

Section 1 – Background to the Strategy and its Preparation (2003)

1.1 Introduction

- 1.1.1 The Joint Municipal Waste Management Strategy (The Strategy) sets out the strategic framework for the management of municipal waste in Suffolk. It has been developed by all the Waste Collection Authorities and the Waste Disposal Authority working together. The Strategy covers the period until 2020 and will be subject to regular review. The Strategy includes the statutory recycling plans for each Waste Collection Authority. As these plans are relatively detailed they can only look forward over the initial period covered by the Strategy. These plans cover the period from April 2003 until March 2007. *(Now updated and contained within Annex A of the Addendum)*
- 1.1.2 The Strategy considers the approach to be taken towards the management of municipal waste only but it does have regard to other sources of waste managed in the County. Municipal waste is predominantly household waste and represents only a small proportion of all the waste generated in Suffolk. 382,000 tonnes of municipal waste was generated in Suffolk in 2001/02. This compares with an estimated one million tonnes of mainly inert construction and demolition waste and almost 900,000 tonnes of waste generated by Commercial and Industrial waste producers¹.
- 1.1.3 Despite being a relatively small proportion of overall waste arising, municipal waste is a particularly important part of the waste stream. It is varied in nature, has a comparatively high level of public awareness, has lower levels of reuse and recycling than other wastes and as a result accounts for just under half of all the biodegradable waste currently landfilled in Suffolk².

