Joint Municipal Waste Management Strategy for Essex (2007 to 2032)

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EXECUTIVE SUMMARY

The Essex situation

In 2007/08 Essex produced approximately 732,400 tonnes of municipal solid waste[1], the majority of which was household waste. On average, each Essex resident produces about half a tonne of waste in a year. 38% of the household waste was recycled or composted in 2007/08. This recycling was undertaken by a combination of householders sorting their waste for recycling collections at the kerbside, taking recyclables to bring banks, or by taking sorted materials to their local Recycling Centre for Household Waste.

The Need for Change

Essex has improved its recycling rate each year, but we all need to do more. Too much waste is still ending up in landfill sites, so valuable resources are lost. This needs to change. Sending untreated waste to landfill is not a sustainable way of managing waste. This has been recognised in European and national law which now require local authorities to reduce the amount of biodegradable waste[2] that they dispose of in landfill sites. The County Council has therefore been set challenging landfill diversion targets by Government and all Essex authorities have local recycling targets to meet. One of the key objectives of this strategy is to achieve high levels of recycling, with an aspiration to achieve collectively 60% recycling of household waste by 2020. However, high levels of recycling alone are not enough for us to meet these targets. In order to deliver an innovative and resource efficient waste management system for Essex we need to invest in new technologies which treat the residual waste and which can extract further value and recyclable materials from the waste.

Waste management is one of the biggest challenges facing Essex now and in the future. To tackle this challenge and develop a sustainable strategy that is supported by Essex householders and key stakeholders, the County Council and the twelve District and Borough Councils of Essex have formed an Essex Waste Partnership (this also includes Southend-on-Sea Borough Council, although as a unitary authority, Southend-on-Sea has developed its own waste strategy).

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[1] Municipal waste is household waste and any other waste that is collected for treatment and disposal by a local authority.

[2] Biodegradable waste is waste that rots down. It includes things like paper, card, food and garden waste

Throughout this document you will see a series of green boxes; these are the key targets and objectives for the Essex Waste Partnership.

Strategy Themes

Essex's proposed strategy for dealing with municipal waste in the future can be summarised as follows:

- Essex Authorities will work hard to **reduce** the amount of waste produced in the first place and **re-use** more of the waste that is produced;

- Essex will achieve high levels of **recycling**, with an aspiration to achieve collectively 60% recycling of household waste by 2020. This could be achieved through a combination of further improvement in the performance of recycling and composting kerbside collection schemes and the Recycling Centres for Household Waste, and the recovery of recyclable materials through new treatment plants.

- Essex favours **composting** technologies such as **anaerobic digestion** (AD), for source segregated organic wastes. AD is a form of biotreatment and produces a gas which can be used to generate 100% renewable electricity;

- Whilst we can work on reducing the amount of waste produced and recycling as much of if it as possible, there will always be some waste that still needs to be disposed of. For this we propose to introduce new treatment plants using **Mechanical Biological Treatment** (MBT). MBT processes any 'black bag' waste and recovers further material for recycling. Part of the remaining material can either be manufactured into a fuel for energy production or can be sent to landfill.

Monitoring and Review

An action plan will be developed to provide more details on how Essex authorities will deliver the key targets and activities outlined in this strategy. This will be supported by service delivery plans for each authority. The action plan will be subject to annual monitoring and reviews.

The strategy will be reviewed every three to five years. 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.

INTRODUCTION

2.1 A waste management strategy for the people of Essex

This Joint Municipal Waste Management Strategy (JMWMS) has been developed by the thirteen waste authorities of Essex, comprising Essex County Council, as the Waste Disposal Authority (WDA), and the twelve District and Borough Councils, as the Waste Collection Authorities (WCAs), in Essex. It constitutes a 25 year plan for the future of recycling and waste management in Essex.

In 2002 the County Council, the District and Borough Councils together with the unitary authorities of Southend-on-Sea Borough Council and Thurrock Council[3], set up an advisory board to examine how to deal with municipal waste in these areas over the next two decades. This Waste Management Advisory Board (WMAB) has looked at the current and future challenges regarding waste and has examined a range of ways of dealing with it. The WMAB has always believed strongly in the importance of involving the people of Essex in the development of this strategy. Consequently, public consultation exercises were conducted during 2002 and 2005 and the outcomes have informed the development of this document. The strategy brings together the views of the public, key stakeholders and the Essex authorities and sets out options for how waste should be managed in the future.

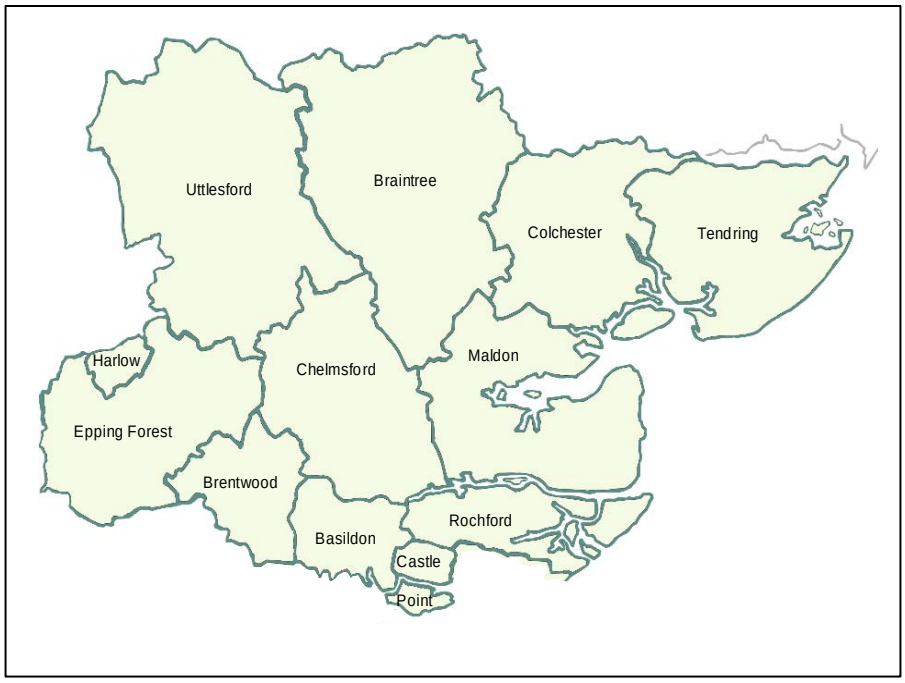
Southend-on-Sea Borough Council published its own Municipal Waste Management Strategy for the Borough of Southend-on-Sea in June 2004 and the strategy identifies joint working with other Essex local authorities as highly desirable. Thurrock Council is also in the process of developing and publishing its own waste strategy.

Whilst there are references to Southend-on-Sea and Thurrock unitary authorities, this strategy relates specifically to Essex County Council and the twelve District and Borough Councils of Essex as listed below. For the purposes of this strategy, these thirteen authorities will be called the Essex Waste Partnership.

Basildon District Council
Braintree District Council
Brentwood Borough Council
Castle Point Borough Council
Chelmsford Borough Council
Colchester Borough Council

[3] Thurrock Council is no longer part of the WMAB

Epping Forest District Council
Harlow District Council
Maldon District Council
Rochford District Council
Tendring District Council
Uttlesford District Council



Map 1: The administrative area of Essex

Throughout this document you will see a series of green boxes; these are the key targets and objectives for the Essex Waste Partnership.

2.2 The current situation

In 2007/08 Essex produced approximately 732,400 tonnes of municipal solid waste[4], the majority of which is household waste. On average, each Essex resident produces about half a tonne of waste in a year. 38% of the household waste was recycled or composted in 2007/08 (this includes wood waste). This recycling was undertaken by a combination of householders sorting their waste for recycling collections at the kerbside, taking recyclables to bring banks, or by taking sorted materials to their local Recycling Centre for Household Waste.

[4] Municipal waste is household waste and any other waste that is collected for treatment and disposal by a local authority.

Thanks to the residents of Essex, the Essex Waste Partnership has increased its recycling rate each year, but we feel there is still room for improvement. Too much waste is still ending up in landfill sites, so valuable resources are lost. This needs to change. Sending untreated waste to landfill is not a sustainable way of managing waste. This has been recognised in European and national law which now require local authorities to reduce the amount of biodegradable waste[5] that they dispose of in landfill sites. Essex County Council has been set challenging landfill diversion targets by Government and all Essex waste authorities have local recycling targets to meet. In order to meet these targets, we must deliver an innovative and resource efficient waste management system for Essex.

2.3 The need for change

Many of the key drivers for change emanate from measures introduced in response to the UK's interpretation of European Legislation and our own local drivers and community aspirations for improving the environment. These measures include the Landfill Tax, the EU Landfill Directive and the Landfill Allowance Trading Scheme (LATS). Local authorities also have challenging local recycling and composting targets in the short term.

In addition, Essex authorities have received a strong message (from previous consultation exercises undertaken) from Essex householders and communities that we should be changing the way we manage waste and resources, with a drive towards waste reduction, high recycling and composting and minimising waste to landfill.

2.4 Community involvement

The successful delivery of this strategy rests, to a significant degree, on the willingness and desire of Essex authorities and householders to work together to take responsibility for their waste. Therefore, the involvement of the community is of paramount importance to the development of this strategy.

Consultation with the community began in 2002 with the 'War on Waste' consultation exercise. This consultation involved gaining the views on six different options for waste management and showed how the options compared against a range of criteria such as impact on the environment, feasibility, ability to

[5] Biodegradable waste is waste that rots down. It includes things like paper, card, food and garden waste.

meet government targets and cost. The consultation indicated that the majority view was that any waste strategy should focus on waste minimisation and a higher level of recycling and composting.

In 2005 it was considered that the strategy should have public and industry endorsement and so a further round of consultation was undertaken. It was concluded from this exercise that the fundamental approach, based on aiming for high recycling with biotreatment, had broad support across a range of stakeholders. There were, however, certain aspects of the draft strategy that required further clarification and explanation and these have since been incorporated into this strategy.

2.5 EU Landfill Directive

The 1999 EU Landfill Directive requires EU Member states to reduce the amount of biodegradable municipal waste that is disposed of to landfill. Biodegradable waste is the fraction of waste that will break down in the presence of air or under anaerobic conditions (without air). The main driver behind the EU Landfill Directive is the prevention of the possible harmful effects arising from the break down of biodegradable municipal waste in landfill. When biodegradable waste rots down in landfill it does so anaerobically and produces methane gas which is difficult to capture and when released into the atmosphere methane is a potent greenhouse gas known to contribute towards global warming. The breakdown of biodegradable waste also produces leachate which can pollute water courses. It is estimated that on average 68% of household waste is biodegradable.

In order for the UK to meet these targets the Government, through the Waste and Emissions Trading (WET) Act 2003, has introduced the Landfill Allowance Trading Scheme (LATS). Under the LATS, County Councils (and unitary authorities) must divert significant amounts of biodegradable waste sent to landfill each year or buy allowances to cover the shortfall. From 2006 to 2020 (the current LATS period) the amount of biodegradable waste that must be diverted each year significantly increases over time. Failure to meet these landfill diversion targets will result in financial penalties and these are currently set by Government at £150 per tonne.

Essex's landfill allocations are as follows:

Year	Landfill Allocation – tonnes of biodegradable waste permitted to landfill
2001/02 – base year	**386,319** (actual BMW calculated by Defra)
2005/06	375,877
2006/07	360,214
2007/08	339,330
2008/09	313,226
2009/10 – target year	**281,901**
2010/11	250,522
20011/12	219,144
20012/13 – target year	**187,766**
2013/14	179,712
2014/15	171,657
2015/16	163,603
2016/17	155,549
2017/18	147,494
2018/19	139,440
2019/20 – target year	**131,386**

If Essex County Council fails to take action to comply with its LATS targets in 2009/10 the Council, and therefore Essex taxpayers, could face a penalty of up to £9million. If we carry on managing waste as we do today, this penalty would increase to £24million by 2013. However, there are actions that the County Council, in partnership with the District and Borough Councils, could take to reduce the financial risk of penalties to Essex. These actions could include the trading of LATS allowances, increasing recycling and composting performance and building new waste and recycling treatment plants.

2.6 Landfill Tax

Each tonne of waste sent to landfill incurs a £32 landfill tax in 2008/09 and by 2010/11 this figure will have increased to £48 per tonne due to the £8 per tonne escalator that will be applied each year. In 2006/07, Essex County Council paid approximately £11million in landfill tax, and the figure will increase substantially over the coming years. To put this into context, it is estimated that Essex could be paying £22million in landfill tax in 2010/11, compared to the cost of disposal

(landfill contract payments) of £16million. This is on a total waste budget for 2010/11 estimated to be £57million.

2.7 Landfill void space

A 2007 study[6] in Essex looked at all waste streams and forecast that Essex has sufficient landfill void space with planning permission to last until approximately 2017. However, if the LATS targets are not met, or if commercial and industrial waste or imports of London's waste do not behave as forecast, it could lead to a higher demand for landfill space than was predicted in the 2007 study. The shortage of available landfill, coupled with the increasing costs of using landfill and the environmental impacts associated with landfilling waste, mean that Essex County Council needs to look for alternative waste disposal options. Furthermore, national and EU policy requires Essex County Council to move away from landfill to other methods of dealing with waste, although landfill will always be required to deal with some types of waste.

