

Draft Joint Municipal Waste Management Strategy for Essex
(2005 to 2030)

INDEX

		<u>Page</u>
1.	INTRODUCTION	3
2.	BACKGROUND	6
2.1.1	Consultation and Community Engagement	
3.	<u>WHERE ARE WE NOW?</u>	9
3.1	WASTE ARISING	9
3.2	WASTE COMPOSITION	11
3.2.1	Recent Waste Composition Analysis	
3.3	DESCRIPTION OF THE EXISTING SERVICE	12
3.4	EXISTING & PLANNED INFRASTRUCTURE	15
3.4.1	Existing Facility Types	
3.4.2	General and Key Issues Related to Current Facilities	
3.5	CURRENT COSTS	17
3.5.1	Existing Service Costs	
3.5.2	Future Budget Pressures	
3.6	PERFORMANCE OF EXISTING SERVICES	20
3.6.1	Analysis of Material Capture Rates	
3.6.2	Overall Analysis of Current Performance	
3.7	PARTNERSHIPS	23
3.7.1	Local Authority Partnerships	

3.7.2	External Partnerships	
4.	<u>WHERE ARE WE GOING?</u>	25
4.1	LEGISLATIVE DRIVERS	25
4.1.1	Understanding of Drivers	
4.1.2	Basis of Targets and Direction	
4.2	OBJECTIVES AND CONSTRAINTS	29
4.2.1	Objectives	
4.2.2	Analysis of Direction	
5.	<u>HOW ARE WE GOING TO GET THERE?</u>	33
5.1	INITIATIVES	33
5.1.1	Minimisation and Prevention	
5.1.2	Enforcement	
5.1.3	Markets	
5.1.4	Infrastructure for Treatment and Disposal	
5.2	COST AND PERFORMANCE	36
5.2.1	Funding Options	
5.3	BUILDING BLOCKS FOR IMPLEMENTATION	38
5.3.1	Policies and Targets	
5.3.2	Monitoring and Review	
5.3.3	Governance	
5.3.4	Joint Working	
5.3.5	Implementation	
5.3.6	Commitment	
5.4	RISK MANAGEMENT	42
5.4.1	Risks and Dependencies Relating to Waste Management Facilities	
5.4.2	Planning and Permitting Risks	
5.4.3	General Risk Assessment	
5.4.4	Proposals for Public Consultation on the Strategy	

Appendix A - Essex Authority Profiles

3rd Draft

Appendix B – Waste recycled, by material, by Essex authorities in 2003/04
Appendix C - Glossary of Terms

1. **INTRODUCTION**

A Waste Management Strategy for the people of Essex.

Municipal waste in Essex is growing at a rate that is too fast. We urgently need to cut down on the amount of rubbish we produce, and find new ways of disposing of it.

Household rubbish forms the greatest part of municipal waste, which is made up of all waste under the control of local authorities and agents acting on their behalf. This also includes street litter and some of the waste generated by commercial premises.

The 13 councils of Essex, comprising Essex County Council and the twelve District and Borough Councils of Essex, together with the unitary authorities of Southend-on-Sea Borough Council and Thurrock Council, have set up an advisory board to examine how to deal with the growing amount of municipal waste in our area over the next 30 years. Southend on Sea Borough Council published its Municipal Waste Management Strategy for the Borough of Southend on Sea in June 2004 and the Strategy identifies joint working with other Essex local authorities. This advisory board has looked at the current and future situations, and examined a range of ways of dealing with our waste.

The involvement of the people of Essex is crucial to the achievement of our goals and their views on how we should address this issue are extremely important. Consequently, a public consultation exercise was conducted during 2002 and the outcomes have informed the development of this waste strategy. This document brings together the views of the public and the local authorities and sets out how waste should be managed in the future. While there are references to Southend and Thurrock unitary authorities, the strategy essentially relates to Essex County and its 12 constituent Waste Collection Authorities. These are:

Basildon District Council
Braintree District Council
Brentwood Borough Council
Castle Point Borough Council
Chelmsford Borough Council
Colchester Borough Council
Epping Forest District Council
Harlow District Council
Maldon District Council
Rochford District Council
Tendring District Council
Uttlesford District Council

The current situation

In 2003/4, Essex produced 720,000 tonnes of rubbish – enough to fill the Royal Albert Hall over 200 times.

Most of this waste (75 per cent) was disposed of in the County's contracted landfill sites, while the rest was recycled and composted.

Over the last 8 years, waste in Essex has grown on average by over 3 per cent each year. If the current growth rate continues, by 2020 there will be approaching twice the amount of rubbish that there is now, perhaps needing more sites to deal with it – and subsequently higher council tax bills to pay for it.

The need for change

The level of waste currently being produced is too high and the rate at which it is growing is too fast. A radical change in how much waste we produce and how we choose to deal with it is urgently needed.

However, creating more landfill sites is not the answer. Essex's landfill sites all have limited capacity, and we cannot simply continue to churn out more waste and dispose of it by what is presently the cheapest method. Moreover, a series of measures at both national and European levels, including a Landfill Directive, have been introduced, requiring councils to divert increasing quantities of biodegradable waste away from landfill sites. The Government has also set Councils tough new statutory targets for recycling and composting household rubbish and has implemented EU legislation, through UK law, to require industry to reduce the amount of packaging that it uses and recycle more of it.

The way forward is to cut down on waste, and to find new ways of managing it.

What are we going to do about it?

We have looked at every possible way of dealing with our waste. The outcome from the public consultation was a preference for high recycling together with some form of mechanical biological treatment (MBT) of the remaining waste, rather than thermal treatment.

Reducing the amount of waste we produce is fundamental to our strategy and we will continue to exert pressure locally and nationally to cut down on the amount of packaging used in household goods. However, we still need to plan to deal with the increasing volume of waste. We favour an approach led by high levels of recycling and bio treatment. Recycling trials have already taken place in some parts of the County which demonstrate that high levels of

recycling are achievable and justify the Strategy's aspiration to achieve 60% recycling. The recycling rate in our County currently stands at 25 per cent. In future, most households will need to separate their waste into several streams (e.g. dry recyclables, compostables and other waste) to achieve the levels of recycling and composting sought through this strategy.

Essex is a large and diverse County. We therefore believe that a "one size fits all" solution may not be the best way of proceeding. Consequently, the County has been divided into a West (Uttlesford, Braintree, Harlow, Epping Forest and Brentwood), an East (Colchester, Tendring, Chelmsford and Maldon), and South (Basildon, Castle Point and Rochford) areas. It is likely that the adjacent Unitary Authorities of Thurrock and Southend will combine with the South area to form the Thames Gateway area. By working in these areas, the proximity principle can be met and different solutions may emerge which best suit the areas concerned. This also means that over the life of the Strategy, the performance of the areas, and in particular the service providers them, can be compared.

This document describes what we are doing now, the drivers for doing something different, what we would like to do to meet the challenges in the future and how we will achieve that.

2. **BACKGROUND**

2.1.1 **Consultation and Community Engagement**

In May 2002 the Waste Management Advisory Board commissioned consultants to prepare a consultation draft of a Municipal Waste Management Strategy for Essex, Southend and Thurrock. The consultation draft examined the landfill targets that would apply to Essex (derived from the EU Landfill Directive) and suggested 6 possible illustrative options for dealing with the necessary diversion of waste from landfill. The 6 options were based on 3 different levels of recycling/composting (33%, 45% and 60%). The 60% options reflected the partnership's endorsement of a "Working Together" document which identifies an aspirational target to recycle/compost 60% of household waste by 2007.

The six options identified are shown in the table below.

Table 1

Option	Description
1	To achieve 27% recycling and 33% composting by 2010 with a low level of MBT required beyond 2020
2	To achieve 27% recycling and 33% composting by 2010 with a low level of advanced thermal treatment beyond 2013
3	To achieve 22.5% recycling and 22.5% composting by 2010 and a moderate level of advanced thermal treatment beyond 2010
4	To achieve 22.5% recycling and 22.5% composting by 2010 and a significant amount of conventional thermal treatment beyond 2010
5	To achieve 16.5% recycling and 16.5% composting by 2010 and a significant amount of conventional thermal treatment beyond 2007
6	To achieve 16.5% recycling and 16.5% composting by 2010 and a moderate amount of conventional thermal treatment beyond 2007 and a small amount of MBT beyond 2010

It was acknowledged that the final strategy was unlikely to mirror any single option but identifying this range helped to provide a focus for the consultation exercise and a structure for the on-going debate about how the County's waste would be managed in the longer term.

The Waste Management Advisory Board (WMAB) appointed communications consultants to carry out the consultation on the draft Strategy. They used a

range of consultation methods, involving a number of different audiences. They produced a “War on Waste” brochure which summarised the different options and showed how they compared against criteria such as cost, feasibility, ability to meet government targets and impact on the environment. The brochures (and the comprehensive report) were available in all Essex libraries, town halls and information centres. The documents could also be accessed on the tailor-made “War on Waste” website. The consultation methods included opinion polling and direct consultation based on a database of key stakeholders including local authorities, the waste industry and other interested parties. The public could respond by formal submission, by returning a questionnaire in the brochure or by completing the questionnaire on-line. The consultation exercise had a media launch and received radio and press coverage throughout the 2 month consultation period from 1st October to 30th November 2002.

There was not a high level of response from the public due largely to lack of interest in the issues. Nevertheless, the communications consultants were able to draw out key findings on the relative support for different options. The process also generated a high level of interest amongst local environmental groups who identified a well-supported “7th Option” which sought an even higher level of recycling/composting than the other 6.

Of the 6 options, Option 1 was the most popular amongst all groups. The reason given for this choice was that it was seen as the most environmentally friendly. Although the higher recycling options were favoured, the majority of respondents recognised that this would be very hard to achieve. Barriers to increased recycling were: lack of interest, lack of education and lack of space and facilities. The waste industry also expressed concerns about the practicalities of achieving 60% recycling.