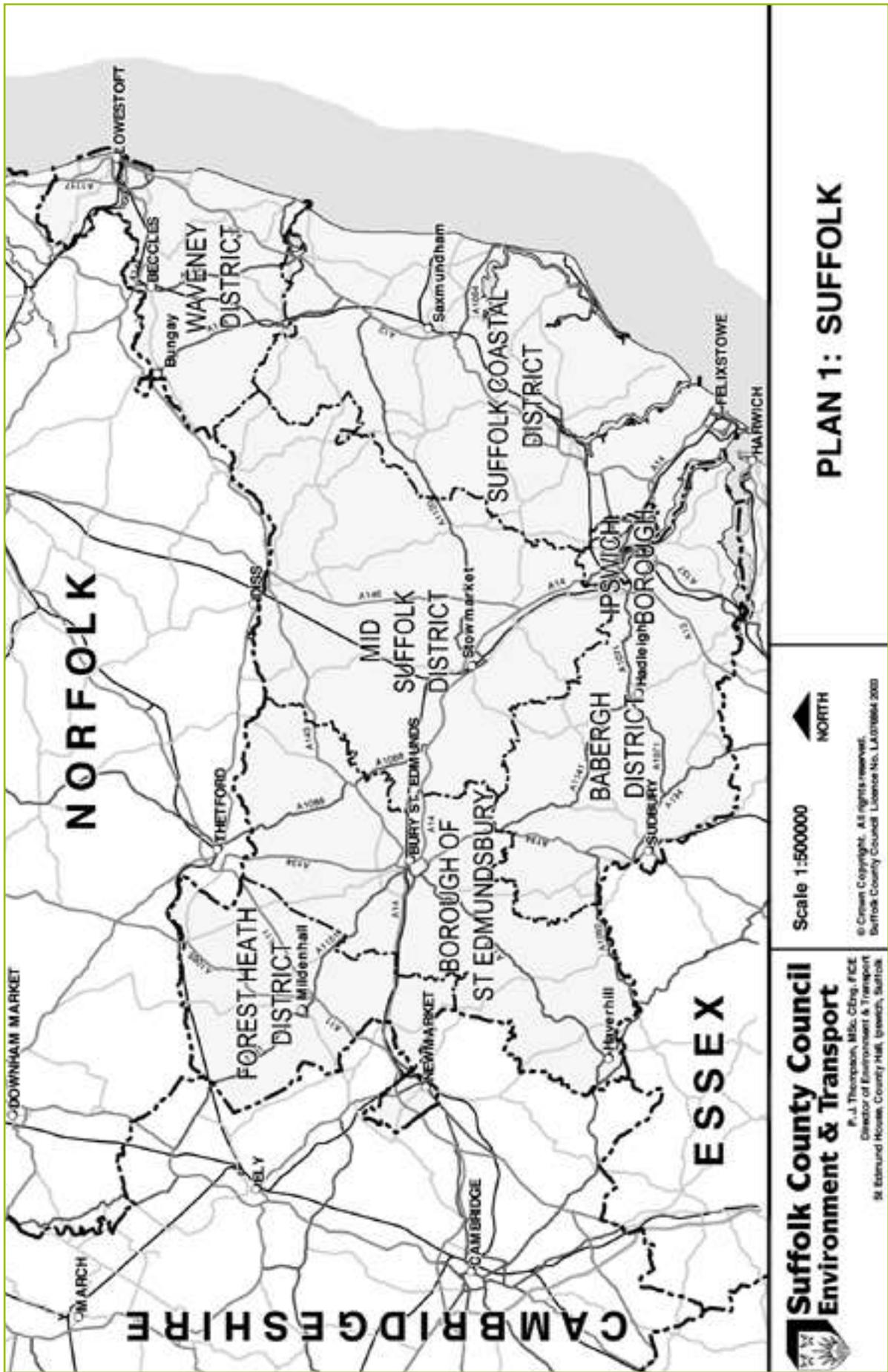
1.2 The Area covered by the Strategy³

- 1.2.1 Suffolk has a land area of just over 380,000 hectares. Essex lies to the south, Cambridgeshire to the west, Norfolk to the north and the North Sea to the east. There are seven District/Borough authority areas in Suffolk: Babergh District, Forest Heath District, Ipswich Borough, Mid Suffolk District, St Edmundsbury Borough, Suffolk Coastal District and Waveney District. The area of Suffolk is shown on Plan 1.
- 1.2.2 The population of Suffolk stands at just over 670,000 (SCC mid year estimate for 2000). The County Structure Plan expects this to grow by slightly less than 3,000 people per year and reach 718,700 by 2016. The number of houses in the County is also expected to increase by 2,650 dwellings per year between 1996 and 2016 to reach 337,500 by 2016. However, average household size is expected to continue to fall. This is part of a long term trend being seen nationally as well as locally. The Structure Plan expects the number of people per dwelling to fall from an average of around 2.27 to 2.13 by 2016.
- 1.2.3 There are twenty three towns in Suffolk of which Ipswich, Lowestoft and Bury St Edmunds are the three largest. Many of the towns and villages are of significant architectural and historic interest and contain a large number of listed buildings and Conservation Areas. Most of the land (around 80%) is used for agriculture.

¹ Figures from a variety of sources reported in the first deposit draft Waste Local Plan Jan 2003

² In 2000, 281,726 tonnes of municipal waste was landfilled in Suffolk out of a total of 601,328 of non-inert waste landfilled in the County. Reported in first deposit draft version of WLP Jan 2003

³ Data in this section is taken from the deposit draft Waste Local Plan section on characteristics of the plan area



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Scale 1:500000



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PLAN 1: SUFFOLK

- 1.2.4** Large parts of the County are protected for their wildlife or landscape value. Approx 4% of the land area is designated as Sites of Special Scientific Interest, some of this area is recognised as being of international importance and carries other designations. The two Areas of Outstanding Natural Beauty, the Suffolk Coast and Heaths and the Dedham Vale, together cover some 44,000 ha, about 12% of the land area. Also 2,700ha of the Broads Authority Area lies within Suffolk, this area has a special status similar to that of a National Park, and was designated to protect natural beauty and opportunities for public open air recreation.
- 1.2.5** In addition to the areas of Suffolk recognised as being of national and international importance, large areas carry local designations to protect landscape or nature conservation. 81,000ha, just over 20% of the land area, is designated as Special Landscape Area and 780 sites, covering 8,500ha, are protected as County Wildlife Sites.
- 1.2.6** Suffolk has a diverse and stable economic base. Around 74% of jobs are in service industries, 18% in manufacturing and 3% in agriculture. Tourism is an important part of the local economy throughout Suffolk and local authorities will endeavour to ensure that their policies do not damage this industry. The service sector, notably in legal, financial and business services, has grown rapidly over the last two decades. Ipswich, in particular, has grown to become a leading business and financial services centre and, more recently, the focus for emerging technology, media and telecommunications businesses.
- 1.2.7** The unemployment rate is below the national average. In May 2001 it was 2.4% compared with a national average of 3.2%. However, this masks wide variations within the County. Western and rural parts of County tend to have very low rates of unemployment while eastern and urban parts tend to have higher rates. Unemployment and low pay remain significant problems in the Lowestoft area.