2.8 The Waste Strategy for England 2007

In response to the Landfill Directive the Government introduced national targets for the recycling, composting and recovery of household waste and these were set out in the Waste Strategy 2000. The Government has since published the Waste Strategy for England 2007. The new targets for recycling and composting of household waste are for at least:

- **40% by 2010**
- **45% by 2015**
- **50% by 2020**

These are significantly higher than the old targets set in Waste Strategy 2000 of 30% by 2010 and 33% by 2015. They will put England on a par with its European neighbours. Waste Strategy 2007 acknowledges that the target for 2010 is challenging but achievable.

Waste Strategy 2007 puts a lot of emphasis on waste prevention and re-use. It stresses the importance of motivating individuals and businesses to appreciate the environmental and economic benefits from waste reduction and of obtaining value from what might have previously been seen as useless rubbish. This focus on waste reduction has been recognised through a new target to reduce the

[6] Waste arisings, capacity and future requirements study', ERM, February 2007

amount of household waste not re-used, recycled or composted from nationally, over 22.2 million tonnes in 2000 by 29% to 15.8 million tonnes in 2010 with an aspiration to reduce it to 12.2 million tonnes in 2020, which is a reduction of 45%. This is equivalent to a fall of 50% per person: from 450kg per person in 2000 to 225kg in 2020.

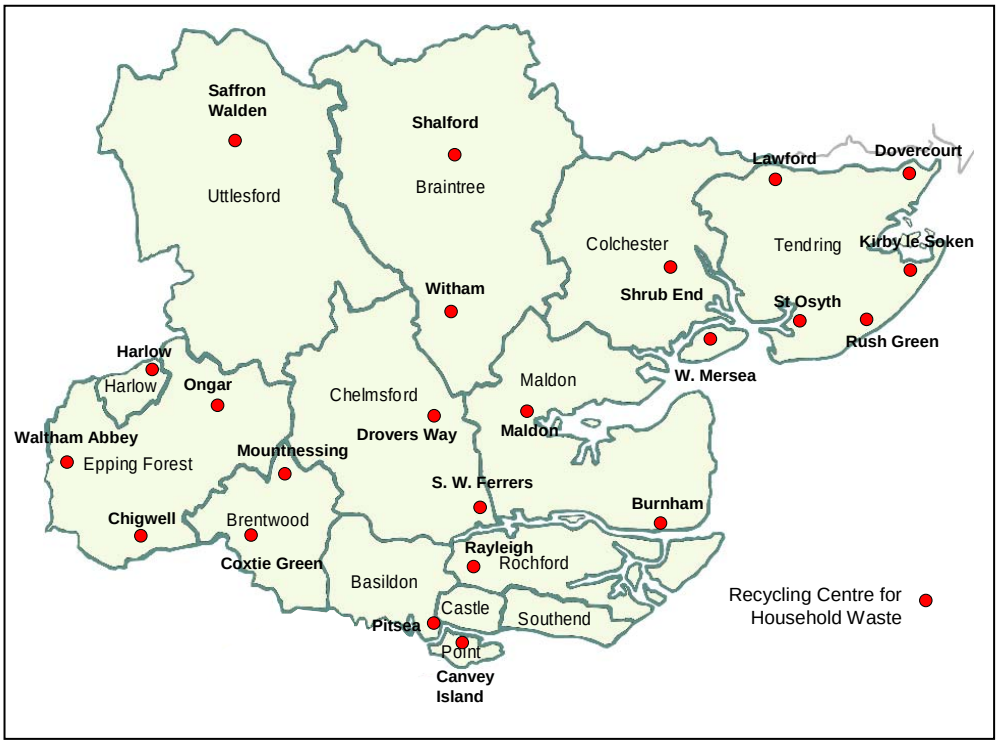
Waste Strategy 2007 also outlines policies and proposed targets for the reduction of commercial and industrial waste to landfill and the reduction, reuse and recycling of construction, demolition and excavation wastes. These will be considered in the development and delivery of the Essex JMWMS.

The development and delivery of the strategy will have regard to the Waste Strategy for England 2007 and other relevant national, regional and local strategies.

WHERE ARE WE NOW?

3.1 Description of current services

Responsibility for waste management in Essex is split between the County Council and the District and Borough Councils. The County Council is responsible for the *disposal* of municipal waste in Essex and is therefore the Waste Disposal Authority (WDA). The County Council provides 23 Recycling Centres for Household Waste (RCHW) across the county and has contracted windrow composting capacity at ten sites in Essex. The County Council aims to provide a RCHW within 10 kilometres of all households within the WDA's administrative area.



Map 2: Location of the RCHW in Essex

The District and Borough Councils are responsible for the *collection* of municipal waste and recycling as well as some commercial waste and bulky items and are therefore called the Waste Collection Authorities (WCAs). All District and Borough Councils collect some recyclable materials directly from households through kerbside schemes and they also provide 'bring banks' in locations such as supermarket car parks.

Key features of the household waste services provided by the WCAs, as at July 2008, are shown in Annex 7. The table shows only those services available at the kerbside and the details will change over time as collection services change and expand.

Service delivery plans are being prepared by each District and Borough Council. The service delivery plans will detail the type of collection system District and Borough Councils may wish to use in the future and what performance levels of recycling and composting they could achieve from this type of collection system. The County Council will also produce a service plan for the RCHW service. When available, the service delivery plans will be appended to the strategy as part of the action plan.

3.2 Current costs

The average gross cost of municipal waste management to the County Council (as reported under BVPI 87)[7] has increased from £35.66 per tonne in 2001/02 to £60.64 per tonne in 2006/07. Whilst this increase is partly due to service improvements, the increases are mainly as a result of the Landfill Tax price escalator and other landfill related factors such as diminishing landfill void space, tougher legislation governing landfill engineering and cost inflation. Total landfill costs for Essex County Council amounted to £23.3 million in 2006/07.

Table 1 provides information on the costs of waste collection per household (BV86) in the different Essex WCAs and their recycling rates for 2006/07. 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.

Table 1: Cost of waste collection for Essex WCAs

Authority	2006/07 reported performance against BV86 (Cost of waste collection per household)	2006/07 Total household waste recycled and composted	2007/08 Total household waste recycled and composted
Basildon	£52.75	27.41%	32.23%
Braintree	£68	35.39%	42.79%
Brentwood	£40.45	31.18%	41.20%
Castle Point	£34.38	25.73%	27.07%
Chelmsford	£77.62	32.29%	35.37%
Colchester	£49.43	30.96%	33.09%
Epping Forest	£64.29	37.09%	41.67%
Harlow	£55.02	21.29%	23.88%
Maldon	£42.53	32.86%	34.89%
Rochford	£43.90	17.18%	19.39%
Tendring	£33.60	22.96%	26.90%
Uttlesford	£72.45 (includes some implementation costs of the new recycling system)	42.82%	54.26%

[7] Best Value Performance Indicators were the national measures of performance set by central government. These have been replaced by National Indicators.

3.3 Waste arisings

Annex 6 shows the household and municipal solid waste (MSW)[8] arisings by authority for 2007/08 and in the previous seven years.

3.4 Analysis of current performance

Essex has been successful in achieving continued reductions in the total amount of municipal waste going to landfill each year and increasing recycling rates for household waste year on year.

Reduction

From 2002/03 to 2006/07 Essex authorities saw a combined reduction in the kilograms per head of residual waste produced from 397kg/head to 332kg/head. This equates to a decrease of 16.5%. Data from 2002/03 to 2006/07, showing the kg/head of residual waste can be seen in Annex 6.

Recycling

The collective recycling performance of Essex authorities has been improving over several years. In 1999/00 the countywide recycling rate was 17% and in 2007/08 the rate had increased to 38% (this includes the recycling of wood waste). See Annex 6 for further information.

National Indicators

The new National Indicators replace the Best Value Performance Indicators (BVPIs) previously measured and reported by Local Government.

The new indicators for Waste and Recycling are:

[8] Household waste includes household collection rounds ('bin' waste), other household collections such as bulky waste collections, waste from services such as litter collections, waste from RCHW and wastes separately collected for recycling or composting through bring/drop off schemes and kerbside schemes. Municipal waste includes household waste and other wastes collected by a waste collection authority or its agents, such as municipal parks and gardens waste, beach cleansing waste, commercial or industrial waste, and waste resulting from the clearance of fly-tipped materials.

NI 191: Residual household waste per household - Number of kilograms of residual household waste (household waste not recycled, composted, reused or sent for anaerobic digestion) per household.

NI192: Percentage of household waste sent for reuse, recycling, composting or anaerobic digestion – excluding any waste sent for recycling etc. which is subsequently rejected.

NI193: Percentage of municipal waste landfilled

The new indicators took effect from April 2008. The table below provides an indication of the outturns for Essex Local Authorities if the new indicators are applied to 2007/08 data.

Authority	**NI191**	**NI192**	**NI193**
Basildon	699	32.23%	69.37%
Braintree	538	42.79%	59.71%
Brentwood	529	41.20%	62.94%
Castle Point	691	27.07%	74.21%
Chelmsford	703	35.37%	66.83%
Colchester	567	33.09%	67.77%
Epping Forest	564	41.67%	58.33%
Harlow	627	23.88%	76.12%
Maldon	576	34.89%	65.11%
Rochford	758	19.39%	80.61%
Tendring	526	26.90%	73.16%
Uttlesford	429	54.26%	51.32%
Essex CC (RCHW only)	117	51.63%	42.62%
Essex Total (inc. RCHW)	**722**	**38.07%**	**60.24%**

Waste composition

According to the 2004 waste composition analysis, two materials dominate Essex's residual waste stream; putrescibles[9] at 36% and paper and card at 29%. A full breakdown of the estimated composition, based on representative sampling of the household waste stream is shown in Annex 6. This waste composition analysis demonstrates that there is a great deal of material still in the residual

[9] Organic waste that can decay or breakdown by bacterial action.

waste stream that is capable of being recycled. Therefore, the Essex Authorities believe that higher levels of recycling are achievable.

The waste composition analysis is also helpful in planning new initiatives and schemes. Where recycling schemes are already in place it is also useful to discover participation and material capture rates.

Waste composition analysis is something that the Essex Authorities undertake regularly.

3.5 Current waste reduction, reuse and recycling initiatives and campaigns

Reduction

In Essex, there are a number of partnership waste reduction initiatives in place. These include an **Essex-wide Real Nappy campaign** which was launched in 2000. The campaign was established to encourage parents and carers to try cloth nappies as an alternative to disposable nappies. The campaign has evolved into a continual educational programme, helping to raise awareness throughout Essex. The latest development is the introduction of the Essex Cloth Nappy Network.

The campaign aims to reduce the amount of nappies in the Essex waste stream by increasing the use of cloth nappies, raise awareness through education of the environmental issues associated with the use of nappies and overcome the perception that cloth nappies are old fashioned and less effective than disposables.

Home Composting was encouraged by many authorities in 1999 when the Government allowed money to be expended on the reduction of waste at source. This was used to subsidise the purchase of home composting bins. A new initiative to promote home composting through the sale of subsidised home compost bins, was introduced by the Essex Waste Partnership in April 2005. This scheme is available in all District and Borough Councils in Essex as well as Southend and Thurrock.
This is an example of one type of compost bins that is currently available through the scheme.

A '**stamp out junk mail'** campaign was launched in March 2007. Junk mail is termed as unwanted mail, including advertising materials and free newspapers and it is estimated that junk mail accounts for around 4% of household waste. In Essex this is approximately 27,500 tonnes per year of unwanted mail.

The campaign aims to help householders control the amount of mail coming through their door.

Reusable jute shopping bags are sold through all Essex libraries. The design of the bag incorporates an environmental message and the *Recycle for Essex* website address. The scheme was introduced in partnership with library services in order to reduce the number of free carrier bags given away to customers using the libraries and to promote a waste reduction message. Reusable shopping bags are also given away at roadshows and events through the county.

Shop Eco is a guide produced by Essex County Council which is designed to help residents produce less waste and save money by doing so. The guide contains useful information on how residents can shop for a green lifestyle by buying fresh, local food and more durable and environmentally friendly products.

To coincide with the national ***'Love food, hate waste'*** campaign Essex County Council held a competition to find the best recipes for dishes that can be made using leftovers or longlife products. The best ten recipes created by Essex residents were chosen and now feature in a **Food Lovers cook book**. The Food Lovers cook book has been produced by Essex authorities including Southend-on-Sea Borough Council and Thurrock Council. The book is made up of individual recipe cards which slot into a folder with room to add further recipes.

Reuse

The **Bright Ideas Scrap Scheme** is a resource centre based in Colchester that provides art and craft materials to schools and community groups, childminders and home educators. The scheme collects, sorts and stores surplus materials donated by local businesses for members to collect and use for art and craft. Businesses can offer almost any non-toxic waste and surplus materials to the scheme; as a result the range of materials varies from week to week.
For a small annual subscription members can access the store as often as they require. The scheme is run by a not for profit workers co-operative and is part funded by Essex County Council. The Waste Education team promotes the scheme to the schools they visit in the north of the county, as do the WCAs.

Essex County Council works with community groups to operate a **re-paint scheme.** Paint is collected through four of the RCHW. It is then sorted, re-mixed and redistributed to low income families and charitable organisations.

Reuse at the RCHW - Bulky household waste items taken to the RCHW (such as furniture, electrical appliances, bicycles and other bric-a-brac items) which are in good condition/working order are selected by the contractor for reuse.

Swap it boards have been placed at ten of the RCHW. These boards allow residents to place information on unwanted items which other residents may want (for free or for a fee). Wanted items can also be placed on the board. Swapping does not take place on site as once goods enter the site and are unloaded from vehicles the public are not permitted to remove items.