The outcomes of the consultation exercise were reported to the WMAB in early 2003. The WMAB confirmed that it should seek to meet the needs and aspiration of the people of Essex as expressed through the “War on Waste” consultation, so far as practicable and affordable. In particular, the consultation indicated that the majority view is that any waste strategy should focus on waste minimisation and a higher level of recycling and composting.

The outcomes of the consultation were reflected in a “Framework for a Joint Waste management Strategy for Essex”. This document set out, in a concise format, the key elements of such a Strategy. It provided a vision for household recycling and how this might be achieved in terms of recycling/residual waste infrastructure. The Framework, which was formally endorsed by all the partner authorities, provides a platform from which to develop this Strategy.

Although this draft Strategy conforms to the general response to the earlier consultation, it is considered that it should have public and industry

3rd Draft

endorsement and therefore it is proposed to seek these views early in 2005, following endorsement in principle by all of the waste authorities in Essex.

3. WHERE ARE WE NOW?

3.1 WASTE ARISING

Tables 1 and 2 below show the household and Municipal Solid Waste (MSW) arisings by authority for 2003/4 and in the previous 3 years. Appendix B shows the tonnages recycled, by material, by each authority during 2003/04.

Table 2: Household Waste Arisings by Authority

Authority	Household waste arisings (tonnes)			
	2000/2001	2001/2002	2002/2003	2003/2004
Basildon	72,289.6	74,479.7	76,496.8	76,298.5
Braintree	51,591.8	51,463.4	53,196.2	52,187.86
Brentwood	23,274.4	23,183	24,395.6	32,927.1
Castle Point	33,928.6	34,813.2	34,761.3	34,705.1
Chelmsford	71,199.1	71,991	71,999.1	72,494.9
Colchester	54,886	57,092.6	58,094.8	60,057.9
Epping Forest	48,133.4	49,334.6	50,265.2	50,034.0
Harlow	28,645.8	28,195.7	27,666.3	28,783.5
Maldon	20,621.9	20,937.7	21,400.8	21,861.4
Rochford	31,716.7	32,512.7	31,812	32,724.1
Tendring	45,639.1	47,213.1	47,055	47,469.8
Uttlesford	33,831.7	32,578.1	32,496.7	31,943.9
Essex CC (at CA sites)	145,799.4	146,829.6	148,103	134504.6

Table 3: Municipal Waste Arisings by Authority

Authority	Municipal Waste Arisings (Tonnes)			
	2000/2001	2001/2002	2002/2003	2003/2004
Basildon	75,313.96	77,788.32	80,309.88	80,356.3
Braintree	56,015.23	55,587.44	56,950.29	55,877.36
Brentwood	28,273.97	27,945.41	28,492.20	35,714.50
Castle Point	35,746.81	36,566.88	36,686.13	36,743.21
Chelmsford	75,725.46	77,980.54	77,887.66	78,115.63
Colchester	58,214.26	60,435.26	61,620.95	63,538.55
Epping Forest	48,133.48	49,334.61	50,472.40	51,005.45
Harlow	31,887.82	31,123.63	28,645.58	29,449.09
Maldon	20,621.87	20,937.69	21,400.79	21,861.40
Rochford	31,716.70	32,512.73	31,811.94	32,724.05
Tendring	45,665.43	47,232.32	47,079.30	47,497.99
Uttlesford	37,261.46	35,992.52	35,601.08	35,537.84
Essex CC (at CA sites)	154,670.4	173,949.5	169611	153476.4

In recent years, the growth in waste arisings has exceeded the national forecast of 3% per year, although it is gratifying to see that for 2002/3 the growth in household waste was only +1.14% over 2001/2 and for 2003/4

was actually -0.21% when compared with 2002/3. The population and the number of households have shown steady growth so the results of the last 2 years are particularly satisfying. Across the 12 Essex WCAs their average growth in household waste arisings/year, over the last 3 years, has ranged from -0.4%/year to 13.2%/year. When the 2 “extreme” rates are excluded the range narrows (to 0.1% to 2.9%) and 10 WCAs saw an average growth of less than 2%/year. The tonnage of household waste handled at CA sites is now 7.7% less than the amount handled in 2000/01 although the summer weather, and its impact on the quantity of green waste, appears to be an important factor in the changes in tonnage handled at CA sites year on year.

It is difficult to predict a trend, as analysis of different authorities’ waste arisings cannot be relied on at a time when virtually all are changing their collection regimes in an attempt to achieve higher rates of recycling. The impacts of waste minimisation initiatives, waste awareness campaigns, changes in legislation, the weather and producer responsibility are just some of the factors which will affect the nature and volume of waste arisings over time. Nevertheless, the trend shows a declining rate of increase in the annual growth of household waste in Essex. Allied to the year on year increases in recycling tonnages it is possible that the County may have passed the peak in the tonnages of household waste being sent to landfill each year.

The government wants to see substantial growth in housing in Essex (+ 98,900 dwellings from 2001 to 2021) in the period to 2021, so it is likely that the total waste arisings will grow and the development of waste management facilities will need to allow for this. AEA, the technical consultants on the developing Strategy, estimated that waste arisings will grow by an annual average of approximately 3% until 2009/20, 2% to 2015/2016 and 1% thereafter (see also section 5.1.1 for details of waste minimisation initiatives). The adopted Regional Waste Management Strategy for the East of England has assumed a growth of 3% per annum in household waste arisings until 2010 and thereafter no further growth during the life of the Strategy.

Cross border movements of waste do occur and surveys have shown that in parts of the County these can be significant. An arrangement has been agreed with Suffolk County Council whereby the authority with the nett deficit of waste arriving at civic amenity sites makes a compensation payment to the other. In respect of the County’s borders with Southend and the London Boroughs of Havering and Redbridge, no such agreement is in place and the County Council has implemented measures to control the influx of waste into Essex.

As the cost of waste management increases, there is a risk that more commercial waste will creep into the household waste stream if left unchecked. Measures are in place to prevent, as far as possible, the introduction of commercial waste into the civic amenity service and frequent

audits are conducted to check that only commercial waste subject to a trade waste agreement is collected by the Waste Collection Authorities. Waste Collection Authorities also carry out checks to ensure that commercial waste is not “disguised” as household waste.

3.2 WASTE COMPOSITION

3.2.1 Recent Waste Composition Analysis

The County Council commissioned consultants to undertake a comprehensive analysis of the composition of municipal waste across the County during 2004. Their analysis covered the following waste streams:

- Kerbside residual waste
- Kerbside recycling
- Household Waste and Recycling Centres
- Trade Waste
- Litter, street sweepings and beach cleaning
- Bulky waste

Their analysis (for kerbside collections, sweepings and CA sites) was based on sampling undertaken in two 3-week spells in 2004. The first of these, in February, represented a “winter” sample and the second, undertaken in June, represented a “summer” sample.

The selection of sample households was based on a) the method of waste containment and b) the socio-demographic profiles of the constituent District/Borough areas using standard ACORN categories. Approximately 900 households were sampled across 11 of the Essex WCAs plus Southend. The sampling ensured a broadly similar representation for each of the 3 Essex areas (East, West and Thames Gateway) although the representation across individual WCAs ranged from 1 to 4 streets/groups (of an average 35 households). The analysis is expected to provide a representative picture of household waste composition countywide and at Area level. The robustness of the analysis at District level will vary depending on the extent of sampling undertaken in any District.

According to this analysis, the composition of the average Essex household waste bin (excluding all the material that gets collected for recycling) is as shown in the table below.

Table 4: Composition of residual collected household waste in Essex (including Southend and Thurrock)

Category	% Composition
Paper and card	29.49
Garden waste & vase flowers	6.09
Raw fruit and vegetable including peelings	12.56
Cooked and prepared food	13.9
Other putrescible	3.46
Glass	7.49
Plastics, including plastic film	10.96
Cans	2.93
Disposable nappies/sanitary items	3.56
Textiles	2.49
Other miscellaneous	7.07

The detailed analysis of waste composition will provide assistance to all authorities in making decisions about which materials to focus on for improving recycling rates at both the kerbside and CA sites. Further details of the key findings from the analysis are set out in sections 3.6.

3.3 DESCRIPTION OF THE EXISTING SERVICE

The Essex Waste Collection Authorities vary in the way in which they collect household refuse and recyclables. Some authorities provide co-mingled dry recyclable collections at the kerbside and run the materials into commercial Materials Reclamation Facilities (MRFs). Some authorities have kerbside recyclable collections with separation of the recyclate on the collection vehicle and the separated materials are then delivered to their own or commercial bulking facilities. Some authorities provide a green waste collection service, some authorities make a charge for the service and others do not. In addition, the WCAs manage around 700 “bring banks” across the County. All “residual” household waste is taken for disposal at one of 7 landfill sites in the County.

The County Council provides 23 Civic Amenity and Recycling Centres across the County, with at least one available in each of the constituent District/Borough Council areas. All except one are open 7 days a week, 362 days of the year. They provide a wide range of material recycling facilities and, over time, are being upgraded in a way that makes recycling easier to do and improves recycling rates. The County Council has also contracted windrow composting capacity at 10 sites across the County. These sites handle all the green waste collected at the CA sites and also green waste collected by 10 of the Essex WCAs.

All WCAs provide bulky waste collections with varying limitations on the number and type of household items collected. A majority of the authorities

make a charge for such collections. Nine of the Essex WCAs provide a trade waste collection service which in some cases includes a cardboard recycling service. In 2003/04 this trade waste collection accounted for around 3.6% of the total tonnage of municipal waste collected. The collection and disposal costs are rechargeable.

