

Policy Review and Development Panel

Grand Jury Room, Town Hall

2 March 2009 at 6:00pm

The Policy Review Panel deals with

reviewing policies and issues at the request of the Cabinet or Portfolio Holder, or pro-actively identifying issues that may require review; dealing with those issues either directly or by establishing Task and Finish Groups, monitoring progress of these Groups and assessing their final reports.

Information for Members of the Public

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Terms of Reference

Policy Review and Development Panel

- To review strategies and policies at the request of the Cabinet either directly or by establishing Task and Finish Groups, and to make recommendations back to Cabinet for decision.
- To review issues at the request of a Portfolio Holder either directly or by establishing Task and Finish Groups and to make recommendations back to the Portfolio Holder for decision.
- To monitor progress of Task and Finish Groups and assess their final reports prior to their submission to either the Cabinet or the Portfolio Holder.
- To proactively identify issues that may require review and improvement and to seek Cabinet's agreement as to whether and how they should be examined.

**COLCHESTER BOROUGH COUNCIL
POLICY REVIEW AND DEVELOPMENT PANEL
2 March 2009 at 6:00pm**

Members

Chairman : Councillor Young.
Deputy Chairman : Councillor Barlow.
Councillors Bentley, Davies, Hardy and Knight.

Substitute Members : All members of the Council who are not Cabinet members or members of this Panel.

Agenda - Part A

(open to the public including the media)

Members of the public may wish to note that Agenda items 1 to 6 are normally brief and the last Agenda Item is a standard one for which there may be no business to consider.

Pages

1. Welcome and Announcements

(a) The Chairman to welcome members of the public and Councillors and to remind all speakers of the requirement for microphones to be used at all times.

(b) At the Chairman's discretion, to announce information on:

- action in the event of an emergency;
- mobile phones switched to off or to silent;
- location of toilets;
- introduction of members of the meeting.

2. Substitutions

Members may arrange for a substitute councillor to attend a meeting on their behalf, subject to prior notice being given. The attendance of substitute councillors must be recorded.

3. Urgent Items

To announce any items not on the agenda which the Chairman has agreed to consider because they are urgent and to give reasons for the urgency.

4. Declarations of Interest

The Chairman to invite Councillors to declare individually any personal

interests they may have in the items on the agenda.

If the personal interest arises because of a Councillor's membership of or position of control or management on:

- any body to which the Councillor has been appointed or nominated by the Council; or
- another public body

then the interest need only be declared if the Councillor intends to speak on that item.

If a Councillor declares a personal interest they must also consider whether they have a prejudicial interest. If they have a prejudicial interest they must leave the room for that item.

If a Councillor wishes to make representations on an item on which they have a prejudicial interest they may do so if members of the public are allowed to make representations. In such circumstances a Councillor must leave the room immediately once they have finished speaking.

An interest is considered to be prejudicial if a member of the public with knowledge of the relevant facts would reasonably regard it as so significant that it is likely to prejudice the Councillor's judgement of the public interest.

Councillors should consult paragraph 7 of the Meetings General Procedure Rules for further guidance.

5. Have Your Say!

(a) The Chairman to invite members of the public to indicate if they wish to speak or present a petition at this meeting – either on an item on the agenda or on a general matter not on this agenda. You should indicate your wish to speak at this point if your name has not been noted by Council staff.

(b) The Chairman to invite contributions from members of the public who wish to Have Your Say! on a general matter not on this agenda.

6. Minutes

1 - 2

To confirm as a correct record the minutes of the meeting held on 9 February 2009.

7. Waste Prevention and Recycling // Options Appraisal

3 - 100

See report by the Head of Street Services.

8. Nottingham Declaration Strategy and Action Plan 101 - 145

See report by the Head of Street Services.

9. Equality and Diversity // The Current Scheme, the Equality Standard and Framework and the Equality Bill 146 - 154

See report by the Interim Head of Corporate Management.

10. Work Programme 2008/09 155 - 158

See report by the Interim Head of Corporate Management.

11. Exclusion of the public

In accordance with Section 100A(4) of the Local Government Act 1972 and in accordance with The Local Authorities (Executive Arrangements) (Access to Information) (England) Regulations 2000 (as amended) to exclude the public, including the press, from the meeting so that any items containing exempt information (for example confidential personal, financial or legal advice), in Part B of this agenda (printed on yellow paper) can be decided. (Exempt information is defined in Section 100I and Schedule 12A of the Local Government Act 1972).

POLICY REVIEW AND DEVELOPMENT PANEL

9 FEBRUARY 2009

Present:- Councillor J. Young (Chairman)
Councillors Barlow, Bentley, Davies, Hardy and Knight.

23. Minutes

The minutes of the meeting held on 19 January 2009 were confirmed as a correct record, subject to the deletion of the word 'fully' in the sixth paragraph of the preamble to minute no 21.

Councillor Smith, (in respect of his directorship of Colchester Borough Homes) declared his personal interest in the following item pursuant to the provisions of Meetings General Procedure Rule 7(3).

24. Debt Management Policy

The Panel considered a report by the Head of Resource Management, providing information on the changes made to the corporate Debt Management Policy, originally presented to the Policy Review Panel in February 2007 and which had now been reviewed and strengthened in accordance with changes in legislation and best practice.

Charles Warboys, Head of Resource Management and Debbie Greenwood, Enforcement Manager, attended the meeting to assist members in their discussions.

The first part of the Policy covered the general procedures to be followed, whilst appendices have been added to cover detailed actions to be taken for each service or type of debt. The intention was that the individual appendices would be reviewed and revised as necessary.

New procedures in the policy included:

- Those relating to bankruptcy and liquidation, in accordance with current best practice;
- Those relating to when a debt was put forward for write-off so that a consistent approach was adopted throughout the Council and all possible opportunities were taken to recover the debt;
- Those to help customers who were suffering from financial difficulties, including an appointment system at a Debt Clinic, held once a week in the Customer Service Centre;
- Changes made by Colchester Borough Homes to ensure Disability Discrimination Act compliance.

Additionally it was explained that a Corporate Debt Working Group has been established to look at common issues and to work at improving recovery procedures. The group included all services as well as Colchester Borough Homes and areas for further work had already been identified including joint tracing arrangements and devising methods of sharing information obtained.

Councillor Smith, the Portfolio Holder for Resources and Business attended and, with the consent of the Chairman, addressed the Panel explaining that it was particularly important in the current economic climate to review the policy. The Council had always attempted to differentiate between those who 'can't pay' and those who 'won't pay' and he was reassured that this would continue.

Councillor Hunt, the Portfolio Holder for Communications and Customers, attended and, with the consent of the Chairman, addressed the Panel providing more information on the measures adopted by the Council to help those people currently in difficulties as a consequence of the economic climate. He explained that a leaflet was due to be published containing information relating to the following issues:

- Benefit Entitlements;
- Help to reduce monthly outgoings;
- Assistance with rent and Council Tax;
- Extra help for the over 60s;
- How to keep warm;
- How to maintain mortgage or rent payments;
- What happens in redundancy situations;
- Job Centre Plus;
- Assistance to apply for jobs.

In addition, he explained that the SOS bus was going to be used, together, potentially, with police and library venues in order to help get this type of information out to people in the community. Members of staff had volunteered to attend the sessions in the community in order to respond to questions and hand out leaflets.

The Panel gave particular consideration to the following issues:

- Appropriate measures to be used in instances of bereavement;
- The frequency and means to access the Debt Clinic;
- The timing of the Debt Advice Week which coincided with the issue of Council Tax notices;
- The benefits of issuing all Councillors with copies of the information leaflet;
- Particular measures required to assist people with learning difficulties who may be unable to read, such as the need to undertake personal home visits, information bulletins transmitted on local radio stations and for information to be shared across the Council's and Colchester Borough Homes' services, where possible;
- The steps taken to recover debts of small value and the need to target resources appropriately bearing in mind the Council's duty to pursue all debts;
- The current trend in the number of people in arrears which had remained fairly consistent but was expected to increase in the next financial year;
- The potential to include the information leaflet with the Council Tax notices which would be issued shortly.

RESOLVED that, subject to the Head of Resource Management being requested to bear in mind the issues identified by the Panel members in the course of their discussions, the changes made to the corporate Debt Management Policy be noted.



Policy Review and Development Panel

Item
7

2 March 2009

Report of	Head of Street Services	Author	Chris Dowsing ☎ 282752
Title	Waste prevention and recycling options appraisal report		
Wards affected	All wards		

This report concerns the presentation of potential options for the future delivery of the waste and recycling collection service.

1. Decision Required

- 1.1 The Policy Review and Development Panel is invited to consider the options appraisal report and provide views and recommendations to be considered by the Cabinet.

2. Reasons for Decision

- 2.1 There are various potential options for the future delivery of the waste and recycling collection service identified within the options appraisal. In order to enable decisions to be made on how these options could be taken forward the Panel is requested to provide views and recommendations on the options presented.

3. Alternative Options

- 3.1 The options appraisal was requested by the administration. The alternative would have been to not carry out an options appraisal.

4. Supporting Information

- 4.1 The Council's Waste to Resources Policy came to the Policy Review and Development Panel on the 5th November 2007. This policy set out the Council's desire to move to a vision where;

- **Less waste is produced by everyone**
- **There is an active reuse culture**
- **Home composting is 'the norm'**
- **Being able to recycle is easy for everyone**
- **More waste is recycled and composted than sent to landfill**
- **The collection service is high quality**
- **There is high customer satisfaction with the service**

- 4.2 Since then the Council's performance has improved on firstly reducing the amounts of waste generated per person which have decreased and increasing the amounts of waste being recycled and composted.

- 4.3 In order to understand what may be required to improve recycling rates further the Strategic Waste team was instructed to carry out an appraisal into the various potential options for service delivery that could be considered by the administration.

5. Proposals

- 5.1 The waste prevention and options appraisal report sets out various options that deliver differing levels of performance and cost in relation to the collection of waste for recycling and disposal. Decisions will need to be made as to the levels of performance to be aimed for as well as the levels of finance to be committed.
- 5.2 The options that have been modelled range from options that look only to increase the levels of participation within the existing schemes operated through to options that include different containers such as wheeled bins and food waste containers also differing frequencies of collection for residual and recycling streams and the introduction of food waste collections.
- 5.3 The option of outsourcing the delivery of the waste collection and recycling service was not considered as part of this options appraisal. The options of seeking to charge separately for waste collections or restrict the number of black sacks were also not considered.

6. Strategic Plan References

- 6.1 This decision relates to the strategic plan 2009 – 12 through the corporate objective to be cleaner and greener.

7. Consultation

- 7.1 At this stage this is purely an option appraisal for consideration and as such no consultation has taken place.

8. Publicity Considerations

- 8.1 The range of options identified by the report includes the potential for the use of different containers and differing frequency of collection for various waste streams. Each of the options set out in this report show differences in performance and costs related to the frequency of collections.
- 8.2 All of the options identified in the report could potentially be implemented however it must be recognised that they are all potential options and as such no decisions have been taken regarding the introduction of any of the options.

9. Financial Implications

- 9.1 The financial implications for each of the options identified in the report are set out in the report itself. Each option carries differing costs and benefits and these have been set out in the report.

10. Risk Management Implications

- 10.1 All of the options set out in the report rely on certain levels of public participation in order to achieve the levels of performance and costs set out for each option. This cannot be guaranteed and as such must therefore be categorised as a risk. Increased levels of participation on a permanent basis are crucial to achieving high levels of recycling. Work can be carried out to reduce this risk such as continued and increased education, information and support to householders on reducing, recycling and composting their waste.

10.2 The views and recommendations of the panel on any potential risks they feel exist with the design or potential implementation of any of the options is sought.

11. Standard References

11.1 There are no particular equality, diversity and human rights; community safety or health and safety implications.

Waste Prevention & Recycling Options Appraisal Report

**Colchester Borough Council
January 2009**



This report has been prepared by:

**Chris Dowsing. Strategic Waste and Sustainability Manager
Elisabeth Axmann. Strategic Waste Officer**

1. Introduction

It has long been recognised by Colchester Borough Council that dealing with the waste produced and therefore the resources used within the Borough of Colchester, is one of the major environmental challenges the authority faces.

In December 2007 a new waste to resources strategy was produced that set out a vision of how we could make the move to recognising waste as a resource rather than just something to be disposed of.

This waste to resources strategy followed the principles set out in the top three elements of the waste hierarchy, referred to as the three R's, reduce, reuse, and recycle.

The main drive of the strategy was to seek to move towards lower levels of waste being generated in the first place. From that point on, of the waste that is generated, as much as possible should be re-used, then from what remains, the Council should seek to recycle and compost as much as possible in an economically and environmentally efficient way.

Following on from the development of the Waste to Resources strategy the Portfolio Holder for Partnerships and Performance and the Portfolio Holder for Street and Waste Services requested that an options appraisal be undertaken to assess what options were available to the Council to minimise waste and increase the quantities of waste being recycled or composted.

This options appraisal sets out a number of potential options for the delivery of the kerbside collection services that would enable the Council to achieve higher levels of recycling and composting.

There is a relationship between the options appraisal (this) document and the Council's Waste to Resources Strategy. The latter is the output of a process which looked at the Waste Strategy for England published in May 2007 and the emerging Joint Municipal Waste Management Strategy for Essex. The Waste to Resources strategy considered the options and the policies, targets and objectives within both of the strategies and applied them to Colchester.

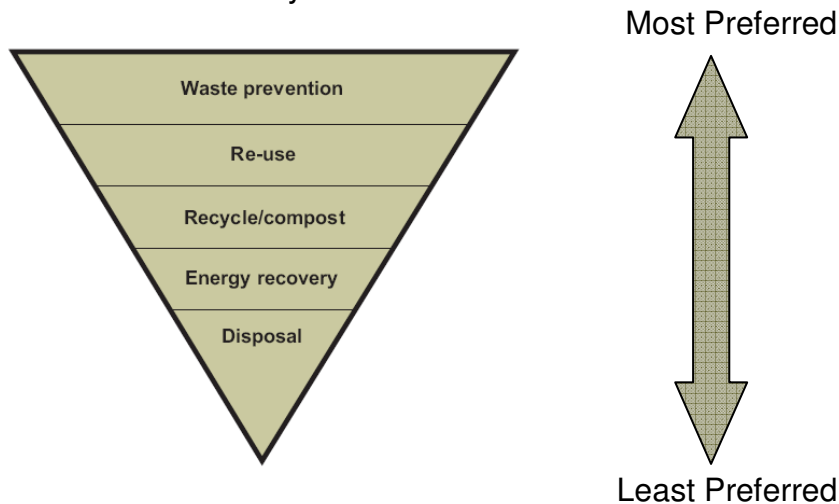
This Options Appraisal looks at the various methods particularly around waste minimisation and collection that the Council might employ in order to meet the vision set out within the Waste to Resources Strategy which is set out below.

- **Less waste is produced by everyone**
- **There is an active reuse culture**
- **Home composting is 'the norm'**
- **Being able to recycle is easy for everyone**
- **More waste is recycled and composted than sent to landfill**
- **The collection service is high quality**
- **There is high customer satisfaction with the service**

1.1 The Structure of this Report

This report considers the waste management options available to the Council in accordance with the preferences of the Waste Hierarchy. The Waste Hierarchy whilst it has long been a guiding principle in waste management, has only recently been set out as a priority order in waste management prevention and management legislation and policy in the EU Waste Framework Directive adopted by the European Parliament and Council on the 19 November 2008.

The Waste Hierarchy



The waste hierarchy identifies that the best way to manage waste is not to generate it in the first place (prevention), followed by reusing or recycling/composting and recovering energy from waste where practicable and finally disposal of waste being the least preferable option.

The Council's previously developed Waste to Resources Strategy aims to further develop the options higher up the hierarchy and reduce the amount left for disposal to a minimum.

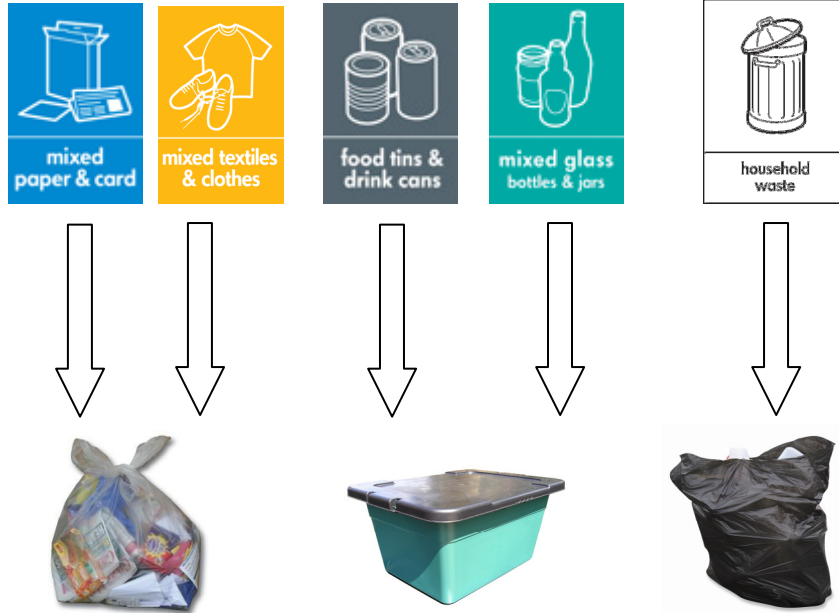
This report considers Waste Prevention & Reuse in the first instance and then Recycling and Composting options. Residual Waste Treatment options are being developed through the Joint Committees of the Essex Waste Partnership as set out in the Essex Joint Municipal Waste Management Strategy.

2. What do we currently do?

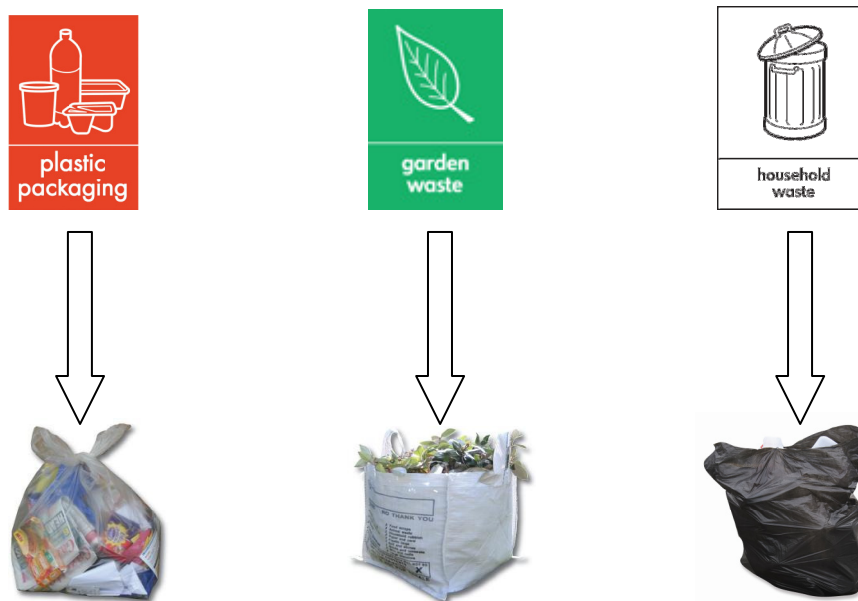
The Council currently operates a collection service for household waste that accepts a wide range of recyclable materials, a residual waste collection service, a bulky waste collection service and a large number of bring sites are also available within the Borough for residents to deposit recyclables.

The kerbside collection service operates where household waste is collected weekly in black bags and recyclables are collected on an alternate weekly basis. Graphical representations of the services provided are shown below.

BLUE WEEK: Paper and card in clear recycling sacks
Glass, cans and foil in recycling box
Household waste in unlimited black sacks
Textiles in a marked clear sack

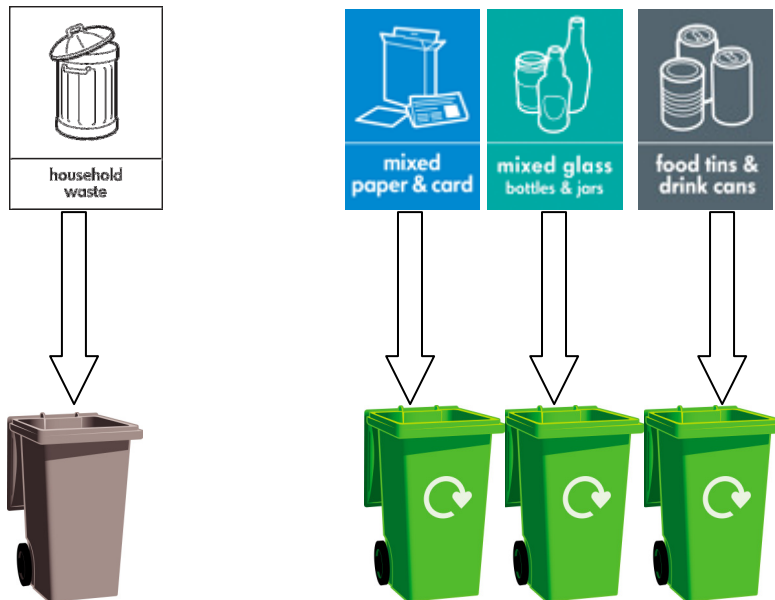


GREEN WEEK: Plastic packaging in clear recycling sacks
Garden waste in up to four garden waste bags
Household waste in unlimited black sacks



FLATS:

Flats of three storeys or more receive a different collection service: their refuse is collected from bin stores and/or communal bins; the vast majority also have communal recycling facilities with wheeled bins for paper/card, glass and cans.



What is our current performance?

In 2007/08, our combined recycling rate was 32.79%. This is a combined figure, made up of the percentage of waste that was recycled (known as dry recyclables i.e. paper, glass, cans etc) and the percentage of waste that was composted through the garden waste collection service.

The dry recycling rate was 20.40% and the composting rate was 12.39%.

Another key indicator is the amount of household waste collected per person. Our target for 2007/08 was 375kg of household waste collected per person which was passed by only collecting 362kg per person.

How much does it currently cost?

In 2007/08, the cost of collection for household waste was £49.45 per household.

What are our targets?

The Council has recently entered into the second local area agreement for Essex which contains targets relating to waste management within the 'Our

World' section of the agreement. Under the new national indicator set the main measures for waste have been reduced down to two indicators;

- NI 191 – Residual waste per head (kilograms)
- NI 192 – Household waste recycled and composted (percentage)

Colchester Borough Council's targets under the two indicators are set out in the table below:

Indicator	2008/09	2009/10	2010/11
NI 191	574kg	572kg	519kg
NI 192	34%	35%	40%

There are longer term targets set out in the waste strategy for England published by the Government in 2007 which aims for 40% reuse, recycling and composting by 2010 and 50% by 2020.

Waste Strategy for England 2007 Targets

	2005	2010	2015	2020
Household waste after re-use, recycling and composting (million tonnes-mt) (percentage reduction from 22.2 mt in 2000)	18.6 mt (16%)	15.8 mt (29%)	14.3 mt (35%)	12.2 mt (45%)
<i>equivalent per person figures</i> <i>(percentage reduction from 450kg per head in 2000)</i>	370 kg (18%)	310 kg (32%)	270 kg (40%)	225 kg (50%)
Household re-use, recycling and composting	27%	40%	45%	50%
Municipal waste recovery⁷⁸	38%	53%	67%	75%

Source: Defra

How do we compare?

The Department for Environment Food and Rural Affairs (DEFRA) produces final estimates of municipal waste arisings for England and the regions and those for 2007/8 were published on 6th November 2008.

These can be used to compare our performance with other authorities with regard to recycling rates, waste arisings and costs of service delivery amongst other things.

The tables below compare Colchester's performance against the top ten performing authorities for recycling and composting in the country in 2007/08.

Authority	Household recycling & composting rate %
East Lindsey District Council	58.40
South Hams District Council	57.07
North Kesteven District Council	55.94
Teignbridge District Council	55.58
Huntingdonshire District Council	55.14
Uttlesford District Council	54.50
South Cambridgeshire District Council	53.21
Staffordshire Moorlands District Council	52.87
Rushcliffe Borough Council	52.38
South Shropshire District Council	52.06
Colchester Borough Council	32.79

Authority	Cost of waste collection per household £
South Cambridgeshire District Council	47.31
Teignbridge District Council	48.97
Colchester Borough Council	49.45
North Kesteven District Council	52.29
Huntingdonshire District Council	52.95
Rushcliffe Borough Council	58.52
East Lindsey District Council	61.84
Uttlesford District Council	62.37
Staffordshire Moorlands District Council	62.87
South Hams District Council	65.83
South Shropshire District Council	91.52

Authority	Collected household waste per person, kg
Colchester Borough Council	362
Teignbridge District Council	402
South Hams District Council	403
Uttlesford District Council	404
East Lindsey District Council	419
Rushcliffe Borough Council	420
South Shropshire District Council	427
Huntingdonshire District Council	431
South Cambridgeshire District Council	439
Staffordshire Moorlands District Council	456
North Kesteven District Council	475

Authority	Household dry recycling %
Uttlesford District Council	34.69
South Hams District Council	30.01
North Kesteven District Council	29.15
Rushcliffe Borough Council	26.89
East Lindsey District Council	26.83
Huntingdonshire District Council	26.50
South Shropshire District Council	22.13
Teignbridge District Council	20.57
Colchester Borough Council	20.40
South Cambridgeshire District Council	18.70
Staffordshire Moorlands District Council	18.29

Authority	Household green recycling %
Teignbridge District Council	35.01
Staffordshire Moorlands District Council	34.58
South Cambridgeshire District Council	34.51
East Lindsey District Council	31.57
South Shropshire District Council	29.92
Huntingdonshire District Council	28.64
South Hams District Council	27.06
North Kesteven District Council	26.79
Rushcliffe Borough Council	25.48
Uttlesford District Council	19.81
Colchester Borough Council	12.39

The table below compares Colchester's performance on recycling and the costs of waste collection with the other waste collection authorities within Essex.

