafarge Aggregates Ltd Bradgate House Groby Leicester

	LE6 0FA
	Phil Duncan Natural Resources Manager Smiths Concrete Southam Road Banbury Oxfordshire OX16 2RR 01295 278177
	Colin D'Oyley Planning and Estates Manager Ennstone Johnstone Breedon-on-the-Hill Derby DE73 1AP 01332 694845
	Tony Rowley Regional Development Estates Manager Cemex House Church Lane Bromsgrove Worcestershire B61 8RA
	Peter Toon Senior Estates Manager Hanson Aggregates Ashby Road East Shepshed Loughborough Leicestershire LE12 9BU 01509 501216
	Steve Hill Estates Development Manager Tarmac Central Ltd Tunstead House Buxton Derbyshire SK17 8TG 01298 768555
	David Frost Estates Manager Midland Quarry Products Tunstead House Buxton Derbyshire SK17 8TG
	EW Fretwell Senior Surveyor and Minerals Manager UK Coal Harworth Park Blyth Road Harworth Doncaster South Yorkshire DN11 8DB
	Simon Ingram Planning Estates and Environmental Manager Baggeridge Brick Plc Fir Street Sedgley

	West Midlands DY3 4AA 01902 880555
	Mr David Tomlin Cemex Cemex House Coldharbour Lane Thorpe Egham Surrey TW20 8TD 01932 583600
	Mr J Stanley-Harrow Hornton Quarries Edgehill Nr Banbury Warwickshire OX15 6DX
Environmental Services Association	Paul Green Waste Recycling Group Ground Floor West 900 Pavilion Drive Northampton Business Park Northampton NN4 7RG
Waste Resource Action Programme (WRAP).	WRAP The Old Academy 21 Horse Fair Banbury Oxon OX16 0AH
	Jeff Rhodes Biffa Waste Services Park Lane Minworth Sutton Coldfield Warwickshire B76 9BL
	CL Associates Station House Old Warwick Road Leamington Spa Warwickshire CV31 3NR
	Entec UK Ltd Gables House Kenilworth Road Leamington Spa Warwickshire CV32 6JX
	MJCA Baddesley Colliery Offices Main Road Baxterley Atherstone Warwickshire CV9 2LE
	Alan Foster Onyx 1 Station Road Four Ashes Wolverhampton WV10 7DG
	Shaun Denny Sita UK Bolingbroke House

	Vanguard Way Battlefield Enterprise Park Shrewsbury SY1 3TG
	Richard Lucas Smallbrook Environmental Business Consultancy Smallbrook Farm Leamington Road Broadway Worcestershire WR12 7EB
	Adam Read Hyder Consulting Aston Cross Business Village 50 Rocky Lane Aston Birmingham B6 5RQ
	A L P Ambrose Minerals Planning & Development Consultancy Highway House Asfare Business Park Hinkley Road Wolvey Leicestershire LE10 3HQ
CIWEM	Alistairmoseley@Hyderconsulting.com
ICE	Steve Feeley 14 Albert Street Hednesford Cannock Staffordshire WS12 1BB
Midlands Environmental Business Company Ltd	David Middleton The Arch Yard F3 48-52 Flood pool Street Birmingham B5 5SL
RTAB	Bruce Braithwaite Staffordshire County Council

C QUESTIONNAIRE

Waste Core Strategy: Issues & Options Questionnaire

6 KEY OBJECTIVES FOR THE WASTE DEVELOPMENT FRAMEWORK

1) Do you agree with this vision?

2) What amendments would you make to the Waste Development Framework vision?

3) Do you agree with the objectives as set out in this Issues and Options paper?

4) What additional objectives (if any) should be used to guide the evolving Issues and Options paper?

7 KEY ISSUES AND OPTIONS

Delivering Sustainable Waste Management Practices
5a) In the development of the Waste Development Framework, should Warwickshire County Council adopt a site selection approach based on:
Option A,
Option B or
Option C?
'Other' option on database only

5b) Reasons for answer.

6a) Should Warwickshire County Council pursue a strategy to move waste as far as possible up the waste hierarchy?

Yes
No
Unsure

6b) Reasons for answer.

7a) Do you support the idea of the 'proximity principal' with the aim of delivering waste management practices which address waste as close to the point of origin as possible?

Yes
No
Unsure

7b) Reasons for answer.

7c) What other options are there for managing waste according to sustainable waste management practices, but which do not include managing waste as close to the source as possible?

Municipal Waste Management Practices
8a) Should:
Option A,
Option B or
Option C
'Other' option on database only
be selected in terms of identifying future need for municipal waste management in the County?

8b) Reasons for answer.

9a) What other options are there in terms of determining the geographical need for municipal waste management treatment facilities?

9b) Is the growth rate considered:
optimistic or
pessimistic

9c) should the growth scenarios be considered in formulating strategy?