1.3 Municipal Waste Management in Suffolk

- 1.3.1** In common with much of the rest of the country the amount of municipal waste produced in Suffolk has grown considerably over recent years. In 1995/96 296,000 tonnes was produced of which 23,000 tonnes (8%) was recycled and the remainder landfilled. By 2001/02 this had increased to 382,000 tonnes produced of which 71,000 tonnes (19%) was recycled. The pattern of waste growth and management is illustrated in figure 1 below.

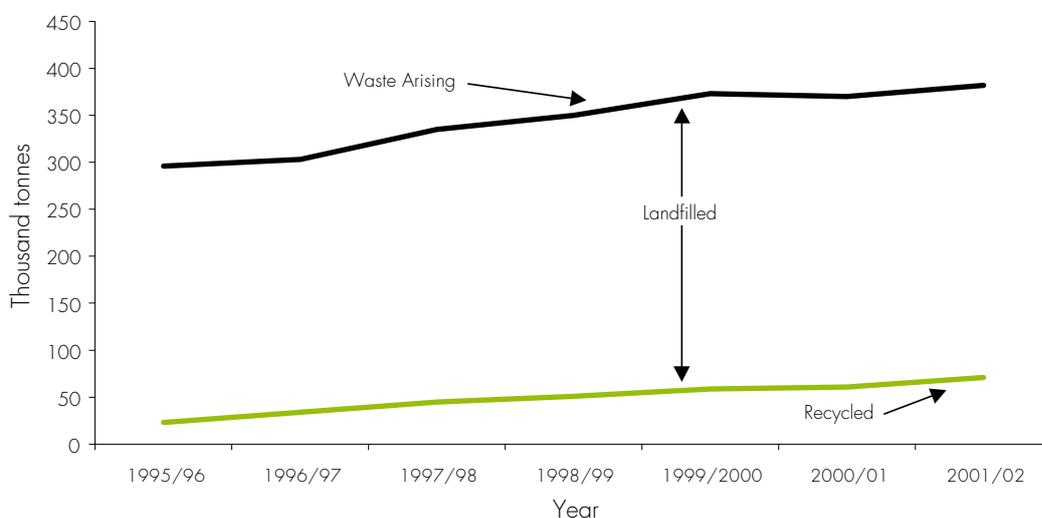


Figure 1 – Municipal Waste Management in Suffolk 1995 - 2002

1.3.2 Over the six year period between 1995 and 2002 the average rate of growth in municipal waste arising was 4.3% per annum. This rate fluctuated sharply between different years. In the past two years there has been encouraging signs that the rate of increase in waste arising may be slowing.

1.3.3 The increase in waste recycling (which includes composting) was more consistent and greater in proportionate terms than growth in waste arisings. In 2001/02, 71,000 tonnes of municipal waste was recycled which is more than treble the amount recycled in 1995/96.

1.3.4 Different methods of collecting and managing waste are being practised across the County, a summary is provided in Table 1 below.

Table 1 - Primary methods of waste collection and management (as of April 2003)