A profile of the waste and recycling services provided by each Essex Authority is included at Appendix A. The profiles set out the range of the household waste services provided, plans for service expansion and associated targets for recycling and composting in future years. They also provide details of other services such as trade waste, bulky waste and local partnerships with the community sector. Key features of the household waste services provided by the WCAs are shown in Table 5 below. The table shows only those services available at the kerbside and the details will change over time as collection services change and expand.

Table 5: Kerbside collection arrangements at Essex WCAs

Authority	Waste Collection		Recycling Collection		Materials
	Collection frequency	container	Collection frequency	container	
Basildon	Weekly	Sack	Fortnightly		Green waste, newspaper, PAMs, glass, plastic bottles, textiles, cardboard, cans, aerosols
Braintree	Fortnightly for wheeled bins; weekly for sacks	Wheeled bins for 50% of households and sacks for 50% of households	Fortnightly	Clear sack	Green waste, kitchen waste, paper, cardboard, plastic bottles, cans, aerosols, textiles
Brentwood	Weekly	sack	Fortnightly		Garden waste, newspaper, PAMs card
Castle Point	Weekly	Sack	Fortnightly		Paper, textiles, Garden waste, cardboard
Chelmsford	Weekly	Wheeled bin	Fortnightly	Box + sack	Garden waste, paper, card, glass, cans, Alu foil, textiles
Colchester	Weekly	Sack	Alternate weekly	Box + sack	Garden waste, paper, card, textiles, plastic bottles, cans, glass,
Epping	Weekly	Sack	Fortnightly		Garden waste, paper, card, textiles, cans
Forest Harlow	Weekly	Sack	Fortnightly		Garden waste, paper, textiles
Maldon	Weekly	Sack	Fortnightly		Newspaper, PAMs User pays Garden waste collections
Rochford	Weekly	Wheeled bin	Weekly		Garden waste, newspaper, PAMs, plastic bottles, carrier bags, cans, foil, cardboard, textiles
Tendring	Weekly	Sack	Fortnightly		Paper, cardboard, plastic bottles and containers, cans
Uttlesford	Weekly	Sack	Alternate weekly		Newspapers, PAMs, yellow pages, cardboard, plastic bottles, cans, textiles

NB. PAMS are Pamphlets and magazines

NB. Not all materials identified are collected from all households and green waste is generally collected for a limited number of months within the year. Fuller details of each authority's collection arrangements, and the coverage of their kerbside collection services, are set out in the Profiles in Appendix A.

3.4 EXISTING AND PLANNED INFRASTRUCTURE

3.4.1 Existing Facility Types

The table below shows the range of waste management facilities that authorities in Essex currently use.

Table 6: Existing Waste facilities used by Essex Authorities

Facility	Function
7 landfill sites at: Ugley, Roxwell, Colchester, Barling, Pitsea, Ockenden, Rainham	Contracted disposal capacity for residual waste collected by the 12 constituent WCAs and the 23 Civic Amenity Sites
11 Central composting sites	Contracted windrow and in-vessel composting capacity for garden waste collected by 11 WCAs and the 23 Civic Amenity Sites
23 Civic Amenity and Recycling Sites	Enable householders to dispose of bulkier items of household waste and to recycle a wider range of materials.
11/12 Depots	Used either by Direct Service Organisation or Contractors for the provision of waste management services, sometimes together with Highway maintenance services.
Bulking facilities	Available at 5 of the 11/12 Depots, mainly for bulking paper, glass and cans
Materials Recovery Facilities (MRFs)	Two WCAs run their own MRFs which are also used by other Essex WCAs; 4 WCAs use private MRFs
Transfer Stations	4 of the WCAs use/own transfer stations.

3.4.2 General and Key Issues Related to Current Facilities

The landfill and central composting facilities described above are, in the main, contracted to the County Council in part or total until 2007. In the case of the civic amenity sites, management contracts exist to 2007. In all of the above contracts, there is the possibility of extending them for up to 2 years, subject to the availability of space in respect of landfill contracts.

In recent years, the number of active landfill sites available has reduced, with the consequence that an increasing proportion of residual waste has had to travel greater distances to an active site, creating additional costs for the Waste Collection Authorities and the County Council through the payment of “tipping away” payments. Similarly, as the diversion of garden waste for composting has increased ahead of the growth in the availability of operational sites, some authorities have had to transport materials significant distances. As part of the longer term arrangements, it is intended to provide transfer stations, either within each District or shared between 2 or more, where convenient sites can be found.

It is anticipated that sufficient landfill and windrow composting capacity will be maintained until the longer term contracts are signed. The longer term contracts are anticipated to be signed in 2006/7 with infrastructure becoming available during the following 3-year period. The use of this technological infrastructure will reduce significantly the demand for landfill which, by around 2010, will be in shorter supply and, in any event, the use of landfill will be significantly reduced by all the requirements of the Landfill Directive.

Kerbside recycling is generally segregated at source as there is relatively little capacity in the County to process co-mingled material. As the rate of recycling continues to grow, pressure on existing systems will grow and the lack of co-mingled MRFs, prior to the implementation of long-term contracts, does not allow a choice of collection method to be made. Similarly, it is unlikely that kitchen waste will be collected for composting unless and until in-vessel composting systems are provided, which comply with the Animal By-Products Regulations (ABPR), as part of the longer term arrangements. However, as an insurance against the infrastructure provided as part of the long-term contracts being delayed, and as a consequence incurring LATS costs, consideration is being given to implementing stand-alone in-vessel composting facilities at an earlier date. This will allow collection authorities to increase further their recycling levels.

Changes to the management of some other wastes are being phased in, notably banning the co-disposal of hazardous and non-hazardous (most household) waste, non-landfilling of tyres and the recycling/recovery of Chlorofluorocarbons (CFCs) from fridges, Waste Electrical & Electronic Equipment (WEEE) and End of Life Vehicles (ELVs). Banning co-disposal has no effect on Essex County Council and the Council has contracts for the recycling of tyres and fridges. Arrangements to deal with WEEE and ELVs are being pursued, and ultimately these will be funded, substantially or in part, by manufacturers, as part of their producer responsibility obligations.

3.5 CURRENT COSTS

3.5.1 Existing Service Costs

It is estimated that the total cost of waste management within Essex (excluding Southend and Thurrock) was around £68 million in 2003/04. The estimated split between the cost of services provided by Waste Collection Authorities and the cost of services provided by the Waste Disposal Authority was approximately 48% disposal: 52% collection. The total cost of waste management in 2000/01 was identified as £49.2 million (including Southend and Thurrock). The bulk of the increase (estimated at around 75 – 80% increase in 3 years) relates to collection costs, reflecting the expansion of recycling schemes at the kerbside.

The following table provides information on the costs of waste collection per household in the different Essex WCAs. It shows their performance against BV 86 which measures the cost of waste collection per household. Clearly there are many explanations for the differing costs across the County (e.g. differences in the range of recycling services provided, the population density, vehicles used, distances to disposal sites, number of bulky waste collections made etc). For this reason, the cost information in the table cannot provide a direct comparison between the services provided by different WCAs. Nevertheless, the information provides a general picture of the costs of the collection element of waste management in Essex. The Table also shows the recycling/composting performance achieved by each WCA in 2003/04.

Table 7: Performance against waste-related Performance Indicators

Authority	2003/04 reported performance against BV 86 (£/household)	2003/04 reported performance against BV 82a (% household waste recycled)	2003/04 reported performance against BV 82b (% household waste composted)	2003/04 performance against BV82a +BV82b
Basildon	41.16	11.4	7.5	18.9
Braintree	52.82	17.2	4.1	21.3
Brentwood	36.67	9.2	5.35	14.55
Castle Point	30.13	9.15	8.84	18.0
Chelmsford	54.52	16.75	6.8	23.55
Colchester	41.94	17.7	7.2	24.9
Epping Forest	24.65	12.9	9.9	22.8
Harlow	48.50	12.5	0.5	13.0
Maldon	35.68	14.1	3.09	17.2
Rochford	30.99	7.38	2.62	10.0
Tendring	24.35	15.2	0.0	15.2
Uttlesford	42.43	19.15	1.24	20.39
Essex Average	38.65			18.9 (weighted)

Source: Council Best Value Performance Plans 2003/04

The County Council is required to report, annually, the average gross cost of municipal waste disposal per tonne. In recent years this has increased from £34.61/tonne in 2000/01 to £45.74/tonne in 2003/04. £3 of the increase is due to landfill tax, but the bulk is due to inflation and an increase in the basic cost of landfilling.

Although the authorities share some cost information, there is presently no agreed inter-authority framework for the collection, monitoring or analysis of service costs. During 2004/05 the partner authorities plan to establish key cost indicators that can be shared. From this, partners can begin to see the cost trends for different elements of the service (for example the relative spend on collection, disposal, recycling activities, waste awareness and education etc) and assess the relative costs of different types of materials recycling schemes and initiatives.

A good deal of cost data has been collected as part of the monitoring and analysis of 3 High Diversion Trials (in neighbourhoods in Braintree DC, Chelmsford BC and Colchester BC) and the analysis of this data has already informed decisions on the establishment or expansion of kerbside recycling schemes. The additional reporting costs for District/Borough Councils are not expected to be significant. Moreover, the additional reporting is likely to result

in significant benefits to all authorities from the exchange of good practice, leading to efficiency savings over time.

3.5.2 Future Budget Pressures

Landfill Tax, which was introduced in 1997, has already added significantly to Waste Disposal Authority costs. For 2004/5 the level is £15/tonne for non-inert wastes, which includes household, and £2/tonne for inert. The government has said that the non-inert rate will be progressively increased by at least £3/tonne/year until it reaches £35/tonne. However, under the new burdens agreement, local authorities will be compensated for any increase above £15/tonne.

The EU Landfill Directive requires the following proportions of biodegradable municipal waste to be diverted from landfill, compared with 1995 quantities.