Information boards on reuse by community groups have been placed at the top of container access steps on the general waste container at all of the recycling centres.

The **Choose2Reuse Campaign** was launched 2004/05. It is a consumer campaign to encourage residents to donate good quality items which are no longer required to community groups and charity shops. The campaign is also intended to be used for all reuse activities in order to raise residents' awareness of reuse. The campaign was developed by the Essex Community Reuse and Recycling Network (ECORRN) and the Cambridgeshire equivalent, CCORRN.

The **Give or Take website** is a website managed by Enform (Colchester Environmental Centre). The website is designed to be a tool where residents can give away things they do not need, take things they would like or advertise items required. The site also promotes 'give or take' events in the county which are run by the Essex authorities or Essex community groups. The website is promoted by Essex County Council and the WCAs.

ECORRN (Essex Community Reuse and Recycling Network) was established in 2003 as a network to support environmental initiatives throughout Essex. The network brings together representatives from local authorities and government agencies, community and charity groups and local businesses in Essex, Southend and Thurrock. ECORRN's goal is to increase the quantity of community reuse and recycling projects in the county and to help existing projects achieve the best results and improve the quality of donated items.

ECORRN's Choose2Reuse directory is web based database (also in a paper leaflet version) detailing community groups in the county who are able to reuse or recycle unwanted items. The database allows residents to search by area and item type for their nearest community group. The directory was launched in 2004/05 and is managed by the ECORRN. The directory is promoted through the distribution of the leaflets and branded magnets, through website links, roadshows and press releases by ECORRN representatives / members, Essex County Council and WCAs. The guide is also used by councils' contact centres to assist with unwanted furniture and white good queries from the public.

Resource Savers is an initiative which aims to reduce waste sent to landfill from business by diverting it for re-use, recycling or composting by community, charitable or not-for-profit groups. Resource Savers is managed by the

Community Recycling Network East and is promoted by Essex County council, WCAs, ECORRN and community group websites.

Many reuse schemes are also in operation in the District and Borough Councils. One such scheme operates in Tendring and is called Tendring Reuse and Employment Enterprise (TREE). TREE takes donated white-goods and furniture and reuses or recycles them. The TREE volunteers and placements are trained in refurbishing these items. Refurbished quality items are then sold at low cost to the general public or given away free of charge at the discretion of the management.

Recycling

In order to link all partnering authorities activities together an overarching campaign programme complements individual communication plans and all the activities use the national recycle now branding. Such countywide promotions allow for economies of scale to be realised as well as the utilisation of cross boundary media opportunities, such as bus and radio advertising. Shared communication resources are developed and have been used for such activities as point of sale advertising in supermarkets, indoor train advertising and radio, bus and newspaper advertising. The joint website, *recycleforessex.co.uk*, has been developed in order to act as a one stop shop for recycling in Essex and is used on all partnership communications. The website provides information to Essex residents on what recycling services are available in their area and other recycling and waste prevention initiatives along with the option to sign up to a quality recycling newsletter.

An initiative to encourage recycling, that all partner authorities took part in, was the 'Recycle and win cash' scheme. From February to 31 March 2006 a resident from each district had the chance of winning £100 cash if they put out their recycling on the day of collection (Uttlesford and Tendring were not involved in the competition). The competition was funded through Defra's 'household incentive pilot scheme'.

For recycling to work there needs to be markets for the products made with recycled materials. This creates a demand for the materials recovered by recycling collection schemes. The councils in Essex have developed a database which provides details of recycled products and stockists in Essex. The '**guide to local recycled products**', as well as an '**A-Z Guide**' which provides information on reduce, reuse and recycling items, is available on the Councils' websites.

3.6 Waste Education

As well as the Essex authorities' efforts to promote waste awareness to the general public, the councils play an important role in promoting waste education through schools.

Essex County Council's Waste Education team aims to increase household recycling performance in Essex by:

- Raising awareness of the environmental impacts of waste disposal by landfill and promoting kerbside recycling schemes and the use of RCHW amongst school pupils, community groups and the general public;

- Raising environmental performance in schools through partnership working with WCAs to establish / develop recycling collections from schools;

- Supporting and encouraging schools in developing / implementing waste minimisation and recycling initiatives in school through a pledge system

- Promoting services delivered by partner organisations and developing joint working arrangements to maximise audiences reached and avoiding duplication of efforts.

Over 200,000 young people currently attend schools in Essex. Studies have demonstrated that pupils receiving waste education in school positively influence recycling behaviours in school and at home which result in behavioural changes in the waste management habits of Essex residents.

The Waste Education team delivers National Curriculum linked waste education programmes free of charge in Essex schools and other educational establishments. The primary school programmes involve a visit to the *recycling bus* during which pupils take part in a 'hands on' lesson on board the vehicle. The Waste Education team delivers bespoke waste education programmes in secondary schools and other education establishments linked to the curriculum or subject area and designed to meet the specific requirements of each group.

In addition to school based initiatives, the Waste Education team and Recycling Promotions team attend four key large scale shows (Young Farmers Show, Tendring Show, Harlow Show and the Barleylands Show) each year to promote waste minimisation and recycling to the general public. A theme is chosen for the shows and the recycling bus, display materials, competitions and activities used to raise public awareness of the theme.

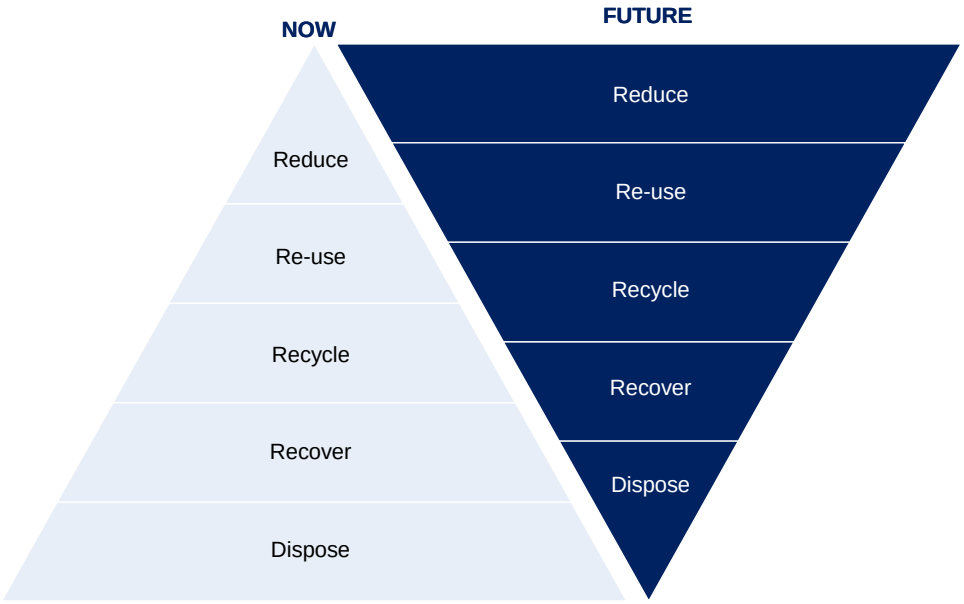
District and Borough councils also engage with schools in waste education in a variety of ways, for example by introducing paper collections for schools, providing talks and assemblies and through involvement in wider environmental projects.

3.7 Evaluation of Initiatives

All waste prevention campaigns are evaluated to monitor their effectiveness across the county. The evaluation includes monitoring the scheme take up by the public and where appropriate monitoring actual behaviour change and diversion as a direct result of a campaign. Equality and diversity impact assessments are carried out before any new initiative or campaign is implemented.

WHERE DO WE WANT TO GET TO?

4.1 The waste hierarchy[10]



The inverted pyramid above illustrates Essex's aspiration to channel resources into reducing, re-using and recycling, so that the maximum amount of waste is

[10] Derived from Waste Not, Want Not, Prime Minister's Strategy Unit, November 2002

put to beneficial use. Waste that cannot be reused, recycled or composted can have value recovered from it in the form of additional materials and energy. Any residues requiring final disposal can be pre-treated to minimise the environmental impacts of landfilling.

This means regarding waste as a sustainable resource:-

Reduce - the consumption of materials

Reuse - or repair wherever possible

Recycle - 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 no longer biodegradable.

Essex authorities will manage materials in accordance with the waste hierarchy except where environmental or public health consequences are negative or where financial costs are prohibitive.

Waste reduction, education and awareness work forms an integral element of the work the Partnership of Essex County Council and the District and Borough Councils do and it is imperative that resources continue to be channelled into this area. The Partnership recognises that the success of waste diversion schemes is dependent on the full engagement of customers and the co-ordination of campaigns and messages to ensure maximum impact.

Initiatives to encourage waste reduction, reuse and recycling / composting will continue to be actively promoted by the Essex Waste Partnership.

Essex authorities will work in partnership to develop and deliver waste education programmes in line with the priorities of the waste hierarchy.

Local authorities are currently prohibited from charging householders for collection of household waste (with certain exceptions including bulky waste and green waste). The Government is considering lifting this restriction on local authorities, allowing them to introduce financial incentive schemes relating to non-recycled household waste. The Essex Waste Partnership will await any Government decision on this matter before considering whether such incentives could be introduced in Essex. The power to introduce an incentive scheme would be another tool which could be used alongside waste education programmes to encourage waste minimisation and recycling. However, the Partnership feels that this should be a power rather than a duty.

4.2 Future waste growth

It is difficult to predict future trends in waste growth. The impacts of waste minimisation initiatives, waste awareness campaigns, changes in legislation, changes to the Districts and Borough Councils' kerbside collection schemes, the weather and producer responsibility are just some of the factors which will affect the nature and volume of waste arisings over time. Waste Strategy 2007 states that municipal waste arisings are currently increasing by less than 0.5% each year which is a great improvement on the 3.5% reported in Waste Strategy 2000. The seven year historical trend in waste growth in Essex is approximately 1% and in the longer term, going forward, it may be closer to 0.5% in accordance with the Waste Strategy 2007 projections.

The predicted 0.5% waste growth rate takes into account an increasing population and an increase in household numbers. The impact of new housing on waste growth is a key issue in Essex. Over the period April 2001 – March 2006 approximately 22,050 new dwellings have been built in Essex, representing an average of 4,410 new dwellings per year. Further growth is forecast over the next two decades as required in the existing Regional Spatial Strategy (RPG9 2001), the Government's Sustainable Communities Plan (2003) and the emerging Regional Spatial Strategy (RSS14) for the East of England, which highlights a number of 'key growth areas' for the region.

The East of England RSS has proposals to build a minimum of 79,950 new homes in Essex during the period April 2006 – March 2021[11]. Annex 6 includes a table which shows the minimum dwelling provision in Essex from 2001 to 2021.

The predicted waste growth figure also takes into account behavioural changes from the public, and legislation such as the Producer Responsibility Obligation Regulations.

[11] Housing numbers are taken from the Secretary of State's Proposed Changes to the Draft Revision to the Regional Spatial Strategy for the East of England December 2006

To help to prevent waste, consumers must either consume less or consume differently. As consumers the public can exert their 'consumer power' and decide whether to buy certain products. For example, they may choose not to buy certain products that they consider are over packaged.

Retailers are also playing, and will continue to play, a part in the prevention of waste. A group of the major retailers have been working closely with the Waste & Resources Action Programme (WRAP) on product and packaging innovation and using WRAP's Innovation Fund to co-invest in new product, packaging and product dispensing solutions. In addition retailers have signed up to the Courtauld Commitment which is designed to tackle household packaging and food waste. This commitment includes designing out packaging waste growth by the end of 2008, delivering absolute reductions in packaging waste by 2010 and identifying ways to reduce food waste.

The Producer Responsibility Obligations (Packaging Waste) Regulations 1997, as amended require all businesses who handle packaging to submit data on packaging handled and to meet recovery and recycling obligations (see Annex 5)

Product design is also an important means whereby companies can help to achieve waste reduction. Producers and retailers can make production processes more sustainable, and therefore reduce waste, through the designing and marketing of products that use less raw materials, are durable and are made with reuse and/or recycling in mind. The Partnership will support initiatives that promote this objective.

Essex authorities will continue to work towards reversing the growth trend through the delivery of the waste reduction measures in this strategy as the reduction of waste is the primary objective of this strategy. The importance of waste reduction is also highlighted by its presence at the top of the waste hierarchy.

Essex authorities will continue to monitor the success of waste minimisation campaigns and the affect of national producer responsibility schemes. A key indicator to measure this will be the kg/per head of residual waste produced. This policy will be monitored and reviewed annually to facilitate continual improvement.

Essex Authorities will work towards reversing current waste growth trends in order to meet national waste reduction targets

4.3 Resource management

The word waste implies something that we do not want and that we intend to discard. Rethinking how we deal with waste could lead to a more sustainable waste management system for Essex.

The Waste Strategy 2007 discusses how the generation and disposal of waste results in a loss of valuable natural resources. The disposal of waste and the extraction and processing of new materials and the manufacture of new goods all create pressure on the environment and are also a drag on the country's economy and business.

The Waste Strategy 2007 also indicates that recovering energy from waste which cannot sensibly be reused or recycled should be seen as an essential component of a well-balanced energy policy. Recent sharp increases in energy prices and the instability in some supplier countries support the Government's stance of maximising energy recovery from the portion of waste which cannot be recycled.

The Essex Waste Partnership will aim to deliver an innovative and resource efficient waste management system for the county.

The Essex Waste Partnership will continue to lobby government on the need for further measures to reduce packaging waste and will ensure that householders (in their role as consumers) are aware of their collective power to influence retailers and advertisers to undertake change.