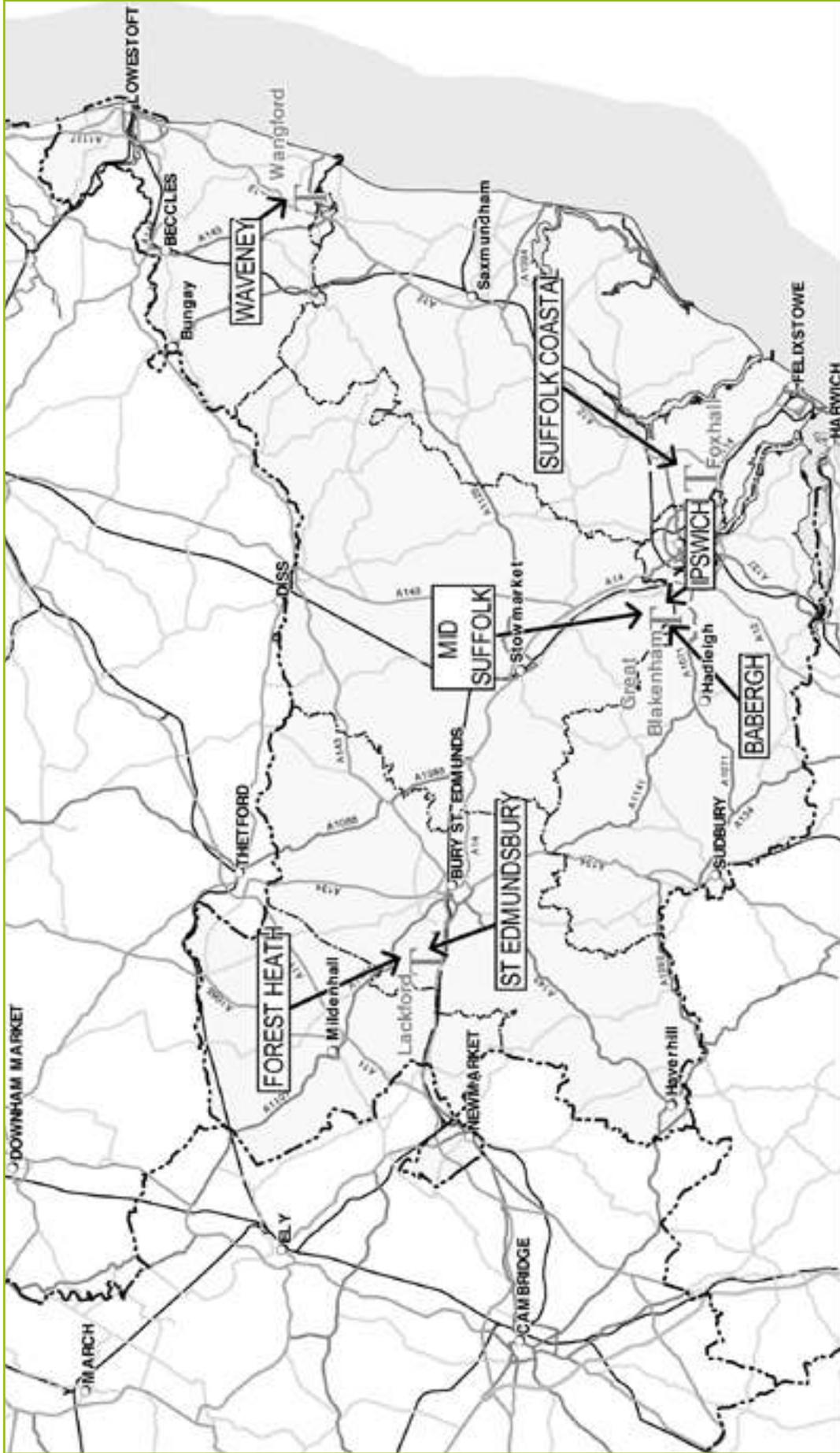
| | Residual Collection | Recyclable Collection | Compostable Collection | Residual Disposal | Recycling (2001/02) |
|---------------------------------------|---------------------------|--|---------------------------------------|-----------------------------|---------------------|
| Babergh | Wheeled bin weekly | Bring sites Kerbside via pink sacks fortnightly | Not collected separately | Landfilled at Gt Blakenham | 11.2% |
| Forest Heath | Wheeled bin weekly | Bring sites Kerbside paper fortnightly* | Kerbside via wheeled bin fortnightly | Landfilled at Lackford | 30.7% |
| Ipswich | Wheeled bin weekly | Bring sites | Kerbside via wheeled bin fortnightly* | Landfilled at Gt Blakenham | 14.2% |
| Mid Suffolk | Sack weekly* ¹ | Bring sites | Not collected separately | Landfilled at Gt Blakenham | 9.3% |
| St Edmundsbury | Wheeled bin weekly | Bring sites Kerbside paper fortnightly* | Kerbside via wheeled bin fortnightly* | Landfilled at Lackford | 29.1% |
| Suffolk Coastal | Provided sack weekly | Bring sites Kerbside paper collection | Not collected separately ² | Landfilled at Foxhall | 13.3% |
| Waveney | Wheeled bin weekly | Bring sites | Not collected separately | Landfilled at Wangford | 5.2% |
| Household Waste and Recycling Centres | All 18 sites | All 18 sites ³ | All 18 sites | Landfilled at various sites | 36.9% |