<u>Target Year</u>	<u>Percentage Diversion</u>
2010	25
2013	50
2020	65

Given that the quantity of waste has risen significantly since 1995, and is likely to continue rising, at least in the short term, the proportion of the actual arisings that needs to be diverted will be greater. Table 10, in section 4.1.2, illustrates the likely dilemma.

To encourage Waste Disposal Authorities to work towards these targets, so that the UK meets its share of the required EU diversion and avoids fines, which could be up to £0.5m per day, the Government has introduced an initiative called the Landfill Allowances Trading Scheme (LATS) under the Waste & Emissions Trading Act. Under this scheme, each WDA has been given a level of allowances for each year from 2005/6 (the first year of the scheme) through to 2020 (the final target year). Thereafter, it is assumed 2020 allowances will be maintained. WDAs can undertake banking and limited borrowing between years, except target years, and trade with other WDAs to try to ensure that they hold allowances which match their landfill requirements. If a WDA holds insufficient allowances then the fine which could be imposed by Government is £200/tonne. The value of allowances, to buy or sell, will be dependent upon demand, but will obviously lie in the range £0 - £200.

Essex County Council has assessed the County's position with respect to LATS for waste growth scenarios of 1% and 2%. If waste growth averages 1% or less, and the countywide recycling target of 33% for 2005/06 is achieved and maintained, then the County will not be in a LATS deficit up to 2008/09, provided it banks allowances as permitted. If the technology required to

service the long term contracts is in place by late 2009 then there will not be a deficit in 2009/10 and subsequent years. Current forecasts (see Section 3.1) are for a higher rate of waste growth, therefore a LATS Management Strategy will be devised using one or more of the following mechanisms to minimise costs due to LATS:

- Increase the recycling of biodegradable materials
- Increase garden waste recycling
- Introduce in-vessel composting at an early date to enable putrescible waste to be composted
- Devise and implement further measures which inhibit waste growth.

Introducing in-vessel composting early would provide an insurance against the late delivery of the long term technology.

Waste Collection Authorities will incur greater costs as they strive to attain statutory recycling targets and ultimately authorities are likely to have to provide a several-stream collection, in order to meet these targets. The proposed EU Soils Directive may require a separate collection of organic material from households. Whether by continuing to landfill (in the short term) or changing to technological solutions to treat residual waste, percentage cost increases to the WDA are likely to be less than those to the WCAs. In Essex, there is limited scope for additional recycling at the civic amenity sites, whereas considerable extra recycling needs to be achieved through kerbside schemes in order to hit the statutory recycling target, which ultimately could be higher than the 33% for 2005/6. All forms of financial support from Government for the short and longer term will be explored, including Private Finance Initiative (PFI).

3.6 PERFORMANCE OF EXISTING SERVICES

3.6.1 Analysis of Material Capture Rates and Participation Rates

As explained in Section 3.2.1, the partners commissioned a waste composition analysis of municipal waste in Essex. The analysis has provided waste composition information (by waste stream) for the whole county, the 3 Areas (East, West and Thames Gateway) and also for individual WCA areas. The analysis shows that there are not significant differences between the waste composition (as arisings or as disposed) of the 3 Areas and no single WCA stands out as extraordinary. On the limited information available, the composition of Essex waste also appears to be similar to the national picture.

The information provided by the analysis on the composition of the residual waste (i.e. the waste destined for landfill) is particularly useful because it provides a guide as to the capture rate of different materials through kerbside collection schemes, CA sites and other recycling facilities. This information is

available at WCA level although the level of confidence that can be placed on its accuracy, at this level, is determined largely by the number of groups sampled in each WCA.

At the county-wide level the composition of the municipal residual waste highlights the following recyclable materials as significant elements:

- Food waste (estimated to represent annually around 130,000 tonnes)
- Paper (estimated to represent annually over 90,000 tonnes)
- Cardboard (estimated to represent annually around 45,000 tonnes)
- Garden waste (estimated to represent annually nearly 30,000 tonnes)
- Glass (estimated to represent annually nearly 30,000 tonnes)
- Food and drinks cans (estimated to represent annually around 23,000 tonnes)

At present, very little food waste is collected at the kerbside by Essex WCAs, because there is no in-vessel composting capacity available in the County. The only WCA which collects it has to transport it out of the County to get it composted. There is clearly a great deal of food waste being disposed of at present and this provides support for the partnership's idea of establishing in-vessel composting capacity in the County as an early action. It also suggests that there is more work to be done in promoting the home composting of appropriate kitchen waste.

Paper is already collected at the kerbside by all Essex WCAs but it would appear that less than a third of it is being captured in kerbside schemes. In these circumstances, the solution may rest in a concerted promotion of paper recycling amongst householders or possibly a review of the paper receptacles being offered to households. An analysis of the success of the different paper recycling schemes offered by different WCAs should ensure that the most effective practice is pursued. This could look at how the paper recycling has been promoted and the range of opportunities available.

A minority of Essex households receive a kerbside cardboard collection and, although cardboard can be recycled at CA sites, the overall capture rate for the material seems to be low. Again, a comparison between the residual waste composition of those WCAs that collect cardboard and those that do not should help to determine whether it is an easy material to collect and therefore worth targeting. The same approach could apply to the analysis of glass collection schemes.

Garden waste is collected by the majority of Essex WCAs and can also be taken to all the Essex CA sites. Almost two thirds of the garden waste produced is being captured which suggests that it is a relatively easy material to target and one that could deliver significant extra tonnages for those WCAs who do not currently collect it. Clearly the garden waste content of household waste does vary between the Essex WCAs so the quantity available in the residual waste will provide a guide as to whether it is a viable material to collect in any individual District/Borough area.

In relation to food and drinks cans the capture rate appears to be relatively low, and it may be worth exploring the scope for recycling more of the cans within litter waste, perhaps by putting the waste through a MRF or by encouraging the provision of litter bins which enable recycling.

In relation to other materials, the tonnage of disposable nappies in the residual waste (around 18,000 tonnes) provides support for the continuation of the Real Nappy Campaign county-wide.

3.6.2 Overall Analysis of Current Performance

The collective recycling performance of Essex authorities has been improving over several years. In 2000/01 the collective performance was 18.2% and by 2002/03 performance had increased to 23%, fifth amongst County areas nationally. The improvement in performance has been taking place at different rates across the WCAs but the countywide performance has seen consistent improvement and in 2003/04 reached 25%, comfortably meeting the statutory standard for the County of 22%.

All Essex authorities are benefiting from the successful joint bid for Defra funding. This will enable the development/expansion of kerbside collection schemes and other initiatives, delivering an extra 30,000 tonnes of recyclables over the 2 years of the funding. It is anticipated that this extra investment will bring the 2005/06 statutory recycling standard for the County within reach, assuming the efforts to contain waste growth can be sustained. The systematic monitoring of progress against the delivery of the various initiatives is a requirement of the funding.

There is a clear track record of improving performance in recycling/composting in the County. Much has been achieved through partnership working and the Strategy hopes to build on this success.

3.7 PARTNERSHIPS

3.7.1 Local Authority Partnerships

From the outset, the Waste Collection Authorities have been fully involved in the development of the long-term arrangements for managing waste. In 2002, all of the authorities joined together to form a Waste Management Advisory Board (WMAB) where each authority is represented by its cabinet member or committee representative with responsibility for waste management. This non-executive group has steered the development of the strategy, and it is envisaged that one or more Joint Committees will be established to manage the procurement of joint contracts, for those authorities which elect to engage in integrated contracts. In 2002 the WOW (War on Waste) public consultation was a joint exercise.

Pooling of recycling targets has been discussed between partner authorities, but it is considered that this would be more appropriately considered at a later date between those authorities which ultimately may be part of a single output-based contract covering the full range of waste management responsibilities from collection through to final disposal. It should be noted that pooling of targets will only be possible if some authorities agree to exceed their statutory recycling target.

Discussions have been held with adjacent WDAs to see if there could be enhanced value in joint working. This can only work if adjacent authorities' timescales for implementing longer-term arrangements, their policies and approach are similar. Southend and Thurrock Unitary Authorities are working with the Essex Authorities in investigating whether joint working might be appropriate for the longer-term arrangements. There is already joint working with Southend in respect of the Real Nappy Campaign and residual waste disposal. Hertfordshire County Council is working to a similar timescale to Essex and, like Essex, considers that the treatment for residual waste will be a biological rather than thermal solution. However, it is not likely that Hertfordshire will pursue a vertically integrated solution.

It has been demonstrated, in modelling, that savings can be made by Waste Collection Authorities integrating horizontally (ie two or more authorities combining into one contract) and by combining vertically (with the WDA) an optimum system can be implemented which is cost effective and recovers the maximum material from the waste stream (see also section 4.2.3 which covers funding options).

Cost savings accrue from economy of scale: reducing duplication of spare vehicles, management and depots in every district, providing flexibility to optimise collection routes on an area rather than district-wide basis, and the flexibility for the contractor to operate on the waste stream at any point to

assist him in achieving the required performance targets. The savings are maximised in an output-based specification.

3.7.2 External Partnerships

Essex Authorities are involved in a range of partnership initiatives in order to promote waste awareness, waste minimisation and recycling/composting. These include partnerships with community groups for the management of Bring Banks, partnerships with social enterprise groups for doorstep collections, waste minimisation clubs for SMEs, partnerships with local reprocessors, partnerships with schools to promote the recycling of Yellow Pages, a glass recycling consortium of 3 WCAs, Re>Paint partnerships, support for Essex ReMaDe, partnerships with compliance schemes and a joint partnership to provide a Rethink Rubbish Taskforce.

As part of the successful joint bid for Defra funding, the authorities will be working with the Essex Community Reuse and Recycling Network (ECORRN) to establish a cross County furniture recycling scheme. This effort is vindicated by the evidence from the recent waste composition analysis which showed a high level of furniture waste within bulky waste collections and in the residual bins at CA Sites.