The Essex Waste Partnership will work with Trading Standards and retailers to reduce excess packaging.

4.4 Targets for Essex

<u>Waste Reduction</u>

As well as high recycling the focus of this strategy is also on waste prevention and reduction. Essex will seek to achieve the national targets, as set out in the Waste Strategy for England 2007, for household waste not re-used, recycled or composted. The targets, expressed as kg/per head of the population of residual waste, are to not produce more than:

- 310kg in 2010
- 270kg in 2015
- 225kg in 2020 (a 50% reduction from 2000)

These targets will help measure the impact of Essex's activities in achieving waste reduction, re-use, recycling and composting.

The Essex Waste Partnership will work to reduce the amount of residual household waste generated per person with the aim of meeting the national targets.

Nb. The new National Indicator 191 measures reduction in residual household waste (household waste not recycled, composted, reused or sent for anaerobic digestion) per household.

Recycling Targets

Essex will aim to exceed the levels of recycling and composting of household waste as set out in Waste Strategy for England 2007:

- 40% by 2010
- 45% by 2015
- 50% by 2020

However, Essex has ambitions to deliver an innovative and resource efficient waste management system for the county, with an aspiration to achieve collectively 60% recycling of household waste by 2020.

This could be achieved through:

- Further improvement in the performance of recycling and composting kerbside collection schemes;
- Further improvement in the performance of the Recycling Centres for Household Waste; and
- The recovery of recyclable materials through new treatment plants.

Home composting is a valuable waste reduction and composting initiative, but it currently does not count towards recycling targets. The Essex Waste Partnership would like the diversion of waste achieved through home composting to be considered by Government for inclusion in the recycling rate performance.

The Essex Waste Partnership will work together to deliver high recycling that exceeds the national targets, with the aspiration of collectively hitting 60% recycling by 2020.

4.5 Climate Change and Energy

The need to reduce carbon emissions is widely acknowledged on a global scale. Essex authorities are in an excellent position to implement a carbon management programme to help achieve their local contribution to a reduction in carbon emissions and their associated impact on climate change.

The Essex Waste Partnership will seek to reduce the impact of their waste management activities in relation to climate change.

Essex favours composting technologies such as anaerobic digestion, where energy is recovered, for source segregated organic wastes such as food waste. Anaerobic digestion is a form of biotreatment which involves the biological treatment of organic waste in the absence of oxygen, utilising microbial activity to break down waste in a controlled environment. It results in the generation of:

- Biogas, which is rich in methane and can be used to generate renewable heat and/or electricity, or else can be cleaned for use as a vehicle fuel;
- Digestate (or fibre) which is nutrient rich and can be used in the production of a PAS 100 compliant soil conditioner; and
- Liquor, which has the potential to be used as a liquid fertiliser.

This technology has climate change benefits as it avoids harmful emissions and produces a fully renewable fuel.

Green waste collected at the RCHW should continue to be treated through the existing technique, ie windrow composting. This is recommended as the woody nature of much RCHW collected green waste renders it unsuitable for Anaerobic Digestion treatment. In terms of separately collected kerbside green waste, windrow composting is likely to be the most suitable treatment method. Where kerbside green waste is collected at the kerbside co-mingled with food waste, the Partnership preference is for the material to be treated through AD in order to maximise energy recovery opportunities. However, for technical reasons, In-Vessel composting may also be appropriate.

Essex authorities acknowledge that other composting technologies may also have a role to play in dealing with Essex's source segregated organic wastes.

Waste Strategy 2007 states that the Government wants to promote greater energy recovery from food waste, for example via anaerobic digestion, to capitalise on the associated energy and carbon benefits. Electricity produced from the biomass content of waste treated in anaerobic digestion facilities is a renewable energy source and qualifies for *Renewable Obligation Certificates* (ROCs) which are designed to incentivise the introduction of this technology.

The Essex Waste Partnership favours composting technologies for source segregated organic wastes where renewable energy is recovered.

The MBT technologies have the potential to extract dry recyclables and/or soil improvers and could produce a solid recovered fuel (SRF) from which energy can be recovered. The biomass component of SRF is typically in excess of 50%. This is a valuable source of renewable energy and could be harnessed. Using SRF in an energy plant avoids the production of methane that would otherwise occur in landfill and the associated harmful effects on the atmosphere where methane escapes.

The issue of security of energy supply is gaining importance in the UK. It is recognised that there is no one type of energy technology that can solve this challenge alone, but recovery of renewable energy from household waste could make a valuable contribution to helping the UK generate its own power supply.

4.6 Technology choice

In September 2003 the County Council resolved to invite solutions for the long term management of its residual waste. The policy is that:

The County Council will 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;**
- **the invitation of contractors to identify and propose options for the management of residual waste after treatment including the possible development of compost, soil conditioner, landfill or the use of a refuse derived fuel*.**

*Refuse derived fuel (RDF) and solid recovered fuel (SRF) are fuels produced from the residual (non-recyclable) waste resulting from a mechanical biological treatment (MBT) technology process.

Essex favours composting technologies for source segregated organic wastes; anaerobic digestion is ideal for the composting of source-separated food waste with renewable energy recovery; in-vessel composting would be suitable for a mix of food and green waste material; windrow composting is only suitable for the composting of source-separated green garden waste.

The family[12] of processes that come under biotreatment all extract further recyclables from the residual waste stream. One output from an MBT process can be the production of a solid recovered fuel (SRF). This is produced from the material that has not been recycled. Essex authorities will explore the option of producing a SRF from the MBT process and recovering energy from it.

The biomass component of SRF is typically in excess of 50% and could be a valuable source of renewable energy. The operators of the SRF energy plant are able to claim Renewable Obligation Certificates (ROCs) according to the deemed level (50%) or they can demonstrate the biomass energy content of the SRF and receive ROCs according to the actual renewable electricity generated.

Essex believes that using SRF in an energy plant has climate change benefits and could prove to be a more cost effective solution than sending it to landfill. Markets for SRF are being explored with current energy users, although there is an option for Essex to build its own energy facility if required.

An alternative to producing a fuel is to stabilise the material and landfill the outputs of the biotreatment process. 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 is maximised. The partnership of Essex authorities will promote the most environmentally and financially advantageous approach to managing the outputs from biotreatment. All technical approaches to deal with the outputs from biotreatment will be assessed on a consistent basis. The detail of the basis for assessment will be clearly defined in the evaluation criteria for future contracts.

Kerbside recycling will still be encouraged; any MBT process employed by the Partnership would be used to increase recycling of valuable resources from residual waste that householders have not put out for kerbside collection

[12] MBT technologies are described as a 'family' as MBT is not a single process; MBT processes can vary considerably.

themselves. The use of MBT will not replace District and Borough kerbside schemes.

The Essex Waste Partnership favours the family[1][2] of mechanical biological treatment (MBT) (*biotreatment*) technologies for the treatment of residual waste.

The Essex Waste Partnership will promote the most environmentally and financially advantageous approach to managing the outputs from the biotreatment process.

4.7 Best Practicable Environmental Option (BPEO)

Within the Thames Gateway area, analysis was undertaken to determine the preferred spatial distribution of infrastructure. This showed that a centralised rather than dispersed arrangement of waste facilities could represent a better solution for that area. More recent modelling, in 2005, revealed that systems where waste is managed in two areas or a single area perform better under high recycling (45 – 50%) and low recycling (32 – 38%) performance standards.

In order to minimise transport distances and associated environmental impacts, the Partnership envisages a network of transfer stations to which District and Borough Councils would be able to transport waste before it is bulked up and taken to a biotreatment facility.

There will be a strong presumption for the county to be self-sufficient in respect of the full range of recycling and waste facilities and the same will be expected in respect of any contractual sub-areas.

Essex authorities aim to manage residual waste within the county where this is consistent with the proximity principle and to manage all other waste at the nearest appropriate facility.

4.8 Strategic Environmental Assessment (SEA)

European Directive 2001/42/EC sets out the requirements for the Strategic Environmental Assessment of effects of certain plans and programmes on the environment. The purpose of a strategic environmental assessment (SEA) is to evaluate the likely effects of a plan. SEAs are conducted to ensure environmental considerations are incorporated into planning and decision

making. The SEA process also provides ongoing monitoring of the environmental effects of a plan.

The SEA must consider environmental effects on issues such as biodiversity, human health, soil, water, air, climatic factors, landscape and heritage. Where potentially negative effects are identified the SEA can make recommendation for mitigation. It can also make recommendations for enhancing environmental benefits.

The SEA of the draft JMWMS has three main outputs:

Scoping Report – This was prepared in December 2006 and was made available for consultation (to the statutory consultees and key stakeholders) in December 2006 – January 2007.

Environmental Report – This is the key output of the SEA. It presents information on the possible effects of the JMWMS. The Environmental Report is subject to formal consultation alongside the draft JMWMS[13]. The findings of the SEA Environmental Report will be taken into account in the final JMWMS.

SEA Post Adoption Statement – This document will be published once the JMWMS has been adopted to provide information on how the findings of the Environmental report were taken into account in the finalised JMWMS.

4.9 Essex's response to the Landfill Allowance Trading Scheme

A Landfill Allowance Trading Scheme (LATS) Management Strategy has been devised to address both the immediate and longer-term risks of non-compliance with the LATS. The LATS Management Strategy identifies additional areas of activity which collectively will enable Essex to be LATS compliant in the short term and long term. These activities include:

- Improving the performance of existing kerbside recycling schemes;
- Improving the performance of the existing RCHW and providing new sites as appropriate;
- Investigating the viability of expanding food waste collections to households;
- Banking, borrowing and trading of landfill allowances under the LATS;
- Devising and implementing further measures which decrease waste growth;
- Exploring alternatives to landfilling trade waste collected by the Partnership;
- Procuring and building new recycling, composting and waste treatment plants in Essex.

[13] The Environmental Report is available at www.essex.gov.uk

Essex County Council will ensure LATS compliance through the delivery of a LATS management strategy.

4.10 Costs

We estimate that introducing the waste strategy will save Essex taxpayers £750 million over the next 25 years when compared to the current methods of waste disposal over the same period. This cost includes both collection and disposal.

WCAs could incur greater costs as they strive to attain higher recycling targets and ultimately authorities are likely to have to provide a several-stream collection, in order to meet these targets. However, it is Essex County Council, as the waste disposal authority, which has responsibility for delivering obligations under the LATS.

HOW WILL WE GET THERE?

5.1 Community Involvement

A further round of public and stakeholder consultation on the draft waste strategy took place from 18th February to 5th May 2008. Consultation on the SEA Environmental Report also happened at this same time. The aim of the consultation was to raise awareness of the future options for waste management in Essex and to test whether we had interpreted correctly the views of the public and stakeholders from previous consultations.

A range of activities were undertaken to engage the public and stakeholders in the consultation programme, including:

- An article and questionnaire in the County Council's 'EssexWorks' magazine;
- 25 roadshows throughout the county, supported by District officers;
- An animation produced to explain strategy options to people;
- Focus groups held and in particular targeting 'hard to reach groups';
- Over 107 key stakeholders were individually written to with copies of the key documents included on a CD;
- 283 Parish and Town Councils were written to with key documents included on a CD;
- Presentation to the Young Essex Assembly;
- Strategy and SEA documents were available in all libraries;

- Online questionnaire, all key documents and further information available on the Essex County Council website, with many District and Borough Councils providing links to this site.

4,479 questionnaires were returned, 16 stakeholders and 8 District and Borough Councils submitted comments.

The views from the public consultation indicate that a large majority of respondents (80%) say that it is 'very easy' or 'fairly easy' for them to help the Essex Waste Partnership to achieve levels of 60% recycling in Essex, by using their current kerbside collection and Recycling Centres for Household Waste to recycle waste.

84% of respondents stated that they either 'strongly agree' or 'tend to agree' with the proposal that 'after all practical recycling and composting has taken place Essex councils should treat 'black bag' waste by using MBT processes rather than sending the waste directly to landfill'.

A further 88% of respondents would 'prefer it if part of the material from the MBT process was used to produce fuel for energy rather than being sent to a landfill site'.

The results of the consultation have been fully considered by the Waste Management Advisory Board and the agreed changes have been made to this document.

Stakeholders and Communities play a vital role in implementing the strategy and will be kept informed of progress and issues emerging during the implementation phase

5.2 Partnership Working

From the outset the District and Borough Councils of Essex, along with the County Council, have been fully involved in the development of future arrangements for managing waste. In 2002, all the authorities joined together to form the Waste Management Advisory Board 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. During 2005, three Area based Joint Committees were established with delegated powers to make key decisions in the procurement of waste management facilities and services for the county area. All

the Essex authorities and Southend-on-Sea Borough Council are members of these Area Joint Committees.

Discussions have been held with adjacent county councils 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-on-Sea Borough Council is part of the Essex Waste Partnership and has a joint working agreement with Essex County Council. There is already joint working with Southend in respect of the Real Nappy Campaign, home composting scheme and residual waste disposal.

The JMWMS has been developed with regard to the identified priorities and aims of the Essex Partnership[14] *(the Local Strategic Partnership)* as detailed in the *Essex Strategy 2008-18*[15]; and its key delivery vehicle, the *Local Area Agreement*. The protection of the environment and promotion of sustainability is a key focus of the Essex Strategy in ensuring quality of life is maximised and the potential of Essex is fulfilled. The sustainable management of waste and the full engagement of the community in this process are key requirements if the goals of the Essex Strategy are to be fully realised.