Essex Authorities	%	£
Uttlesford District Council	54.50	62.37
Braintree District Council	42.76	65.34
Epping Forest Borough Council	41.00	84.06
Brentwood Borough Council	40.53	53.04
Maldon District Council	34.89	47.07
Chelmsford Borough Council	34.83	67.72
Basildon District Council	32.06	54.42
Colchester Borough Council	32.79	49.45
Castle Point Borough Council	27.06	32.13
Tendring District Council	26.73	32.07
Harlow District Council	22.45	58.19
Rochford District Council	19.00	43.55

Further graphs have been provided as part of the appendices of this report that compare the Council's performance against the top ten performing authorities for recycling and composting in 2007/08, as well as with our Best Value family group of similar authorities as ourselves and with the other waste collection authorities within Essex.

3. Waste Prevention & Reuse Options

Overview

For the purposes of this options appraisal waste prevention is defined as **activities designed to reduce the quantity of waste that would otherwise arise for collection and the re-use of unwanted goods and items to prevent them entering the waste stream.**

Waste prevention sits at the top of the waste hierarchy and the primary aim of any waste strategy is to minimise the amounts of waste being produced. The more we can reduce waste through measures at the top of the waste hierarchy, the less waste will have to be managed through recycling, composting, energy recovery and disposal, and the more the environmental impacts and costs associated with these processes can be avoided.

The amount of waste we produce is increasing all the time. In most of the major European cities around 600 kg waste is produced per inhabitant per year. This waste is above all the symptom of unsustainable methods of production and consumption. It has been proven that each European citizen uses an average of 50 tonnes of resources per year.

Waste prevention can not only lead to reduced costs and resources in relation to waste collection, management and disposal. It can also lead to savings in the processes involved in product generation, for example raw material extraction, energy requirements associated with the manufacture, consumption, and transportation of goods.

There are environmental impacts associated with waste minimisation and reuse which are particularly relevant to the aims of the Council's Nottingham Declaration Strategy for climate change. Once waste is generated and requires management, the collection, reprocessing, transport, treatment and/or ultimate disposal all impact on the environment which result in emissions into the atmosphere.

Waste prevention can also have significant social benefits for local communities. Waste prevention initiatives may offer local employment opportunities and provide local valuable resources that would otherwise be disposed of or transported elsewhere for reprocessing.

Since 2004/05 Colchester has seen a decrease in the overall household waste arisings produced despite the growth in population within the Borough.

Overall waste arisings were 63,538 tonnes in 2004/05 but this has been reduced down to 61,498 tonnes in 2007/08.

Waste prevention activities on a per tonne basis saves the costs associated with the collection and disposal of the waste in the region of £100 per tonne. Set out below are the waste minimisation initiatives that the Council is currently engaged in:

- Love Food Hate Waste campaign
- Bokashi kitchen composters
- junk mail initiatives
- home composting, and
- real nappies.
- The Council has also supported the application for National Lottery awards for all funding by Enform the environmental charity based in Colchester to develop give and take days.

Set out below is a summary of the councils activities in each of these areas.

Love Food Hate Waste Campaign

The Council has fully embraced this new national campaign launched and backed by the Waste and Resources Action Programme (WRAP). Within the Waste to Resources Strategy it was identified that a major element of the putrescible waste found in the black sack was food waste both raw and cooked. From the sampling of residual waste it was identified that 30.4% of material found in the black sack was cooked and uncooked food waste.

When we throw food away, we also waste all the carbon generated as it was produced, processed, transported and stored. This is particularly important given that the whole food supply chain accounts for around 20% of the UK's greenhouse gas emissions. We could make carbon savings equivalent to taking an estimated 1 in 5 cars off the road if we avoided throwing away all the food that we could have eaten.

Apart from damage to the environment, throwing away food that could have been eaten is also a considerable waste of money. Figures produced by the WRAP suggest that a typical household throws away between £250-£400 worth of food a year that could have been eaten. Not only have we paid for the food we also pay for its collection and disposal, through council tax.

As part of the campaign the Council held a competition to find Colchester's 'tastiest leftovers dish'. Five finalists were shortlisted for a cook-off event held at the award-winning Colchester Institute's Centre for Hospitality and Food Studies in November 2008. On the night, finalists had an hour to prepare and cook their dishes using genuine leftovers. Their culinary delights were offered up to judges in front of friends and family and were marked for presentation, taste and the imaginative use of leftovers.

A leftovers cookbook is currently being produced that will include the recipes of all the finalists and the winning entry and this will be used to further promote and publicise the need to manage food properly and prevent the wastage of food.

Bokashi Kitchen Waste Composter

Alongside the Love Food Hate Waste campaign the Council actively promotes the Bokashi Kitchen Waste Composter which can allow residents to compost all of their food waste at home. This includes prepared foods, cooked and uncooked meats and fish, dairy products, eggs, bread, tea bags, coffee grinds, fruit, vegetables and spent flowers.

The use of this system within the home has the added attraction of bringing a realisation to people of how much food they are wasting. It also provides a real alternative to the problem of food waste going into landfill and releasing methane into the atmosphere.

It also provides financial savings in the form of avoided collection and disposal cost as well as the carbon savings associated with the transport for collection and disposal.

Junk Mail

Junk mail is the name given to any unwanted mail such as advertising material and free newspapers. It is estimated that junk mail accounts for around 4% of household waste. With six trees needed to produce one tonne of junk mail that's 4,600 trees being cut down unnecessarily.

In carbon management terms, for every kg of paper prevented, 1kg of CO₂ is avoided. Reducing the amount of junk mail delivered will have a knock on effect on the amount being produced, reducing the need for raw materials to produce the junk mail and reducing printing waste and associated emissions from transport and disposal.

Providing a convenient service through which action can be taken against unwanted mail is beneficial for residents as they have to do very little in terms of action whilst receiving the benefits of less unwanted mail. Residents will also feel they are individually taking action and responsibility to manage their impacts on the environment.

The Council provides information to residents and businesses to advise them of how they can reduce the amount of junk mail they receive in 3 easy ways:

1. Addressed Mail

Registering with the mailing preference service (MPS). Your name will be removed from up to 95% of Direct Mail Lists that are used by companies to

market their products or services. You can register online at www.mpsonline.org.uk or call 0845 703 4599.

2. Unaddressed Mail

Opt out of the Royal Mails delivery of unaddressed mail. Much of the junk mail that we receive is delivered by the Royal Mail regionally to every household. To Opt Out email optout@royalmail.com.

3. Local Mail

Stick the 'no junk mail sticker' near your letterbox. This will help reduce the amount of local mail such as fliers, leaflets and newspapers being delivered through your door. No junk mail stickers are available via email wastemanagement@essexcc.gov.uk or contact 0845 603 7625.

Home Composting

Home composting is the most widespread and well established activity promoted and/or supported by local authorities to reduce waste entering the waste stream. It helps improve the quality of the soil and conforms to the proximity principle and the principle of self sufficiency.

The Council has promoted the use of home composters for many years and it is the preferred method for dealing with raw fruit and vegetable scraps, tea bags and coffee grounds, crushed eggshells, grass clippings and hedge clippings and dead plants etc.

The home composters, of varying sizes are heavily subsidised and residents are able to purchase them via a dedicated website or via a dedicated telephone number. 6,155 home composters were sold to residents of the Borough between 2005 and 2008. A figure of 200 kilograms per annum is a widespread benchmark for the amount of was diverted per year into a home composter.

Real Nappies

Real nappies provide an alternative to disposable nappies for householders keen to reduce the waste they generate, and for local authorities looking to reduce the costs associated with collection and disposal and the environmental consequences of treating and disposing this element of the waste stream.

By their very nature, the most significant environmental issue with using disposable nappies is their disposal. Disposable nappies are responsible for 4% of household waste in the UK, where around 8 million disposable nappies are thrown away every year. The vast majority of nappy waste in this country is land filled. One of the top environmental concerns with landfill is the release of methane, a major green house gas, from the decomposition of paper, wood, food waste and green wastes. Other environmental impacts include

water pollution and odour problems. Landfill sites also require land, which is in increasingly short supply.

Studies estimate that ordinary disposable nappies take at least 200 years to decompose. This means that every disposable nappy previously sent to landfill is still sitting there. The plastic parts of the nappy may sit there indefinitely. The most effective environmental solution to the waste problem is to reduce the generation of waste. New parents can do their bit to reduce waste by choosing real nappies in preference to disposable nappies.

Studies have shown that nappy laundry services use 32% less energy than home washing and 41% less water.

The cost of real nappies is often a prohibiting factor for parents and therefore offering a financial incentive is the most common means of overcoming this barrier.

In partnership with Essex County Council, the Council promotes the use of real nappies via its website and also in its recycling guide, which was posted to every household in the Borough in March 2008. Council officers had information and leaflets about real nappies at a town-centre roadshow in both summers of 2007 and 2008.

Give and Take days

Give and take days are pre publicised events that enable residents to reuse their unwanted items within the community and access usable items unwanted by other residents at no cost. En-form, the Environmental charity based in Colchester applied for and received funding from National Lottery Awards for All with the support of the Council to hold 6 give or take days in the Borough over the next 12 months starting with the first event which was held in Wivenhoe in October 2008. As the table below shows, there were 2046 items donated. A few boxes of books, clothing and toys were taken by the local Charity Shop. Of the 2046 items given over 81% found a new home.

Item Count	In	Out	Waste	Left
Books & Mags	432	379	0	53
Toys	416	334	0	82
Textiles	202	183	0	19
Vids, Cds DVDs	293	221	0	72
Kitchenware	211	141	0	70
Bric a Brac	146	146	0	0
Garden	17	16	0	1
Small Furniture	16	13	0	3
Misc	181	107	5	69
Baby Items	18	18	0	0
Bikes	5	5	0	0
Games and Puzzles	71	71	0	0
Electrical Items	38	38	0	0
Total	2046	1672	5	369

In addition 25 pairs of glasses were donated for use in developing countries and 3 mobile phones for recycling.

In order to ensure that the Give and Take Days are run to the highest of standards and to ensure consistency between events the Council could offer support to interested third sector parties and prepare guidance material in how an event should be organised and run as well as a means of recording performance at events. There may also be support from the Council in relation to the appropriate disposal of unwanted goods arising from the Give and Take days.

There are clear environmental benefits resulting from the establishment of Give and Take days primarily resulting from the diversion of waste from collection and then treatment/disposal with the resultant positive climate change effects. The reuse of goods prevents these goods adding to carbon emissions from collection, re-processing, treatment or disposal as well as reducing the demand for raw materials to produce new goods.

There are also social benefits to be gained from enabling community groups to engage with the community and express their ideals whilst providing a service for those in the community. It also allows the Council to promote the idea of sustainable communities and is a valuable educational tool to encourage behavioural change in residents in terms of moving up the waste management hierarchy.

The events could also benefit members of the community with little disposable income so that they are able to attain items new to them at little or no cost.

Actions the Council could take to enable this to take place could include;

- the development of guidance on the website on how to successfully deliver Give and Take days and establish an online monitoring form and develop an information pack for interested groups
- Hold a workshop with interested parties to learn about the Give and Take days, including how to run an event, what the benefits may be, and monitoring requirements
- Hold follow-up meetings with interested parties where appropriate to establish and maintain commitment to deliver Give and Take days, aim to deliver events at a set rate per year

Doing more.

Recycling has now become a mainstream activity with more people claiming to recycle than ever before. However national targets for recycling will require even more people to recycle and everyone to recycle more of their waste.

WRAP in the autumn of 2007 commissioned some research to explore people's barriers to recycling at home. The objective of the research was to generate a more rigorous, detailed and in-depth understanding of what prevents householders from recycling or recycling more than they could. The work involved three stages:

- developing a conceptual framework for investigating the various barriers to recycling, drawing on the evidence of recent published literature;
- undertaking qualitative depth interviews with 73 householders to explore barriers in detail; and
- carrying out a quantitative household survey with 1,512 householders drawn from a sample of nine local authorities in England, regionally representative and covering a cross section of three recycling collection regimes – weekly residual and weekly recycling; weekly residual and fortnightly recycling; and alternate weekly collection of recyclables and residual waste.

The research has led to some important fresh thinking about how different population groups might be engaged more effectively by recycling campaigns especially at a more local level. It has also clarified that four very different types of barrier exist:

- situational barriers including not having adequate containers, a lack of space for storage, unreliable collections, unable to get to bring sites;
- behaviour, for example not having the space or systems in place in the home to recycle, being too busy with other preoccupations, difficulties in establishing routines for sorting waste and remembering to put it out;
- lack of knowledge such as knowing what materials to put in which container, and understanding the basics of how the scheme works; and
- attitudes and perceptions such as not accepting there is an environmental or other benefit, being resistant to householder sorting or not getting a personal motivational reward from recycling.

Very different messages and operational actions are needed to respond to these wide ranging barriers. Some interventions will be operational (service improvement) others about information and practical advice about how to use the scheme, and others motivational; showing why participation is worthwhile.

In order to select the most appropriate intervention for a given audience, a clear analysis of the prevalent barriers is required.

In order to increase the levels of participation in the collection schemes it is recommended that Colchester undertakes some analysis into understanding the barriers that residents feel exist that prevents them from fully participating in recycling and the messages that would best be used to encourage them to take part.

A proposal has been developed that would create a 'door stepping' team that would conduct interviews and offer support and guidance face to face with residents on how to reduce waste and recycle more using the council's service.

This proposal is currently being discussed with communications experts who have experience in this approach and have applied it successfully elsewhere as to how best this method of encouraging participation and giving information and support could best be delivered.

Appraisal of kerbside collections options for household waste

What could we do in the future?

As part of the ongoing work being undertaken by the Essex Waste Partnership in 2006/07 that was seeking to develop a joint municipal waste management strategy for Essex, it was decided that to aid decision making on possible future collection service options a modelling tool be used to assess options that provided for high recycling and took value for money into account.

Essex County Council (ECC) commissioned AEA Technology (AEA), an environmental consultancy, to undertake waste system design modelling on its behalf, as part of the Waste Strategy Project. Two models were used to assess the whole system costs (ie Waste Collection Authority [WCA] and Waste Disposal Authority [WDA] costs) of household waste collection, treatment and disposal options namely the Kerbside Analysis Toll (KAT) and Wasteflow. KAT was used to model the kerbside collection costs of household waste. The outputs from the KAT model were fed into AEA's proprietary Wasteflow model and the overall costs of the whole waste management system to the WDA and WCA were then calculated between 2006/07 and 2038/39.

KAT is a Microsoft © Excel™ workbook that provides a method of assessing the costs of different kerbside collection options for meeting household waste recycling targets. It was considered the most appropriate for this task by ECC and AEA, because it was prepared for Waste & Resources Action Programme (WRAP), a not-for-profit company funded by government. KAT is primarily intended as an aid to WCAs in the planning of new kerbside collection systems. It can be used to establish the relative costs of implementing different systems. By running different scenarios, it can help to assess and to compare collection options to identify the most financially viable. It is important to note that the costs projected by KAT are standard costs. These costs are not the same as the contracted price.

Participation rates

This section explains set out, participation and capture rates as used in the Options, which are described in the following section. The definitions for set out, participation and capture rates as used in KAT are as follows:

- Set out rate – the number of households that set out a material on a given collection day per household served; as a rule of thumb the set out rate is assumed to be about 10% less than the participation rate
- Participation rate – a participating household is defined as the number of served households putting out a container at least once per month
- Capture rate – the amount of each targeted material set out by the participating households compared to the amount of the targeted material generated by the participating households. It is derived from

the participation rates and the collected tonnage of each material by the district.

In the Baseline the participation and set out rates were tailored to each district's current performance. The chosen rates are averages for the whole of the UK and ECC considered them realistic achievable rates for all the districts. The rates were kept the same for each district to give a fair comparison. Given the proposed investment by WDA and WCAs in education and promotional material (up to £3.50 per household in the Options models), these rates were considered realistic by ECC for Essex authorities.

Description of ECC's options

The options listed here are individually represented in the flowcharts below. Please note that the kerbside sort recycling collection in Options 1 and 2 consists of householders mixing paper, glass, cans and plastics in two recycling boxes, which the crew take to the vehicle to sort.

- Do nothing: this option is not graphically represented as it is the same as the Baseline only without the introduction of a MBT plant for residual waste in 2013/14
- Baseline: Service as offered in 2006/07

Baseline	Set out	Participation	Capture
Weekly refuse	95%	-	-
Alternate weekly paper, plastics and textiles	55%	65%	50%
Fortnightly garden waste	55%	65%	287%*
Alternate weekly glass & cans	55%	65%	63%

- Option 1: Kerbside sorted recycling with separate garden and food waste collections
- Option 1 + Transfer Station: this option is not graphically represented as it is the same as Option 1 only with the introduction of a Transfer Station (TS) in 2013/14

Options 1 & 3	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly recycling (kerbside, respectively comingled)	75%	85%	75%
Fortnightly garden waste	75%	85%	287%*
Weekly food waste	55%	65%	75%

Note: *Our garden waste capture rate was calculated to be unrepresentatively high (ie 287%) because the amount of garden waste in waste composition data used in KAT was unrepresentatively small. The fraction of garden waste, included in the waste composition snapshot based on local data from 2004 was unrepresentatively small (7.8%). Therefore the amount of garden waste calculated to be in the waste stream (ie potentially collectable) was only close to half as much as was actually collected in 2006/07. To calculate the garden waste capture rate this small amount of garden waste had to be multiplied by

the Baseline's participation rate of 65% of those households that received a garden waste collection (65,000 out of 71,078).

- Option 2: Kerbside sorted recycling with mixed garden and food waste collection
- Option 2 + TS: this option is not graphically represented as it is the same as Option 2 only with the introduction of a TS in 2013/14

Options 2 & 4	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly recycling (kerbside, respectively comingled)	75%	85%	75%
Fortnightly mixed food and garden waste	75%	G = 75% F = 40%	G = 287%* F = 75%

- Option 3: Comingled recycling with separate garden and food waste collections
- Option 3 + TS: this option is not graphically represented as it is the same as Option 4 only with the introduction of a TS in 2013/14
- Option 4: Comingled recycling with mixed garden and food waste collection
- Option 4 + TS: this option is not graphically represented as it is the same as Option 4 only with the introduction of a TS in 2013/14

Set out in the Tables on the next five pages are the pictorial description of each of the options along with the associated levels of recycling performance and the collection costs of the option on a per tonne basis.

The tables also show the frequency of collections for each of the materials in the option. It was also decided to include the end treatment or disposal route for each for the materials to aid understanding.

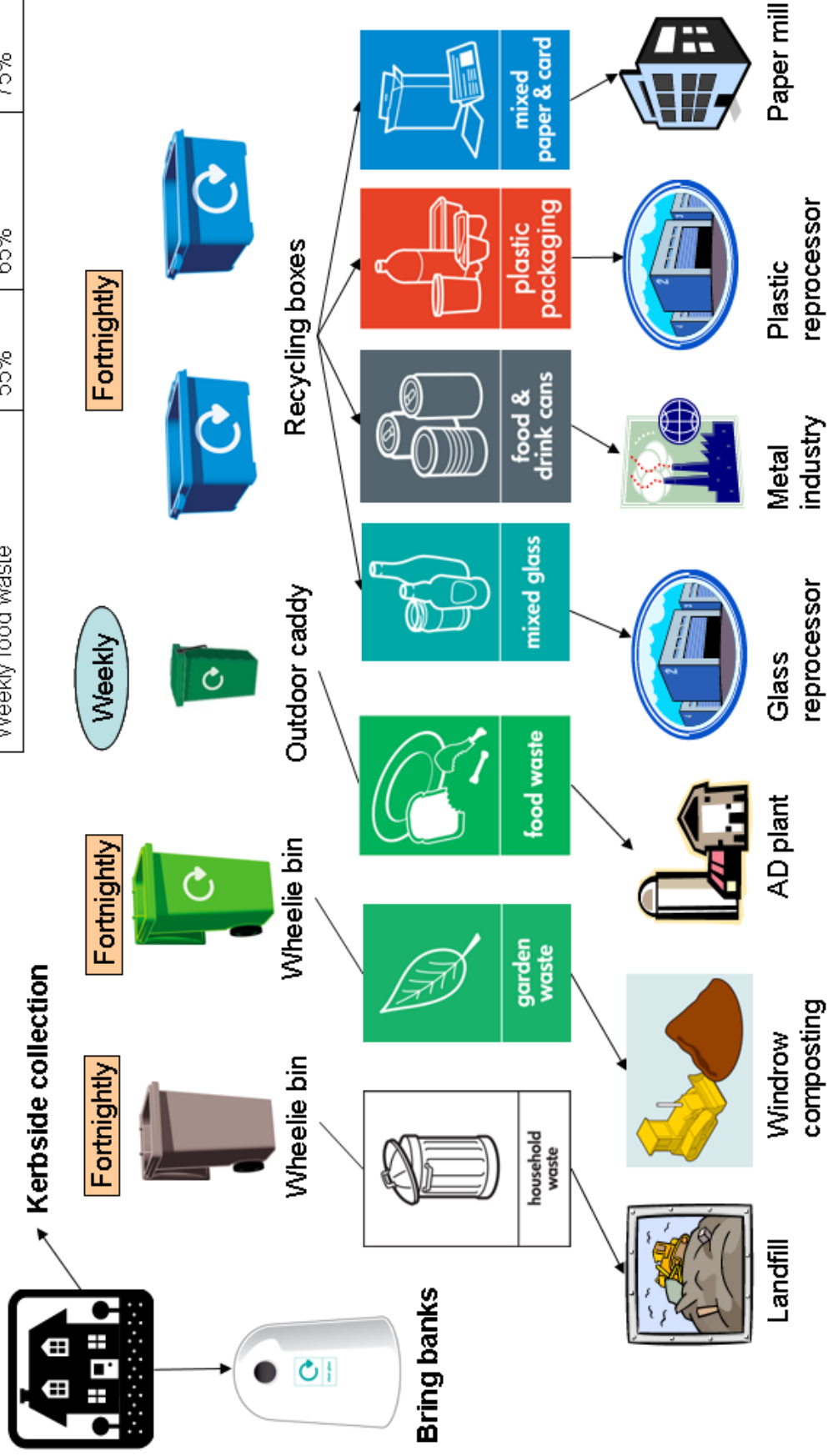
Scheme: Baseline 2006/07
Performance: 31%
Price per tonne collected: £53

Kerbside collections	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	55%	65%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	55%	65%	63%



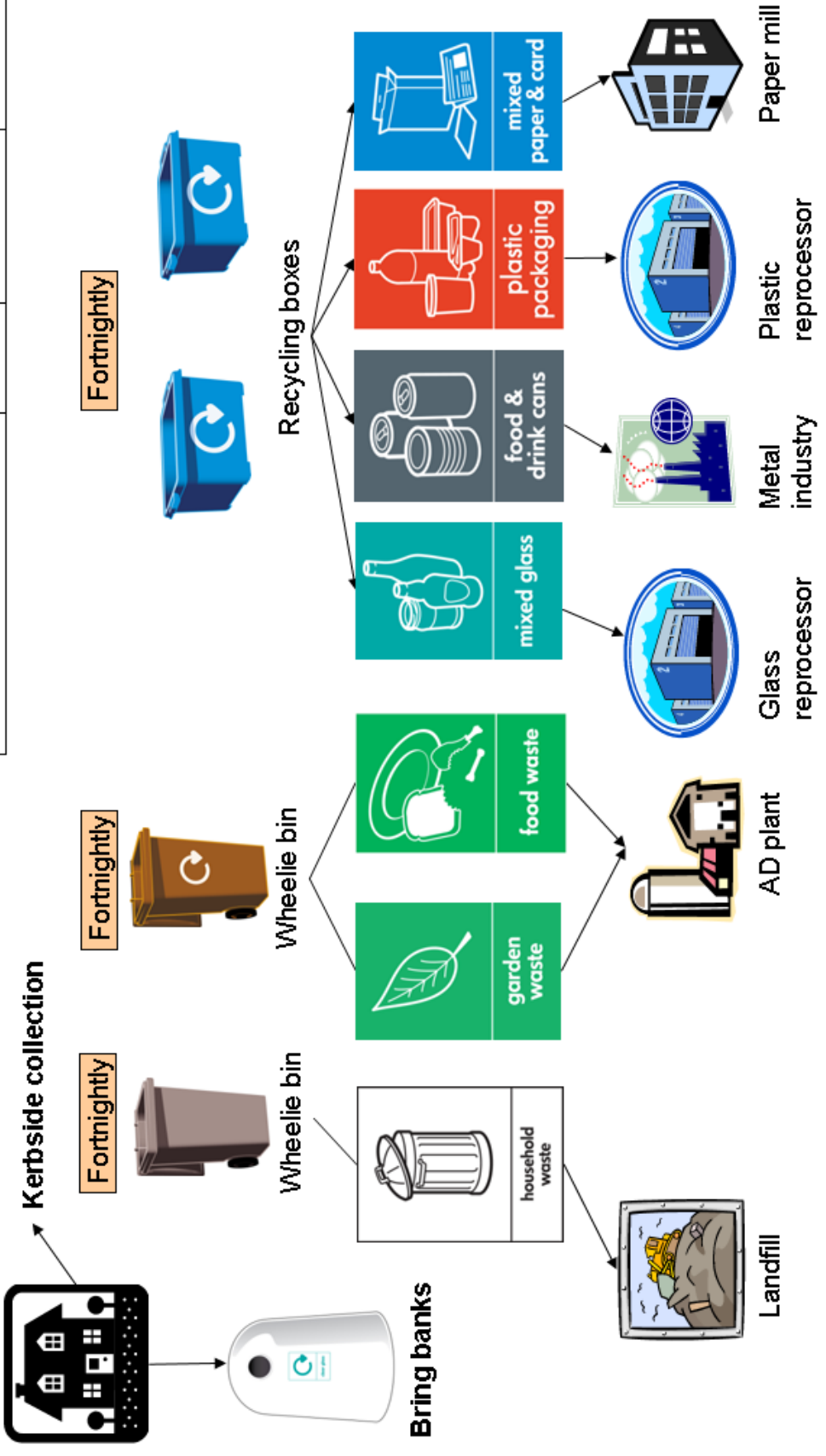
Scheme: Option 1
Performance: 54%
Price per tonne collected: £59