There is a wide spectrum of experience of partnership working across the authorities but, as yet, there has been no systematic sharing of best practice or assessment of the effectiveness of different partnerships. This analysis needs to be undertaken so that authorities can act more strategically in the development of such partnerships. This would include exploring partnerships with local community groups, the waste industry, packaging compliance schemes and multiple retailers.

4. WHERE ARE WE GOING?

4.1 LEGISLATIVE DRIVERS

4.1.1 Understanding the Drivers

The following table is an illustrative, but not necessarily exhaustive, list of legislation which will impact upon waste management in the coming years.

Table 8

Directive	Meaning	Implementation Date
Waste Emission Trading Act 2003	The Secretary of State to specify maximum amount of biodegradable waste allowed each year to be taken by a Waste Disposal Authority to Landfill; to permit trading of allowances; a Waste Disposal Authority is under a duty not to exceed the amount of waste authorised by the Landfill Allowances to that Authority for that year. If a Waste Disposal Authority fails to comply with a duty imposed on it, the Authority is liable to financial penalties.	Expected 2005/06 onwards
Household Waste Recycling Act 2003	The Waste Collection Authority shall be under a duty to arrange for the collection of at least two types of recyclable waste together or individually separated from the rest of the household waste. A Waste Collection Authority need not comply if the cost of doing so would be unreasonably high or comparable alternative arrangements are available.	31 December 2010
EU Waste Electronic & Electrical Equipment (WEEE) Directive	UK government is completing the final consultation before drafting legislation. Producers of WEEE have a responsibility to arrange for the collection and processing of annually prescribed proportions of the WEEE a producer puts into the market. The EU Directive requires that householders shall be provided with a place to deposit their WEEE free of charge and it is suggested that Local Authorities could make Civic Amenity sites available for this purpose.	Coming into effect from 13 August 2005 and meeting targets from 31 December 2006

3rd Draft

Directive	Meaning	Implementation Date
EU Landfill Directive	<p>Consultation and Guidance has been issued by the Government. All waste must be pre-treated by a physical, thermal, chemical or biological process, including sorting, which changes the characteristics of the waste in order to reduce its volume or hazardous nature, facilitates its handling or enhances recovery. Compared to 1995 levels of waste, an increasing amount of biodegradable municipal waste has to be diverted from landfill, as shown in the next column.</p> <p>Landfill sites will be re-licensed and classified with some materials being banned from landfill (eg tyres, liquids etc)</p>	<p>2010: 25% 2013: 50% 2020: 65%</p>
EU End of Life Vehicle Directive (ELV)	<p>The Government is currently bringing this legislation into UK Law. The producers of vehicles will be required to “take their vehicles back” free of charge when they come to the end of their life, and de-pollute them at a cost to the producer.</p>	<p>1 January 2007</p>
EU Household Hazardous Waste Directive	<p>Domestic hazardous waste is currently exempt from the Hazardous Waste Directive but the European Commission is considering separate household collections for Household Hazardous Waste.</p>	<p>This legislation is in the early stages.</p>
EU Batteries Directive	<p>The Commission is considering establishing collection targets for spent batteries, automotive batteries and accumulators and introducing the Producer Responsibility Principle.</p>	<p>This legislation is in the early stages.</p>

3rd Draft

Directive	Meaning	Implementation Date
The Producer Responsibility Obligations (Packaging Waste) Regulations 1997	The Regulations give substance to "Producer Responsibility" which is an extension of the polluter pays principle, and is aimed at ensuring that businesses take responsibility for the products they have placed on the market once those products have reached the end of their life.	The next set of European packaging waste recovery/recycling targets for 2008 are likely to be:- Overall recovery: 60% as a minimum by weight. Overall recycling: 55% (maximum 80%). Material-specific recycling: Glass – 60%; Paper and Board – 60%; Metals – 50%; Plastics – 22.5%; Wood – 15%.
The Animal By-Products Regulations 2003	These regulations govern the disposal of animal by-products, catering waste and former foodstuffs to prevent the spread of disease. The regulations place strict conditions on the composting processes permitted for treating organic waste segregated by the householder that may contain or have come in contact with kitchen waste (catering waste).	This legislation came into effect in July 2003.
The Local Government (Best Value) Performance Indicators and Performance Standards Order 2001	The Government's "Best Value" legislation requires all Local Authorities to approach the delivery of their services in a way that seeks to continuously appraise and improve the performance of individual services. The recycling targets (for 2003/04 and 2005/06) introduced by the government's Waste Strategy 2000 were made statutory by this Order.	March 2001

Taken together with the known increases in landfill tax for non-inert waste, the above means that more wastes will be classified as hazardous and will need to be collected and treated separately, and more biodegradable waste needs to be composted or treated to reduce the overall biodegradability of the waste stream prior to landfilling. The cost of landfilling non-inert waste will rise and, where it exceeds the limit set by government, will need to be matched by the purchase of tradable allowances in order to avoid a £200/tonne penalty by government. The impact of producer responsibility means that some or all of

the costs associated with a range of materials should be paid directly or indirectly by industry. It is also likely that increasingly products will be made with recycling in mind.

4.1.2 Basis of Targets and Direction

Essex has statutory Best Value Performance Indicator (BVPI) recycling targets of 22% for 2003/4 and 33% for 2005/6, with WCAs having individual targets which contribute to the countywide total and these are tabled below. In 2003/4 Essex achieved 25% and is expected to meet the 2005/6 target, but its long term aspirations are for an eventual 60%.

Table 9: The Statutory Best Value Standards applicable to Essex Waste Authorities

Authority	2003/04 % recycling/composting standard	2005/06 % recycling/composting standard
Basildon DC	20	30
Braintree DC	14	21
Brentwood BC	28	36
Castle Point BC	16	24
Chelmsford BC	10	18
Colchester B	28	36
Epping Forest DC	28	36
Harlow DC	10	18
Maldon DC	22	33
Rochford DC	10	18
Tendring DC	16	24
Uttlesford	24	36
Essex CC*	22	33

* The performance standard that applies to Essex CC relates to the sum of the performance of all Essex WCAs and the County Council's CA service

The essence of the future strategy is high recycling, with a minimum of 45% being recycled by 2009/10 (of which 5% would be achieved through residual waste management) rising to 55% in 2030. This level of performance assumes that the project will attract PFI funding. These targets are in line with similar PFI-funded projects elsewhere. Recycling targets will progress lineally from 33% in 2005/06 to 35% in 2007/8 and 40% in 2009/10.

In the event that Essex does not secure PFI funding, 40% recycling in 2009/10 and 45% in 2030 are more realistic targets, both including a contribution from residual waste management. Whichever funding route is followed, Essex will more than meet its share of the national recycling target (33% by 2015). If the

Table 10: Landfill Requirements compared to Landfill Allowances

Year	Projected Municipal Waste Arisings (Tonnes)	Best Value Performance Indicator Targets / National Targets (Waste Strategy 2000 - brackets denote)		Essex Waste Strategy Recycling Targets		Residual waste requiring treatment after kerbside, bring bank and CA site recycling has taken place (tonnes)		Bio-degradable waste to landfill (utilising residual treatment from 2009/10)	LATS maximum biodegradable waste permitted to landfill
		Recycling	Recovery	PPP	PFI	PPP	PFI	PFI	Tonnes
2003/4	721,542	22%				562,803	562,803	387,314	n/a
2004/5	740,020			30%*	30%*	518,014	518,014	377,365	n/a
2005/6	758,972	33%	(40%)	33%	33%	508,511	508,511	367,748	378,931
2006/7	778,410							359,466	362,969
2007/8	798,345							350,538	341,686
2008/9	818,790							321,052	315,082
2009/10	839,760			40%**	45%**	503,856	461,868	28,063	283,157
2013/14	893,241		(45%)					27,645	180,512
2015/16	912,125	(33%)	(67%)					27,378	164,332
2019/20	931,431							26,700	131,971
2030	983,960			45%**	55%**	541,178	442,782	13,074	131,971 or less

* Essex County Council PSA Target

** Subject to successful commissioning of new residual treatment plants delivering 5% additional recycling

PPP = Likely recycling rate required under Public Private Partnership procurement route

PFI = Likely recycling rate required under Private Finance Initiative procurement route

outputs of bio-treatment are not landfilled, then the national target of 67% recovery will be met, as will the required diversion of biodegradable municipal waste from landfill under the EU Landfill Directive. Table 10 above shows the projections that have been made for municipal waste growth over the term of the Strategy, the anticipated LATS allowances compared to that tonnage of bio-degradable material which we expect to landfill.