5.3 External partnerships

Essex authorities are involved in a range of partnerships which aim to maximise public awareness of waste issues and increase the engagement of the public in waste minimisation and recycling initiatives. These include partnerships with local community groups, charities, social enterprises, schools and other bodies such as WRAP (Waste Resource Action Programme) and Essex ReMaDe. The output of these partnerships and joint working are varied and include the supply of compost bins, provision of doorstep collections, "bring" schemes, reuse schemes, promotional activities, and support services for business and community sector.

Through this partnership activity Essex Authorities have been able to reduce duplication, increase impact and reach, whilst also supporting the aims and activities of other bodies.

[14] The Essex Partnership is a working relationship between representatives of organisations who deliver services to the public across Essex.

[15] The Essex Strategy promotes the economic, social and environmental well-being of Essex and contributes to the achievement of sustainable development in the county. The Essex Strategy is the overarching strategy for Essex and reflects and informs all other strategies.

Essex authorities will work closely with the community sector to deliver effective waste reduction, reuse and recycling initiatives.

5.4 Planning and permitting of new facilities

There is an adopted Essex and Southend Waste Local Plan[16]. This was adopted in 2001. The plan identifies six "preferred" waste management sites where larger scale waste management/processing facilities would be acceptable in principle. The County Council, as the Waste Planning Authority, is preparing a new Waste Development Document (WDD) which will take in to account revised national policy. The Planning and Compulsory Purchase Act 2004 has introduced changes to the planning system, including the requirement of the existing Waste Local Plan to be replaced by the Essex WDD. The WDD will be comprised of:

- A Core Strategy and Development Control policies document which will set out the guiding principles for waste management in Essex and establish detailed policies against which planning applications for waste development in the county will be assessed; and

- Site specific allocations which will designate sites or areas for any required future waste management facilities.

The Waste Local Plan policies have been saved until the adoption of the WDD, which is likely to be in 2013.

Any approach to the provision of waste management facilities would need to be consistent with the Best Practicable Environmental Option (BPEO) analysis and the adopted Waste Local 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[17] (RWMS) 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

[16] The Waste Local Plan is available at www.essex.gov.uk

[17] The East of England Regional Waste Management Strategy is available at www.eera.gov.uk

RWMS principles have been integrated into the emerging Regional Spatial Strategy.

Policy WM1 of the Regional Spatial Strategy[18] sets out the core waste management objectives for the region. These are:

- To ensure timely and adequate provision of the facilities required for the recovery and disposal of the region's waste and for a reducing quantum of wastes imported into the region.
- To minimise the impact of new development, particularly in the Key Centres of Development and Change, on regional waste management requirements.
- To minimise the environmental impact of waste management, including impacts arising from the movement of waste, and help secure the recovery and disposal of waste without endangering human health.
- To seek community support and participation in promoting responsible waste behaviour and approaches to management, viewing waste as a resource and maximising re-use, recycling and composting, while responding positively to the need to manage the remainder.
- To recognise the particular locational needs of some types of waste management facility in determining planning applications and defining green belt boundaries, and that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, should be given significant weight in determining whether proposals should be given planning permission.

The provision of new municipal waste management facilities will need to be consistent with current national, regional and local planning policy.

5.5 Urban Design

The Urban Place Supplement (UPS)[19] forms part of the Essex Design Guide which provides guidance for the layout and design of developments in Essex. The UPS promotes the minimisation of waste in new developments and does so by looking at the issue within a wider economic and social context. At the detailed level, the UPS promotes the inclusion of facilities within homes for the segregation and storage of recyclable materials, the provision of communal recycling facilities and, where appropriate, the provision of communal facilities for the composting of organic waste. In addition, the UPS promotes policies for new development relating to sustainable construction, energy efficiency, the

[18] The Regional Spatial Strategy is available at www.eera.gov.uk

[19] This is available from www.essex.go.uk

conservation of water, the enhancement of biodiversity and the use of sustainable drainage.

The Urban Place Supplement has been produced by Essex County Council together with the Essex Planning Officers' Association and has been endorsed by the Environment Agency. It is being adopted as a Supplementary Planning Document by the majority of local planning authorities in the county.

5.6 Equality and Diversity

There are three key areas where waste and recycling activities impact most on equality and diversity:

- Direct service provision, e.g. kerbside recycling schemes and Recycling Centres for Household Waste;
- Promotional campaigns and initiatives, and waste education;
- Consultations on the waste strategy and other related subjects.

In delivering the JMWMS, the Essex Waste Partnership will ensure that services and information about services are provided in ways that are appropriate, sensitive and accessible to everyone. This will be monitored and reviewed annually through the strategy's action plan.

5.7 Funding

In order to deliver the objectives of the JMWMS and to meet environmental and legislative targets, it is estimated that an investment of £300 million of capital funding is needed in Essex and Southend (on the basis of a joint working approach) over the next five years or so to provide all the new facilities required. The intention is that the Partnership will be inviting industry to put forward, through the competitive dialogue process, their proposals for managing and disposing of municipal waste for Essex and Southend.

In order to minimise the cost burden on Essex residents, due to the delivery of future waste management services, the Partnership will strive to source funding from all available sources.

The Partnership is currently exploring Private Finance Initiative (PFI) as a means of drawing in additional funds to support the future management of waste in Essex and Southend.

5.8 Governance

The Joint Waste Officer Steering Group will be responsible for commissioning the reviews and reporting performance to the Waste Management Advisory Board (WMAB). All the partner authorities are represented on this officer group. The Member Area Joint Committees will oversee the procurement of infrastructure and services.

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

5.9 Commitment

This strategy and the possible procurement routes have been debated by the WMAB and the Area Joint Committees. Whilst there is strong partnership working in Essex, in order to marry up the collection and disposal parts of the waste management process, it is envisaged that the relationship between the WCAs and the WDAs will be put on a more formal footing through the development of inter-authority agreements. These agreements will cover key issues such as waste acceptance criteria and future recycling plans. This level of commitment will ensure that the interface between collection and disposal services is carefully managed.

5.10 Risk management

Timely delivery of services and facilities

Timely delivery of new infrastructure and services for Essex is essential if the Essex Waste Partnership is to deliver this strategy. In order to ensure that infrastructure is delivered and co-ordinated with future service provision, a project plan has been developed and will be monitored through the Area Joint Committees.

Most proposals for the development of waste management facilities will be subject to the formal planning and permitting assessment process. The planning risks associated with delivering the strategy are addressed to some extent by the existence of an adopted Waste Local Plan which is site specific in relation to major facilities. The County Council is seeking to acquire sufficient interest in the only site identified within the Thames Gateway area in order to provide a level playing field for bidding contractors.

LATS risk

A significant risk to Essex County Council, as the WDA, is in respect of costs associated with the LATS. The progress of recycling across the county will be closely monitored, as will progress in implementing the additional infrastructure to treat waste. The aim is to minimise or eliminate any LATS related costs consequent upon our failure to meet landfill diversion targets. Remedial measures will need to be considered if further recycling or infrastructure development falls behind the current programme or waste growth exceeds predicted growth levels. The LATS Management Strategy has identified a range of measures which could be implemented to mitigate the effects of delay to any part of the overall strategy implementation.

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 exercises. The planning risks associated with delivering the strategy are addressed to some extent by the existence of an adopted Waste Local Plan which is site specific in relation to significant facilities. 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.

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 risks currently identified has been classified as high, medium or low and actions will be determined to mitigate them. There is continuous monitoring of the risk register to ensure that where proposed actions are not addressing the issues further actions are devised and implemented.

5.11 Monitoring and review of the strategy

An action plan will be developed to provide more details on how Essex authorities will deliver the key targets and activities outlined in this strategy. This will be supported by service delivery plans for each authority. The action plan will be subject to annual monitoring and reviews.

The strategy will be reviewed every three to five years. 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 service delivery plans;
c) a reassessment of the legislative and other drivers for change identified in the strategy;
d) a review of environmental and climate change implications;
e) in light of a to d 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 action plan and strategy reviews will be reported to the WMAB and Area Joint Committees, and any proposed amendments to the strategy will need to be agreed by each partner authority.

An Action Plan will be developed to show how Essex authorities will deliver key targets and activities and will be reviewed annually. The Strategy will be reviewed every three to five years.

ANNEX 1

GLOSSARY OF TERMS

Anaerobic Digestion (AD)
A process where biodegradable material is encouraged to break down in the absence of oxygen, in an enclosed vessel. The process produces a biogas which can be used to generate heat and electricity and it can produce solids/liquor known as digestate which can be used as fertiliser and compost.

Biodegradable waste
Waste that is organic in nature and capable of decomposing (rotting) through biological action. Biodegradable waste includes paper, card, food and garden waste and textiles.

Biotreatment
Biotreatment is a general term which describes a "family" of waste treatment processes which in controlled conditions "compost" the waste that householders have not recycled. Biotreatment covers a range of treatments including anaerobic digestion (AD) and Mechanical Biological Treatment (MBT). Prior to some biotreatment processes the waste is sorted so all materials that can be recycled are removed. Some biotreatment processes create a *solid recovered fuel* which can be converted to energy in an energy plant.

BPEO – Best Practicable Environmental Option
A process of analysis which takes account of the total emissions from a given system, including the technical means for abating those emissions and the costs. It establishes the option which provides the least damage to the environment as a whole at an acceptable cost.

Civic Amenity Site – see RCHW

Climate change
The term climate change is commonly used to mean global warming, but it also includes natural changes in the Earth's climate. Climate change refers to the build up of man-made gases in the atmosphere that trap the sun's heat, causing changes in weather patterns on a global scale. Effects include changes in rainfall patterns, sea level rise, potential droughts, habitat loss and heat stress.

Co-mingled materials

A co-mingled collection scheme is one where more than one type of recyclable material is placed by the householder in the same container for collection at the kerbside. In order for co-mingled material to be sorted into types for reprocessing it will need to go through a dedicated facility which can sort / separate these materials and this is known as a *Materials Recycling Facility (MRF)*.

Composting
An aerobic (in the presence of oxygen) biological process in which organic wastes, such as garden and kitchen waste, are converted into a stable material which can be applied to land to improve soil structure and enrich the nutrient content of the soil.

Composting (in-vessel)
Shredded waste is placed inside a container through which air is forced. This method allows good control of temperature, moisture and aeration leading to rapid composting (sometimes as little as two weeks) although it will need a period of outdoor maturation. Kitchen waste can only be composted in vessel.

Composting (windrow)
Shredded waste is placed in elongated heaps, called windrows, normally outdoors. The windrows are turned mechanically periodically to aerate the composting waste. The process takes at least 16 weeks, at the end of which the compost represents about half the weight of the input material.

Defra – Department for Environment, Food and Rural Affairs
The Government department responsible for the environment, food and rural affairs. Defra's remit, within the environment, includes waste management.

Energy plant
An energy plant recovers power from *solid recovered fuel*. Any energy plant built in Essex will be technologically advanced, environmentally sound and will meet the highest standards of emission control.

Essex Waste Partnership
A partnership comprising of Essex County Council, Southend-on-Sea Borough Council and the twelve Waste Collection Authorities (WCAs) of Essex.

EU Landfill Directive
Adopted by the Member States during 1999, the EU Landfill Directive is intended to reduce the environmental effect of the landfilling of waste by introducing uniform standards throughout the European Union. The main objectives are to stimulate recycling and recovery of waste, and to reduce emissions of methane (a powerful greenhouse gas).

Green waste
See *Biodegradable waste*

Greenhouse gas
One of a number of gases (including methane and carbon dioxide) that can contribute to climate change via the 'greenhouse' effect when their atmospheric concentrations exceed certain levels.

Home composting
The manufacture of compost material at home (from the breakdown of food and garden waste) using a compost heap, a purpose-made container or a wormery.

Household waste
Covers: waste from household collections, street sweeping, bulky waste collections, hazardous household waste collections, litter collections, separate garden waste collections, waste from recycling centres for household waste and waste collected separately for recycling/composting schemes.

Incineration
Sometimes known as 'mass-burn incineration' incineration is the controlled burning of unsorted 'black bag' waste either to reduce its volume or its toxicity. Energy recovery from incineration can be made by utilising the calorific value of paper, plastic etc to produce heat or power.

Joint Municipal Waste Management Strategy for Essex (JMWMS)
This document will steer all the important decisions and commitments regarding the future management of municipal waste in Essex.

KAT - Kerbside Analysis Tool
KAT is a spreadsheet which allows users to make projections of kerbside collection infrastructure and associated costs.

LAA - Local Area Agreement
LAA sets out the priorities for a local area agreed between central government and a local area (the local authority and local strategic partnership) and other key partners at the local level. LAAs simplify some central funding, help join up public services more effectively and allow greater flexibility for solutions to local circumstances.

Landfill sites
Land in which waste is deposited, often disused quarries.

Landfill Tax
Introduced in October 1996, this tax is levied on landfill site operators with the explicit environmental objective of reducing the UK's reliance on landfill as a

means of disposal. The level of the tax is £32 a tonne during 2008/09 and it will increase by a further £8/year each April until it reaches £48 in 2010/11. A lower rate of £2.50 tonne applies to waste which is inert.

LATS – Landfill Allowance Trading Scheme
The Landfill Allowance Trading Scheme introduces significant changes to waste policy and practice for the diversion of biodegradable municipal waste from landfill. It is intended to provide a cost effective way of enabling England to meet its targets for reducing the landfilling of biodegradable municipal waste under Article 5(2) of the EC Landfill Directive through the trading of allowances as an alternative to treating the waste.