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly kerbside recycling	75%	85%	75%
Fortnightly garden waste	75%	85%	287%*
Weekly food waste	55%	65%	75%



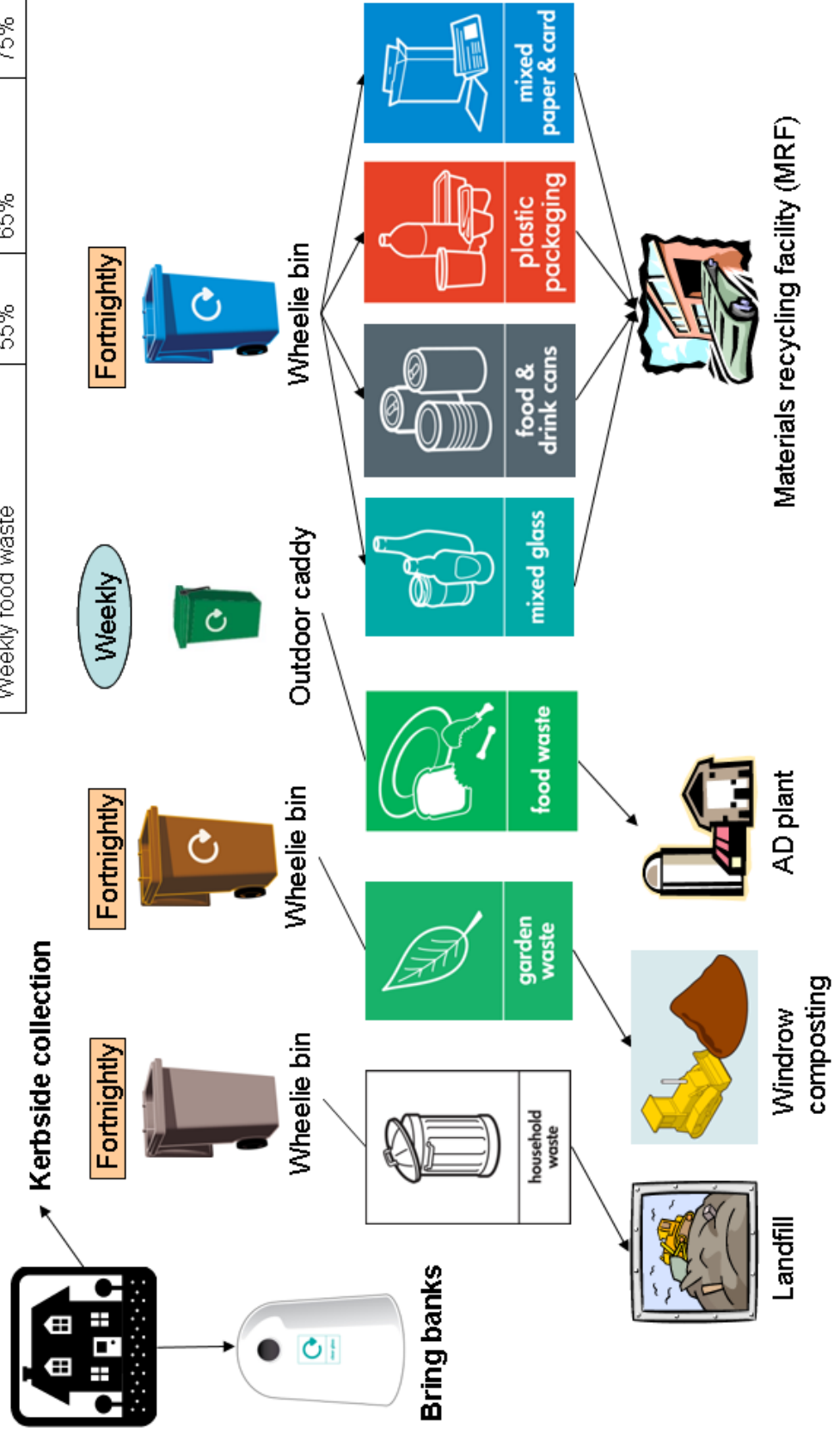
Scheme: Option 2
Performance: 48%
Price per tonne collected: £54

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly kerbside recycling	75%	85%	75%
Fortnightly mixed food and garden waste	75%	G = 75% F = 40%	G = 287%* F = 75%



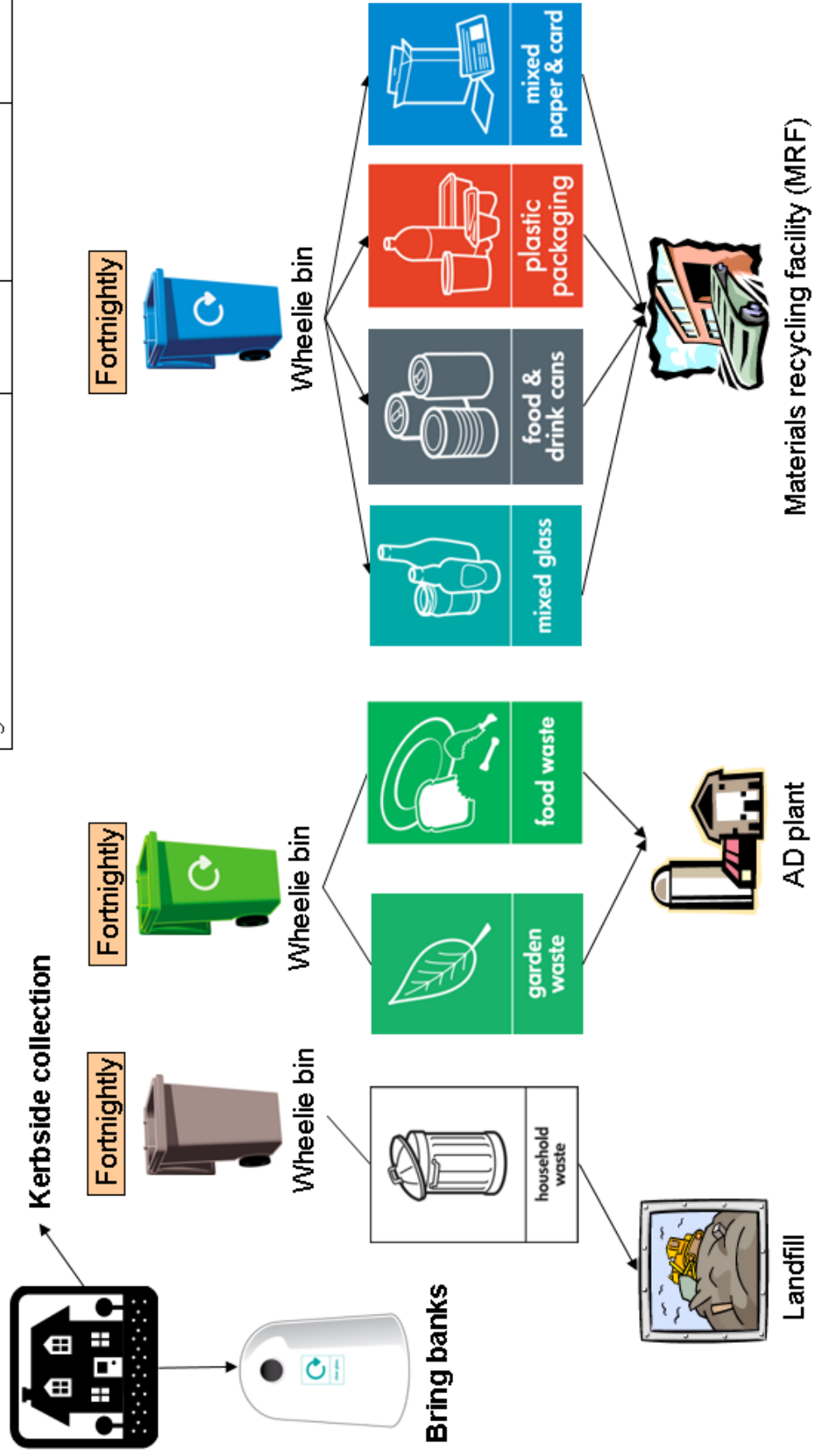
Scheme: Option 3
Performance: 51%
Price per tonne collected: £76

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly commingled recycling	75%	85%	75%
Fortnightly garden waste	75%	85%	287%*
Weekly food waste	55%	65%	75%



Scheme: Option 4
Performance: 45%
Price per tonne collected: £71

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly comingled recycling	75%	85%	75%
Fortnightly mixed food and garden waste	75%	G = 75% F = 40%	G = 287%* F = 75%



Modelling assumptions as employed by ECC

This section represents only a brief summary of all the assumptions used in the modelling undertaken for ECC. The full set of detailed assumptions, as distributed to CBC by ECC can be found in Appendix 1 “General assumptions for all Essex districts”.

WRAP suggested four waste management systems that they believed would provide the most significant increase in recycling and landfill diversion performance whilst taking value for money into account, these then became the options modelled in this project. ECC recognised that there are a number of potential variations to the choices made. However, the limited time and resources available for the project did not permit the modelling of multiple options.

The future collection systems modelled in the Options have been based on alternate weekly collection (AWC) of refuse and recycling as there is strong evidence nationally that this is a cost effective way of increasing participation in recycling and overall recycling rates.

The chosen baseline year was 2005/06 (although 2006/07 base data was used for CBC since this had been available). In the modelling, the 2005/06 base prices have all been inflated three years to 2008/09. Different types of costs have been inflated at appropriate rates.

For each collection system in KAT, only one vehicle type can be selected. Therefore in our Baseline model, where several different types of collection vehicles are in operation, an average payload is calculated and a corresponding vehicle selected for the purposes of the modelling only. As several of our vehicles are not represented in KAT and our service consists of three different types of collections schemes, a best approximation in terms of vehicles and collections scheme had to modelled.

Differences in assumptions between the Baseline and ECC’s Options

Here are some of the differences in assumptions between our Baseline and the Options modelled by ECC, which explain to a large degree the vast difference between their relative performances and costs.

Assumption	Baseline	ECC’s Options
Set-out rate for recycling	55%	75%
Participation rate for recycling	65%	85%
Capture rate for recycling	50% or 64%, resp.	75%
Reason: ECC believes that their higher set-out, participation and capture rates are realistically achievable rates for all districts based on the proposed investment in education and promotion and allow for a fair comparison.		
Crew working hours	6.5 hrs	7.5 hrs
Reason: Our crews work on a ‘task and finish’ basis, whereas ECC decided to		

use the higher KAT default figure for all new Options across all districts.		
Average income per tonne of recyclables in 2008/09 collected at the kerbside	£16/t	£74/t
Reason: The higher per price tonne in ECC's Options was used (instead of our average income from the Baseline) in the modelling for all other districts to make the results comparable.		
Reject rates for all dry recycling collected at kerbside	0.5% was deducted	For kerbside sort Options 1 & 2: 0% was deducted
Reason: According to ECC, the 0.5% reflects the amount of contamination reported by districts in their BVPI audited data at their local Material Recycling Facilities (MRFs). However, to reflect current practice districts are penalised 0% for their recycling sent directly to third party reprocessors.		

Results for each option – costs & performance

Separate food and garden waste collection systems have the highest recycling rate. The kerbside sorted dry recyclables collection system provides a higher recycling rate than co-mingled dry recyclables collection because rejected contamination by the MRF represents a smaller fraction.

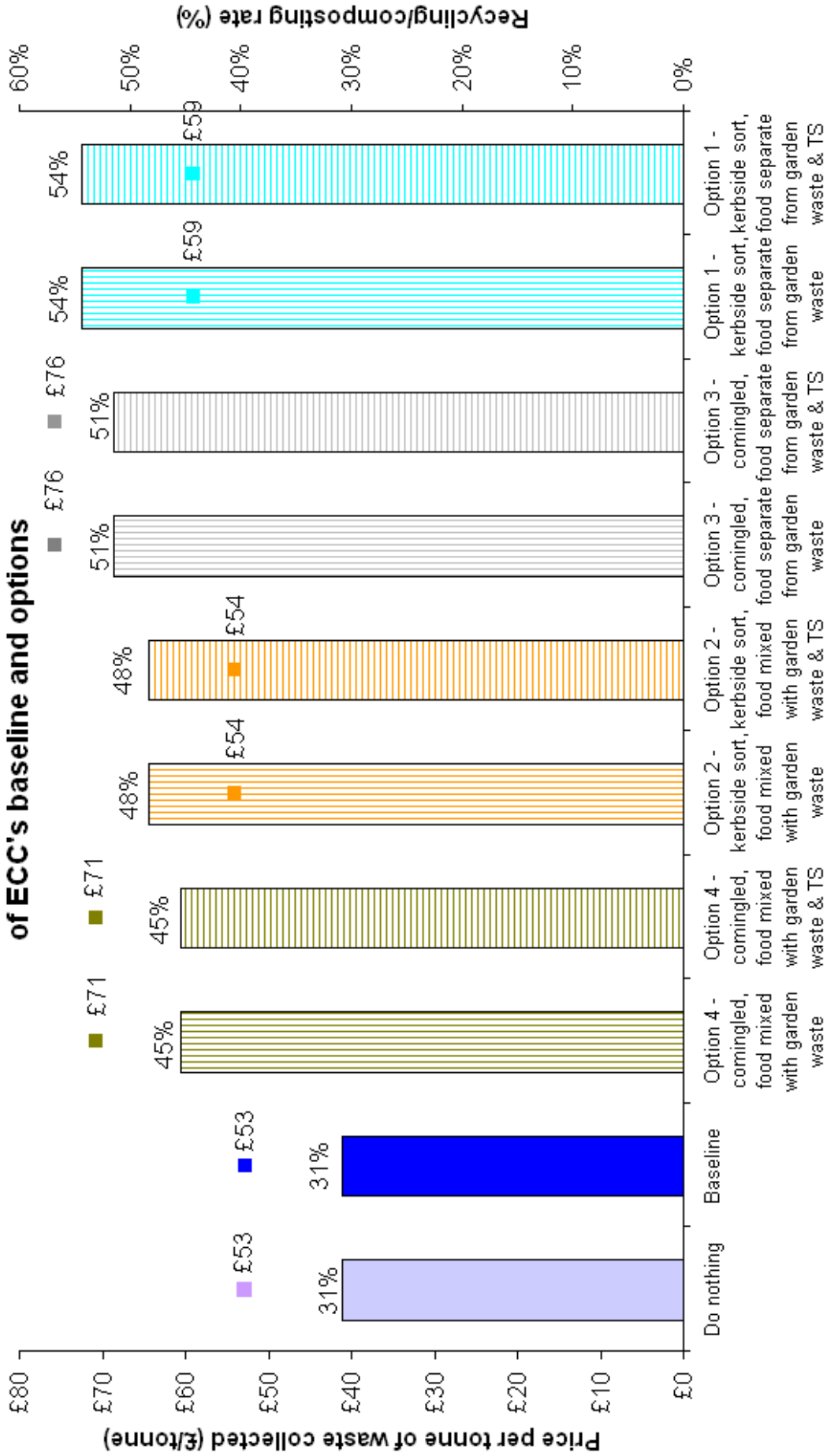
There is noticeable difference between options 1 against 2, and 3 against 4. This is due to the lower participation of the AWC of mixed organics, as a result of householders being more likely to put food waste into the residual bin on the week when there is no organics collection. Food waste only collections on the other hand occur weekly and so households have no need to place food waste into the residual waste stream every other week.

As such option 1, which uses a kerbside sort dry recyclables collection and a separate food waste and garden collection, has the highest recycling rate of all the options.

Between 2008/09 and 2013/14, collecting and processing kerbside sorted dry recyclables costs less than collecting co-mingled dry recyclables. Although the pure collection costs and haulage are higher with kerbside sorting, this is outweighed by the lack of MRF costs and the higher income received for source separated materials. The remaining difference comes from the greater funding contribution from ECC (through the statutory recycling credits funding) due to the higher recycling rate resulting from kerbside sorting dry recyclables.

The performance and cost of the Baseline and each Option in 2009/10 is shown in the graph below.

Cost vs performance in 2009/10 of ECC's baseline and options



CBC modelled seven options on 2006/07 baseline

The table below lists the options drawn up by CBC officers, which includes a variety of options some with no collection service change and some with changes in both recycling and refuse collection. The different recycling scenarios include a variety of combinations of mixing recyclables and collection containers. All of these options were drawn up with the aim of increasing the recycling and/or composting rate and in compliance with CBC's waste and recycling policy.

Seven options (shown emboldened in the table below) were then selected from the larger list by the Portfolio Holders. The reason for choosing these seven options included the absence of comingling recyclables, wheelie bins and garden waste mixed with food waste (referred to as mixed organics).

The final options were based on the original baseline as modelled by ECC to make the options comparable to ECC's options. Advice and clarification on the options' assumptions was sought from WRAP and Dr Julia Hummel, developer of KAT, of Eco Alternatives Ltd.

Option	Brief description
A	Service offered in 2008/09 ie updated baseline
A1	Baseline with increased participation of 75%
A2	Baseline with increased participation of 85%
B	Baseline with weekly food waste collection
C	ECC's Option 3 based on our 2008/09 baseline
D	ECC's Option 4 based on our 2008/09 baseline
E	Baseline with weekly recycling and food waste, and fortnightly refuse collection
F	Baseline with weekly recycling and food waste collection
G	Baseline with weekly recycling, and AWC of mixed organics and refuse collection
H	Baseline with weekly comingled sack for paper, plastics, cans and textiles
I	Baseline with weekly food waste and comingled sack collection for paper, plastics, cans and textiles
J	Baseline with weekly food waste, weekly comingled sack for paper, plastics, cans and textiles, and AWC of garden waste and refuse collection
K	Baseline with weekly recycling collection
L	Baseline with alternate weekly clear sack for paper and comingled sack for plastics, cans, glass and textiles collection
M	Baseline with weekly food waste, and alternate weekly clear sack for paper and comingled sack for plastics, cans, glass and textiles collection
N	Baseline with weekly food waste, alternate weekly clear sack for paper and comingled sack for plastics, cans, glass and textiles, and AWC of garden waste and refuse collection
O	Baseline with weekly food waste, and fortnightly refuse collection

Description of the original CBC options

Option A1 – Current service with increased participation of 75%; to increase recycling with no service change

Option A1	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	65%	75%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	65%	75%	63%

Note: *Our garden waste capture rate was calculated to be 287% because the amount of garden waste in waste composition data used in KAT was unrepresentatively small.

Option A2 – Current service with increased participation of 85%; to increase recycling with no service change

Option A2	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	75%	85%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	75%	85%	63%

Option B – Current service plus weekly food waste collection; to divert food waste with minimum service change

Option B	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	55%	65%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	55%	65%	63%
Weekly food waste	30%	30%	75%

Option E – Current service but weekly recycling & food waste, and fortnightly residual (black sacks) collections; to increase recycling and to encourage participation in food waste collection by reducing residual collection

Option E	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Weekly paper, plastic & textiles	75%	85%	75%
Fortnightly garden waste	55%	65%	287%*
Weekly glass & cans	75%	85%	75%
Weekly food waste	55%	65%	75%

Option F – Current service but weekly recycling & food waste collections; to increase recycling and food waste diversion with more frequent recycling collections, same as option E but with weekly residual collection

Option F	Set out	Participation	Capture
Weekly refuse	95%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	287%*
Weekly glass & cans	65%	75%	75%
Weekly food waste	40%	40%	75%

Option K – Current service but weekly recycling collection; to increase recycling with minimum service change

Option K	Set out	Participation	Capture
Weekly refuse	95%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	287%*
Weekly glass & cans	65%	75%	75%

Option O – Current service but weekly food waste, and fortnightly residual (black sacks) collections; to increase recycling and to encourage participation in food waste collection by reducing residual collection, same as option E but with fortnightly recycling collection

Option O	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Fortnightly paper, plastic & textiles	70%	80%	75%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	70%	80%	75%
Weekly food waste	55%	65%	75%

Set out in the Tables on the next five pages are the pictorial description of each of the options along with the associated levels of recycling performance and the collection costs of the option on a per tonne basis.

It also shows the frequency of collections for each of the materials in the option. It was also decided to include the end treatment or disposal route for each for the materials to aid understanding.

Scheme: Option A1
Performance: 33%
Price per tonne collected: £55



Kerbside collections	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	65%	75%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	65%	75%	63%

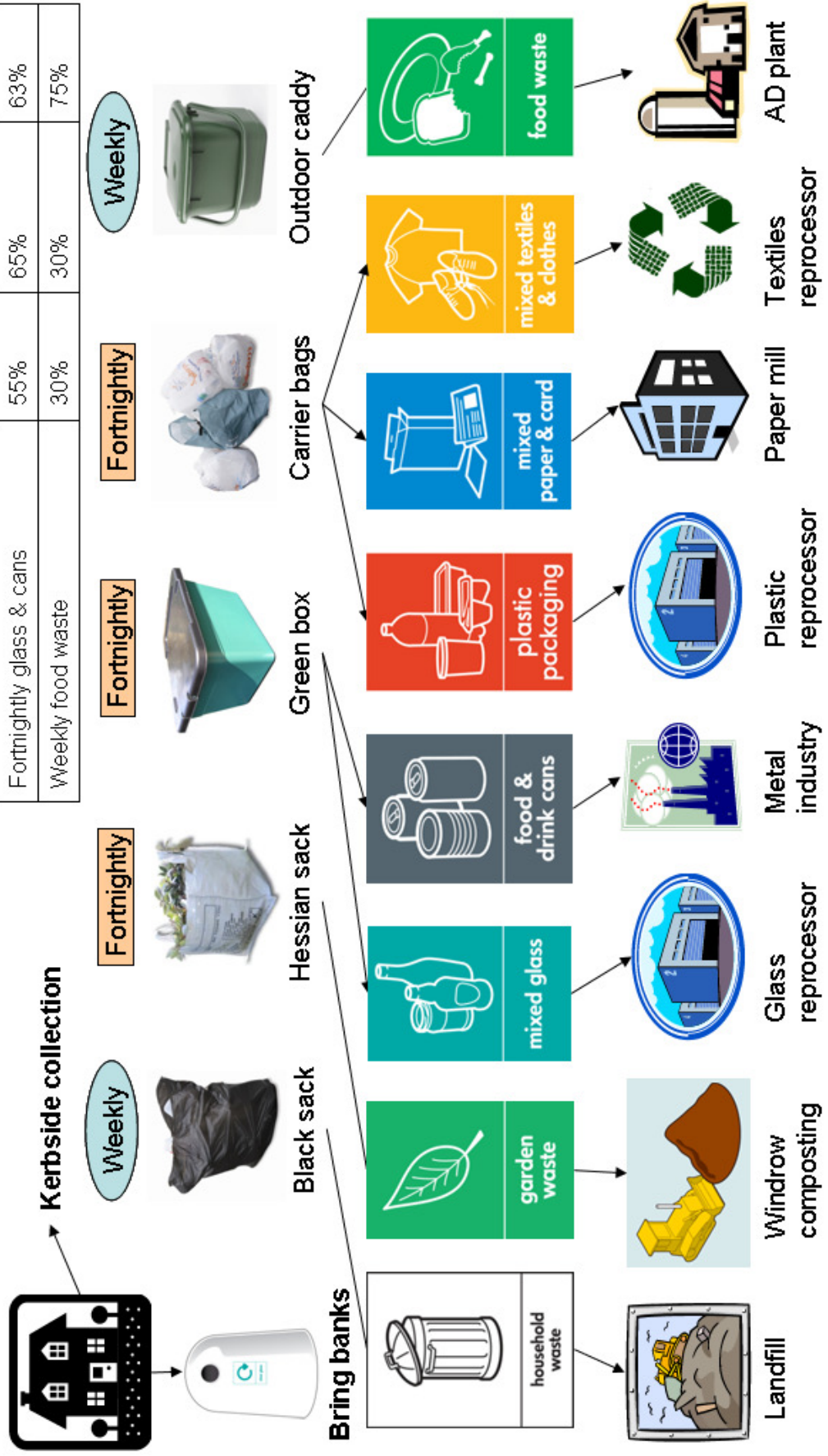
Scheme: Option A2
Performance: 36%
Price per tonne collected: £56