4.2 OBJECTIVES AND CONSTRAINTS

4.2.1 Objectives

In line with the output from the public consultation, the authorities have adopted a policy of high recycling coupled with bio-treatment. It is anticipated that by 2009/10 the full infrastructure associated with the longer term arrangements will be in place so that under a PFI contract 45% total system recycling could be achieved. This is likely to be made up as follows:

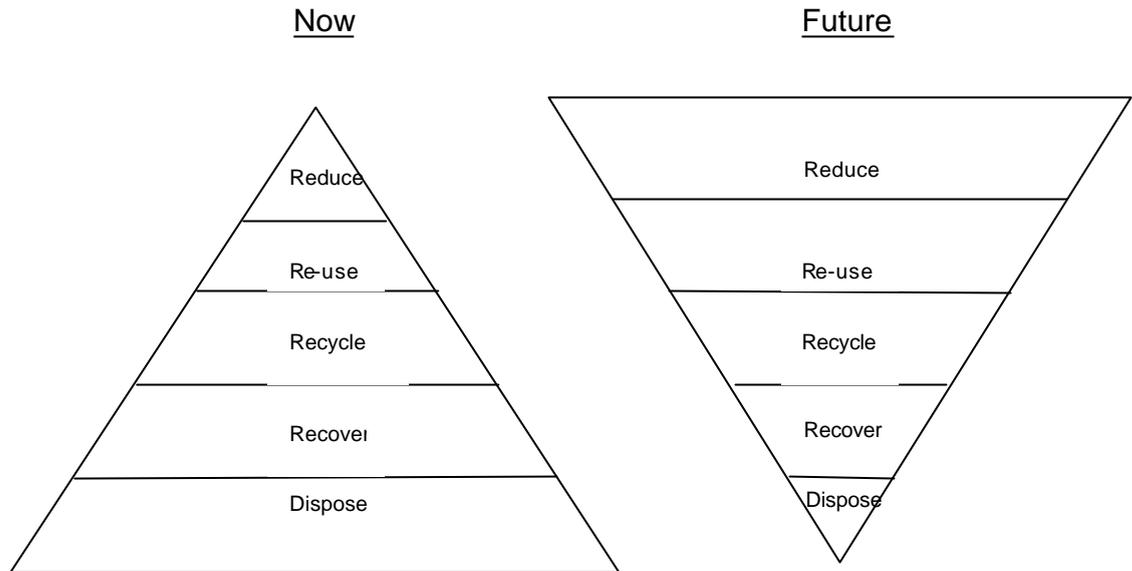
From kerbside and bring bank schemes	28.8%
From civic amenity sites	11.2%
From residual waste treatment (8% from 60% of the waste)	5%
	————
	45%

The above implies that the WCAs will recycle at an average of 36% using a several-stream collection system (as they manage 75% of the waste stream) and the civic amenity sites achieving an average of at least 56%. The collective target of 36% recycling for WCAs will encompass a range of targets for different WCAs, taking account of their different statutory recycling standards and service development plans. The WCAs' recycling targets through to 2007/08 are set out in the Profiles appended to the Strategy at Appendix A. All authorities are expected to achieve their 2005/6 statutory recycling target by 2007/8 at the latest. These targets will be supported by detailed Service Plans for each authority, outlining how these targets will be met. The same applies to future plans for the County Council's waste and recycling services. To achieve 55% eventually, there will need to be extensive and continuous promotion to improve household participation and an attempt to improve the yield of recycled material from the residual waste treatment. Recycling 55% or even 45% will take Essex well beyond any known targets and significantly towards our ultimate vision of 60% recycling.

4.2.2 Analysis of Direction

Just about the only certainty for the future is uncertainty. Over the life of the strategy it is likely that the volume, composition and regulation of waste will vary considerably. We must accept this and recognise that long term contracts need to have the flexibility to respond to the changing situation. At any one point in time, priorities can be determined, but these will change with time. For example, 10 years or so ago, the priority would have been to identify adequate local landfill capacity; more recently attention has changed to increasing recycling, but now the focus is treating/diverting biodegradable waste from landfill in order to comply with the diversion requirements of the EU Landfill Directive and minimise the costs which would otherwise be incurred under the LATS.

Currently, most of our waste is landfilled, but we have to move up the waste hierarchy, and ideally, invert the pyramid so that little is landfilled.



This means regarding waste as a sustainable resource:-

Reduce - the consumption of materials

Re-use - or repair wherever possible, and the proposals to introduce a BVPI indicator for re-use are helpful.

Re-cycle - reform the material in order to use it again.

Recover - extract every bit of value from material destined for disposal.

Dispose - only that material with which nothing else can be done - ideally it should be biologically inert.

A BPEO analysis was undertaken by consultants during 2003. This showed that bio-treatment is the preferred technical solution for dealing with residual waste. Within the Thames Gateway area, a further BPEO analysis has been undertaken to determine the spatial strategy. This shows that a centralised rather than dispersed arrangement of waste facilities is best. Similar analyses will be undertaken for the East and West areas of the County to identify the preferred spatial strategy for these areas and to compare it with a single countywide approach.

This Strategy is endorsed by all of the Essex Authorities which will work collectively towards the common goals. However, there are a number of ways of implementing it, through PFI, PPP or direct contracting with a number of specialist service providers. The PFI and PPP solutions lend themselves to an approach whereby all of the waste services for an area are provided by a

single integrated contract. The benefits of scale and flexibility means that for any given level of performance their solution should be more cost-effective than a non-integrated approach. For those authorities that prefer to work within an integrated contract, with the County Council, a Joint Committee will need to be established to manage the procurement process. A draft constitution for such a Joint Committee has been drawn up. Depending on the choices made by partner authorities with regard to contractual integration, it may be appropriate to review the shape and number of “Areas” into which the County is currently divided.

For those authorities which choose to integrate contractually, the procurement process will recognise that WCAs may join the integrated contract at different times to coincide with the expiry date of existing contractual arrangements. Authorities which elect to join the integrated contract after it has been awarded are not likely to obtain the full financial advantages, whether PFI or not, that they would enjoy by being engaged at the outset.

5. HOW ARE WE GOING TO GET THERE?

5.1 INITIATIVES

5.1.1 Minimisation and Prevention

In Essex, there are already a number of partnership waste minimisation initiatives in place, some of which have been recognised nationally as examples of best practice. These include a partnership between the County Council, Braintree DC, Chelmsford BC and Colchester BC to establish 3 “high diversion trials” to test how much waste could be diverted from landfill where householders are provided with an optimum range of kerbside recycling. There is a well established home-composting initiative to promote home composting through the sale of subsidised home composters. The cumulative figure for subsidised composters sold across the County was over 140,000 by the end of 2003/04. The recent waste composition analysis indicates that there is still some 150,000 tonnes of food and garden waste in the residual waste stream, much of which is suitable for home composting.

There is also an Essex-wide Real Nappy campaign which was launched in 2000. The campaign has been adapted over the years in response to feedback from those who took advantage of the free or subsidised nappy packs. In 2003/04 the initiative includes packs designed specifically to promote the benefits of cloth nappies to health professionals. The recent waste composition analysis undertaken by MEL suggests that disposable nappies represent around 3% of the household residual waste stream.

With Defra funding the partner authorities were able to establish a “Rethink Rubbish” Taskforce which took the waste awareness message to the doorstep during 2003/04. This involved visits by the Taskforce to about 20% of Essex households. In addition, the partner authorities commissioned a waste awareness media campaign under the “Don’t Rubbish Essex” banner. This was launched during Winter 2003/4 and included an extensive outdoor “advertising” campaign, coupled with PR activity, to promote waste awareness and encourage recycling.

A successful joint bid for the most recent round of Defra funding will enable the introduction of new kerbside collection schemes in 10 of the Essex WCAs; the extension of existing schemes in another 2 WCAs; the improvement of a Council-run MRF; the construction of a new CA site and the establishment of a bulky waste re-use scheme in partnership with the local community groups. Each of these initiatives will be supported by WRAP funded promotion such as leaflets, newsletters, roadshows, door knocking, radio advertising, bus advertising and promotions through schools. In addition, the initiatives will be reinforced by a wider Communications Plan which will support the

development of this Strategy and the debate about the longer term arrangements and objectives for waste resource management in the County.

As explained in section 3.1, the combination of waste minimisation initiatives is contributing to reducing the rate of growth in household waste arisings and this alone must justify the partnerships commitment to continuing the initiatives. Our target for future waste growth is to limit it to 1% per year including household growth. Moreover, the partnership will continue to lobby government on the need for further measures to reduce packaging waste and will also explore the feasibility of charging households based on the quantity of residual waste they produce as and when legislation permits.

5.1.2 Enforcement

Although the County Council is reviewing its policies for commercial waste enforcement at the CA sites, there is currently no agreed countywide approach to waste minimisation through the enforcement of policies to restrict waste or exclude garden waste from refuse. The partner authorities recognise the benefits of sharing good practice in this area and are committed to the common objective of waste prevention. It is too early to say whether a common approach is workable given the variety of collection practices in place at different authorities. This is clearly an area for further study, taking into account the results of the recent waste composition analyses undertaken in each WCA area.

5.1.3 Markets

Recyclable Market Development (ReMaDe) Essex is an ambitious project set up in 2000 by the Essex Local Authorities, which contribute financially, to create new markets and secondary uses for recycled materials in Essex.

ReMaDe Essex is now a subsidiary of Business Link for Essex Holdings Ltd. The project has the support of all Essex Local Authorities, Southend-on-Sea Borough Council, the Waste Resource Action Programme (WRAP), Government Office of the Eastern Region and The Environment Agency.

The project aims are to:

- Help Essex businesses exploit the opportunities arising from the increased re-use of materials
- Encourage capital investment in new reprocessing capacity in Essex
- Develop new added value markets for secondary materials in Essex.
- Help to create jobs by expanding the environmental technologies sector in Essex
- Maximise recycling rates in Essex

ReMaDe Essex has set itself an ambitious target to create nearly 70,000 tonnes of additional markets for recycled materials by the end of 2004.

To achieve these goals a variety of techniques are being used, including:

- Giving business support and monitoring to Essex SMEs
- Establishing trials and pilot projects
- Organising specific workshops for the priority materials
- Running a communications campaign to raise awareness of the need for new markets amongst Essex businesses and residents

5.1.4 Infrastructure for Treatment and Disposal

Whether or not a WCA contractually integrates with the County Council, much of the same treatment infrastructure will be required. For those authorities that choose not to integrate, it will be possible for them to access infrastructure, subject to a legal inter-authority agreement, specifying quantities, qualities and timing of waste deliveries.