MBT - Mechanical Biological Treatment
Mechanical Biological Treatment facilities separate the 'black bag' waste by mechanical and biological processes. This means that further material can be separated for recycling and/or soil improvers. Some MBT facilities separate and manufacture some of the waste into a solid recovered fuel which could be used to generate electricity (and sometimes heat too) in an energy plant.

MRFs – Material Recycling Facilities
A dedicated facility for the sorting / separation of recyclable materials.

MSW – Municipal Solid Waste
Municipal solid waste is household waste and any other waste that is collected for treatment and disposal by a local authority. MSW generally comprises of waste from households, Recycling Centres for Household Waste, street sweepings and local authority-collected commercial waste.

NI – National Indicators
Three new national indicators have been introduced to monitor waste and recycling services:

National Indicator (NI) 191: Residual household waste per head - Waste collected, minus material sent for recycling, composting or re-use.

NI 192: Household waste recycled and composted -
Material sent for re-use, reprocessing or controlled biological decomposition.

NI 193: Municipal waste landfilled - Collected municipal waste sent to landfill, including recycling rejects.

OBC – Outline Business Case

An OBC is prepared by a procuring authority to establish the need for a project, and it consists of an option appraisal and a business plan defining the required objective and outputs of the project and how these can be realised.

PFI – Private Finance Initiative
A form of contracting or procurement within the Public Private Partnership (*PPP – see below*). PFI is one of the main mechanisms through which the public sector can improve value for money in partnership with the private sector. It does this by involving the private sector more directly in asset provision and operation and allocating risk to the party best placed to manage that risk. With a PFI contract, the contracting public body receives support from central government through the payment of 'PFI credits'. The contractor is responsible for funding the capital investment and the authority pays for the service received – in effect, the public sector organisation leases the services from the contractor. This means that the public sector organisation only commences paying for the service once it is operational, so delays and cost overruns in delivering the required infrastructure are risks that are borne by the private partner as part of the PFI contract. Contracts are usually long term, typically 25 to 30 years.

PPP – Public Private Partnership
This is a generic term used to describe the relationships formed between the private sector and public bodies often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services.

Procurement
The process of acquiring goods, works and services, covering the acquisition from third parties and from in-house providers. The process spans the whole life cycle from identification of needs through to the end of a service contract or the end of the useful life of an asset.

Putrescibles
Organic waste that can decay or breakdown by bacterial action.

Recyclate / recyclables
Material recovered from the waste stream for recycling.

Recycling
The segregation, collection and reprocessing of waste materials into the same products or different ones.

RCHW – Recycling Centres for Household Waste
A facility provided by the Local Authority that is accessible to local residents for the deposit of household waste that is not collected by the normal household waste collection round.

RDF – Refuse Derived Fuel
A high calorific value produced from the combustible waste that can be stored and transported, or used directly on site to produce heat and/or power.

Residual Waste
The elements of the waste stream that remains after recycling or compostable materials have been separated or removed.

Re-use
This can be practised by the commercial sector with the use of products designed to be used many times, such as re-useable packaging. Householders can purchase products that use refillable containers or re-use plastic bags. The processes contribute to sustainable development and can save raw materials, energy and transport costs.

ROCs – Renewable Obligation Certificates
These are issued under the terms of the Renewables Obligation Order, the Government's mechanism for increasing the proportion of electricity produced from renewable sources. Eligible renewable generators receive ROCs for each MWh of electricity generated. These certificates can then be sold to suppliers, and in order to fulfil their obligation suppliers present enough certificates to cover the required percentage of their output, or they can pay a 'buyout' price for any shortfall.

SEA – Strategic Environmental Assessment
SEA is the environmental assessment of plans, programmes or strategies. It seeks to provide high level protection to the environment; integrate the environment and sustainable development into planning processes; promote sustainable development; and promote a more open, transparent and evidence-based planning culture.

Source segregated
Waste materials that are separated by type at source. Usually applies to waste collection systems where recyclate and/or organic waste are separated into specific containers by the householder and collected separately.

SRF - Solid Recovered Fuel
A residual waste derived fuel resulting from the MBT process that can be produced to a specific quality and composition. SRF can be converted to energy in an energy plant.

Thermal treatment
A generic term that covers all processes that involve the use of heat to treat waste.

Transfer station
A site to which waste is delivered for sorting prior to transfer to another place for recycling, treatment or disposal.

Unitary Authority
A Local Authority which, in the context of waste management, has the combined responsibilities for both waste collection and waste disposal. Southend-on-Sea Borough Council is a Unitary Authority.

Waste hierarchy
Suggests that: the most effective environmental solution may often be to reduce the amount of waste generated – waste *reduction*; where further reduction is not practicable, products and materials can sometimes be used again, either for the same or different purposes – *re-use*; failing that, value should be recovered from waste, through *recycling*, *composting* or *energy recovery from waste*, only if none of the above offer an appropriate solution should be *disposed*.

Waste Local Plan
The statutory Local Plan that provides the long-term framework for decisions on waste management proposals. In Essex, the relevant Plan is the Essex and Southend Waste Local Plan adopted September 2001.

WMAB – Waste Management Advisory Board
Set up by the 15 councils of Essex, the WMAB examines how to deal with the growing amount of municipal waste in Essex over the next 25 years.

Waste reduction
Action to prevent waste being produced in order to reduce or minimise the amount of waste requiring final disposal. Minimising waste saves on collection and disposal costs and helps to reduce the demand for raw materials.

Waste Resources Action Programme (WRAP)
A national organisation, set up by government, to promote sustainable waste management by working to create stable and efficient markets for recycling materials and products, by removing barriers to waste minimisation, re-use and recycling.

Waste treatment
The mechanical, chemical, thermal or biological processing of certain wastes in order to make them harmless, reduce volumes before landfilling or recycle them.

WCA (Waste Collection Authority)
A Local Authority responsible for the collection of Municipal Solid Waste. In Essex, it is the 12 District/Borough Councils.

WDA (Waste Disposal Authority)
A Local Authority responsible for the disposal of Municipal Solid Waste and the provision of Recycling Centres for Household Waste. In Essex, it is the County Council.

WPA (Waste Planning Authority)
A Local Authority responsible for the preparation of a Waste Local Plan and the determination of planning applications for waste management and disposal. In Essex, it is the County Council.

ANNEX 2

Development of the strategy

In May 2002 the Waste Management Advisory Board (WMAB) 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 identified an aspirational target to recycle/compost 60% of household waste by 2007.

The six options identified are shown in the table below.

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.

ANNEX 3

Consultation and community engagement

In 2002 the WMAB appointed communications consultants to carry out a consultation on the draft strategy. The consultants used a range of consultation methods and targeted different audiences. They produced a War on Waste (WoW) brochure which summarised the different options and showed how the options 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. These documents could also be accessed on the tailor-made WoW website. The consultation methods included opinion polling and direct consultation with 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 two month consultation period from 1 October to 30 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 six options.

Of the six 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 aspirations of the people of Essex as expressed through the WoW consultation, as 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 sets out, in a concise format, the key elements of such a strategy. It provides 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 the draft strategy conformed to the general response from the 2002 WoW consultation, it was considered that it should have public and industry endorsement and therefore a further round of consultation, on the draft strategy, was undertaken in 2005 following endorsement in principle by all of the Waste Collection Authorities in Essex. This further round involved a three stage process:

Stage 1 – to gain initial soundings on the public's and community's attitudes to the draft strategy (January – May 2005). This included consultation with the Essex County Council Citizens Panel on a short set of questions relating to the draft strategy, consultation through six Focus Groups and consultation on the full draft with around 400 stakeholder organisations.

Stage 2 – to review the findings from the initial soundings and identify any suggested amendments to the draft strategy (May –August 2005). The review of stage 1 found that whilst the response from the Citizens Panel and the Focus Groups was largely supportive of the draft strategy, there was a real challenge ahead in engaging the public in the wider consultation exercise and building on the findings of the consultation undertaken to date.

Stage 3 – to develop and undertake a wider public consultation exercise (August – September 2005). In order to overcome the challenge of engaging the public in the consultation, as identified in stage 1, a number of techniques were used to raise the publics' awareness of, and encourage participation in, the consultation.

The Public Consultation was promoted through:

- "Call to action" postcards in cinema and fitness clubs
- Pull off section on the front cover of Essex Matters - Essex County Council's quarterly magazine which goes to all households in Essex
- Questionnaires and leaflets distributed by the "Task Force" door knockers
- Posters and "call to action" postcards at Recycling centres for household waste
- Handed out at shows and events through out the county
- Through Essex councils' websites and Essex County Council intranet
- Providing pick up points at council offices and libraries.
- Day event in Chelmsford High Street promoting the consultation
- Two week long displays in the public areas of County Hall, Chelmsford

A prize draw was also used to motivate people to respond by offering an iPod shuffle, a digital camera and Argos vouchers. These were chosen to particularly target the younger audience which were felt the least likely to respond.

Approximately 5,000 questionnaires were sent out and 2135 questionnaires were returned. In 149 of the questionnaires the questions had been amended and so these could not be analysed alongside the remaining 1,986.

Bringing together the range of contributions to the consultation on the draft strategy, it was concluded that the fundamental approach, based on aiming for high recycling with biotreatment, had broad support across a range of stakeholders. There were, however, certain aspects of the draft strategy that required further clarification and explanation and these have been addressed in the strategy.

ANNEX 4 - Waste Management Advisory Board terms of reference

Waste Management Advisory Board 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 Management Strategy for Essex.
- To consider, and where necessary review, the strategic framework and supporting action plans and advise the WCAs and WDAs 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 Officer 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 WCAs and WDAs in Essex, Southend and Thurrock accordingly.
- To work with statutory agencies, non-governmental organisations (NGOs) small and medium sized enterprises (SMEs), 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.

ANNEX 5

Legislative drivers

The following table is an illustrative, but not necessarily exhaustive, list of legislation which impacts, or will impact, on waste management activities.

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.	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 recycling centres for household waste available for this purpose.	The producer responsibility obligations of the WEEE Directive came into effect in January 2007

EU Landfill Directive	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. Landfill sites have been re-licensed and classified with some materials being banned from landfill (eg tyres, liquids etc)	2010: 25% 2013: 50% 2020: 65%
EU End of Life Vehicle Directive (ELV), End of Life Regulations, 2003	The producers of vehicles are 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.	1 January 2007
EU Household Hazardous Waste Directive	Domestic hazardous waste is currently exempt from the Hazardous Waste Directive but the European Commission is considering separate household collections for Household Hazardous Waste.	In 2005 the Directive was transposed by the Hazardous Waste (England and Wales) Regulations 2005.
EU Batteries Directive	The Batteries Directive aims to make businesses that produce and sell batteries responsible for collecting and recycling spent batteries. It will require the collection and recycling of all batteries placed on the market. It replaces earlier directives which only apply to batteries containing certain quantities of lead, mercury or cadmium. The primary objective of this directive is to minimise the negative impact on the environment of batteries and accumulators and waste batteries and accumulators.	The Batteries Directive was published in the official EU Journal on 26 September 2006. The UK must now bring the requirements of the directive into national law by 26 September 2008.
Packaging and	The Regulations give substance to	The requirements

Packaging Waste Directive 94/62/EC, revised in 2004 by 2004/12/EC Producer Responsibility Obligations (Packaging Waste)	"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.	are for 60% overall recovery and 55% minimum recycling of packaging waste by 31 December 2008. Material specific recycling targets are: glass – 60% by 2008; paper and board – 60% by 2008; metals – 50% by 2008; plastics – 22.5% by 2008; wood – 15% by 2008.
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 New Performance Framework for Local Authorities and Local Authority Partnerships: National Indicators	Three new national indicators have been introduced to monitor waste and recycling services: **National Indicator (NI) 191**: **Residual household waste per household** - Waste collected, minus material sent for recycling, composting or re-use. **NI 192: Household waste recycled and composted -** Material sent for re-use, reprocessing or controlled biological decomposition. **NI 193: Municipal waste landfilled -** Collected municipal waste sent to landfill, including recycling rejects.	April 2008

Annex 6 – Performance and data information

Waste arisings

The tables below show the household and municipal solid waste (MSW) arisings by authority for 2007/08 and in the previous seven years.