Kerbside collections	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	75%	85%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	75%	85%	63%



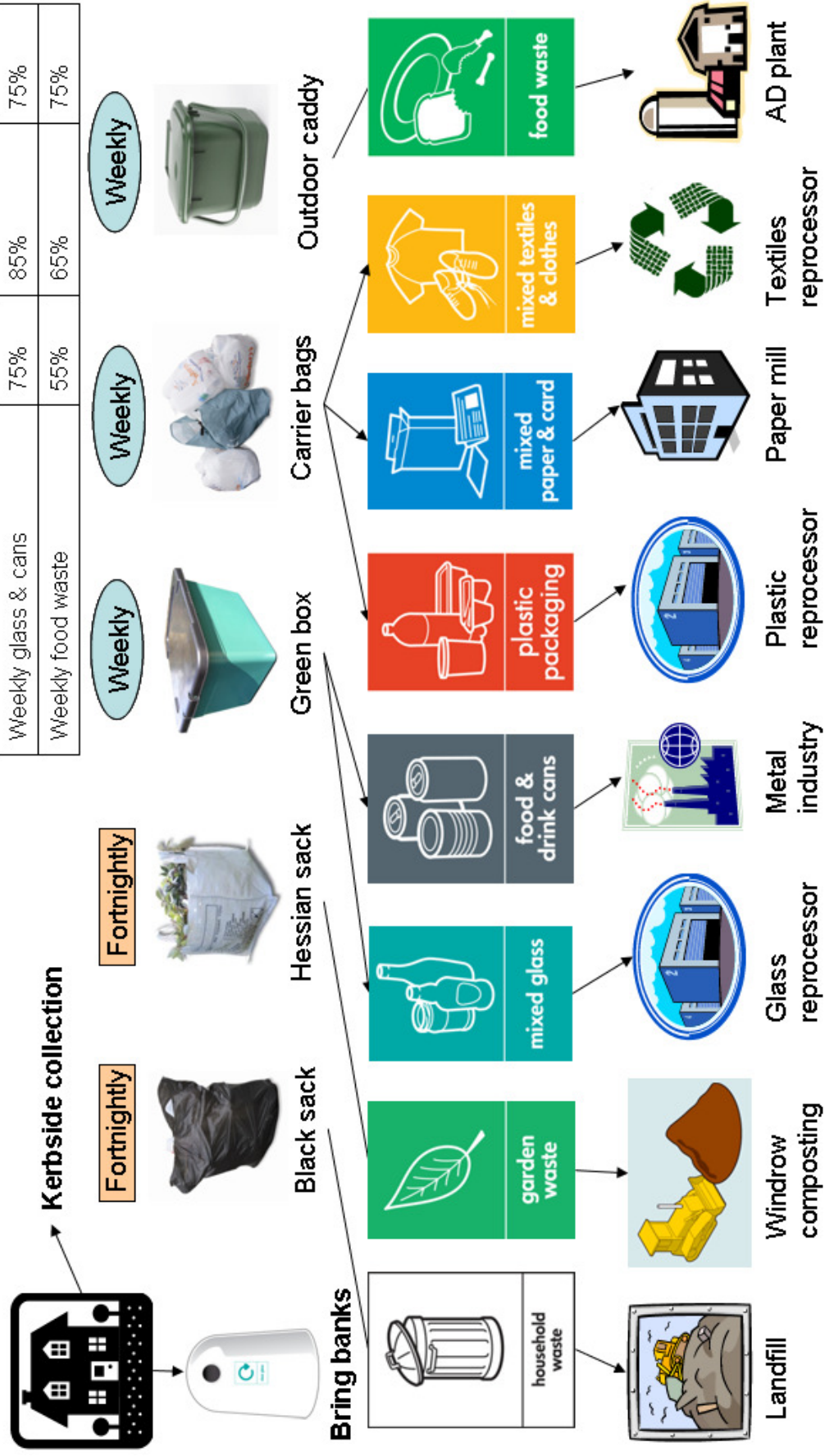
Scheme: Option B
Performance: 35%
Price per tonne collected: £74

Kerbside collections	Set out	Participation	Capture
Weekly refuse	95%	-	-
Fortnightly paper, plastic & textiles	55%	65%	50%
Fortnightly garden waste	55%	65%	287%*
Fortnightly glass & cans	55%	65%	63%
Weekly food waste	30%	30%	75%



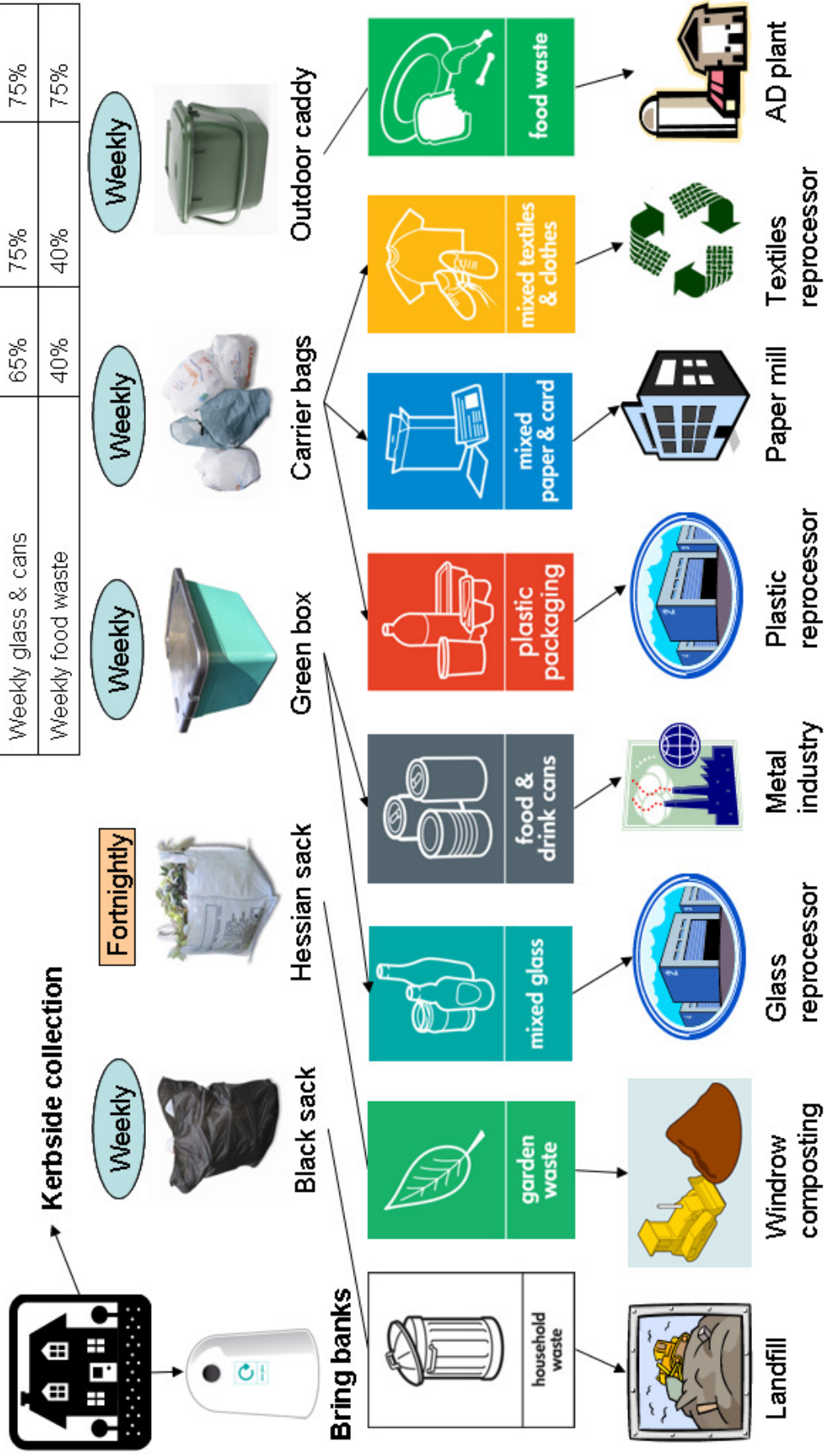
Scheme: Option E
Performance: 52%
Price per tonne collected: £84

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	95%	-	-
Weekly paper, plastic & textiles	75%	85%	75%
Fortnightly garden waste	55%	65%	287%*
Weekly glass & cans	75%	85%	75%
Weekly food waste	55%	65%	75%



Scheme: Option F
Performance: 46%
Price per tonne collected: £93

Kerbside collections	Set out	Participation	Capture
Weekly refuse	95%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	287%*
Weekly glass & cans	65%	75%	75%
Weekly food waste	40%	40%	75%



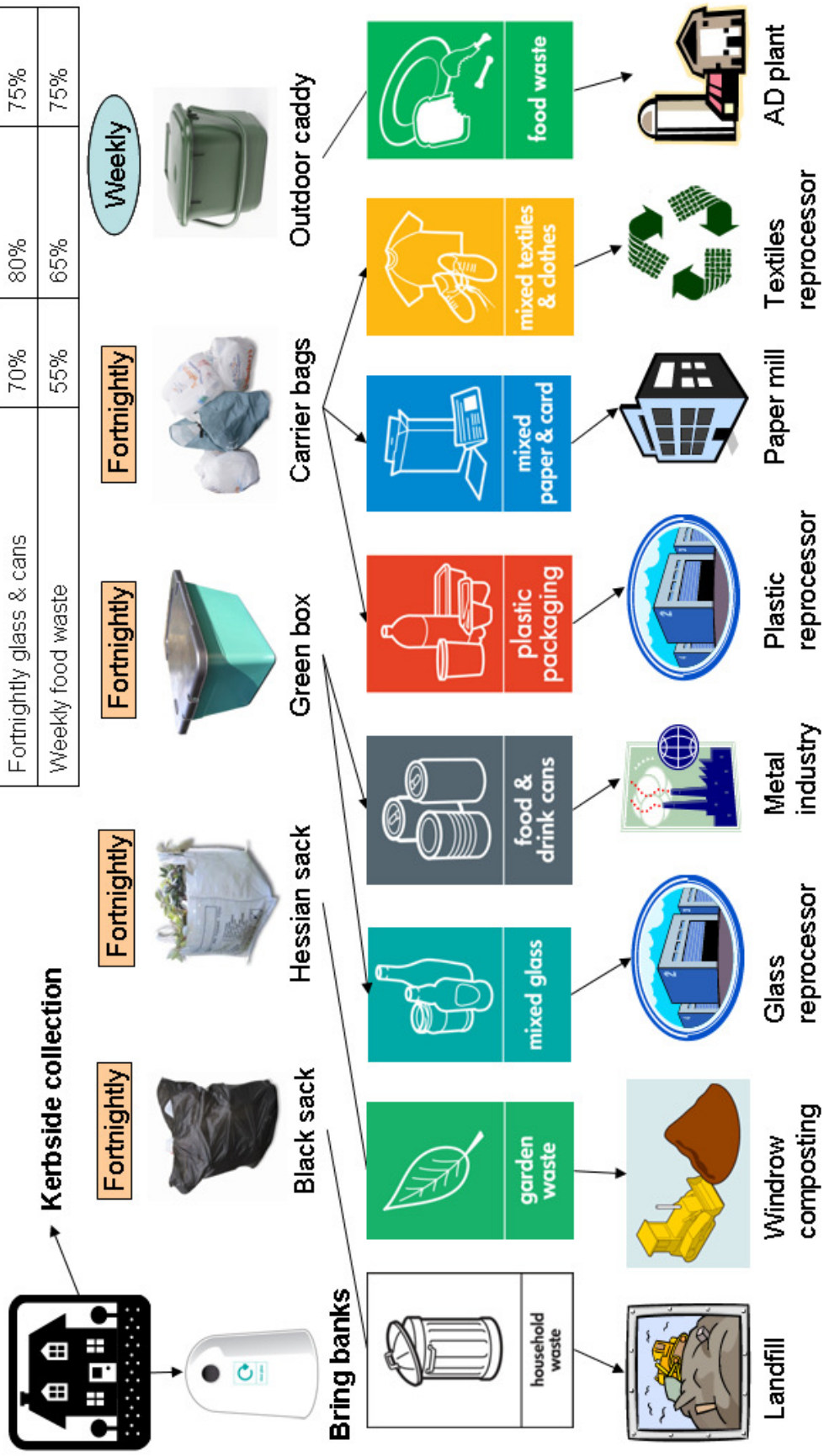
Scheme: Option K
Performance: 41%
Price per tonne collected: £74

Kerbside collections	Set out	Participation	Capture
Weekly refuse	95%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	287%*
Weekly glass & cans	65%	75%	75%



Scheme: Option O
Performance: 50%
Price per tonne collected: £59

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	100%	-	-
Fortnightly paper, plastic & textiles	70%	80%	75%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	70%	80%	75%
Weekly food waste	55%	65%	75%



Results for original CBC options – costs & performance

Even though Option E could give the best performance (52%), it is also the second most expensive (£84/tonne). The second best performing option, Option O (50%), is much more economical in comparison (£59/t); this is due to a lower frequency of both dry recycling and refuse, ie fortnightly instead of weekly. It is assumed this change only leads to relatively small reduction in dry recycling participation, which explains the small difference in performance.

Option F, in comparison to Option E, shows that a weekly refuse collection could be more expensive (£93/t) and lower performing (46%) due to removing the pressure on householders to recycle as much as possible. The difference of £9/t between these two options is due to Option E's lower cost of refuse collection being not entirely offset by its higher collection costs for dry recycling and food waste.

The introduction of fortnightly refuse collection to our current system, with a weekly food waste collection (Option O: 50%), could lead to a greater improvement in performance than increasing the recycling collection frequency to weekly, again with a weekly food waste collection (Option F: 46%).

The next best performing option is Option K (41%) as it has been assumed that increasing the frequency of dry recycling collections to weekly would raise participation and capture rates to 75%.

Option A2's lower cost (£56/t and 36%) compared to a similarly performing option (Option B: £74/t and 35%) is due to the absence of a food waste collection.

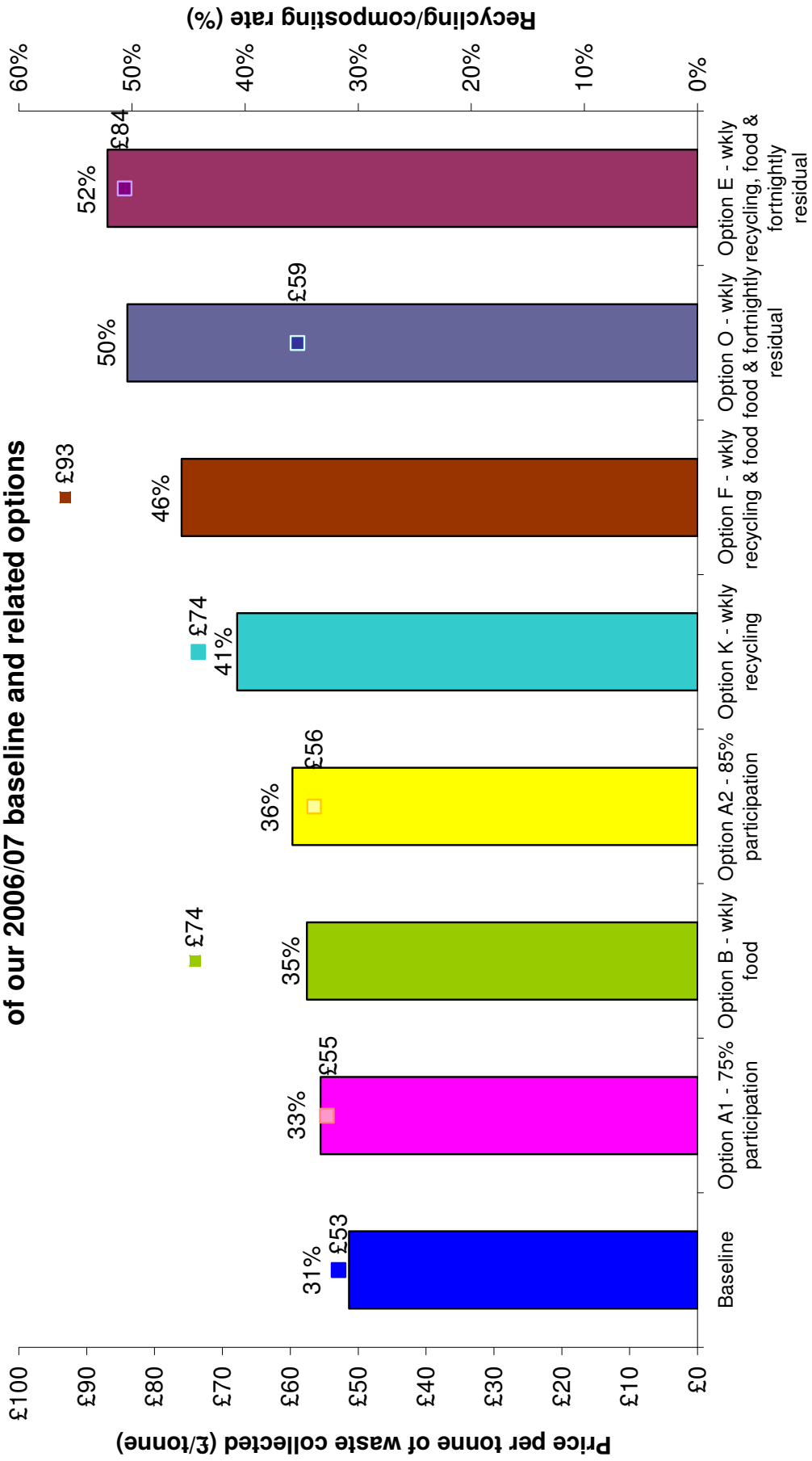
The cost of introducing a weekly food waste collection (Option B: £74/t) is equal to the cost of introducing a weekly dry recycling collection (Option K: £74/t). However, Option B (35%) results in a lower performance as Option K (41%) as there is no direct incentive for residents to use the food waste collection because weekly refuse collection remains in place, whereas a dry recycling collection with an increased frequency provides greater convenience and hence higher participation.

It is important to note that the introduction of a weekly food waste collection (Option B: £74/t and 35%) could be more expensive as well as lower performing than the introduction of a weekly food waste with a fortnightly refuse collection (Option O: £59/t and 50%).

Despite Option A1 (33%) resulting in an only slightly lower performance than Option B (35%), Option A1's heavy investment in education and promotion (£55/t) would be more economical than Option B's weekly food waste collection (£74/t).

The performance and cost of the Baseline and each Option in 2009/10 is shown in the graph below.

Cost vs performance in 2009/10 of our 2006/07 baseline and related options



Comparison of ECC's five options against CBC's seven options

Despite the fact that our original baseline is based on the service offered in 2006/07 and therefore now out-of-date, the results in terms of performance and costs of the ECC's and CBC's options based on that service are accurate for comparative purposes, as shown in the graph below.

Option 1 (54%) has a slightly higher performance than Option E (52%) due to the participation in the garden waste collection assumed to be high across all districts, whereas in Option E the participation rate had been assumed to stay the same as in the baseline. The great cost difference between the two Options (£59/t vs £84/t) is partially due to the great difference in average income per tonne of recyclables collected at the kerbside.

Option E (52%) has a slightly higher performance than Option 3 (51%) because Option E's slightly lower garden waste tonnage is not entirely offset by lower comingled recyclables tonnage due the higher reject rate for comingling than kerbside sorting.

The performance of Option O (50%) is slightly higher than that of Option 2 (48%) because of the following assumptions:

- the participation in a weekly food waste is higher than in a fortnightly mixed organics collection, where residents may choose to dispose of their food waste with the residual waste in the alternate weeks,
- the 10% reject rate at IVC plants is also applied to the garden waste in Option 2 as it is mixed with the food waste, and
- the two factors above are not outweighed by the slightly higher participation Option 2's dry recycling.

The cost of Option O (£59/t) is higher than that of Option 2 (£54/t) is partially due to the great difference in average income per tonne of recyclables collected at the kerbside.

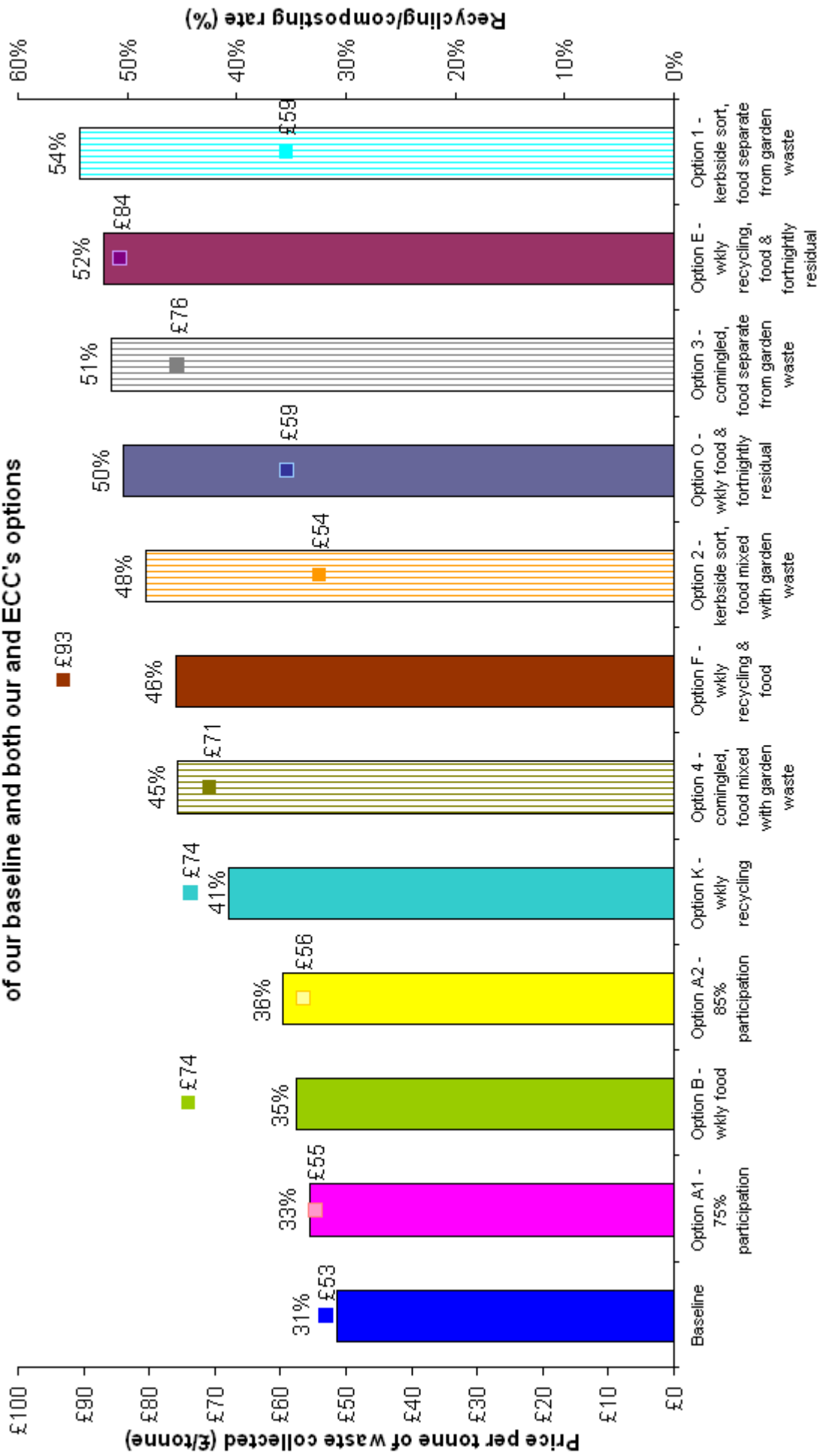
Option O despite costing the same as Option 1 (£59/t), which are the two most similar options between CBC and ECC, its performance is lower (50% vs 54%) is due to the following assumptions:

- Option 1's participation in the garden waste collection assumed to be high across all districts, whereas in Option O the participation rate had been assumed to stay the same as in the baseline, and
- Option O's dry recycling participation rates being slightly lower due to an unlimited black sack collection presenting less pressure on households to recycle than a refuse collection limited to one wheelie bin.

Option F has a slightly higher performance (46%) than Option 4 (45%) despite a lower dry recycling participation due to Option F's weekly refuse collection. This is due to Option 4's higher reject rate of comingled recycling. The cost of Option F are, however, considerably higher (£93/t vs £71/t) due the weekly recycling and refuse collection.

Note: The ECC's TS options and its Do Nothing Option have not been included to keep the options on this graph to a practical number.

Cost vs performance in 2009/10
of our baseline and both our and ECC's options



CBC remodelled seven options with updated 2008/09 baseline

A more up-to-date baseline has been established recently by CBC officers, because the original baseline modelled by ECC is based on two-year-old data and a partially different recycling service. Therefore our seven options have also been remodelled from this updated baseline, which aims to represent the service offered in 2008/09 and a projected performance for this financial year.