Notes – Only schemes serving more than half of area listed. Schemes marked * serve less than 90% of households in area.

¹ The collection of residual waste and dry recyclables using wheeled bins on alternate weeks serves around one third of households in the District

² Garden waste is collected from around 10,000 households fortnightly.

³ Smaller sites tend to collect only a limited range of materials.



PLAN 2: RESIDUAL WASTE DISPOSAL IN SUFFOLK

Scale 1:500000



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1.4 The Strategy Preparation Process

1.4.1 The need to prepare a Joint Municipal Waste Management Strategy for Suffolk was recognised in 1998 and a number of different stages have been gone through in order to produce this. This has involved research into and collection of information regarding waste management and the building of strong working relationships to enable the joint preparation and agreement of the strategy.

1.4.2 In 1999, AEA Technology Ltd was appointed to advise on the preparation of a waste strategy. Work continued on this until early 2001 and a substantial volume of background material was assembled that has informed subsequent stages of strategy preparation.

1.4.3 Building on experiences gained during 1999 and 2000, a Project Officer was appointed in Autumn 2001 to lead work on the preparation of the strategy. This work was underpinned by the following 'vision' agreed by all participating authorities:

"Suffolk's Local Authorities will work together, and in partnership with others, to develop a Municipal Waste Management Strategy. The Strategy will seek to minimise levels of waste generated and to manage waste in ways that are environmentally, economically and socially sustainable.

The Strategy will seek to influence the wider waste stream, providing waste minimisation and recycling in industry and contribute towards the preparation of a Waste Local Plan for Suffolk.

In delivering the Strategy, the Local Authorities will embrace the principles outlined in the National Waste Strategy and aim to recycle or compost at least 60% of municipal waste".

1.4.4 The Project Officer reported through a variety of organisations giving all authorities and stakeholders adequate input into strategy formulation. This resulted in the publication of an agreed Strategy Framework Document in October 2002.

1.4.5 The Framework Document was led by the 'vision' prior to systematically considering different options for waste management. In order to be certain that the Strategy would be consistent with government guidance and represent the Best Practicable Environmental Option (BPEO) a consultant was appointed to undertake a BPEO analysis and sustainability review of the Framework Document that was subsequently ratified by all the Suffolk local authorities.

1.4.6 Consideration of the comments on the Framework Document and the BPEO analysis led to the preparation of a Draft Strategy in early 2003. This Strategy incorporated Draft Recycling Plans for each Waste Collection Authority in Suffolk prepared to a standard format. Following agreement at meeting in February the Draft Strategy was published for public consultation in March.

1.4.7 Suffolk's Local Authorities view public consultation on, and participation in the strategy as being integral to its preparation.

1.4.8 The vision, the Framework Document, the BPEO analysis, individual Recycling Plans, and the views expressed throughout the preparation process form the basis of the material on which this Strategy is based.

1.4.9 Copies of the Consultation Draft Strategy, Framework Document, and the BPEO Analysis are available to download free of charge from www.suffolkrecycling.org.uk.

1.5 Structure of the Strategy

- 1.5.1 Waste from a variety of sources is included within the definition of municipal waste. Municipal waste consists of all household waste, whether collected by a Waste Collection Authority (WCA) or taken to a Household Waste and Recycling Centre (HWRC), together with any other wastes collected by a WCA or its agents. Further detail on the range of waste included within the definition of municipal is included in table 2 below.