Household waste arisings by Authority

Authority	Household waste arisings (tonnes)							
	2000/2001	**2001/2002**	**2002/2003**	**2003/2004**	**2004/2005**	**2005/2006**	**2006/2007**	**2007/08**
Basildon	72,290	74,480	76,497	76,299	78,079	76,961	77,905	75,770
Braintree	51,592	51,463	53,196	52,188	56,049	56,495	56,853	57,233
Brentwood	23,274	23,183	24,396	32,927	27,970	29,228	29,032	28,227
Castle Point	33,929	34,813	34,761	34,705	35,584	35,759	35,640	34,812
Chelmsford	71,199	71,991	71,999	72,495	79,649	79,170	78,747	76,118
Colchester	54,886	57,093	58,095	60,058	63,540	62,757	62,476	61,468
Epping Forest	48,133	49,335	50,265	50,034	51,019	49,114	50,007	51,559
Harlow	28,646	28,196	27,666	28,784	29,448	28,759	29,278	28,903
Maldon	20,622	20,938	21,401	21,861	22,738	23,707	24,049	23,440
Rochford	31,717	32,513	31,812	32,724	33,519	33,429	33,252	32,252
Tendring	45,639	47,213	47,055	47,470	49,007	48,468	48,906	47,990
Uttlesford	33,832	32,578	32,497	31,944	32,155	32,067	28,884	29,176
Essex CC (at RCHW)	145,799	146,830	148,103	134,505	141,435	131,272	143,640	143,222
Total	**661,558**	**670,624**	**677,743**	**675,993**	**700,192**	**687,186**	**698,668**	**690,170**

Municipal waste arisings by Authority

Authority	Municipal Waste Arisings (tonnes)							
	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/06	2006/07	2007/08
Basildon	75,314	77,788	80,310	80,356	81,686	80,476	81,831	79,729
Braintree	56,015	55,587	56,950	55,877	59,570	59,882	60,747	60,785
Brentwood	28,274	27,945	28,492	35,715	30,751	31,906	31,817	31,378
Castle Point	35,747	36,567	36,686	36,743	37,631	37,831	37,397	36,541
Chelmsford	75,726	77,981	77,888	78,116	85,678	84,948	83,964	81,168
Colchester	58,214	60,435	61,621	63,539	67,097	65,693	64,516	63,533
Epping Forest	48,134	49,335	50,472	51,006	52,185	50,013	50,007	51,559
Harlow	31,888	31,124	28,646	29,449	29,534	28,656	29,298	28,903
Maldon	20,622	20,938	21,401	21,861	22,738	23,707	24,049	23,440
Rochford	31,717	32,513	31,812	32,724	33,504	33,428	33,252	32,252
Tendring	45,665	47,232	47,079	47,498	48,972	48,445	48,973	48,097
Uttlesford	37,262	35,993	35,601	35,538	35,546	35,707	32,259	32,518
Essex CC (at RCHW)	154,670	173,950	169,611	153,476	159,363	148,751	160,397	162,486
Total	**699,247**	**727,387**	**726,569**	**721,898**	**744,255**	**729,445**	**738,505**	**732,391**

Essex Household Recycling & Composting Performance 2007/08

AUTHORITY	Household Waste to Landfill (Tonnes)	Household Waste Recycled (Tonnes)	Household Waste Composted (Tonnes)	Total Household Waste Arisings (Tonnes)	Household Waste Recycled (%)	Household Waste Composted (%)	Total recycled or composted (%)	Household Waste Collected per Person (Kg)
Basildon District Council	51,352.49	17,433.67	6,984.12	75,770.28	23.01%	9.22%	**32.23%**	446
Braintree District Council	32,742.21	15,365.15	9,125.95	57,233.31	26.85%	15.95%	**42.79%**	402
Brentwood Borough Council	16,596.87	7,949.76	3,679.92	28,226.55	28.16%	13.04%	**41.20%**	396
Castle Point Borough Council	25,388.99	6,204.33	3,218.78	34,812.10	17.82%	9.25%	**27.07%**	392
Chelmsford Borough Council	49,195.96	14,621.59	12,300.24	76,117.80	19.21%	16.16%	**35.37%**	464
Colchester Borough Council	41,125.71	12,675.35	7,666.98	61,468.04	20.62%	12.47%	**33.09%**	361
Epping Forest District Council	30,072.32	14,413.51	7,073.46	51,559.29	27.96%	13.72%	**41.67%**	419
Harlow District Council	22,001.24	6,541.76	359.56	28,902.56	22.63%	1.24%	**23.88%**	371
Maldon District Council	15,261.61	5,133.53	3,045.06	23,440.19	21.90%	12.99%	**34.89%**	374
Rochford District Council	25,997.01	5,516.08	739.20	32,252.29	17.10%	2.29%	**19.39%**	397
Tendring District Council	35,080.90	12,908.76	0.00	47,989.66	26.90%	0.00%	**26.90%**	325
Uttlesford District Council	13,346.30	10,122.47	5,707.07	29,175.84	34.69%	19.56%	**54.26%**	412
Waste Collection Authority Total	**358,161.62**	**128,886.0**	**59,900.3**	**546,947.92**	**23.56%**	**10.95%**	**34.52%**	
Essex County Council[1]	69,283.03	37,943.87	35,995.48	143,222.38	26.49%	25.13%	**51.63%**	
Essex Total	**427,444.65**	**166,829.83**	**95,895.82**	**690,170.31**	**24.17%**	**13.89%**	**38.07%**	**504**

Notes 1. Waste taken by residents to ECC RCHW

Performance against waste-related performance indicators*

*Performance indicators are used to measure performance in order for authorities to know how well they are doing and to identify opportunities for improvement.

Source: Councils Best Value Performance Plans 2006/07

Authority	2006/07 reported performance against BV 84a (household waste collected kg/head)	2006/07 reported performance against BV 82a (% household waste recycled)	2006/07 reported performance against BV 82b (% household waste composted)	2006/07 performance against BV82a +BV82b
Basildon	464.82	19.88	7.53	27.41
Braintree	407.84	23.38	12.01	35.39
Brentwood	407.18	19.82	11.37	31.18
Castle Point	410.13	16.62	9.11	25.73
Chelmsford	487.6	16.38	15.91	32.29
Colchester	381.41	18.50	12.46	30.96
Epping Forest	410.23	25.31	11.78	37.09
Harlow	378.76	19.49	1.79	21.29
Maldon	392.31	19.77	13.10	32.86
Rochford	417.21	15.40	1.78	17.18
Tendring	340.1	22.96	0.00	22.96
Uttlesford	405.67	30.15	12.67	42.82
Essex County Council - RCHW	106.74	34.16	25.64	59.8
Essex Total	**519.19**	**23.21**	**12.91**	**36.12**

Residual waste – kg per head 2002/03 – 2006/07

Year	Kg per head
2002/03	397
2003/04	383
2004/05	369
2005/06	349
2006/07	332

Residual waste – kg per head per authority, 2006/07

2006/07	
	Residual waste kg per head
Basildon	337
Braintree	264
Brentwood	280
Castle Point	305
Chelmsford	330
Colchester	263
Epping Forest	258
Harlow	298
Maldon	263
Rochford	346
Tendring	262
Uttlesford	232
RCHW	
Total (inc RCHW)	332

Composition of residual collected household waste in Essex, 2004 (including Southend and Thurrock)

Category	**% Composition**
Paper and card	29
Garden waste & vase flowers	6
Raw fruit and vegetable including peelings	13
Cooked and prepared food	14
Other putrescible	3
Glass	8
Plastics, including plastic film	11
Cans	3
Disposable nappies/sanitary items	4
Textiles	2
Other miscellaneous	7

Materials recycled and composted and tonnage landfilled by Essex Authorities in 2006/07

	Material recycled (tonnes)												
Authority	Metals	Compost	Glass	Paper	Cardboard	Textiles	Mixed cans	Aluminium foil	Plastics	Co-mingled	Others (fridges, tyres, CRTs & wood)	**Total recycled**	**Tonnage to landfill (includes contaminants, excludes trade)**
Basildon	446	5,868	3,667	820	237	479	26	1	1	9,576	236	**21,356**	**56,549**
Braintree	0	6,829	2,934	1,800	3	140	0	0	-1	8,331	84	**20,120**	**36,733**
Brentwood	38	3,300	1,750	3,204	489	114	25	0	47	0	87	**9,053**	**19,979**
Castle Point	6	3,246	1,990	2,968	809	106	10	0	0	0	35	**9,170**	**26,471**
Chelmsford	83	12,526	3,836	6,860	546	497	428	0	462	110	78	**25,427**	**53,320**
Colchester	0	7,784	3,563	7,062	-200	165	421	0	471	0	76	**19,341**	**43,140**
Epping Forest	12	5,892	3,060	8,211	619	164	262	0	221	0	105	**18,546**	**31,461**
Harlow	142	526	354	281	0	143	5	0	0	4,669	114	**6,232**	**23,046**
Maldon	0	3,150	1,588	2,033	823	110	177	0	0	0	24	**7,903**	**16,146**
Rochford	47	591	1,780	2,781	4	98	277	0	41	0	93	**5,713**	**27,539**
Tendring	38	0	1,715	385	0	553	18	0	49	8,414	57	**11,229**	**37,676**
Uttlesford	163	3,660	1,942	960	145	231	8	0	6	5,101	150	**12,368**	**16,516**
TOTAL	**975**	**53,372**	**28,179**	**37,365**	**3,475**	**2,800**	**1,657**	**1**	**1,297**	**36,201**	**1,139**	**166,458**	**388,576**

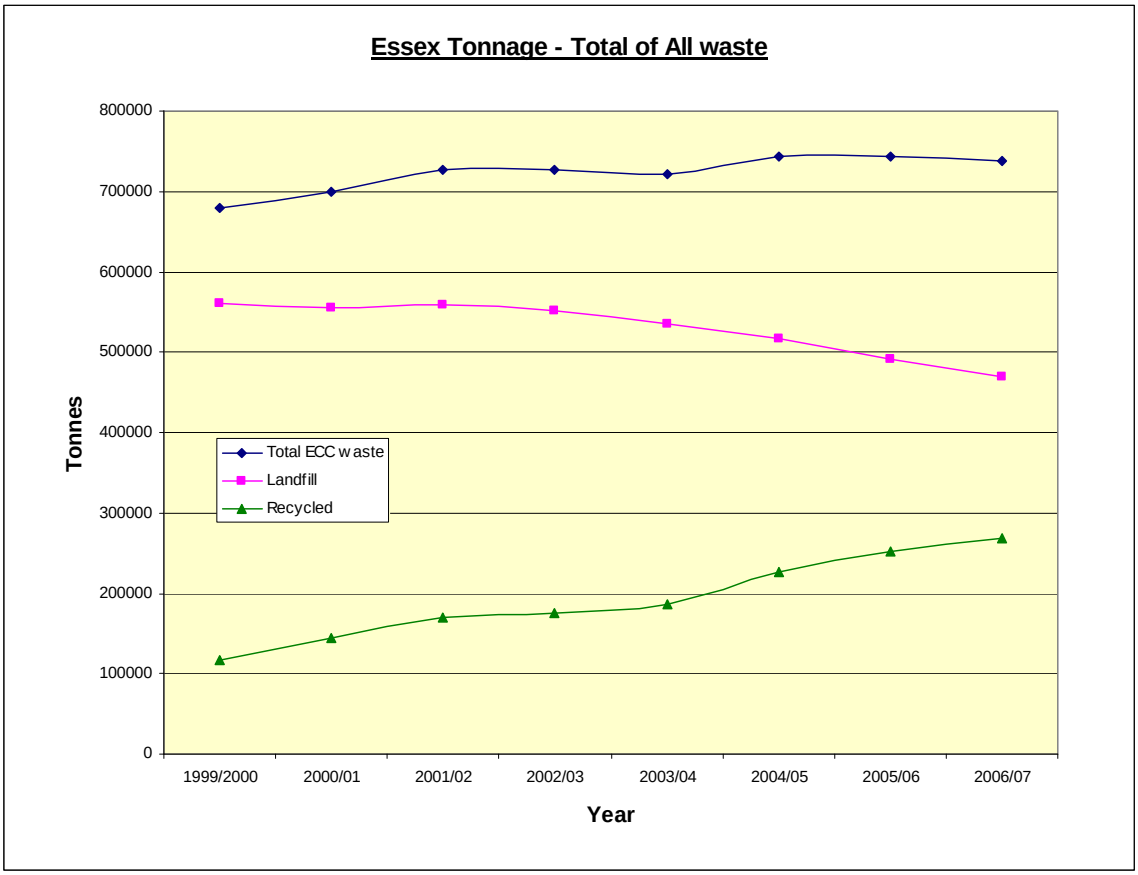
Materials taken to the RCHW in 2006/07

	Household Waste Recycling (Tonnes)														Non-Household Recycling[1] (Tonnes)		Recycling Rate	
Site Name and Location	**Green**	**Glass**	**Paper and Card**	**Textiles & Shoes**	**Plastics**	**Cans and Scrap Metal**	**Fridges**	**CRT's**	**Car Batteries**	**Tyres**	**Ceramics**	**Oil (Engine and Cooking)**	**Timber**	**Landfilled Waste**	**Hardcore**	**Soil**	**Total**	**Household**
Pitsea, BASILDON	1643	49	339	69	56	1093	57	45	55	19	559	23	2113	3263	1278	284	70.19%	**65.23%**
Shalford, BRAINTREE	1072	115	303	54	10	420	80	37	23	17	0	13	615	2636	706	0	56.80%	**51.15%**
Witham, BRAINTREE	1436	147	377	84	10	314	87	47	23	16	0	9	517	2805	725	23	57.63%	**52.23%**
Brentwood, BRENTWOOD	1480	92	409	64	37	636	58	42	25	9	143	11	1125	2500	730	256	67.18%	**62.30%**
Mountnessing, BRENTWOOD	1476	81	399	69	3	572	46	31	24	7	0	11	920	2068	603	175	68.12%	**63.77%**
Canvey, CASTLE POINT	2306	96	639	94	34	988	92	52	44	21	364	22	1987	3898	1082	94	67.00%	**63.35%**
Boreham, CHELMSFORD	1559	121	971	182	51	818	133	82	39	20	0	23	948	4306	1305	0	59.22%	**53.47%**
S. Woodham Ferrers, CHELMSFORD	816	63	379	60	20	485	40	25	23	8	82	13	955	1587	696	214	70.96%	**65.16%**
Colchester, COLCHESTER	3466	127	829	167	36	953	153	182	59	31	0	20	734	5701	1327	0	58.64%	**54.23%**
West Mersea, COLCHESTER	502	12	116	9	2	90	15	7	9	3	0	2	97	572	182	0	64.67%	**60.18%**
Chigwell, EPPING	937	32	228	56	3	554	51	31	21	7	243	11	1111	2518	488	167	61.00%	**56.61%**
Ongar, EPPING	981	58	207	30	0	342	37	16	21	6	0	12	572	1502	470	0	64.69%	**60.30%**
Waltham Abbey, EPPING	458	27	144	46	4	356	30	19	16	4	0	9	672	1424	110	108	58.44%	**55.62%**
Harlow, HARLOW	2413	130	567	95	71	1132	101	71	47	27	611	23	2111	4043	292	248	66.26%	**64.67%**
Burnham, MALDON	950	34	176	40	3	334	40	20	17	7	0	6	461	1059	307	45	69.73%	**66.34%**
Maldon, MALDON	1697	71	423	49	59	304	37	33	26	17	0	13	610	2576	928	0	62.36%	**56.46%**
Rayleigh, ROCHFORD	2362	62	629	79	2	886	69	58	41	15	277	20	1472	3330	949	299	68.44%	**64.21%**
St. Osyth, TENDRING	1583	98	192	32	11	235	52	28	22	8	0	7	325	1619	444	0	65.23%	**61.56%**
Dovercourt, TENDRING	1513	100	193	43	3	186	34	21	15	6	0	9	234	1540	378	0	63.97%	**60.48%**
Kirby-le-Soken, TENDRING	1794	107	149	22	3	184	42	26	14	5	0	4	191	1693	177	0	61.62%	**60.02%**
Clacton, TENDRING	3833	174	378	97	16	614	86	94	33	23	0	17	513	4480	799	0	59.86%	**56.76%**
Lawford, TENDRING	979	62	140	34	3	189	37	18	11	9	0	2	134	834	341	0	70.15%	**66.00%**
Saffron Walden, UTTLESFORD	1568	151	305	61	13	263	30	25	16	10	0	7	301	1792	528	0	64.65%	**60.53%**
TOTALS	**36825**	**2009**	**8493**	**1533**	**449**	**11948**	**1407**	**1010**	**626**	**296**	**2279**	**290**	**18718**	**57745**	**14844**	**1913**	**64.00%**	**59.80%**