Difference between original and updated baseline/options

Assumption	Baseline in 2006/07 and CBC options	Baseline in 2008/09 and relevant options
Household numbers	2006/07 figures	2008/09 figures
Plastics collected	Types 1 and 2 only	Types 1 to 6
Limit of garden waste sacks collected	3 sacks	4 sacks
Container for paper, plastics and textiles	Carrier bags provided by householders	Clear recycling sacks provided by CBC
Kitchen caddy liners for food waste provided by CBC (rolls of 25 bags)	2 rolls for each household each year	1 roll for each household and 3 further rolls for each participating household
Waste composition data	2004 analysis study	2007 analysis study
Annual refuse and recycling tonnage	2006/07 audited figures	2008/09 projected figures
Refuse set out rate	95%	100%
Capture rates for some waste streams as calculated by KAT	Paper and plastics: 50% Garden waste: 287%*	Paper and plastics: 57% Garden waste: 117%*
Vehicle for glass and cans collection	Toploader with 5.5t payload	Stillage with 2t payload
Vehicle for food waste collection	Caged tipper with 4.8t payload	Caged tipper with 2.5t payload
Unit cost per vehicle	Best estimate of prices for 2006/07	Best estimate of prices for 2008/09
Financing cost	6.22%	4.25%
Timings related to driving to and from depot, start of round and landfill, and unloading	Best estimate of timings for 2006/07	Best estimate of timings for 2008/09
Average salaries of drivers and loaders	Figures relevant to 2006/07	Figures relevant to 2006/07
Reject rates for all dry recycling collected at kerbside	Baseline only: 0.5% deducted	Baseline and options: 0% deducted
Reject rates at windrow composting sites	1% of garden waste collected from 2008/09	0% of garden waste collected
Reject rates at AD plant	10% of food waste collected from 2008/09	1% of food waste collected
Gate fee at AD plant	To be paid by CBC	To be paid by ECC

Contractors profit margin: 15% of total kerbside collection costs	Included to make results comparable to those from other districts	Excluded as our kerbside collection is not contracted out
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Note: *Our garden waste capture rate was calculated to be over 100% because the amount of garden waste in both waste composition data set used in KAT was unrepresentatively small.

Description of the updated options and their assumptions

Baseline – Service offered in 2008/09, ie weekly refuse collection in black bags and alternate weekly recycling collection: blue week with paper/card and textiles in separate clear sacks, and glass, cans and foil in recycling box; green week with mixed plastics in clear sacks, and garden waste in up to four garden waste bags

Baseline 2008/09	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	55%	65%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	55%	65%	63%

Note: *Our garden waste capture rate was calculated to be 130% because the amount of garden waste in waste composition data used in KAT was unrepresentatively small.

Option A1 – Current service with increased participation of 75%; to increase recycling with no service change

Option A1	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	65%	75%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	65%	75%	63%

Option A2 – Current service with increased participation of 85%; to increase recycling with no service change

Option A2	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	75%	85%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	75%	85%	63%

Option B – Current service plus weekly food waste collection; to divert food waste with minimum service change

Option B	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	55%	65%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	55%	65%	63%
Weekly food waste	30%	30%	75%

Option E – Current service but weekly recycling & food waste, and fortnightly residual (black sacks) collections; to increase recycling and to encourage participation in food waste collection by reducing residual collection

Option E	Set out	Participation	Capture
Fortnightly refuse	100%	-	-
Weekly paper, plastic & textiles	75%	85%	75%
Fortnightly garden waste	55%	65%	130%*
Weekly glass & cans	75%	85%	75%
Weekly food waste	55%	65%	75%

Option F – Current service but weekly recycling & food waste collections; to increase recycling and food waste diversion with more frequent recycling collections, same as option E but with weekly residual collection

Option F	Set out	Participation	Capture
Weekly refuse	100%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	130%*
Weekly glass & cans	65%	75%	75%
Weekly food waste	40%	40%	75%

Option K – Current service but weekly recycling collection; to increase recycling with minimum service change

Option K	Set out	Participation	Capture
Weekly refuse	100%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	130%*
Weekly glass & cans	65%	75%	75%

Option O – Current service but weekly food waste, and fortnightly residual (black sacks) collections; to increase recycling and to encourage participation in food waste collection by reducing residual collection, same as option E but with fortnightly recycling collection

Option O	Set out	Participation	Capture
Fortnightly refuse	100%	-	-
Fortnightly paper, plastic & textiles	70%	80%	75%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	70%	80%	75%
Weekly food waste	55%	65%	75%

Scheme: Baseline 2008/09
Performance: 34%
Price per tonne collected: £32

Kerbside collections	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	55%	65%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	55%	65%	63%



Scheme: Option A1 - updated
Performance: 36%
Price per tonne collected: £37

Kerbside collections	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	65%	75%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	65%	75%	63%



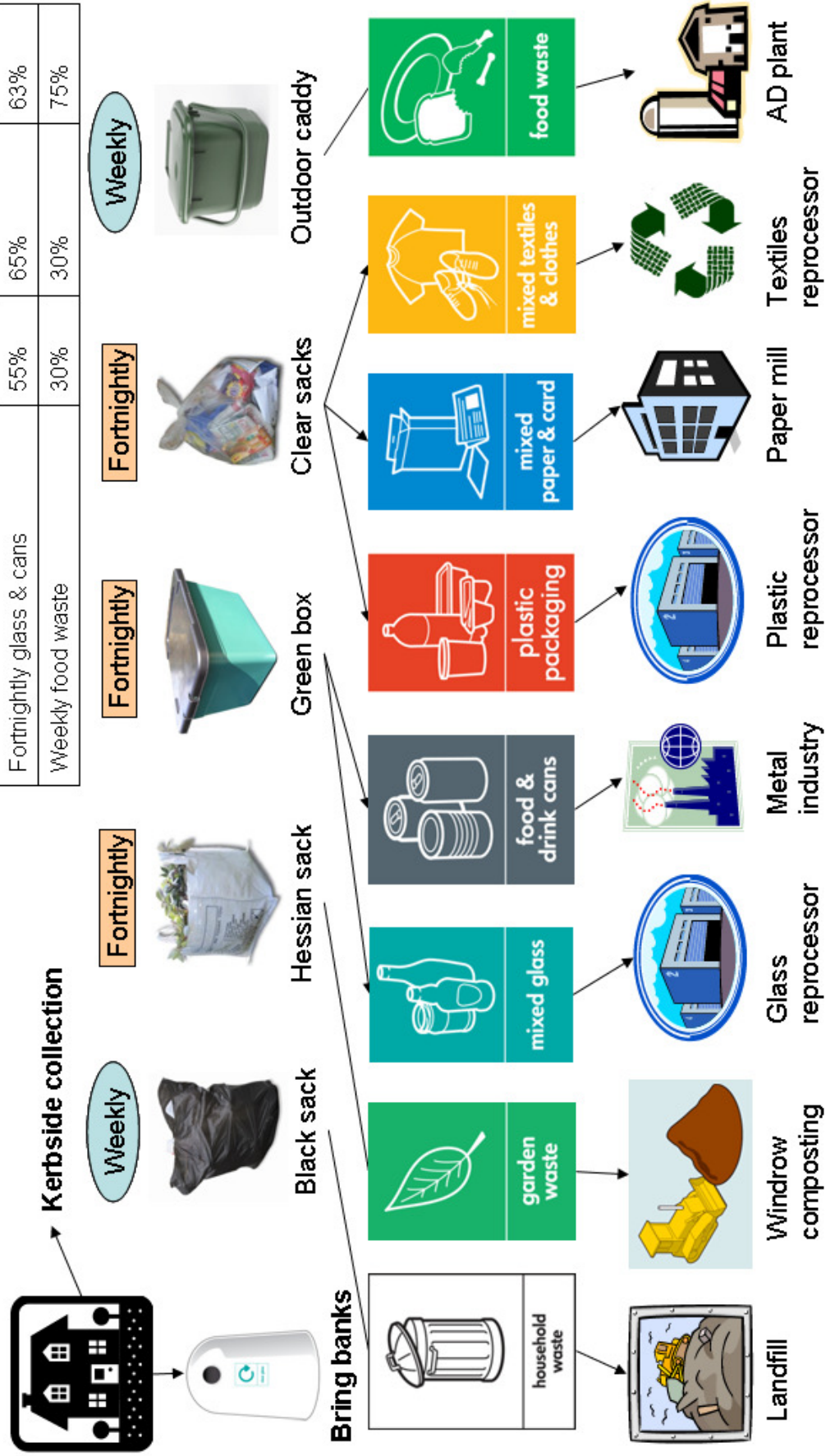
Scheme: Option A2 - updated
Performance: 39%
Price per tonne collected: £39

Kerbside collections	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	75%	85%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	75%	85%	63%



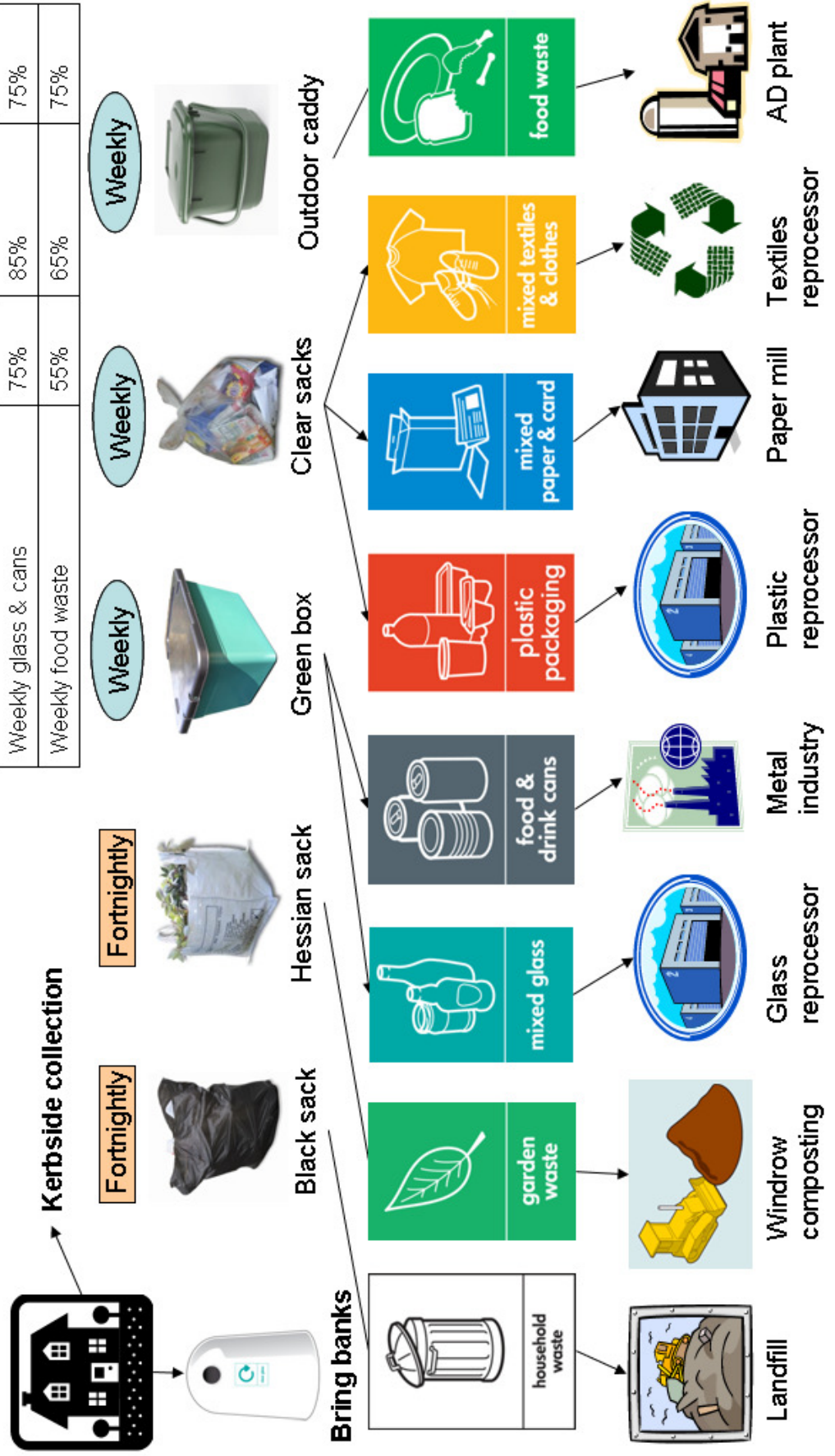
Scheme: Option B - updated
Performance: 37%
Price per tonne collected: £47

Kerbside collections	Set out	Participation	Capture
Weekly refuse	100%	-	-
Fortnightly paper, plastic & textiles	55%	65%	57%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	55%	65%	63%
Weekly food waste	30%	30%	75%



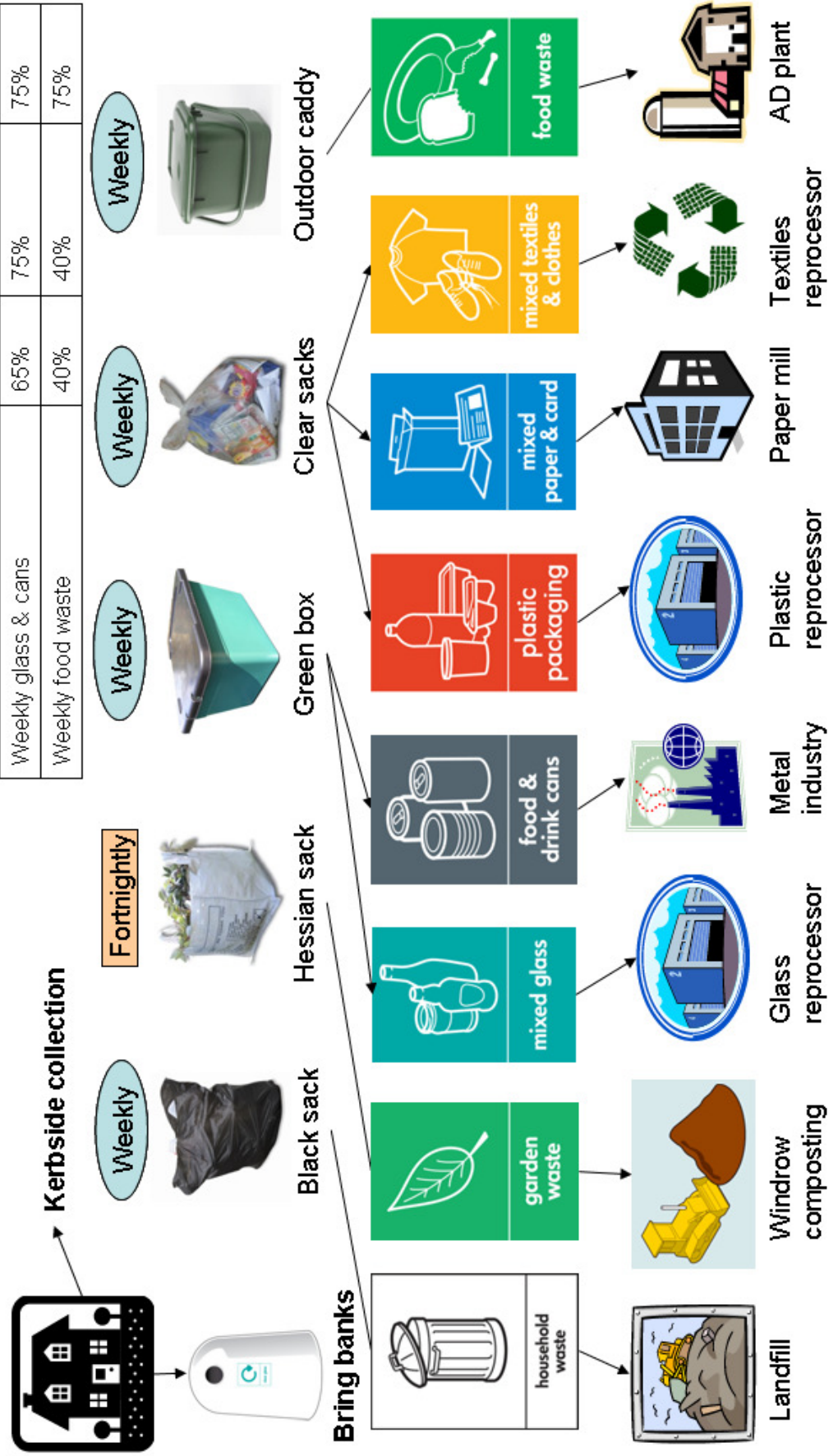
Scheme: Option E - updated
Performance: 53%
Price per tonne collected: £55

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	100%	-	-
Weekly paper, plastic & textiles	75%	85%	75%
Fortnightly garden waste	55%	65%	130%*
Weekly glass & cans	75%	85%	75%
Weekly food waste	55%	65%	75%



Scheme: Option F - updated
Performance: 47%
Price per tonne collected: £61

Kerbside collections	Set out	Participation	Capture
Weekly refuse	100%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	130%*
Weekly glass & cans	65%	75%	75%
Weekly food waste	40%	40%	75%



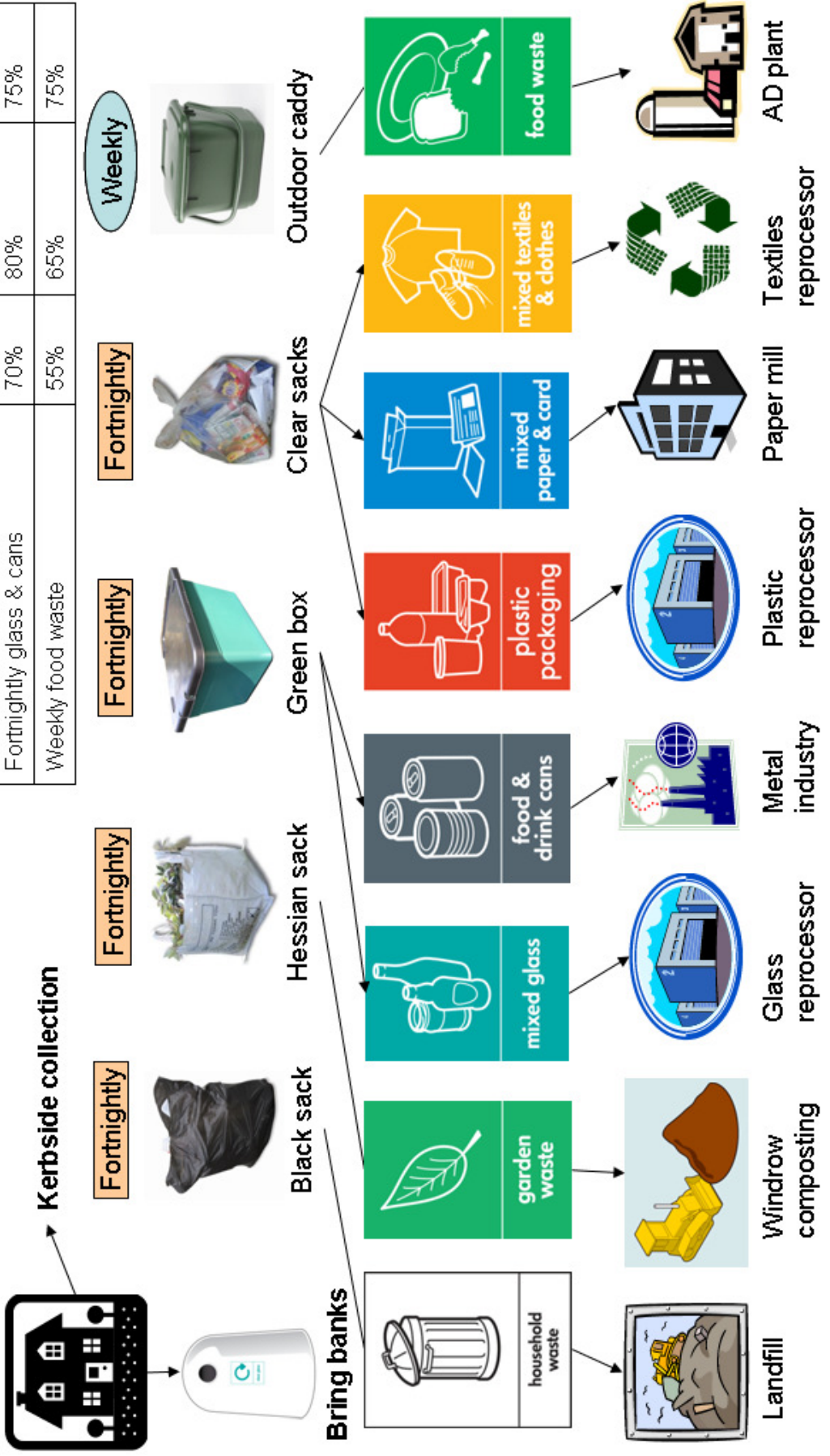
Scheme: Option K – updated
Performance: 43%
Price per tonne collected: £48

Kerbside collections	Set out	Participation	Capture
Weekly refuse	100%	-	-
Weekly paper, plastic & textiles	65%	75%	75%
Fortnightly garden waste	55%	65%	130%*
Weekly glass & cans	65%	75%	75%



Scheme: Option O - updated
Performance: 49%
Price per tonne collected: £44

Kerbside collections	Set out	Participation	Capture
Fortnightly refuse	100%	-	-
Fortnightly paper, plastic & textiles	70%	80%	75%
Fortnightly garden waste	55%	65%	130%*
Fortnightly glass & cans	70%	80%	75%
Weekly food waste	55%	65%	75%



Results for each updated option – costs & performance

Even though Option E could give the best performance (53%), it is also the second most expensive (£55/tonne). The second best performing option, Option O (49%), is more economical in comparison (£44/t); this is due to a lower frequency of both dry recycling and refuse, ie fortnightly instead of weekly. It is assumed this change only leads to relatively small reduction in dry recycling participation, which explains the very small difference in performance.

Option F, in comparison to Option E, shows that a weekly refuse collection could be more expensive (£61/t) and lower performing (47%) due to removing the pressure on householders to recycle as much as possible. The difference of £6t between these two options is due to Option E's lower cost of refuse collection being not entirely offset by its higher collection costs for dry recycling and food waste.

The introduction of fortnightly refuse collection to our current system, with a weekly food waste collection (Option O: 49%), could lead to a slight improvement in performance than increasing the recycling collection frequency to weekly, again with a weekly food waste collection (Option F: 47%).

The next best performing option is Option K (43%) as it has been assumed that increasing the frequency of dry recycling collections to weekly would raise participation and capture rates to 75%. Option A2's lower cost (£39/t and 39%) compared to other similarly performing options is due to the absence of a food waste collection (Option B: £47/t and 37%) and a weekly dry recycling collection (Option K: £48/t and 43%).

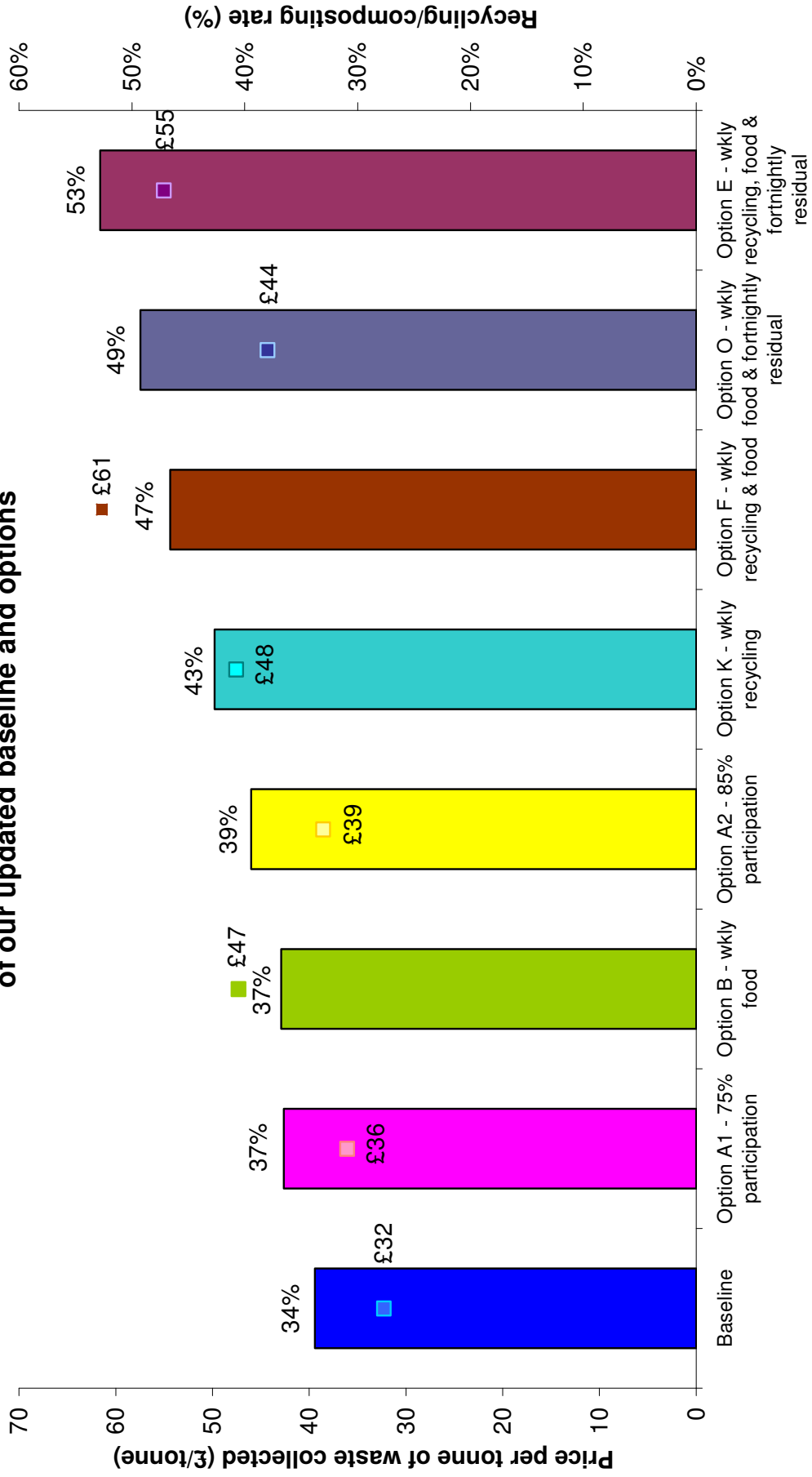
The cost of introducing a weekly food waste collection (Option B: £47/t) is similar to a weekly dry recycling collection (Option K: £48/t). However, Option B (37%) results in a lower performance as Option K (43%) as there is no direct incentive for residents to use the food waste collection because weekly refuse collection remains in place, whereas a dry recycling collection with an increased frequency provides greater convenience and hence higher participation.