Yes
No
Unsure

9d) Reasons for answer

Industrial and Commercial Waste Management Practices
10a) Should:
Option A,
Option B or
Option C
'Other' option on database only
be selected in identifying the provision of future I&C waste facilities within the County?

10b) Reasons for answer.

11a) Is the growth scenario considered appropriate?

11b) What is the suggested mechanism for a future waste growth scenario in industrial and commercial wastes?

Construction and Demolition Waste Management Practices
12a) Should:
Option A,
Option B or
Option C
'Other' option on database only
be selected in identifying the provision of future construction and demolition waste facilities within the County?

12b) Reasons for answer.

13a) Is the growth scenario considered appropriate?

13b) What is suggested in terms of a more appropriate growth scenario in construction and demolition wastes?

Hazardous Waste Management Practices
14a) Should:
Option A or
Option B
'Other' option on database only
be selected in identifying the provision of future hazardous waste facilities within the County?

14b) Reasons for answer.

15a) Is the growth scenario considered appropriate?

15b) What is suggested in terms of a more appropriate growth scenario in hazardous wastes?

Waste Management Treatment and Disposal Options
16a) Should:
Option A,
Option B or
Option C
'Other' option on database only
be pursued in respect of policy support for the waste hierarchy?

16b) Reasons for answer.

17) What other alternative technology approaches should be considered?

Waste Management Location Options
18a) Should:
Option A or
Option B
'Other' option on database only
be selected in defining the approach to locating future waste management treatment locations?

18b) Reasons for answer.

19a) Should the proximity principal be the overriding feature in determining locational characteristics of new facilities?

Yes
No
Unsure

19b) Reasons for answer.

Scale of Waste Management Facilities
20a) Should:
Option A or
Option B
'Other' option on database only
be selected in determining the scale of waste management facilities?

20b) Reasons for answer.

21) How far should external factors (transport infrastructure, protection of the environment and human health) guide the scale of waste management facilities?

Utilisation of Existing Sites and Novel Sites
22a) Should:
Option A or
Option B
'Other' option on database only
be supported in respect of waste management policy?

22b) Reasons for answer.

Protection of Environmental Resources
23a) Should:
Option A or
Option B
'Other' option on database only
be pursued in respect of preserving environmental resources and delivering sustainable waste management practices?

23b) Reasons for answer.

24) What decommissioning and restoration measures should be adopted following the cessation of waste management practices?

Transport Infrastructure
25a) Should:
Option A or
Option B
'Other' option on database only
be included within the policy?

25b) Reasons for answer.

26a) Should transportation effects be considered in planning new waste management facilities?
Yes
No
Unsure

26b) Reasons for answer.

Site Decommissioning and Restoration
27a) Should:
Option A or
Option B
be pursued within the policy?

27b) Reasons for answer.

28) Should the Council include specific measures aimed at ensuring site developers enter into agreements for site restoration?

29) Should communities be involved in decisions on restoration aimed at delivering local improvements to the public realm?

Monitoring Regime and Stakeholder Engagement
30) Should the effectiveness of the policy be monitored?

31) Should the resident liaison committees be involved in the monitoring programme for all waste treatment facilities?

32) Should developers encourage community and stakeholder engagement in delivering waste management facilities?

D SUSTAINABILITY APPRAISAL METHODOLOGY

Key Stages of the SA Process

The SA process as defined in the Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents - Guidance for Regional Planning Bodies and Local Planning Authorities November 2005 must be applied to all Development Plan Documents and Supplementary Planning Documents. The SA process as set out in these documents is outlined below:

Stage A: Setting the context and SA objectives, establishing the baseline and deciding on the scope

Stage B: Developing and refining options and assessing effects

Stage C: Preparing the Sustainability Appraisal Report

Stage D: Consulting on the draft plan and the Sustainability Appraisal Report

Stage E: Monitoring implementation of the plan

Stage A: Developing the SA Framework

The SA process as defined in the ODPM SA Guidance, 2005 state that the following sub-stages must be followed to complete Stage A and develop an SA Framework.

The purpose of the Scoping Report is to set out the scope of the SA for LDDs. It consists of a number of tasks:
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope:

- A1: Identifying other relevant policies, plans and programmes, and sustainability objectives.
- A2: Collecting baseline information.
- A3: Identifying sustainability issues and problems.
- A4: Developing the SA framework.
- A5: Consulting on the scope of the SA.

Appraising the Waste Development Framework Issues and Option Paper

This key stage of the SA process is where the significant effects of the plan (as defined by the SEA Directive) and mitigation and enhancement opportunities are identified. However, it is important to note the SA informs decision making but will not make decisions.

The Appraisal Process includes the following tasks in accordance with SEA requirements:

1. Test the plan objectives against the sustainability objectives;
2. Predict and assess the effects of different issues and options;
3. Predict and assess the effects of the preferred options;
4. Assess the effects of the draft plan as whole (cumulative and synergistic impacts); and
5. Identify mitigation and enhancement opportunities in order to improve the sustainability impact of the draft plan.