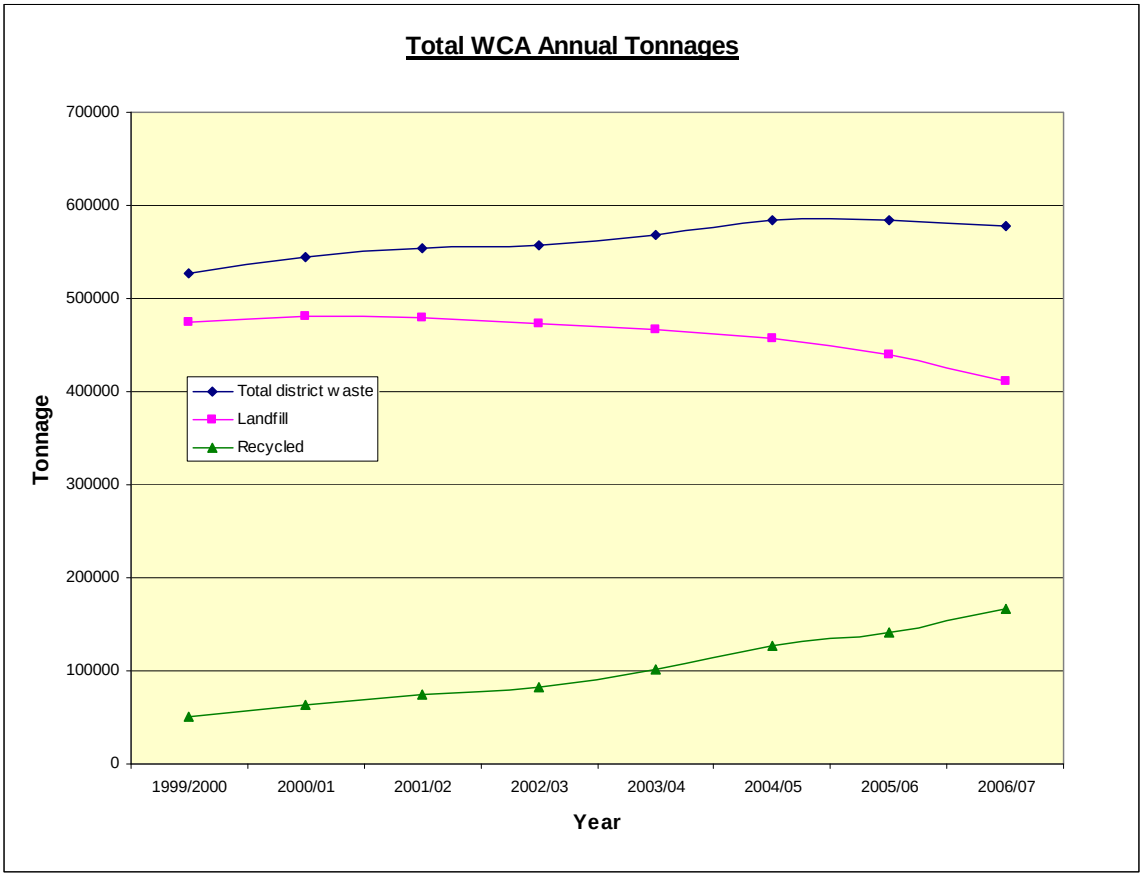
Notes

1. Although soil and hardcore is only accepted from household sources it is not classed as household waste for the purposes of BVPI calculations

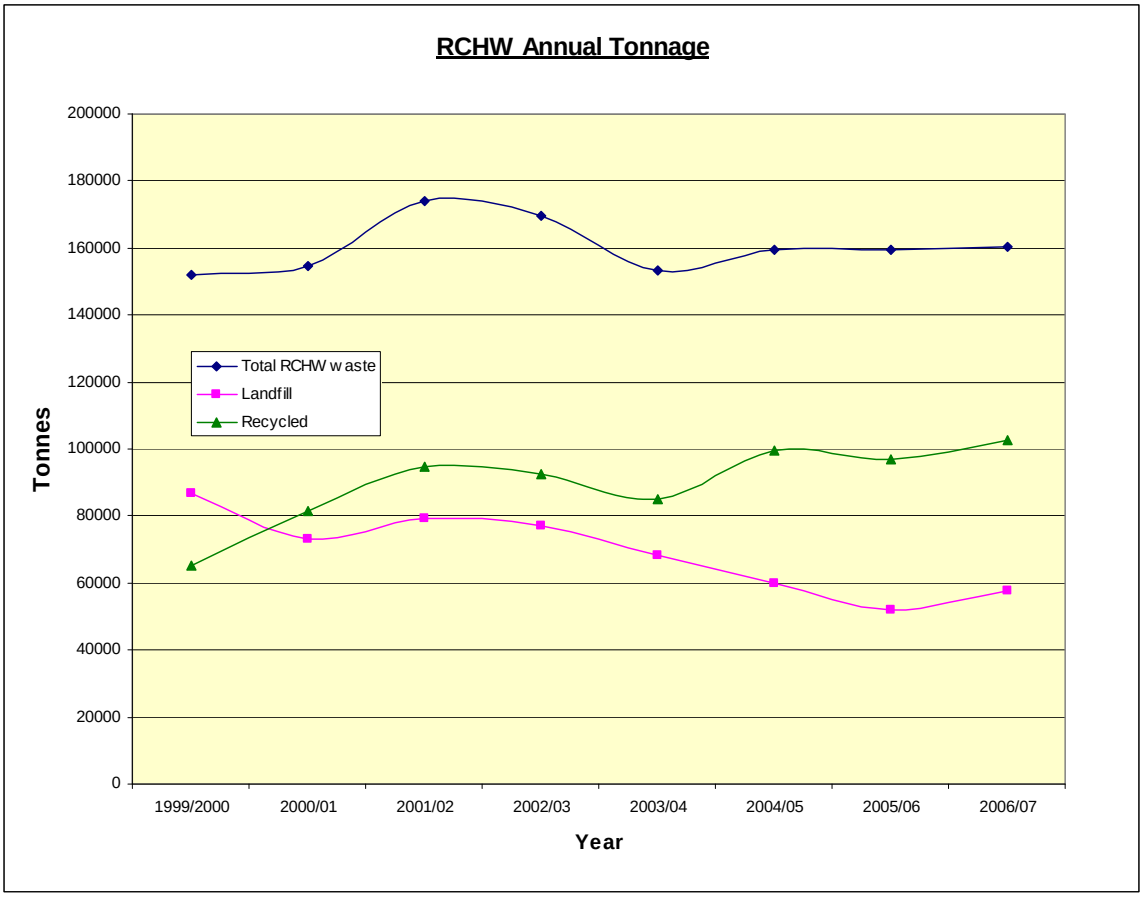
Graph 1: Total Essex municipal waste recycled and landfilled 1999/00 – 2006/07



Graph 2: WCAs waste recycled and landfilled 1999/00 – 2006/07



Graph 3: RCHW waste recycled and landfilled 1999/00 – 2006/07



The data for 2003/04 is noteworthy as it shows a decrease in arisings. This is due in part to the introduction of new RCHW contracts which implemented new incentive schemes for waste minimisation. This coincided with a particularly dry summer which resulted in a fall in kerbside collection and RCHW tonnages of green waste.

Minimum dwelling provision in Essex, 2001 to 2021

District/Borough	Total to build April 2001 to March 2021	*Of which already built April 2001 - March 06*	Minimum still to build April 2006 to March 2021
Basildon	10,700	*1,220*	9,480
Braintree	7,700	*3,360*	4,340
Brentwood	3,500	*920*	2,580
Castle Point	4,000	*1,010*	2,990
Chelmsford	16,000	*3,580*	12,420
Colchester	17,100	*4,630*	12,470
Epping Forest	3,500	*1,220*	2,280
Harlow	16,000	*810*	15,190

Maldon	2,400	*760*	1,640
Rochford	4,600	*810*	3,790
Tendring	8,500	*2,110*	6,390
Uttlesford	8,000	*1,620*	6,380
Total Essex	**102,000**	**22,050**	**79,950**

Housing numbers are taken from the Secretary of State's Proposed Changes to the Draft Revision to the Regional Spatial Strategy for the East of England December 2006

ANNEX 7: Current service provision

District and Borough Councils kerbside waste and recycling collection summary (as at July 2008)

Waste Collection Authority	Residual Waste Collection Frequency	Residual Waste Container	Recycling Collection Frequency	Recycling Container(S)	Paper	Card	Plastic Bottles	Plastic Other	Textile	Glass	Cans & Aerosols	Foil	Tetra Paks	Garden Waste	Food Waste
Basildon	Weekly	Sacks	Fortnightly	Box, sack, wheeled bin & biodegradable sacks	☐	☐	☐	☐	☐	☐	☐			☐	
Braintree	Alternate weekly for wheeled bins; weekly for sacks	Wheeled bins (80%) & sacks (20%)	Fortnightly	Sacks	☐	☐	☐	☐			☐	☐		☐	☐
Brentwood	Weekly	Sacks	Fortnightly	Box & sacks	☐	☐	☐	☐		☐	☐			☐	
Castle Point	Weekly	Sacks	Fortnightly	Box, sack, carrier bag & bundles	☐	☐			☐	☐				☐	
Chelmsford	Weekly	Wheeled bins	Fortnightly	Box, bin, plastic bag & sack	☐	☐	☐		☐	☐	☐	☐		☐	
Colchester	Weekly	Sacks	Fortnightly	Box, sack & plastic sack	☐	☐	☐	☐	☐	☐	☐	☐		☐	
Epping Forest	Alternate weekly Oct to April (inc) Weekly May to September	Wheeled bins	Alternate weekly	Box for glass clear sack for other dry biodegradable sack for garden	☐	☐	☐	☐		☐	☐			☐	

	(inc)														
Harlow	Weekly	Sack	Fortnightly	Box & sack	☐	☐	☐			☐	☐		☐	☐ (bookable service)	
Maldon	Majority weekly; some rural areas fortnightly	Sack	Majority weekly; some rural areas fortnightly	2 x Box	☐	☐				☐	☐	☐		☐ (Chargeable)	
Rochford	Alternate weekly	Wheeled bin	Dry recyclables alternate weekly, mixed food and garden recyclables weekly, textiles twice annually	Wheeled bins	☐	☐	☐	☐	☐	☐	☐	☐		☐	☐
Tendring	Weekly	Sacks	Weekly	Box	☐	☐	☐	☐			☐				
Uttlesford	Fortnightly (Alternate weekly)	Wheeled bins	Dry fortnightly (Alternate weekly), food waste weekly	Wheeled bins	☐	☐	☐	☐			☐	☐	☐		☐

Existing waste facilities used by Essex authorities

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

Facility	Function
6 landfill sites at: Ugley, Roxwell, Colchester, Barling, Pitsea, South Ockenden	Contracted disposal capacity for residual waste collected by the 12 constituent WCAs and the 23 recycling centres for household waste.
7 central composting sites	Contracted windrow composting capacity for garden waste collected by 10 WCAs and the 23 recycling centres for household waste.
23 Recycling centres for household waste	Enable householders to dispose of bulkier items of household waste and to recycle a wider range of materials.
3 enclosed composting facilities	Contracted in-vessel composting sites. Two WCA currently collect food waste.
14 depots	Used either by Direct Service Organisation (DSO) or Contractors for the provision of waste management services, sometimes together with Highway maintenance services.
Bulking facilities	Available at 5 of the 14 depots, mainly for bulking paper, glass and cans.
Materials Recycling Facilities (MRFs)	4 WCAs use private MRFs.
Transfer stations	1 WCA operates a transfer station.