It is important to note that the introduction of a weekly food waste collection (Option B: £47/t and 37%) could be more expensive and lower performing than the introduction of a weekly food waste and fortnightly refuse collection (Option O: £44/t and 49%).

Despite Option A1 (37%) resulting in the same performance as Option B (37%), Option A1's heavy investment in education and promotion (£36/t) would be more economical than Option B's weekly food waste collection (£47/t).

The performance and cost of the updated Baseline and each updated Option in 2009/10 is shown in the graph below.

Cost vs performance in 2009/10 of our updated baseline and options



Treatment and disposal

In ECC's modelling new collection schemes were assumed to commence in 2008/09. The waste material and payments flows detailed below relate to both Baselines and all Options as applicable.

Between 2008/09 and 2013/14 Colchester's material flows are as follows (see first map below):

- The kerbside sorted or co-mingled dry recyclables are assumed to be bulked at our local depot before travelling on to either reprocessors or Materials recovery facilities (MRFs).
- Any separately collected food waste from Colchester is assumed to be sent to Envar's In-Vessel Composting (IVC) plant in St. Ives in Cambridgeshire, and mixed garden and food waste will be sent to County Mulch's IVC plant near Bury St. Edmunds in Suffolk.
- Garden waste will continue being transported to Birch or Tolleshunt Major and residual waste to Bellhouse landfill at Stanway.

From 2013/14 onwards Colchester's material flows are modelled as follows (see second map below):

- Kerbside sorted dry recyclables are assumed to continue being bulked at our local depot before travelling on to reprocessors.
- MRF located at Rivenhall starts sorting comingled recyclables.
- Anaerobic digestion (AD) plant located at Rivenhall starts accepting separately collected food waste, and mixed garden and food waste.
- Garden waste will continue being transported to Birch or Appletons.
- Mechanical biological treatment (MBT) plant located at Rivenhall starts treating residual waste. The process residues from the proposed MBT plants near Braintree and Basildon are both sent to Bellhouse landfill at Stanway.
- Transfer Stations (TSs) become operational and can be used for the bulking of all waste collection streams where appropriate, ie for residual waste, kerbside sorted recyclables, co-mingled recyclables, food waste only collections, and mixed food waste and garden collections. One of the TSs was assumed to be in Colchester and was modelled to investigate whether its use could reduce both CBC's and whole system costs (ie cost to the Essex tax payer). This TS was assumed to be sized to handle only Colchester's waste.

The solid recovered fuel (SRF) plant will start burning the residues from the MBT process in 2014/15.

Payment flows from 2008/09:

- The WDA pay for gate fees arising at landfill sites (including landfill tax and LATS trading) and Civic Amenity site costs
- The WCA pays for gate fees arising at MRFs, reprocessors and windrow composting facilities.

- The WCAs are assumed to pay the gate fee at windrow composting sites and in return receive a full recycling credit per tonne of composting.

Payment distribution from 2013/14:

- The WDA pay for gate fees arising at:
 - MBT facilities
 - SRF facility (from 2014/15)
- The Tipping Away payment is still paid from the WDA to the WCA even after the TSs become operational, for the same distance as for the Options without the TS.

Please note that since the assumptions for the system design modelling were agreed, ECC has agreed also to pay for the gate fees arising at TS (including bulking and onward haulage) and AD plants for those WCAs that sign the IAA.

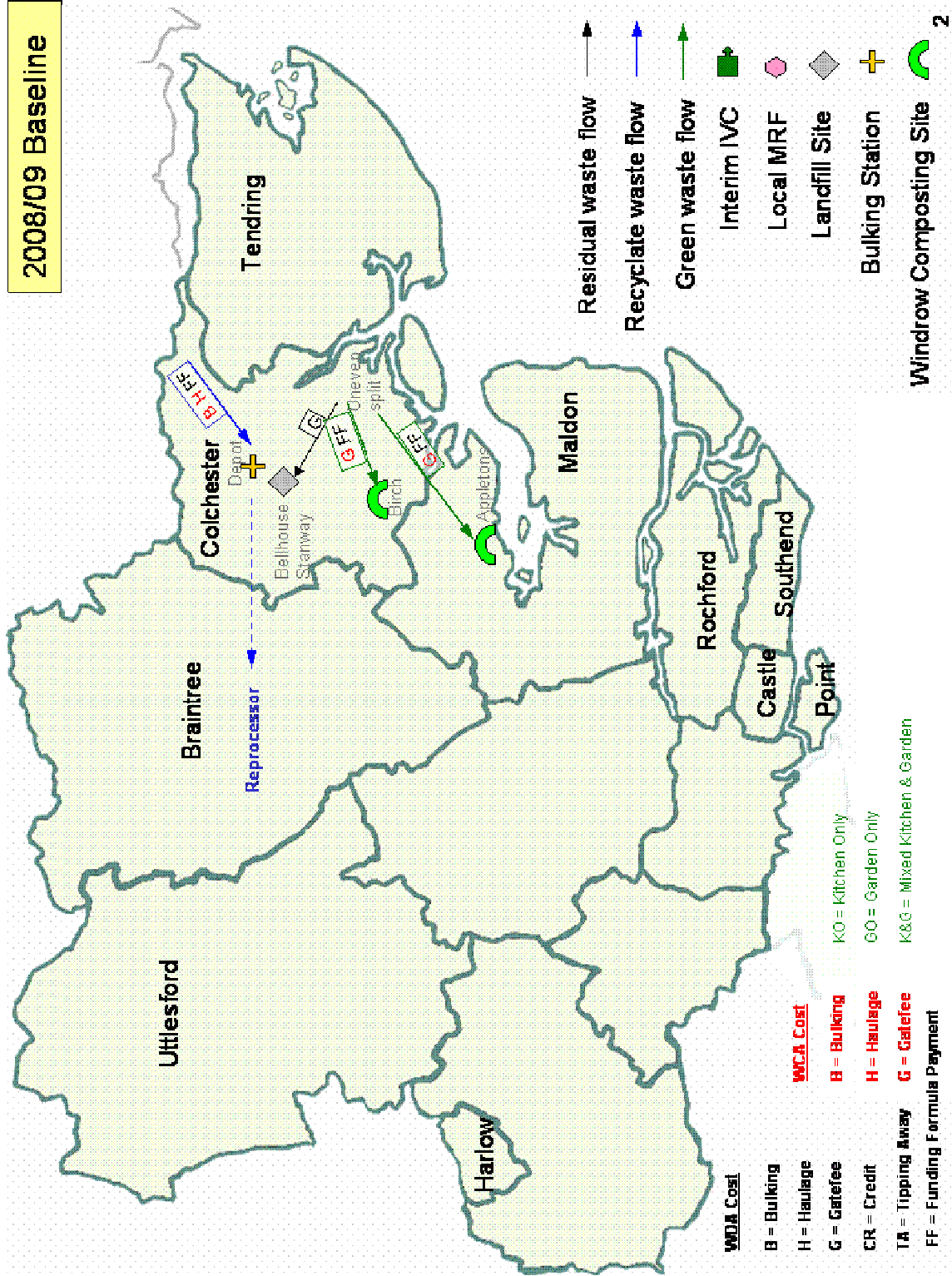
Cost implications from material flow changes over time

The original Baseline assumed that our service offered did not change over the period from 2006/07 to 2038/39. However, due to the assumption that the planned MBT facility becomes operational in 2013/14, there is a refuse delivery point change in that year from Stanway landfill to the Rivenhall MBT plant, which leads to an increased cost of the Baseline.

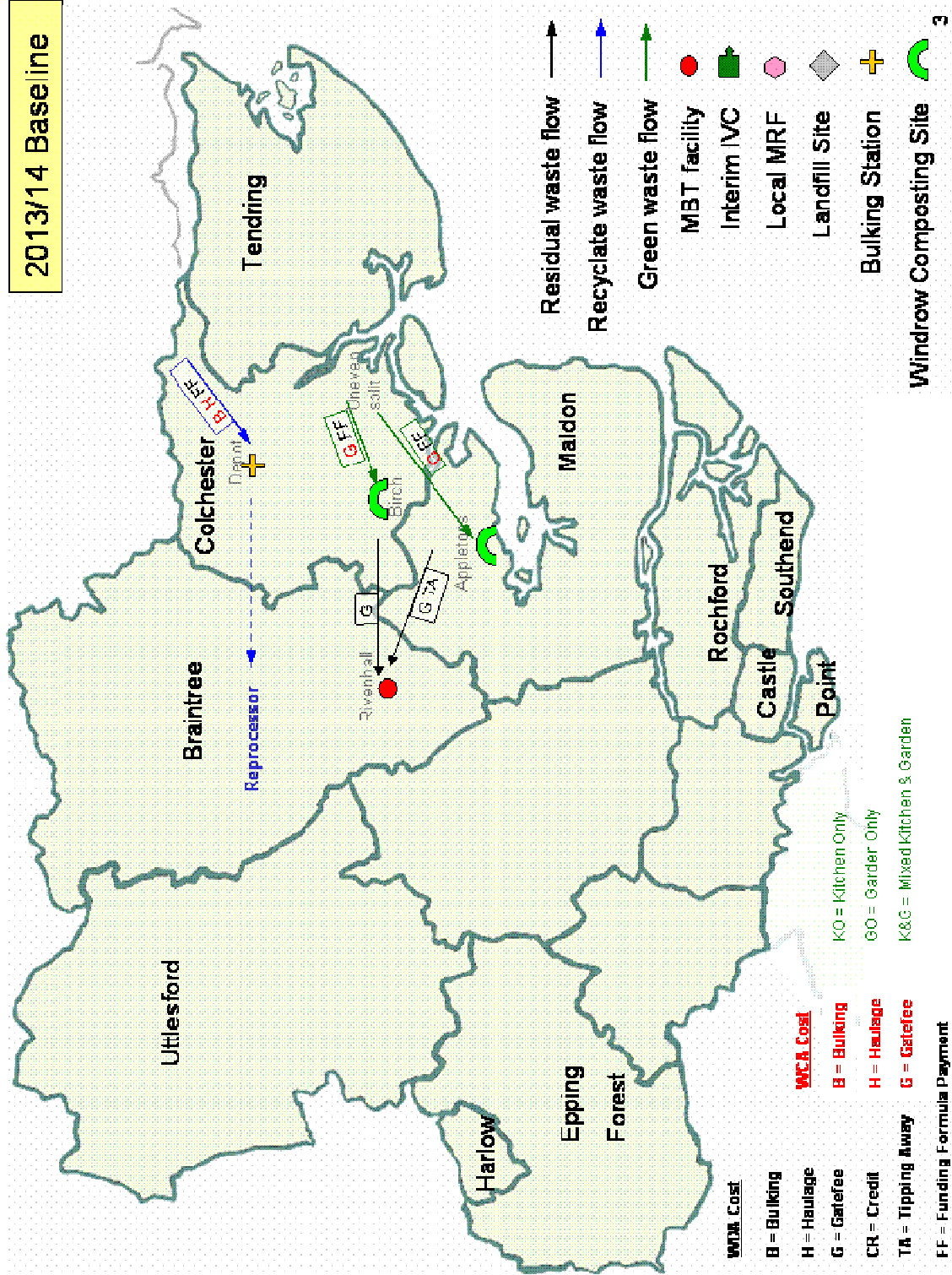
This change in the residual waste delivery point, however, does not impact each Option in the same way. The over-riding reason for the costs in Option 1, and Options B, E, F and O increasing in that year is because of the “food waste only” waste transfers from the interim IVC to the AD plant and there is an associated gate fee increase. Please note that our updated options do not include gate fees for the AD plant as ECC decided after their modelling had been completed that this cost would be borne by them and not the districts.

The costs in Option 4 decrease in 2013 because of two reasons, the main reason being the lower gate fee at the in-county MRF for the comingled dry recyclables. However, there is also a slight reduction in the overall cost of the mixed food waste and garden organics collection. This saving in organics is a result from moving to delivering the waste directly to the AD plant, (which saves on bulking and haulage costs with no associated increase in collection costs), which outweighs the slight increase in processing costs when moving from the Interim IVC to the AD plant. The costs in Option 2 and 3 do not appear to change in 2013 due the reasons given above combining to cancel out any affects.

2008/09 Baseline



2013/14 Baseline



Conclusions

2009/10 results of ECC options

Option	Brief description
Baseline	Service as offered in 2006/07
1	Kerbside sorted recycling with separate garden and food waste
2	Kerbside sorted recycling with mixed garden and food waste
3	Comingled recycling with separate garden and food waste
4	Comingled recycling with mixed garden and food waste
1+TS	Option 1 using a Transfer Station
2+TS	Option 2 using a Transfer Station
3+TS	Option 3 using a Transfer Station
4+TS	Option 4 using a Transfer Station

Rank	Total cost of option per tonne of waste collected (£/tonne)	Performance: recycling and composting (%)
1	£53/t - Baseline & Do nothing	54% - Option 1 & Option 1+TS
2	£54/t - Option 2 & Option 2+TS	51% - Option 3 & Option 3+TS
3	£59/t - Option 1 & Option 1+TS	48% - Option 2 & Option 2+TS
4	£71/t - Option 4 & Option 4+TS	45% - Option 4 & Option 4+TS
5	£76/t - Option 3 & Option 3+TS	31% - Baseline & Do nothing

2009/10 results of original CBC options

Option	Brief description
Baseline	Service as offered in 2006/07
A1	Baseline with increased participation of 75% in dry recycling
A2	Baseline with increased participation of 85% in dry recycling
B	Baseline with weekly food waste collection
E	Baseline with weekly recycling and food waste, and fortnightly refuse collection
F	Baseline with weekly recycling and food waste collection
K	Baseline with weekly recycling collection
O	Baseline with weekly food waste, and fortnightly refuse collection

Rank	Total cost of option per tonne of waste collected (£/tonne)	Performance: recycling and composting (%)
1	£53/t – Baseline	52% - Option E
2	£55/t – Option A1	50% - Option O
3	£56/t – Option A2	46% - Option F
4	£59/t – Option O	41% - Option K
5	£74/t – Option B & Option K	36% - Option A2
6		35% - Option B
7	£84/t – Option E	33% - Option A1
8	£93/t – Option F	31% - Baseline

2009/10 results of ECC options & original CBC options

Rank	Total cost of option per tonne of waste collected (£/tonne)	Performance: recycling and composting (%)
1	£53/t – Baseline	54% - Option 1
2	£54/t – Option 2	52% - Option E
3	£55/t – Option A1	51% - Option 3
4	£56/t – Option A2	50% - Option O
5	£59/t – Option O & Option 1	48% - Option 2
6		46% - Option F
7	£71/t – Option 4	45% - Option 4
8	£74/t – Option B & Option K	41% - Option K
9		36% - Option A2
10	£76/t – Option 3	35% - Option B
11	£84/t – Option E	33% - Option A1
12	£93/t – Option F	31% - Baseline

2009/10 results of updated CBC options

Rank	Total cost of option per tonne of waste collected (£/tonne)	Performance: recycling and composting (%)
1	£32/t – Baseline	53% - Option E
2	£36/t – Option A1	49% - Option O
3	£39/t – Option A2	47% - Option F
4	£44/t – Option O	43% - Option K
5	£47/t – Option B	39% - Option A2
6	£48/t – Option K	37% - Option A1 & Option B
7	£55/t – Option E	
8	£61/t – Option F	34% - Baseline

Total cost in 2009/10 for each of ECC's options (£000s)

Annual costs	Do nothing	Baseline	Option 1	Option 2	Option 3	Option 4
Total net cost	£3,436K	£3,436K	£3,926K	£3,556K	£5,032K	£4,662K

Total cost in 2009/10 for each of CBC's original options (£000s)

Annual costs	Option A1	Option A2	Option B	Option E	Option F	Option K	Option O	Annual costs
Containers	£285K	£285K	£412K	£412K	£412K	£285K	£411K	Containers
Vehicles	£869K	£894K	£937K	£1,281K	£1,343K	£1,276K	£850K	Vehicles
Operating costs & overheads	£3,133K	£3,223K	£3,960K	£4,778K	£5,162K	£4,331K	£3,494K	Operating costs & overheads
Bulking & haulage	£98K	£111K	£153K	£303K	£228K	£137K	£293K	Bulking & haulage
Recycling sales	-£188K	-£212K	-£163K	-£296K	-£261K	-£261K	-£278K	Recycling sales
Recycling credits	-£1,098K	-£1,180K	-£1,138K	-£1,719K	-£1,503K	-£1,341K	-£1,662K	Recycling credits
Windrow gate fee	£168K	£168K	£168K	£168K	£168K	£168K	£168K	Windrow gate fee
Bring sites	£34K	£34K	£34K	£34K	£34K	£34K	£34K	Bring sites
Extra education	£239K	£339K	£139K	£139K	£139K	£139K	£139K	Extra education
Total net cost	£3,541K	£3,662K	£4,802K	£5,472K	£6,043K	£4,768K	£3,821K	Total net cost

Cost and revenue breakdown in 2009/10 for each of CBC's updated options (£000s)

Annual costs	Baseline	Option A1	Option A2	Option B	Option E	Option F	Option K	Option O	Annual costs
Containers	£370K	£370K	£370K	£681K	£802K	£715K	£370K	£802K	Containers
Vehicles	£488K	£520K	£552K	£555K	£712K	£779K	£711K	£598K	Vehicles
Operating costs & overheads	£2,220K	£2,364K	£2,507K	£2,778K	£3,538K	£3,795K	£3,235K	£2,982K	Operating costs & overheads
Bulking & haulage	£101K	£116K	£132K	£151K	£276K	£214K	£148K	£266K	Bulking & haulage
Recycling sales	-£192K	-£221K	-£251K	-£192K	-£318K	-£281K	-£281K	-£300K	Recycling sales
Recycling credits	-£1,122K	-£1,219K	-£1,316K	-£1,220K	-£1,752K	-£1,547K	-£1,416K	-£1,691K	Recycling credits
Windrow gate fee	£175K	£175K	£175K	£175K	£175K	£175K	£175K	£175K	Windrow gate fee
Bring sites	£28K	£28K	£28K	£28K	£28K	£28K	£28K	£28K	Bring sites
Extra education	£38K	£235K	£335K	£135K	£135K	£135K	£135K	£135K	Extra education
Total net cost	£2,107K	£2,368K	£2,533K	£3,091K	£3,595K	£4,013K	£3,106K	£2,995K	Total net cost

Appendices

Appendix 1 General assumptions for all Essex districts

Appendix 2 Details about KAT

Appendix 3 Performance and cost graphs comparing CBC to other authorities

Appendix 1

General Assumptions for all Essex districts

This document must be read in conjunction with the appropriate maps for each district. It is important to note that ALL the assumptions listed below were agreed for the purposes of the system design modelling project only, and do not at this time represent any form of commitment to any particular future waste management structure or cost apportionment.

Main principle assumptions used for the System Design modelling project

1. For the purposes of this modelling only, there will be two Mechanical Biological Treatment (MBT) plants which will be assumed to be located at Courtauld Road in Basildon and at Rivenhall in Braintree¹; two Material Recycling Facilities (MRFs) (co-located with the MBT plants), two AD plants (co-located with the MBT plants) and an energy facility also at Rivenhall. Where an Option assumes the use of a Partnership Transfer Station (TS), the location of these are assumed to be at the same locations as used in the PFI 2007 OBC Reference Project (see appropriate 2013/14 Maps for each district for approximate locations).
2. The waste collection systems currently operational in 2005/6² were used as the base year in all the modelling i.e. all costs and tonnages are projected from this year.
3. The 'Do Nothing' system represents no change by the WCA or WDA with respect to the collection or disposal systems for waste employed in 2005/6 and this scenario is modelled to continue up until 2038/39 with no changes in the delivery points for the waste streams collected. This is also true for the chosen delivery point for the residual waste to landfill as this has not been changed over time as the landfill void space reduces. As with all of the Options modelled, the same waste growth profile is applied.
4. The Baseline system uses 2005/6 base year infrastructure information and assumes that the collection systems currently in place continue throughout the life of the project. However, when the MBT plants are assumed to become operational, the kerbside collected residual waste is modelled to be delivered by all the kerbside collection vehicles directly to the plants. This Baseline model also assumes that any waste currently being sent to the WDA contracted interim IVC facilities in 2005/6 will continue under this arrangement throughout the life of the contract. An illustration of this can be seen in Maps 1, 2 and 3 of the appropriate set of maps for each district.
5. The assumed long term MBT plants in Braintree and Basildon have been modelled in all Options (except the Do Nothing) as well as the Baseline because these facilities will be required to meet the County's landfill diversion requirements.
6. Actual 2005/6 household numbers in each district were entered into the Baseline wasteflow model. A projected 2021/22 household figure was obtained

¹ Rivenhall was selected as the theoretical location for the modelling purposes in order to calculate the potential costs to an Authority not likely to need transfer stations. Any of the other Waste Local Plan sites in the north of the county could have equally have been selected.

² The baseline year for Colchester has been modelled as 2006/7 due to special circumstances.

from the Regional Spatial Strategy 14 report (RSS 14) for each district which was also entered into wasteflow. The household numbers in any year in between 2005/6 and 2021/22 were interpolated between the two “known” years. Household numbers after 2021/22 were projected to increase at the rate reported between 1999 and 2004.

7. In order to simulate the costs of changing the delivery points of the different kerbside collected waste streams in 2008/9 and 2013/14, it has been necessary to model these new delivery points using the 2005/6 household and tonnage data in KAT. Therefore, in order to take account of the increase in costs which would be expected in the future, due to waste growth, the cost per household figures from the KAT model have been multiplied by the waste growth percentage over the life of the contract. In each year, this new inflated cost/hh figure is then multiplied by the projected number of households to generate the total collection cost in the appropriate year. For each WCA, an additional 15% of total kerbside collection costs has been included to reflect the contractors profit margin since this had not been included in the base numbers.
8. The target systems for maximising the BMW diversion in the Options are modelled to be implemented in 2008/9. The waste treatment facilities at Rivenhall and Courtauld Road (including the MBT plants, MRFs and AD plants as well as the Partnership Transfer Stations) are modelled to become operational at the start of 2013/14 financial year after a 2 year construction period. The SRF Energy facility at Rivenhall is modelled to become operational at the beginning of 2014/15 financial year after a 3 year construction period. In the interim period, between 2008/9 and the end of 2012/13, kerbside collected residual and garden waste will continue to be managed under the current arrangements, and where garden waste is not currently collected it will be assumed to be delivered to the nearest WDA contracted composting site. Also in this interim period, any recycling which requires sorting, in Options 1 and 2, will be sent to the nearest local MRF.
9. Where practical, the future collection systems modelled in the Options have been based on AWC of refuse as there is strong evidence nationally that this is a cost effective way of increasing participation in recycling and overall recycling rates. There are 6 core collection Options models (plus 4 scenarios for transfer stations) with the following collection arrangements:

	Do Nothing	
Residual	2005/6 Service Provision – no change	
Recyclables		
Organics		
	Baseline (Only Phase 2³ WCA's were BVPI compliant)	
Residual	2005/6 system changing in 2013/14 to deliver to appropriate MBT facility	
Recyclables	2005/6 system	
Organics	2005/6 system	
	Option 1	Option 2
Residual	AWC	
Recyclables	kerbside sorted	kerbside sorted
Organics	Separate (KO + GO)	Mixed (K&G)
	Option 3	Option 4
Residual	AWC	

³ The Phase 2 WCA's were Basildon District Council, Rochford District Council and Tendring District Council.

Recyclables	co-mingled	co-mingled
Organics	Separate (KO + GO)	Mixed (K&G)

Where K&G = Kitchen & Garden, KO = Kitchen Only, GO = Garden Only

10. Options 1-4 will assess the viability of MRFs (against cost and performance). In order to assess whether the business case exists for MRFs, a kerbside sorted and co-mingled system should be assessed based on the same service level provision in terms of the range of materials. To ensure that the kerbside sort and co-mingled dry recyclable collection systems can be compared fairly, the same range of materials have been assumed be collected under each system from all households receiving the collection service. The range of materials simulated to be collected in all the Options are listed below along with which materials are assumed to be loaded into the same container on the kerbside sorted vehicle:

	Kerbside sort
○ Paper & Magazines	Stream 1
○ Other paper	Stream 1
○ Non-corrugated Card	Stream 1
○ Corrugated Card	Stream 2
○ Glass mixed	Stream 3
○ Foil containers	Stream 4
○ Aluminium cans	Stream 4
○ Steel cans	Stream 4
○ Plastic bottles	Stream 5
○ Other plastic dense	Stream 5

If the district collects a greater range of materials in 2005/06 then this increased range shall be modelled

11. In the interim period the waste requiring treatment at an IVC plant will be sent to the most appropriate facility out of the following existing interim contracted facilities:
- New Earth Solutions near Maidstone in Kent
 - Adas near Huntingdon in Cambridgeshire
 - County Mulch near Bury St Edmunds in Suffolk

A piece of work has been conducted to arrive at the overall least expensive cost arrangement for the delivery of organic waste from each WCA, which has taken into account the bulking, haulage and gate fee costs at the aforementioned facilities. The output of this work has resulted in a configuration detailed in the following table below.