Table 2 - Elements of Municipal Waste

| | |
|--|---|
| Household Waste includes that collected via: | waste collection rounds (including separate rounds for the collection of recyclable or compostable waste)*; Household Waste and Recycling Centres*; bulky waste collections; hazardous household waste collections; household clinical waste collections; drop-off/bring systems*; home composted waste* ¹ ; and street cleansing and litter collection. |
| Non-Household Municipal Waste includes: | waste from municipal parks and gardens; beach cleansing waste; commercial and industrial waste collected by the WCA; and waste resulting from the clearance of fly tipped waste or abandoned vehicles. |

¹ Although home composted waste is household waste it is not included in calculations of total household waste arising or composting due to there being no reliable way of measuring the amount of waste dealt with in this way.

- 1.5.2 Strategy preparation is an evolving process. This document provides background information on all municipal waste and provides a strategy for dealing with the flows of municipal that make up the vast majority of municipal waste arising in Suffolk. These are marked with an asterisk in the above table.
- 1.5.3 Government guidance is provided on the range of wastes that should be addressed in municipal waste strategies. The other elements of the municipal waste stream not addressed in this document will be considered as soon as possible. The timescale for preparation of the Strategy for these other elements of the waste stream is considered further in section 2.7.
- 1.5.4 Preparation of the Strategy in this manner has been chosen in order to make the most effective use of resources available. In the light of the content of the strategy, it is considered important that there is no delay in the introduction of schemes that seek to maximise the levels of recycling and composting of the majority of waste stream, whilst the detailed approach to the management of various specific elements of the waste stream is being formulated. This approach is in accordance with advice received from the Department of Environment, Food and Rural Affairs (DEFRA).

1.6 Policy Background to the Strategy

- 1.6.1 “Waste Strategy 2000”, the National Waste Strategy for England and Wales, was published in May 2000 to comply with the EC Framework Directive on Waste (1997, as amended) and implement parts of the national strategy for sustainable development.
- 1.6.2 The National Strategy is designed to ensure that the UK moves towards sustainable waste management and complies with the EC Landfill Directive requirements for reducing biodegradable waste going to landfill. It places emphasis on the need to tackle the quantity of waste produced and to break the link between economic growth and increased waste.
- 1.6.3 Where waste is produced it is to be managed in accordance with the Best Practicable Environmental Option (BPEO). Waste Strategy 2000 describes BPEO as “the option that provides the most benefits or the least damage to the environment as a whole at an acceptable cost in the long term as well as the short term”. In determining the BPEO, decision makers are expected to involve the public and consider the following:
- The waste hierarchy - Which requires waste to be managed with priority given to reduction, followed by re-use, followed by recovery (recycling, composting, energy recovery). Only if none of these offer an appropriate solution should waste be disposed of;
 - The proximity principle - Which requires waste to be disposed of as close to the place of production as possible; and
 - The need for national, and where practicable, regional self-sufficiency in managing waste.
- 1.6.4 At the regional level additional guidance on waste management is given in:
- Regional Planning Guidance Note 6 (RPG6) for East Anglia (Suffolk, Norfolk and Cambridgeshire) published by government in November 2000;
 - Sustainable Development Framework for the East of England (East Anglia plus Essex, Herts and Beds) published by the East of England Regional Assembly in October 2001; and
 - The East of England Regional Waste Management Strategy published by the Regional Waste Technical Advisory Body in 2003. This will be used among other things to inform the forthcoming review of Regional Planning Guidance.
- 1.6.5 These documents are all consistent with the National Waste Strategy in so far as they seek to encourage sustainable waste management and they have been taken into account in drafting this strategy. The Regional Waste Management Strategy contains certain targets that are considered further below.
- 1.6.6 Within Suffolk the County Council is responsible for producing a Waste Local Plan. This Plan will set out a framework that will guide the development of waste management facilities in Suffolk up to 2016. A draft version of this Plan was placed on statutory deposit by the County Council in April 2003. This deposit draft version of the Plan had regard to the municipal waste management Framework Document and it is expected that the revised deposit version, due to be published later this year, will have regard to this Strategy.