As stated elsewhere, a bio-treatment solution for residual waste is preferred. This would cover the family of processes that come under the MBT (Mechanical Biological Treatment) umbrella. All of these processes extract further recyclables from the residual waste stream and produce an organic-rich stream which can then be further processed to reduce its biodegradability. Some processes produce a refuse-derived product which is rich in paper, card and plastic. The quality of the outputs is dependent upon the process and quality of inputs. In assessing proposals to treat residual waste, those which produce a high proportion of usable product rather than waste will be preferred so that landfill requirements are minimised and recycling maximised. Whether or not it is practicable to landfill the outputs of residual waste bio treatment will depend upon the residual biodegradability of the materials. This area is currently being researched nationally. However, whatever the outcome, the more conventional recycling that is undertaken, the less will be the problem of residual waste management.

Recycling in Essex, like most of the country, began by diverting a range of dry recyclables from the waste stream and this should continue as it will reduce the "foreign" matter in any bio-treatment process. However, dry recycling alone, even with high capture rates, will not enable the recycling rate to rise above 25-30%. Our intention to recycle at a high rate means that increasingly organic materials will need to be diverted at source for composting.

While putrescible waste can be managed in the residual waste stream, the quality of the "compost" so produced is not guaranteed to be of a "usable product" quality and it may therefore not contribute to the recycling rate, as defined by the relevant national performance indicators (BV 82a and BV 82b).

Authorities trying to achieve their recycling targets may well wish to divert putrescible kitchen waste at source and therefore produce a “usable product” which will contribute towards recycling. The removal of kitchen waste in this way is unlikely to affect the operation of the MBT system.

By dividing the County into 3 areas, it is likely that each area will have a different solution, and certainly no contractor will be awarded all 3 areas. The infrastructure to be provided will depend on the solution proposed and large facilities (over 50,000 tonnes annual capacity) will be located according to the identified preferred sites in the Essex and Southend Waste Local Plan, or the criteria contained therein. The existing civic amenity sites will form part of the arrangements and, where appropriate, existing depots. WCAs need to identify the infrastructure that they will be contributing to an integrated contract. Each WCA will be able to deposit waste, in whatever form it is collected, into a transfer station within its area or close to its border where it is practicable for 2 or more districts to share a facility. The waste contractor will then be responsible for transporting the waste to the appropriate waste facility. Where sensible, deliveries will be made directly to a local waste treatment plant.

The County Council has made clear its position on the appropriate final waste treatment technologies, and within this context, the contractors will be responsible for making their own disposal arrangements. They will also be encouraged to use the existing network of windrow composting sites.

There will be a strong presumption for the County to be self-sufficient in respect of the full range of waste facilities and the same will be expected in respect of each of the 3 areas, thus adhering to the proximity principle.

5.2 COST AND PERFORMANCE

5.2.1 Funding Options

Continuing to landfill that waste which is not recycled is not a viable option for the long term. Landfill will become scarce, the increases in landfill tax to £35/tonne and possibly beyond, together with the cost of buying permits under the Landfill Allowance Trading Scheme (LATS) to achieve compliance with the EU Landfill Directive will make this option prohibitively expensive. The combination of high recycling coupled with processing of residual waste will provide a cheaper solution. This solution can be delivered in different ways:

1. PFI (Private Finance Initiative)

The government provides financial support (PFI credits) to cover part of the capital cost of a solution which delivers very high recycling, in the order of 55% by 2030. The solution could be totally integrated or not, but the PFI

credits will only be awarded for the infrastructure provided under the PFI contract.

2. PPP (Public Private Partnership)

This arrangement would be identical to a PFI arrangement but without the benefit of PFI credits and working to a lower ultimate recycling level, likely to be in the region of 45%.

3. DIY (Do It Yourself)

This arrangement would be for essentially the same performance as in the PPP option but instead of the disposal or collection and disposal functions being procured under a single contract, it would be provided by a range of facilities each procured separately. If section 51(1) and part II of schedule 2 of the Environmental Protection Act 1990 is repealed, as promised by Government, then the County Council would have the additional variation available to it of being able to employ its own workforce to operate the waste management functions.

Advisors on the developing Strategy, AEA and Ernst & Young have examined the costs and benefits of these options. On an assumption of at least £75m PFI credits, a PFI proposal is more cost-effective than the lower performing PPP solution. However, it should be noted that a PFI proposal needs to have a more output-based contract specification than a PPP proposal.

The DIY solution requires a greater level of management of a number of independent contracts, which are interdependent, by the local authorities. The flexibility for a single contractor to change the way waste is managed, to deliver cost savings and/or higher performance in response to changing circumstances is lost. A detailed model valuing the costs of the retained risks has not been created but it is considered that the Essex result would be similar to that found where the evaluation has been carried out elsewhere. If an application for PFI credits is made, then the DIY model will have to be evaluated in detail as the public sector comparator, to demonstrate that PFI is a more cost-effective solution.

It is concluded that a PFI approach to the procurement of the long-term waste services will provide a cost-effective solution and deliver the highest recycling rate.

5.3 BUILDING BLOCKS FOR IMPLEMENTATION

5.3.1 Policies and Targets

The Essex Authorities aspire to minimise the waste stream and recycle at a high level, collectively in excess of that currently required by government. All of the authorities accept that greater waste awareness, delivered through the communications plan, and the support of the home composting and real nappy campaigns will reduce the rate of waste growth. The difficulties in influencing waste minimisation have been explained elsewhere in the Strategy and a negative waste growth target would not be rational or meaningful at this stage. Nevertheless, it is reasonable to aim to limit household waste growth to 1% annually to take account of household growth in Essex. This compares with historic and predicted national growth rates of 3% annually. This target will, of course, be subject to review when the Strategy is reviewed.

It is a fact that waste growth often follows the introduction of recycling schemes, where additional containers may provide the opportunity to generate waste, particularly garden waste. It is particularly important therefore to consider the size of both recycling and residual waste containers, as well as policies on side waste and collection frequency when changing collection schemes. While striving to improve recycling, the “reduce” at the top of the waste hierarchy should not be overlooked.

Experience elsewhere in Europe & North America shows that charging householders directly for the residual waste they produce boosts recycling levels and in some cases reduces waste arisings. Currently, legislation does not permit direct charging and if it did in future, it would need to be considered carefully as it could be seen as an additional rather than alternative payment mechanism for managing household waste. In addition, there would be concerns about waste “trespassing” and fly tipping, for which control measures would need to be introduced by the Environment Agency and/or local authorities.

With regard to residual waste management, the public’s preference and BPEO analysis has shown that bio-treatment is preferred to thermal treatment. Following on from the development of the interim framework, which was agreed by all authorities, in September 2003 the County Council resolved to invite solutions for the long term management of its residual waste, requiring:

- The development of front end sorting to recover further dry recyclable material
- The development of either anaerobic digestion or mechanical biological treatment coupled, as appropriate, with the recovery of biogas
- Invite contractors to identify and propose options for the management of the residual waste after treatment.

5.3.2 Monitoring and Review

This Strategy covers the period 2005 – 2030. In view of the speed of change in waste management the Strategy will need to be subject to frequent review. This will ensure that it responds to changes in legislative and any other drivers. It is proposed that a formal review of the Strategy takes place every 5 years. These reviews will be supplemented by the production and monitoring of annual business plans and be reported annually to the WMAB. This exercise will consolidate the recycling/composting performance monitoring arrangements that have been established for the purposes of ECC's Public Service Agreement and the partnerships' delivery of statutory recycling standards for 2003/04 and 2005/06. The existing Best Value Performance Indicators (BV82a –d) will provide key measures in this respect.

The main purpose of the reviews will be to assess the extent to which the collective activities of the partners have furthered the objectives of the Strategy. Broadly, the reviews should encompass:

- a) a review of performance against the agreed Strategy targets;
- b) a review of progress made against the agreed Strategy Action Plan;
- c) a reassessment of the legislative and other drivers for change identified in the Strategy; and
- d) in the light of a) to c) above recommendations would be made as to whether the partners should adjust any Strategy policy, Strategy targets or any associated performance monitoring and review arrangements. The recommendations would also cover action planning to address any targets that have been missed.

The outcomes of the review will be reported to the WMAB and any proposed amendments to the Strategy will need to be agreed by the Area Committees that govern the delivery of the Strategy at the Area level.

5.3.3 Governance

The existing Joint Waste Officer Steering Group will be responsible for commissioning the reviews and reporting performance to the WMAB. All the partner authorities are represented on this Officer Group. Joint Committees will be established for each of the 3 areas of the County, initially to manage the procurement of integrated contracts. Those authorities which do not choose contractual integration will be represented at the Joint Committee, but will not participate in discussions on the procurement of the integrated contract.

The WMAB will oversee the implementation of the Joint Municipal Waste Management Strategy countywide, addressing new or changed circumstances and linking to the work of the Area Joint Committees, as appropriate.

5.3.4 Joint Working

In the development of the Strategy, the Waste Management Advisory Board agreed that consideration should be given to the introduction of an area approach to the delivery of waste management infrastructure and services. The 5 authorities (including Thurrock and Southend BC) in the Thames Gateway Area have been working together, for some time, on a range of service initiatives and logically defined themselves as the "Thames Gateway Area". The remaining WCAs have also been working together in the geographical East (4 authorities) and West (5 authorities) of the County.

During 2004 the Areas have established Member Groups which meet bi-monthly to progress joint working and the development of an Action Plan. According to the Terms of Reference for the Area Groups:

The Action Plan is to be reviewed and updated annually and to be reported to the Joint Waste Management Advisory Board setting out:

Tonnages of household waste to be collected by each partner authority within the defined area, this to include household waste collected by each Waste Collection Authority, commercial waste collected or managed by each Waste Collection Authority and household waste collected at Civic Amenity Sites.

To identify the long-term recycling and recovery objectives/requirements and to specify by appropriate waste fraction type the expected level of recycling to be achieved.

To identify infrastructure needs in support of the development of the long-term objectives including timescales and implementation periods.