Interim IVC logistics Summary of wich districts deliver to which IVC site		New Earth Solution IVC	ADAS Envar Contract A	County Mulch Composting	ADAS Envar Contract B
District	Depot	KO = Kitchen Only K&G = mixed Kitchen and Garden			
Braintree	Braintree CM77 8DL		K&G & KO		
Brentwood	Boreham CM3 3AY (Biffa)		K&G & KO		
Epping Forest	Ahern RM20 3EE		KO		K&G
Harlow	Roydon CM19 5DP		K&G & KO		
Uttlesford	Braintree CM77 8DL		K&G & KO		
Chelmsford	Boreham CM3 3AY (Biffa)		K&G & KO		
Colchester	Colchester skip Hire CO6 3AH		KO	K&G	
Tendring	EWD CO7 0SQ			K&G & KO	
Maldon	Boreham CM3 3AY (Biffa)		K&G & KO		
Basildon	Barleylands CM11 2UF		KO	K&G	
Castle Point	Ahern SS14 3DF		KO		K&G
Rochford	Ahern SS14 3DF	K&G	KO		
Southend on Sea	Southend SS2 5QX	K&G	KO		

12. In general in this document, all of the costs are discussed in the Base year price, ie 2005/6. However, in the modelling, these base prices have all been inflated 2 years to 2008. Different types of costs have been inflated at appropriate rates and a summary of these can be seen in the table below. In certain cases actual inflationary increases supplied by ECC have been applied.

Type of cost	Inflation index applied	Inflation rate applied in 2006/7	Inflation rate applied in 2007/8	Inflation rate applied in 2008/9
Tipping Away Payment	Actual increase supplied by ECC	7.5%	3.5%	3.0%
Haulage	Assumed same as Tipping Away increase	7.5%	3.5%	3.0%
Recycling credit	Actual increase supplied by ECC	11.1%	3.0%	3.0%
Bulking, Bring sites, kerbside collection costs, landfill gate fee, third party MRFs & Education costs	RPI X (excluding mortgage payments)	2.9%	3.2%	2.7%
Recyclate prices	Average taken from Letsrecycle.com	3.3%	3.2%	2.9%

13. No uplift in WCA recycling rates has been assumed in any of the scenarios modelled between 2005/6 and 2008/9, even though there have been increases in reality. This is because the objective was to assess the cost increase in implementing the high recycling collection system arrangements detailed in the Options, from a static Baseline.
14. The main assumptions for the payment responsibilities between the WDA and the WCAs in the models are set as follows:

PRE 2008/9

- If a district is requested to deliver their residual waste to a landfill which is beyond five miles of their boundary, they will be eligible for a 'Tipping Away' payment⁴ from the WDA, however, it is the WCAs responsibility to deliver (including any bulking and hauling) this waste to its destination. The five mile calculation starts where the main route used for the journey crosses the district boundary. There were certain exceptions to this arrangement which have been reflected in the modelling up to 2008/9.
- Recycling credits are paid from the WDA to each WCA for every tonne of dry recycling achieved.
- Composting credits are paid from the WDA to the WCA for every tonne of green garden waste recycled. The size of this payment depends upon whether each WCA used the ECC owned windrow composting site or whether they used a third party contracted site (see Assumption 15 for further details).
- The WDA pay for gate fees arising at the landfill sites and ECC contracted windrow composting facilities, as well as CA site costs, landfill tax, any LATS trading.
- The WCA pays for gate fees arising at the any recycling facilities (incl MRFs) and reprocessors, the IVC facilities.

POST 2008/9

- Tipping away payments continue on the residual waste stream only. Post 2013/14, the Tipping Away payment is still paid from the WDA to the WCA even after the Transfer Stations become operational, for the same distance as for the Options without the TS's.
- "Recycling credits" continue and are renamed to "Statutory Funding". It is anticipated that an additional amount of funding will be available from ECC which will essentially give the avoided disposal cost back to the district for extra recycling above the LAA2 recycling targets. The formula for calculating this additional "bonus" funding is still being developed and therefore it is not included in this modelling work.
- The WCA are assumed to pay the gate fee at the windrow composting sites and in return receive a full recycling credit per tonne of composting. Therefore, for the purposes of this exercise only and to enable comparisons to be made between the options and the baselines, the historic 'composting credit', which the WDA are not legally obliged to make, ceases in all Options post 2008/9 including the Do Nothing and Baseline models. In the past, a full recycling credit was paid to WCAs who chose to send their waste to non WDA contracted composting sites where they were also liable for the gate fee. If the WCA delivered their composting waste to a WDA contracted site, they receive a reduced 'composting credit' from the WDA.
- The WDA pay for gate fees arising at the landfill sites, the MBT facilities and the SRF Energy facility, as well as CA site costs, landfill tax, LATS trading.

⁴ The tipping away payments in 2005/6 were calculated on a basis of £0.67 per tonne mile which was modelled to remain static throughout the contract.

- The WCA pays for gate fees arising at the any recycling facilities (incl MRFs) and reprocessors, the windrow composting facilities, the Interim IVC facilities, the long term AD plants and the Partnership Transfer Stations.
15. The tonnage of commercial waste has been assumed to remain constant over the contract life, based on the growth profile of this waste stream over the last few years. This waste will be modelled to go to landfill from 2005/6 until the end of 2012/13 and then it will be delivered to the appropriate MBT plant from 2013/14 onwards. Commercial waste collected by the WCA is assumed to be cost neutral – i.e. the company producing the waste is charged for the collection, haulage and disposal costs and therefore is cost neutral to the Essex taxpayer. For the WCA, no outgoing expenditure or income has been assumed for this waste stream⁵. The disposal cost element, which is reimbursed to the WDA from the commercial waste producer, has been based on the landfill gate fee plus landfill tax per tonne prior to 2013/14 and includes appropriate levels of MBT and SRF Energy plant gate fees after this year.
 16. No continuous improvement at the RCHW sites has been assumed. The current RCHW sites recycling performance is therefore modelled to decrease when a garden waste collection option becomes operational. This is because 33% of the new garden waste collected is assumed to be diverted from the RCHW sites (see assumption 65 for further details). It is anticipated that the RCHW's sites will improve on their recycling rates over time, but it has been necessary to keep them static in order to isolate the WCA effects in this modelling.

Assumptions for the KAT input data

17. Whilst the duration of the 'kitchen only' waste collection is assumed to be for the full year (i.e. 52 weeks), a 35 week duration has been assumed for the 'mixed kitchen & garden' waste and 'garden only' waste collections, in order to take account of the seasonality of garden waste arisings. This is a standard method used nationally in other KAT modelling exercises. In order to reflect this seasonality it is necessary to reappportion the same tonnage of waste over a reduced frequency of collection so that the resource needs for the busier periods of the year can be identified. If the frequency was not reduced, the model would predict incorrectly that fewer vehicles would be required, which would leave the district struggling to cope with the volume of garden waste produced during the summer months. Although the collection frequency is reduced, this nonetheless results in identical capital costs for the collection vehicles as they are still required all year, but slightly reduces the fuel costs during the quieter winter period. Salaries, overheads and other running costs are unaffected.
18. The contamination level in all the versions of recycling and composting systems simulated in all of the KAT models (including baseline) is 0%. This is to recognise that contaminated waste is collected by the vehicles without knowing whether it is "contaminated" or not. Contamination levels reported at the treatment facilities are taken into account in the Massflow sheet of the associated Wasteflow model.

⁵ It should be noted that any impact on residual waste fleet arrangements has not been calculated as this waste has been assumed to be collected on separate vehicles.

19. When modelling new collection arrangements for a district, average road speeds have been calculated using an average of the real travelling times in 2005/6 between delivery points for each district. This method has been used because using MS Autoroute or AA route planner does not give a robust estimate of journey time because actual road speeds can not be entered into the programs for specific vehicle type i.e. for refuse trucks in this instance, and also they do not fully take account of hold ups at traffic lights or traffic queues during peak hours etc.
20. For each collection system in KAT, only one vehicle type can be selected. Therefore, in the Baseline models for each district where several different sizes of collection vehicles are currently in operation, an average payload is calculated and a corresponding vehicle selected for the purposes of the modelling only.
21. When modelling the Options, **fortnightly refuse** collections have the following infrastructure arrangements⁶:
 - Vehicle: The same vehicle is utilised in the options modelling as occurs in the baseline model. It is assumed that the district has chosen this vehicle for a specific reason and as such would continue to do so.
 - Collection container: 240 litre wheeled bin (10yr lifespan) – £20/bin⁷.
22. When modelling the Options, **weekly refuse** collections (where appropriate) have the following infrastructure arrangements⁵:
 - Vehicle: RCV (use current size) – with compaction – depreciation 5yrs
 - Collection container: black plastic sacks (1 week lifespan) or same as the current method of refuse collection if different.
23. When modelling the Options, **weekly separate kitchen** collections have the following infrastructure arrangements⁵:
 - Vehicle: Modified Caged tipper – 3 tonne payload – no compaction – depreciation 5yrs
 - Collection container: 25 litre Lockable bucket (7yr lifespan) & kitchen caddy + liners – Total cost for both bucket & caddy £5.30. The cost of the kitchen caddy liners is taken into account in the Wasteflow model, please see assumption 45 below.
24. When modelling the Options, **fortnightly mixed kitchen & garden** collections have the following infrastructure arrangements⁵:
 - Vehicle: The same vehicle will be used for mixed Kitchen & Garden as is for refuse collection in the baseline. The Mixed K&G vehicle will require all the same characteristics as the refuse vehicle i.e. large capacity, bin lifting and compaction. In accordance with the other assumptions made in this work (fortnightly refuse collection) the vehicle used by the District in 2005/06 is assumed to be the most suitable for the specific requirements of that District.

⁶ Although there is flexibility to choose the most appropriate average vehicle size for a particular district, for the purposes of the modelling only, all vehicles are assumed to be bought as new and therefore the capital costs of the chosen vehicle are included in the KAT model and are depreciated over either 5 or 7 years which ever is appropriate for the type of vehicle used.

⁷ These default container costs are also used in the Baseline models in order to reduce any bias between the baseline and the Options.

- Collection container: 240 litre wheeled bin (10yr lifespan) & kitchen caddy + liners – Cost for bin is £20⁶ and kitchen caddy is £1.30. The cost of the kitchen caddy liners is taken into account in the Wasteflow model, please see assumption 45 below.
25. When modelling the Options, **fortnightly kerbside sorted recyclables** collections have the following infrastructure arrangements⁵:
- Vehicle: Stillage 15m³ – 7.5 tonne payload – no compaction – depreciation 5yrs
 - Collection container: 2 x 50 litre Box (7yr lifespan) & Plastic Bag (optional) – £2.50⁶ for each 50 L box, therefore £5.00 in total.
26. When modelling the Options, **fortnightly co-mingled recyclables** collections have the following infrastructure arrangements⁵:
- Vehicle: If the District already has a co-mingled collection system then the vehicle that was used in 2005/06 is modelled in the options. However if not then use a RCV 24m³ – 11 tonne payload – with compaction – depreciation 5yrs
 - Collection container: 240 litre wheeled bin (10yr lifespan) – £20/bin⁶
27. For the kerbside sort option, ‘partial sorting’ rather than ‘fully sorted’ has been selected in KAT. The reason for this is that the large number of waste streams collected makes full sorting highly impractical and unlikely with a kerbside sort vehicle.
28. When inputting the kerbside sort option the number of collection containers provided to households on the scheme is assumed to be two. This is in direct response to the large range of materials collected and the fact this service is modelled as a fortnightly collection. There is the potential that the districts may provide more boxes, however, there are financial, behavioural and physical barriers to this.
29. When inputting the kerbside sort collection durations in the options, it is necessary to increase the collection time by 20% to take into account the increased effort by the loader because of the 2 containers. The collection time is not increased by 100% as not all households will utilise the second container and loaders will often, where practical, consolidate 2 containers into 1 for transporting to the vehicle.
30. The capital expenditure cost for the collection vehicles in the Baseline and Options models are based on the default values provided in the KAT model. The reason for this is that whilst Districts could provide specific figures for some vehicles, this was not true for all vehicles. Therefore to ensure no bias financially, the same foundation for the costs of the vehicle was input by using the KAT default values alone. The table below details the KAT default values used for each vehicle modelled.

Vehicle	Capital Cost without Lift	Bin lift Cost	Total Capital Cost	Standing Cost
Caged Tipper 7m ³	£29,000	£5,000	£34,000	£2,554
Stillage 15m ³	£42,000	n/a	£42,000	£3,687
Kerbsider 15m ³	£55,000	n/a	£55,000	£2,624
Putrescible 14m ³	£90,000	£20,000	£110,000	£2,696
RCV 16m ³	£90,000	£20,000	£110,000	£4,521
RCV18m ³	£95,000	£20,000	£115,000	£5,179
RCV 20m ³	£95,000	£20,000	£115,000	£5,544
RCV 22m ³	£100,000	£20,000	£120,000	£5,934
RCV 24m ³	£100,000	£20,000	£120,000	£6,798
65%/35% 21m ³ split	£110,000	£20,000	£130,000	£5,870

31. KAT defaults were used for the annual vehicle standing costs and the annual vehicle running costs in the Baseline and Options models. The KAT default standing costs are detailed in the table above whilst the default running costs are calculated from other district specific information input into the model e.g. miles driven/week/vehicle. The reason for this was that the specific methodology for the calculations within KAT was not known; also many districts did not know exactly what was contained within their figures. Therefore to ensure that no financial bias occurred between models the KAT default was used for all the vehicles.
32. Within the model the default values shall be used for the collection and loading timings of the different collection systems. This is to ensure that all districts are provided with a level playing field with regard to efficiency. Furthermore, initial information collected from the districts indicated that there the exact figures were not known. The Kitchen only collection required the use of a lockable Kitchen Bucket that was not represented in the KAT model, therefore, expert opinion was sought and a figure of 8.7 seconds for the collection time was utilised.
33. KAT defaults for the supervision percentage of crew costs and overheads as a percentage of operating costs shall be used to ensure that all Districts are modelled under the same parameters, removing the potential for financial bias between models.
34. When the KAT model estimates that a collection system will require a proportion of a vehicle this shall be accepted. When the model indicates 0.1 of a vehicle is required, the reality is that the collection teams would be asked to work slightly longer/quicker so that the new vehicle (and its full set of costs) is not required. This assumption will not be made in this modelling exercise. Therefore, should a collection system require 5.1 vehicles, this will not be amended to 5.0 vehicles and the resulting capital cost for 6 vehicles will be calculated.
35. The KAT default figure of 7hrs 30mins working hours per day will be used for all new collection systems in the Options models.
36. An annual education cost per household has been included in the WCA costs as detailed in the Table below in all the Options including the Baseline since this education/advertising activity is currently on going. The WDA have also been charged the same annual amount to go towards re-education of the public and advertising campaigns about the new collection systems. In the Baseline model, the cost per household figure is assumed to remain constant from 2005/6 onwards. It has been assumed that in order to successfully instigate the

target Options collection systems from 2008/9 onwards, an enhanced public education programme has been implemented. The costs for this public education scheme have been estimated from evidence from the high diversion trials and are assumed to be shared equally between the WCAs and WDA (50% borne by WCA and 50% by WDA). The years in which the education programme costs have been set are detailed in the table below and they have been profiled in-between these years.

Year	Cost/hh
2005/06	£1.00/hh
2008/09	£3.50/hh
2033/34	£3.50/hh

37. To calculate the increase in garden waste captured as a result of the provision of a **free** green waste collection scheme, the potential kg/hh of green waste was calculated based on the garden waste composition arisings in the waste composition. A figure of 70kg/hh/yr was agreed between experts to be added to the current household garden waste arisings. This 70kg represents the garden waste arising at the kerbside as households use the kerbside system instead of RHWCs or home composting. Where the capture rate of any fully rolled out current garden waste collection in a Baseline KAT model exceeds the calculated capture rate in the Options models which include the extra 70kg, the Baseline capture rate is used in the Options in order to fairly reflect a very successful scheme (e.g. for Colchester). However, if the capture rate of a partially rolled out garden waste collection system in a Baseline KAT model exceeds the calculated capture rate in the Options models which include the 70kg, the Baseline capture rate is kept for the current households on the scheme and the calculated capture is used for the remaining households (e.g. for Maldon). The overall tonnage of garden waste collected from the kerbside by the WCA was then calculated using the kg/hh/yr figure multiplied by the number of households that are provided with Garden only or Garden & Kitchen waste collection services
38. Below is the table of set out, participation and capture rates for all the Options modelled. In the baseline the participation and set out rates are tailored to each districts current performance in their baseline KAT models. The capture rates are derived from the participation rates and the current recovery of each material by the each district.

A weekly refuse variation of Options 2 and 4 was modelled for Harlow in order to confirm that increases in recycling rates can be achieved at lower costs, when switching from weekly to alternate weekly for residual waste. It should be noted that these two extra Options were modelled for the pilot district only and will not be run for any other districts.

Forecasting future rates for each Authority is problematic and dependent on a number of factors such as contractor performance, socio-economic profile of the area, historical service quality and effectiveness of communication strategies, etc. The future performance rates would typically be estimated from current baseline system performances and similar schemes operating elsewhere. However, rapid improvements to performance in Authorities around the UK have usually resulted when multiple system changes have been implemented at the same time making it almost impossible to review the impact of each system change individually. For this reason, standard rates have been applied to each of the Authorities in this analysis, see table below. However, as performance data becomes available in the future it is possible for the KAT models to be amended.

Although the rates are kept the same for each district, their recycling rates will of course come out differently depending on composition of the waste arisings in that particular district. For example, if a district has low garden waste fraction in their composition this will be reflected in the tonnage of garden waste which can be collected.

The figures in the table below are averages for the whole of the UK which means they are realistic achievable rates for all the districts. By keeping the same rates for each district, it will give a fair comparison, otherwise there maybe unintentional positive bias towards certain districts who are already achieving high recycling rates and a negative bias to those who struggled to meet their 2005/6 BVPI recycling targets. Given the proposed investment in education and promotional material (up to £3.50 per household in the Options models), these rates are considered realistic for Essex authorities.

AWC Refuse					Weekly Refuse				
Option 1 (AWC)					Option 2a (WK)				
		Set out	Participation	Capture		Set out	Participation	Capture	
Coll 1	Fortnightly Refuse	95%	-	-	Coll 1	Weekly Refuse	95%	-	-
Coll 2	Fortnightly K/S Recy	75%	85%	75%	Coll 2	Fortnightly K/S Recy	55%	65%	75%
Coll 3	Fortnightly Garden	75%	85%	TBC	Coll 3	Fortnightly Mixed K&G	70%	G = 70% K = 20%	G = 100% K = 75 %
Coll 4	Weekly Kitchen	55%	65%	75%	Coll 4	N/A	-	-	-
Option 2 (AWC)					Option 3 (AWC)				
		Set out	Participation	Capture		Set out	Participation	Capture	
Coll 1	Fortnightly Refuse	95%	-	-	Coll 1	Fortnightly Refuse	95%	-	-
Coll 2	Fortnightly K/S Recy	75%	85%	75%	Coll 2	Fortnightly Co-min Recy	75%	85%	75%
Coll 3	Fortnightly Mixed K&G	75%	G = 75% K = 40%	G = TBC K = 75%	Coll 3	Fortnightly Garden	75%	85%	TBC
Coll 4	N/A	-	-	-	Coll 4	Weekly Kitchen	55%	65%	75%
Option 3 (AWC)					Option 4 (AWC)				
		Set out	Participation	Capture		Set out	Participation	Capture	
Coll 1	Fortnightly Refuse	95%	-	-	Coll 1	Fortnightly Refuse	95%	-	-
Coll 2	Fortnightly Co-min Recy	75%	85%	75%	Coll 2	Fortnightly Co-min Recy	75%	85%	75%
Coll 3	Fortnightly Garden	75%	85%	TBC	Coll 3	Fortnightly Mixed K&G	75%	G = 75% K = 40%	G = TBC K = 75%
Coll 4	Weekly Kitchen	55%	65%	75%	Coll 4	N/A	-	-	-
Option 4 (AWC)					Option 4a (WK)				
		Set out	Participation	Capture		Set out	Participation	Capture	
Coll 1	Fortnightly Refuse	95%	-	-	Coll 1	Weekly Refuse	95%	-	-
Coll 2	Fortnightly Co-min Recy	75%	85%	75%	Coll 2	Fortnightly Co-min Recy	55%	65%	75%
Coll 3	Fortnightly Mixed K&G	75%	G = 75% K = 40%	G = TBC K = 75%	Coll 3	Fortnightly Mixed K&G	70%	G = 70% K = 20%	G = 100% K = 75%
Coll 4	N/A	-	-	-	Coll 4	N/A	-	-	-

TBC = To Be Calculated. Based on each districts waste composition plus an additional 70kg/hh/wk to reflect the "new" waste collected.

KAT model assumptions

39. In the interim period, between 2008/9 and the end of 2012/13, when the new collection systems are in operation, for each district, both the weekly separate kitchen waste collection and the mixed kitchen and garden collections are assumed to be bulked at the local bulking depot before being transported to the appropriate interim IVC facility. After 2013/14 when the AD plants are operational for the treatment of organics, both the weekly separate kitchen waste collection and the mixed kitchen and garden collections are assumed to be direct delivered to the appropriate facility.
40. In the interim period, in the Options, the kerbside sorted and co-mingled dry recyclables are assumed to be bulked at a local depot before travelling on to either Reprocessors or MRFs. From 2013/14 onwards, for all Options without Transfer Stations where kerbside sorted recyclable collections are modelled,

the collection vehicle has been assumed to deliver to a local bulking point before the materials are taken on to their appropriate Reprocessor. Co-mingled recyclables collections on the other hand, are delivered direct to the MRFs located at Rivenhall in Braintree or Courtauld Road in Basildon (in models which exclude Transfer Stations). Please refer to the appropriate district maps to visualise this assumption.

41. In the models which assume the Partnership Transfer Stations are operational from 2013/14, these facilities can be used for the bulking of all waste collection streams where appropriate i.e. for residual waste, for kerbside sorted recyclables, for co-mingled recyclables, for kitchen waste only collections and for mixed kitchen and garden collections. Since bulking of garden only waste can have operational challenges and the WDA contracted composting sites are relatively well distributed for each district, it is unlikely that this waste stream will warrant bulking at the TS first. However, this point of detail can be assessed once the requirements for the TS are fully demonstrated.

Assumptions for the wasteflow input data

42. In all options where food waste is collected, two rolls of kitchen caddy liners (25 liners/roll) were assumed to be paid for by the WCA, at £1.50 per roll in wasteflow. All other collection container costs (including the 25litre lockable kitchen waste bucket) have been included in the KAT models.
43. The performance of the Bring sites are kept constant from 2005/6 and therefore the tonnages collected over the life of the contract only increase with waste growth. The justification for keeping the tonnage constant is because regardless of whether there is a kerbside collection of recyclables, it is believed that the type of people who currently using Bring sites will continue to do so as this has been seen in other authorities which have introduced similar kerbside schemes. Where the actual cost of bring waste collection was unknown, a cost for this collection service has been modelled at an average cost of other districts in Essex, which includes any haulage of the materials to the Reprocessors but not the income from the sale of these materials, as this income is included separately.
44. The process residues from the proposed MBT plants at Braintree and Basildon are both sent to Bellhouse landfill at Stanway.
45. Between 2005/6 and 2007/8 inclusive, in all wasteflow models (including the Baseline) the average level of rejects for all dry recycling collected at the kerbside for all districts, is 0.5% which reflects the amount of contamination reported by the districts in their BVPI audited data at their local MRFs. No rejects were reported at the composting sites or at the interim IVC facilities. In the Baseline wasteflow these levels of rejects are kept constant for the remainder of the contract. From 2008/9 onwards, 1% rejects have been assumed from all composting sites with 10% rejects from interim IVC facilities and long term AD plants. The disposal cost for the rejects from the AD plant has not been taken into account at the gate fee of the AD plants and consequently, the WDA are paying for this disposal of rejects to landfill. In the wasteflow models, the rejects from the MRFs are sent to the MBT facility where it is assumed that there is a 5% recovery of recyclable materials. This tonnage of recycling from the MBT plant has been apportioned back to each district based on their MSW arisings in 2005/6 and can therefore contribute towards each districts BVPI recycling target.