1.7 Targets for Municipal Waste Management

1.7.1 A number of the policy documents considered above contain targets that are relevant to the preparation of this municipal waste management strategy. These targets fall into two categories: those that seek to promote sustainable waste management by setting minimum levels for recycling, composting or energy recovery from waste; and those that seek to limit unsustainable waste management by setting maximum levels on the amount of waste that can be landfilled. These are considered in turn.

Targets for promoting recovery, recycling and composting

1.7.2 The National Waste Strategy contains the following national targets for recycling, composting and recovery of value from municipal and household waste.

| Year | To recover ¹ value from: | To recycle or compost at least: |
|------|-------------------------------------|---------------------------------|
| 2005 | 40% | 25% |
| 2010 | 45% | 30% |
| 2015 | 67% | 33% |
| | Of municipal waste | Of household waste |

¹ "Recover" means to obtain value from wastes through one of the following means: recycling; composting; other forms of material recovery (such as anaerobic digestion); energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolysis, or other technologies but does not include landfill with energy recovery).

1.7.3 The only targets specific to local areas in the strategy are the proposed recycling and composting rates for household waste for Waste Disposal Authority (WDA) Areas given below:

| WDA Area Recycling and Composting Rate in 1998/99 | WDA Area Recycling and Composting Target for 2003 |
|---|---|
| Under 5% | At least 10% |
| Between 5 and 15% | To double the 1998/99 rate |
| Over 15% | At least one third |

1.7.4 These targets were subject to consultation during 2000 as part of the process of defining Best Value Performance Indicators (BVPI). The final statutory targets were published in government guidance on Municipal Waste Management Strategies in March 2001 and are shown in the table below.

Statutory Performance Standards for Recycling and Composting of Household Waste

| Authority Area | %age rate of recycling and composting | |
|--------------------------|---------------------------------------|----------------|
| | 2003-04 target | 2005-06 target |
| Babergh District | 14 | 21 |
| Forest Heath District | 33 | 40 |
| Ipswich Borough | 10 | 18 |
| Mid Suffolk District | 16 | 24 |
| St Eds Borough | 33 | 40 |
| Suffolk Coastal District | 24 | 36 |
| Waveney District | 10 | 18 |
| Suffolk County | 28 | 36 |

- 1.7.5 Waste Strategy 2000 proposed that standards should apply to WDA areas only (Suffolk County). However, given the role of WCAs in recycling the statutory performance standards apply individually to WCAs in addition to WDAs. It is stressed that WCAs and WDAs can pool their targets and should work together to achieve them. In Suffolk, as in other counties, it would be possible for all WCAs to meet their own target and for Suffolk to fall short of the County target.
- 1.7.6 Subsequently Suffolk's Local Authorities (working in a strategic partnership with other local organisations) have entered into a Local Public Service Agreement with the Government. This committed the partners to stretch performance in a number of local services in return for certain freedoms and flexibilities, Unsupported Credit Approvals, the payment of "pump-priming" grants and a Performance Reward Grant. One of the target areas commits the partnership to recycle or compost at least 35% of household waste in Suffolk by financial year 2004/05. A stretch of 7% on the statutory target for the previous year.
- 1.7.7 In addition to these targets the Regional Waste Management Strategy (Policy 1) aims to secure the following levels of recovery of municipal waste (including recycling, composting and energy recovery): 40% at 2005, 50% at 2010 and 70% at 2015. These are regional targets and it is acknowledged that it is not expected that each county will reach these levels by these years.