To promote, influence and coordinate the development of horizontal and vertical integration (joint working between collection authorities and between collection and disposal authorities) in the development of long-term solutions for the management of waste as a resource.

To identify opportunities for increasing overall environmental and economic effectiveness through higher levels of integrated working and to promote and encourage as appropriate the implementation of joint solutions.

Once long-term contracts for infrastructure have been let, to oversee the implementation plan and to receive regular reports from the facility operators on performance, effectiveness and overall compliance with expected outcomes.

To date, they have jointly commissioned desk top studies to explore the relative future costs of horizontally and vertically integrated waste management contracts; commissioned waste arising/composition analyses and considered options for the future governance of waste management arrangements. Within the context of this Strategy, they have considered the relative merits of PFI:PPP:DIY procurement options.

The Area Groups are constitutionally sub-groups of the formally constituted Waste Management Advisory Board whose terms of reference are:

To develop a long-term vision for waste as a resource in Essex, Southend and Thurrock. To increase awareness of waste as a resource opportunity and to interact with a range of stakeholders to achieve an economically, environmentally and socially sustainable resource management programme. To provide support and advice to partner authorities in their endeavour to reach their statutory recycling targets.

Within this context to develop a strategic framework for the development and implementation of a joint municipal waste strategy for Essex, Southend and Thurrock.

To consider and where necessary review the strategic framework and supporting action plans and advise the Waste Collection and Waste Disposal Authorities in Essex, Southend and Thurrock accordingly. To take specific responsibility for the development and implementation of a strategic:

- Marketing Plan (for the development of a materials marketing strategy).
- Waste Minimisation and Waste Avoidance Plan.
- Education and Awareness Plan.

To monitor and support the development of Area Working Groups, to receive regular reports on progress and to keep a strategic overview of progress in the development and implementation of infrastructure.

To review best practice systems and procedures and to advise the Waste Collection and Waste Disposal Authorities in Essex, Southend and Thurrock accordingly.

To work with statutory agencies, non-governmental organisations (NGO's) small and medium sized enterprises (SME's), business, scientific and commercial organisations, ReMade Essex and other bodies who are in pursuit of developing, supporting and influencing the future direction of sustainable waste/resource management, where necessary.

To keep an overview of the East of England Regional Waste Management Strategy 2002 and to engage in the development of opportunities and discussions with neighbouring authorities.

Membership of the WMAB and the Area Groups are identified in the terms of reference. Generally, the representatives for each authority sit on both the Area Group and the WMAB.

All of the above tasks come together under the umbrella of developing a Joint Municipal Waste Management Strategy and accompanying that will be a forward-looking, annual business plan which will describe in detail the performance and relationship between authorities.

5.3.5 Implementation

Following adoption of this Strategy by all the Essex Waste Authorities, the procurement process to implement it will begin early in 2005. Alternative funding routes of PFI, PPP and DIY have been examined and the costs and benefits of each approach will be reviewed during the autumn of 2004. In addition, authorities will be asked to adopt this Strategy and decide if they wish to enter into joint procurement with others or whether they wish to procure their own services and infrastructure and link with the County Council via a legal inter-authority agreement. If authorities elect to use a joint procurement, then a Joint Committee will be established to manage this process within a Business Plan agreed by all participating authorities.

5.3.6 Commitment

This Strategy and the possible procurement routes have been debated by the WMAB. The decisions taken by each authority will be very significant as they will establish the Strategy and the relationships between the authorities and the waste industry for the next 25-30 years. For WCAs which choose the joint procurement route, they will have an opportunity to confirm or withdraw once negotiations with preferred tenderers have been concluded, and in common with industry practice there will be an opportunity to benchmark/market test collection services at 7-year intervals. Those authorities electing for a joint procurement will be getting the benefit of any relative future cost savings and it is appropriate therefore for these authorities to share the costs, in an equitable way, of the advisors that have been engaged to support the procurement process.

5.4 RISK MANAGEMENT

5.4.1. Risks and Dependencies Relating to Waste Management Facilities

If the authorities elect to a joint PFI or PPP procurement, the onus will be on the successful contractor to size and locate the required waste processing infrastructure within the performance and planning criteria. It is envisaged that there will be a major processing facility in each of the 3 Areas with satellite transfer, civic amenity, depot facilities and possibly windrow composting sites. For those authorities that choose not to be part of the integrated contracts, inter-

authority agreements covering all municipal solid waste will be required so that the impact upon the operation of facilities provided under the contracts can be gauged.

If the DIY method of procurement is chosen, then the onus is on the local authorities to determine the size and contractual arrangements for each element of the total system and to manage the interfaces between them.

Whichever route is chosen a technological solution needs to be operating by 2009. This is the first target year of the EU Landfill Directive, in respect of the treatment and diversion of biodegradable municipal waste and is the year when most of the County Council's existing contracts expire. The Action Plan set out at the end of Section 5 of the Strategy will be monitored and amended to achieve this end. This Action Plan covers the implementation of the infrastructure required to deliver our targets for 2009/10 and later years. Progress in the further development of recycling for earlier years will be agreed and monitored through the annual business plans.

5.4.2. Planning and Permitting Risks

As explained in earlier sections of the Strategy, the Essex Authorities have established 3 geographical Area Groups covering the administrative area of Essex and the 2 neighbouring Unitary Councils of Southend and Thurrock. These Area Groups have been working together to develop consensus on the way in which the waste management services will be procured and provided in each area in the longer term. This has included an exploration of future funding options and a BPEO analysis of the Thames Gateway Area and will include BPEO analyses for the other two Areas and for Essex as a whole.

There is an adopted Essex and Southend Waste Local Plan. This was adopted in 2001. The Plan identifies 6 "preferred" waste management sites where larger scale waste management/processing facilities would be acceptable in principle. These sites are spread across the 3 Areas; 2 are in the West Area, 1 is in the Thames Gateway Area and 3 are in the East Area. The BPEO analysis of the Thames Gateway Area indicated that a more centralised (as opposed to a more dispersed) arrangement of waste transfer and processing facilities represents the BPEO. Such an approach to the provision of facilities would be consistent with the adopted Waste Plan which, in addition to identifying the preferred sites, has criteria-based policies for the consideration of proposals for waste facilities elsewhere in urban and rural locations.

The approach will also need to be consistent with the policy framework established by the East of England Regional Waste Management Strategy which has as its vision "a society which secures sustainable waste management, reducing the creation of waste and maximising recycling and

recovery so as to minimise the amount of material requiring disposal.” The Regional Strategy seeks to:

Promote and develop methods of waste reduction and management which:

- Minimise the environmental impact of waste management
- Seek to reduce the generation of waste
- Implement the BPEO for each type of waste
- View waste as a resource and maximise reuse, recycling and composting of waste and extracting value from the remainder
- Secure safe treatment and disposal of hazardous and residual wastes
- Seek to secure self-sufficiency
- Encourage community support and participation

The Regional Waste Management Strategy targets for household waste are to recover (that is recycle or recover energy from) 40% at 2005, 50% at 2010 and 70% at 2015. Essex will not achieve the 2005 target, but should comply with 2010 and 2015 targets.

Clearly, most proposals for the development of waste management facilities will be subject to the formal planning and permitting assessment process and involve an associated consultation exercise. The planning risks of delivering the Strategy are addressed to some extent by the existence of an adopted and up to date Waste Local Plan which is site specific in relation to significant facilities and has been developed in the context of the European and national drivers to shift waste management practice from waste disposal activities to waste minimisation, recycling and processing. The County Council is trying to acquire sufficient interest in the only site identified within the Thames Gateway area in order to provide a level playing field for tendering contractors.

5.4.3. General Risk Assessment

A Risk Register has been devised which identifies all of the risks to the implementation of the planned procurement of long term contracts. Each of the 66 risks currently identified has been classified as high, medium or low and actions will be determined to mitigate them. A process of continuous monitoring will ensure that, where proposed actions are not addressing the issues, further actions can be devised and implemented. A further risk register will need to be developed to identify the risks to the implementation of this Strategy and the associated actions that need to be taken to mitigate or avoid the risk. This Strategy Risk Register will be developed through “Risk workshops” involving all the partners. Clearly, a number of the risks will be common to both the procurement risk register and the Strategy Risk Register.

Once contracts are let, the responsibility for delivering infrastructure will pass to the successful contractors who will need to obtain planning consent. In so doing, they will be guided by the identified major waste management sites and other policies contained within the Essex & Southend Waste Local Plan. Permitting will also be the responsibility of the contractor. A soft market testing seminar held in June 2004 alerted the waste industry to the Essex proposals and it provided the opportunity for the Essex partners to explain and obtain feedback on its proposals. Following this and as the procurement phase is developed, the allocation of risks between industry and the local authorities will be defined, but this will be influenced by the eventual funding/contractual strategy adopted. The soft market testing did show that there is significant waste industry interest in the Essex proposals.

A significant risk to Essex County Council, as the WDA, is in respect of costs associated with LATS. The progress of recycling across the County will be closely monitored, as will progress in implementing the additional infrastructure to treat waste so as to minimise or eliminate any LATS costs consequent upon our failure to progress towards the required diversion for untreated waste from landfill. Currently, it is anticipated that, provided the planned implementation of infrastructure is delivered, no LATS costs will be incurred provided that waste growth is limited to 1% per year, which may be optimistic. Remedial measures will need to be considered if further recycling or infrastructure development falls behind the current programme or waste growth exceeds 1% per year, and so a "LATS management strategy" is being devised. This strategy will identify a range of measures which could be implemented to mitigate the effects of delay to any part of the overall strategy implementation.

5.4.4 Proposals for Public Consultation on the Strategy

The detailed proposals for public consultation on the Strategy are now being developed and will be presented to the Waste Management Advisory Board when they meet in November, with a view to initiating the exercise early in 2005.

WASTE STRATEGY ACTION PLAN