Targets for limiting landfill

- 1.7.9 The following targets for the diversion of waste from landfill have been incorporated into the National Waste Strategy from the EC Landfill Directive:
- By July 2010 to reduce the amount of biodegradable municipal waste going to landfill to 75% of biodegradable municipal waste produced in 1995.
 - By 2013 to reduce the amount of biodegradable municipal waste going to landfill to 50% of biodegradable municipal waste produced in 1995.
 - By 2020 to reduce the amount of biodegradable municipal waste going to landfill to 35% of biodegradable municipal waste produced in 1995

- 1.7.10 It should be noted that the above targets are national and are not automatically adopted at the local level. In order to ensure compliance with these targets the Government intends to introduce a system of tradable allowances for landfill.
- 1.7.11 A bill enabling the introduction of the system of tradable allowances has recently been introduced to parliament (the Waste and Emissions Trading Bill 2002) but this only provides the enabling framework for the introduction of the system. Until the regulations pursuant to this Bill are known the details of the basis for permit allocations between WDAs, the systems for banking, buying or selling allowances, and the penalties for exceeding allowed levels will not be known.
- 1.7.12 The implications of the tradable allowances system for landfill and the likely requirement of Suffolk for allowances is considered further in section 2.4.

1.8 Establishing the BPEO

- 1.8.1 The preparation of the Framework Document was led by the 'vision'. This was followed by the systematic identification and examination of the options for waste management in Suffolk, and the document was assessed to ensure that it represented the BPEO and accorded with Government guidance.
- 1.8.2 In order to examine this Consultants were commissioned to undertake a BPEO analysis comparing an interpretation of the 'vision' with four alternative options for waste management. The 'vision' of 60% recycling and composting was considered in the light of new technologies for dealing with residual waste other than by landfill, but financial considerations and the uncertainties inherent in new technologies led the local authorities to put forward the high-level recycling and composting scenario as the favoured option for an initial approach.
- 1.8.3 The performance of the favoured option was then compared in a systematic manner against the performance of four other options. These options were felt to represent a reasonable range of potentially realistic waste management options for Suffolk. A 'do nothing' option was not modelled as this was considered not to be realistic as it would fail to meet minimum requirements.
- 1.8.4 The approach to assessing the BPEO is a complicated procedure which involves assessing the performance of each of the options against a range of social, economic and environmental criteria. A limited consultation exercise was carried out to ensure that the criteria used were appropriate for local circumstances. The Environment Agency's Life Cycle Assessment tool "WISARD" was used to calculate the environmental impacts of the options.
- 1.8.5 The assessment involved a mixture of qualitative and quantitative assessments of the various options against the criteria. These were then each distilled into a score of performance that could be used to give an overall indication of the performance of the options.
- 1.8.6 A summary of the options assessed and their overall score against all the criteria is given in the table below. The higher the score the better the BPEO assessment of the option. However, it must be noted that this represents an over simplification of the BPEO exercise and it is advisable to consider the Consultants report in full before drawing any conclusions from this material. Copies of the report are available to download free of charge from www.suffolkrecycling.org.uk

| Summary of BPEO assessment options and summary scores | |
|---|-------|
| Option | Score |
| Option one Minimum recycling and composting (36%) with residual waste disposed of to landfill | 29 |
| Option two Minimum recycling and composting (36%) with residual waste disposed of by incineration with energy recovery | 38 |
| Option three High level of recycling and composting (60%) with 'treatment' of the residual waste through anaerobic digestion/biological treatment | 62 |
| Option four (the favoured option) High recycling and composting (60%) with residual waste disposed of to landfill | 53 |
| Option five High recycling and composting (60%) with residual waste disposed of by incineration with energy recovery | 59 |

- 1.8.7 Option 4 represents a continuation and intensification of initiatives which Suffolk's local authorities are already taking. It does not rely on the use of new technology or large high-capital infrastructure, and thus in no way precludes introduction of either Option 3 or Option 5 at some subsequent stage. Given the changing nature of the technological, financial and environmental constraints, it is considered prudent not to make a choice between Option 3 and Option 5 at this time.
- 1.8.8 Although these results of the BPEO assessment must be treated with a great deal of caution it can be seen that the higher recycling and composting options performed far better than options 1 and 2. Of the higher recycling options, option 4 performed worse than the options 3 and 5 because of its continuing reliance on landfill.
- 1.8.9 In the light of the conclusions of the BPEO assessment, the timing of when non landfill options for residual waste management may become appropriate in Suffolk, without adversely impacting on recycling and composting initiatives, has been considered further. This issue is considered in more detail in section 2.5.