46. Co-mingled and kerbside sorted recycling Options

WRAP published a report in June 2008 which was a comprehensive study into different household recycling systems⁸ which highlighted the following:

- In the current market, kerbside sorted schemes are more cost effective for Local Authorities than single stream co-mingled. However, two stream co-mingled collections where paper is kept separate, have similar net costs to kerbside sort schemes.
- Co-mingled schemes had generally been thought to be cheaper to run but fare less well when the cost of sorting the material at a MRF is taken into account.
- Contrary to the popular belief that co-mingling is more successful in collecting recyclable materials, what determines how much recycling people do is the size of the containers they have to put it in.
- Although earlier work had shown that kerbside sort schemes achieve higher quality recyclable materials than co-mingled collections, as there is less risk of non-recyclables being included, it has been observed that different areas have different needs and there is no such thing as a one-size-fits all “best scheme”. In fact, co-mingled schemes may be the best option in some areas such as inner cities, where on street parking prevents kerbside sorting and there are lots of multi-occupancy houses where it is difficult to store multiple containers.

A few trends are evident related to single stream co-mingled recycling:

- More local authorities in the UK are implementing single stream co-mingled collection and processing schemes, with and without including glass as a designated co-mingled material. It is a trend that seems likely to continue.
- Single stream co-mingled recycling can result in higher recovery of targeted recyclables but higher contamination than comparable 2-stream collections.
- Technologies continue to improve to separate and process single stream co-mingled recyclables. As a result, newer MRFs are able to produce grades of paper that meet and, in fact, exceed those of older MRFs.

There is evidence found in studies⁹, which discuss that MRFs in the UK are reporting process reject fractions of between 2% and 15% (also known as the efficiency of the MRF). This process reject fraction includes:

- non recyclables (i.e. contaminants) which are mixed in with the targeted materials, and
- non targeted materials (i.e. glass when the MRF only accepts paper, card, cans and plastics).

When the recyclables vehicle arrives at the MRF, a visual inspection will determine whether the MRF will accept the load for processing. If there is deemed to be more than the agreed level of non targeted or contaminated recyclables in the load, it will be rejected at the gate, and the vehicle will usually have to go to landfill to dispose of its load. The agreed level of contaminants in each load of co-mingled materials accepted by MRFs is reported to be within the range of 7-15%¹. However, this figure is dependent upon the number of

⁸ http://www.wrap.org.uk/wrap_corporate/news/wrap_reveals_results.html

⁹ http://www.wrap.org.uk/wrap_corporate/about_wrap/mrf_home_page.html

materials accepted in the co-mingled collection and the technology process in operation at the MRF.

In the MRF Costings Model User Guide¹⁰ published by WRAP, the arisings and recycling performance data from a number of sources were then used to develop representative recovery rates for use in the MRF costing models. The projected recovery rates shown for each MRF system represent “best practice” for that type of programme. The recovery rates are higher than presently experienced in many UK collection programmes and are meant to reflect recovery rates that local authorities should be aspiring to achieve. They have been developed with due consideration of the performance of some of the leading recycling programmes in the UK and refined to project what is considered high level (but practical) householder participation and material capture rates.

The guidance goes on to discuss the expected recovery rates:

Experience shows that a fully co-mingled collection system experiences higher recovery rates than the equivalent 2 stream collection systems, primarily because of increased convenience for the user. For the purposes of the MRF costings model, it is conservatively projected that recovery rates for the 2 stream systems are 90% of those for the single stream co-mingled system. In addition, in the case of 2 stream systems, where collectors have opportunities to sort visible contaminants from a box, recovery rates of some of these unwanted materials (e.g. liquid beverage cartons, non-recyclable paper, etc.) have been assumed lower than for those materials in the fully co-mingled single stream systems, since there is no opportunity in a bag or a wheeled bin collection to sort out these materials. These material compositions are used as in-feed to each of the respective MRF designs. Even though most of the non-recyclables are assumed to be removed during collection, small quantities are still assumed to be included in the incoming recyclables stream delivered to the MRF. These materials will form part of the MRF residue stream requiring ultimate disposal.

Recovery rates for the targeted recyclables are used to calculate the quantity of each recyclable to be marketed. The remaining tonnage (comprised of recyclables not recovered and non-recyclables that are in with the recyclables delivered to the MRF) is identified as residue. Residue is highlighted for both fibre and the containers and then averaged for all of the incoming material. With the default values used in these models, residue is 14-18% for the single stream MRFs and 7-8% for the 2 stream MRFs.

BVPI guidance¹¹ states that a WCA can use the MRF’s overall contamination rate if there is no more accurate information on their waste stream is available when reporting BV 82a (Percentage of household waste arisings which have been sent by the Authority for recycling). However, current practise for reporting accurate reject rates from the MRF within WCA’s is not common practise since the MRF operators are not required by law to report the overall reject level of the plant back to each WCA. Therefore, small discrepancies over the actual amount of household waste “sent for recycling” (not sorting) claimed under BV 82a can occur.

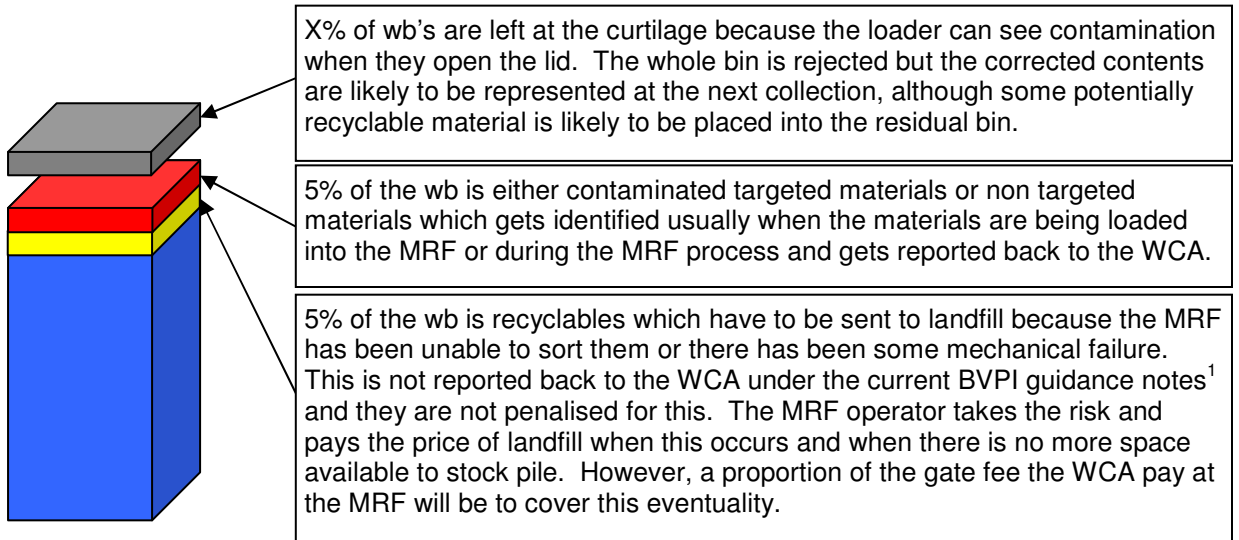
¹⁰ http://www.wrap.org.uk/downloads/User_guide_for_publication_LC_21Dec06.833229a4.pdf

¹¹ <http://www.audit-commission.gov.uk/performance/downloads/acbestvalueperformanceindicators.pdf>

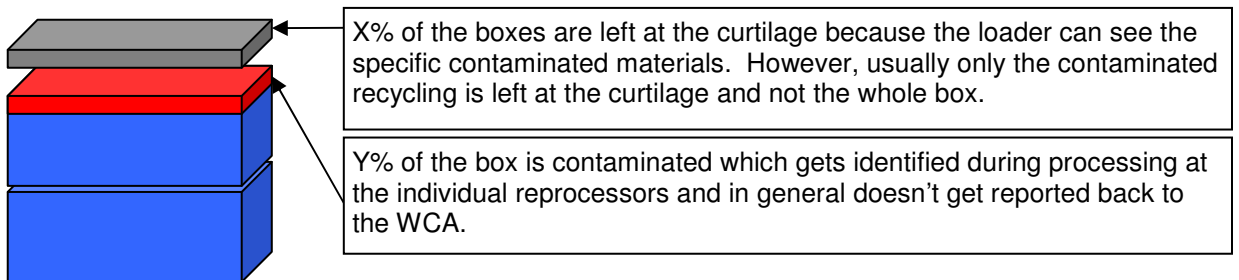
In order to reflect current practise, the System Design modelling assumes that when dry recyclables are collected in a single co-mingled stream, the WCA's are penalised 5% of their recycling sent to the MRF¹² as this is assumed to be the average level of contamination in each load. Also, the cost of treating¹³ and disposing¹⁴ of 10% of the materials sent for recycling is charged back to each WCA in the calculated gate fee. Again, to reflect current practise, the System Design modelling assumes when recyclables are collected using a kerbside sort arrangement, the WCA's are penalised 0% of their recycling sent directly to third party reprocessors.

The text below assumes that the figures provided are for an average household.

Co-mingled recycling wheeled bin (wb)



Kerbside sort recycling boxes x2



47. From 2013/14, all of the WCA collected commercial waste, bulky waste, other household waste and 100% of street sweepings are sent to the MBT plants for processing. Before 2013/14 these waste streams are assumed to continue to go to their local landfill sites. The recycling collected at RHWCs which diverts

¹² Note: If the MRF's are procured under the PFI contract along with the residual treatment contracts, it is likely that the reject rates passed back to the WCA's may be higher than what the WCA's are currently experiencing with third party MRF operators because the performance of the MRF will be more transparently linked to the tonnage sent for residual treatment.

¹³ Treatment of the MRF rejects is through the MBT plant between 2011-13 and after that the MBT and SRF energy plant.

¹⁴ Disposal of the waste from the MBT plants and SRF energy plant is sent to landfill and charged at the appropriate gate fee.

more waste from landfill has also been taken into account when calculating the LATS performance of the Options. Half of the RHCs residual waste was sent to the MBT plant for processing and half was sent landfill due to the unsuitable nature of part of this waste stream to be processed at these facilities. The collection of bulky waste is paid for by the waste producer, where WCA's levy a bulky waste collection charge, however, the disposal costs for this waste, other household waste and street sweepings are paid for by the WDA.

48. The assumed incomes from the sale of all recyclates and compost up until 2013/14, are detailed in the table below and are on 2006 price basis. These figures are averages over the last 2 years of recyclate prices. After 2011/12, the kerbside recycling prices decline from £67.21 to £40 by 2020 and to £20 by 2038, and the bring and RHC's recyclables prices decline at the same rate. After 2020 the prices remain static. This reduction in recyclate prices is to reflect the current buoyant market and that it is unlikely to continue at these high prices indefinitely. It is almost impossible to accurately forecast income prices beyond 5 years into the future. It should be noted that the reason for the income rates for both kerbside sorted and co-mingled dry recyclables being the same is because the range of materials collected are the same and the papers and glass have to be collected mixed due to the size constraints on the kerbside sort vehicle.

Average Value of...	2005/6
Kerbside sorted recyclables	£ 67.21
Kerbside Co-mingled recyclables (post sorting)	£ 67.21
Bring recyclables	£ 33.22
RHCs dry recyclables	£ 10.74
Garden waste composting	£ 6.68
Mixed kitchen & garden waste composting	£ 0.00
Kitchen waste only composting	£ 0.00
Recyclables from the MBT plants	£ 10.59

49. Any new bulking activities from 2008/9 attract a charge to the WCAs of £7/tonne¹⁵ plus haulage costs to the next delivery point charged at £0.15/tonne-km¹⁶ for co-mingled and kerbside sorted recyclates and compost like materials. In the case of the kerbside sorted recyclables where the distance to the delivery point is dependent upon the type of material, an average distance of 70 miles has been assumed. This figure has been approximated assuming that 80% of the materials travel a fairly short distance (40 miles) to their appropriate reprocessors and the other 20% of the materials have to travel a fairly long distance (200 miles) to their appropriate reprocessors.

¹⁵ This assumed bulking cost was generated after discussions with WRAP and WCA's currently using bulking arrangements. A sensitivity using an increased bulking rate for kerbside sorted materials can be run in order to take in to account the increased cost of baling the low density materials, for example plastics.

¹⁶ This assumed haulage cost was generated by taking an average of prices being costed into recent waste management bids.

Wasteflow model assumptions

50. The 25 year contract period for this System Design Project is assumed to be from 1st April 2014, the operational date of the SRF Energy facility, to 31st March 2039.
51. The growth in waste arisings alone has been modelled to reflect the recent trends seen within Essex. The trends observed are that of a 1% overall growth rate per annum of which approximately 0.3% is attributed to waste growth rate and 0.7% to household growth. The overall growth rate, which is the sum of the waste growth rate and the household growth rate, is applied to the base year tonnages entered in 2005/6 in order to calculate the future waste tonnages. The household growth rates have been calculated for each district using the projected household figures.
52. Between 2005/6 and 2033/34 for each district where applicable, the tipping away payment for the tonnage of residual waste which is sent to landfill excludes any commercial waste but bulky and street sweepings are eligible.
53. The waste composition for each district is assumed to stay constant and is based on the data provided from the 2004 MEL study.
54. For each district, the location of the landfill site used in 2005/6 is assumed to be the same throughout the life of the contract. Even though the district's current local landfill site may potentially be unavailable in the future, it is impossible at this time to make an accurate assessment of these changes. The landfill gate fee used in the model was £27.09 in 2005/6 with the addition of the appropriate deflated landfill tax for future years after 2008.
55. Landfill tax for active waste has been assumed to increase at the specified rate of £8/year up until it reaches £48/tonne in 2010/11. After this year, the rate increases linearly up until £7/tonne by 2020 and remains static after this year. Note: these prices were deflated to a 2008 basis in the models. The landfill tax for inactive waste is at £2/tonne up to 2008/9 and at £2.50 thereafter.
56. After 2005/6, the garden waste from the RHCs has been apportioned to the 3 windrow composting facilities, Pitsea, Heatherlands and Birch, based on the arrangements observed in 2005/6.
57. Any changes to actual delivery points for the WCA's in 2006/7 or 2007/8 in the baseline model have not been taken into account until 2008/9.
58. For each Option modelled, in order to calculate more accurate sizing of the treatment facilities and therefore the treatments costs in the wasteflow model, it was necessary to approximate the diversion performance of Uttlesford District Council and Southend Borough Council. Southend were assumed to collect the same profile of waste as was identified in the 2008 OBC reference case and Uttlesford were modelled to hit their 2008 LAA recycling target and to remain static at that rate. Since the data for these two councils is identical in each Option model, there is no bias effect.
59. In order to assess the difference in the costs of the Options to the Essex taxpayer, it has been necessary to apportion the whole system costs of all the waste treatment facilities (including the cost of the long term MBT and SRF Energy plants actually funded by the WDA) back to the districts. This calculation is for illustration purposes only and was based on their proportion of the MSW arisings in Essex in 2005/6. For example in 2005/6, Braintree produced 7.3% of the total MSW arisings in Essex, therefore they are apportioned 7.3% of the treatment and disposal costs in this calculation.

60. Although the EU Landfill Directive and WET Act 2003 set BMW Diversion targets up to 2020, it is assumed for the purpose of this modelling that such targets will continue to be in force throughout the contract. A LATS trading profile has been entered into the model so that any spare allowances are sold or any required allowances are bought at the same rate per tonne. This assumed profile can be seen in the table below (note these prices are on a 2008 basis). No LATS penalty values have been assumed.

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020+
£0.00	£24.22	£23.46	£22.72	£30.81	£25.88	£24.80	£27.06	£34.79	£37.05	£53.67	£80.18	£50.31

61. To assist with the sizing of the waste treatment facilities, assume:
- The facilities at Rivenhall will treat waste from Braintree, Chelmsford, Colchester, 50% Epping Forest, Harlow, Maldon, Tendring and Uttlesford.
 - The facilities at Courtauld Road in Basildon will treat waste from Basildon, Brentwood, Castle Point, 50% Epping Forest, Rochford and Southend.
62. It is been observed that the introduction of a kerbside garden waste collection increases the overall waste collected within an authority area, and that the garden waste collected on this new scheme comprises of three elements, where:
- One third is garden waste that would have otherwise been collected in the residual waste stream;
 - One third is garden waste that would have otherwise been taken by the householder to the RHCs; and
 - One third is garden waste that would have otherwise been disposed of in other methods such as home composting.

Therefore, the MSW arising in a district which has introduced a kerbside collection of garden waste has been increased by the one third of the garden waste tonnage collected on this scheme to take account of the new waste which would have otherwise not been accounted for.

63. Due to the fact that introducing a garden waste collection scheme diverts garden waste away from the RCHW sites, an appropriate deduction has been made in all the wasteflow models to take account of this.
64. Since the WDA contracted windrow composting sites are relatively well distributed throughout the geographical area of Essex, all green garden waste is sent to the nearest composting site and does not take into account any potential contractual North / South split in the WDA geographic area.
65. For the financial year 2013/14, out of every tonne of residual waste entering into the MBT plant, it is assumed that 30% is lost as water evaporation and other gasses, 5% is recovered as recyclables materials, 3% is recovered as useable compostable material and the remaining 62% process residues are sent to landfill. After the energy plant becomes operational in 2014/15, it is assumed that out of every tonne entering the MBT plant 25% lost as water evaporation and other gasses, 5.3% is recovered as recyclables materials, 3% is recovered as useable compostable material and 49.6% SRF which is burnt, resulting in 17.1% process rejects and 4% ash residues being sent to landfill. The assigned national average of BMW out of MSW is 68%. The BMW content

of the process residues which go to landfill from the MBT in 2013/14 are assumed to have been reduced by approximately 32% and after 2014/15 when the SRF Energy plant is also operational by approximately 78% i.e. from 68% to 15% BMW content.

66. The SRF Energy plant is assumed to export 992 kWh of electricity per tonne of SRF burnt with a CV of 17 MJ/kg and 21% efficiency of conversion to electricity.
67. It has been assumed that the 5% recycling which is recovered from the front end of the MBT process will be apportioned across the WCA's. This is why a rise in WCA recycling can be seen in all the Options including the Baseline when the MBT plants become operational in 2013/14. However, no funding to the WCA is eligible on this extra recycling.
68. Electricity exported from the AD plants is assumed to be at 75kWh/t plus two ROC income based on £35/MWh in addition to £35/MWh for base electricity. This also assumes that the biomass content is 35% in line with recent RO scheme changes.
69. The capital and operating cost elements of building the centralised treatment facilities within the County were entered into the wasteflow models and an extra 10% was added on to the costs each year in order to reflect the cost of borrowing this required capital.
70. In order to translate the lifecycle capital, operational costs and annual land lease costs for each treatment facility into a static gatefee over the life of the project, (to which WCA's can directly relate) it has been necessary to make an adjustment specific for the MRFs to take account of the expected change in income from the sale of recyclables. The profile of income is discussed in Assumption 51.

This calculation resulted in a static gate fee for the life of the treatment facilities except for in the MRF's where an annualised gate fee has been calculated taking into account the expected change in income from the sale of recyclables. The benefit to the WCAs of this annualised gate fee arrangement is that in the short term the gate fees are relatively low since we have assumed that the WCA and the MRF contractor equally share the upside risk on the recycle prices market.

71. Income from the sale of recyclates from the MRFs and MBT facilities and income from the sale of compost from the AD plants will be taken into account in the estimated gate fee charges to the WCAs.
72. Any PFI credits that may be available in the future have not been taken into account in this modelling work. It is intended that a sensitivity will be run in order to assess the impact of any PFI credits.

A list of the Maps which have been produced for each district.

Map 1: WCA/WDA cost allocations and tonnage flows in 2005/6 in all Options including the Baseline

Map 2: WCA/WDA cost allocations and tonnage flows in 2008/9 in the Baseline only

Map 3: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Baseline only

Map 4: WCA/WDA cost allocations and tonnage flows in 2008/9 in the Option 1

Map 5: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 1

Map 6: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 1+TS

Map 7: WCA/WDA cost allocations and tonnage flows in 2008/9 in the Option 2

Map 8: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 2

Map 9: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 2+TS

Map 10: WCA/WDA cost allocations and tonnage flows in 2008/9 in the Option 3

Map 11: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 3

Map 12: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 3+TS

Map 13: WCA/WDA cost allocations and tonnage flows in 2008/9 in the Option 4

Map 14: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 4

Map 15: WCA/WDA cost allocations and tonnage flows in 2013/14 in the Option 4+TS

Appendix 2 Details about KAT

Description & definition

KAT is a Microsoft © Excel™ workbook that provides a method of assessing the costs of different kerbside collection options for meeting household waste recycling targets. KAT has been designed to require only a very limited amount of data before projections are possible. It provides a straightforward method to enable consistent projections of kerbside collection infrastructure and costs, tailored to a particular collection area. KAT is primarily intended as an aid to WCAs in the planning of new kerbside collection systems.

It can be used to:

- establish the infrastructure required for different collections;
- establish the relative costs of implementing different systems;
- by running different scenarios, assess and compare collection options to identify the most financially viable;
- compare the cost effectiveness of different scenarios (for example, decreasing capture, but increasing participation or coverage);
- assess costs submitted by contractors tendering for work to ensure proposals are realistic and provide value for money;
- better plan the strategic implementation of kerbside collection systems; and
- assist in supporting funding bids by providing efficient and comprehensive options appraisal.

Limitations

KAT does not present the user with an analysis of the results, for example, by presenting the most cost effective option or advising which materials to target. However, it does provide access to information that previously has not been readily available when planning kerbside systems.

It is important to remember that the costs projected by KAT are standard costs. These costs are not the same as the contracted price. It is beyond the scope of this report to provide a detailed description of the interrelation of all the factors influencing the infrastructure requirements and costs.

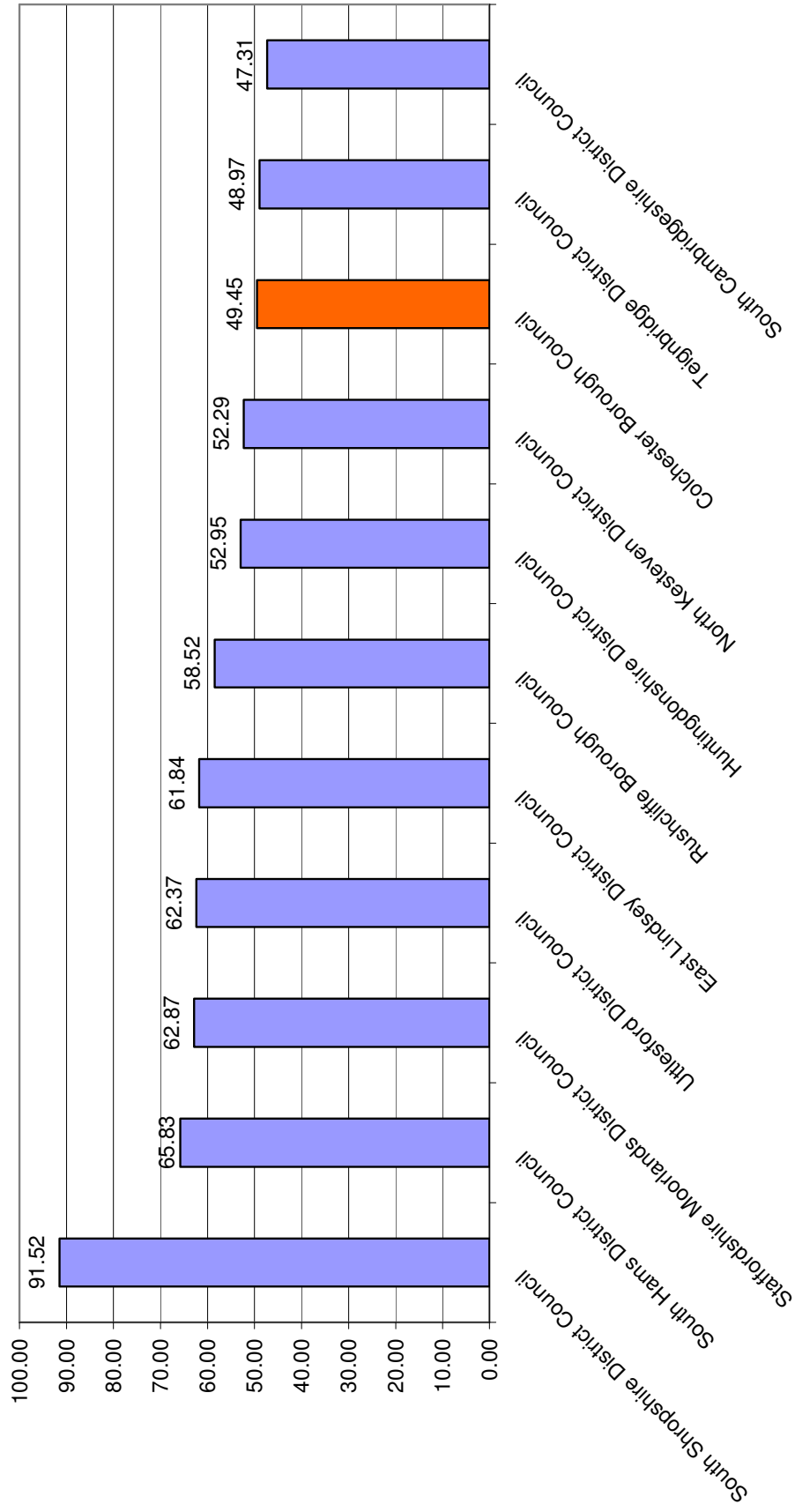
Other factors to consider include the following:

- Public perception
- Performance risk
- Collection system type
- Construction delay
- Set-out, participation and capture rates
- Estimates MBT efficiency
- Waste compositions
- Contamination assumptions
- PFI credits

Items excluded from final cost

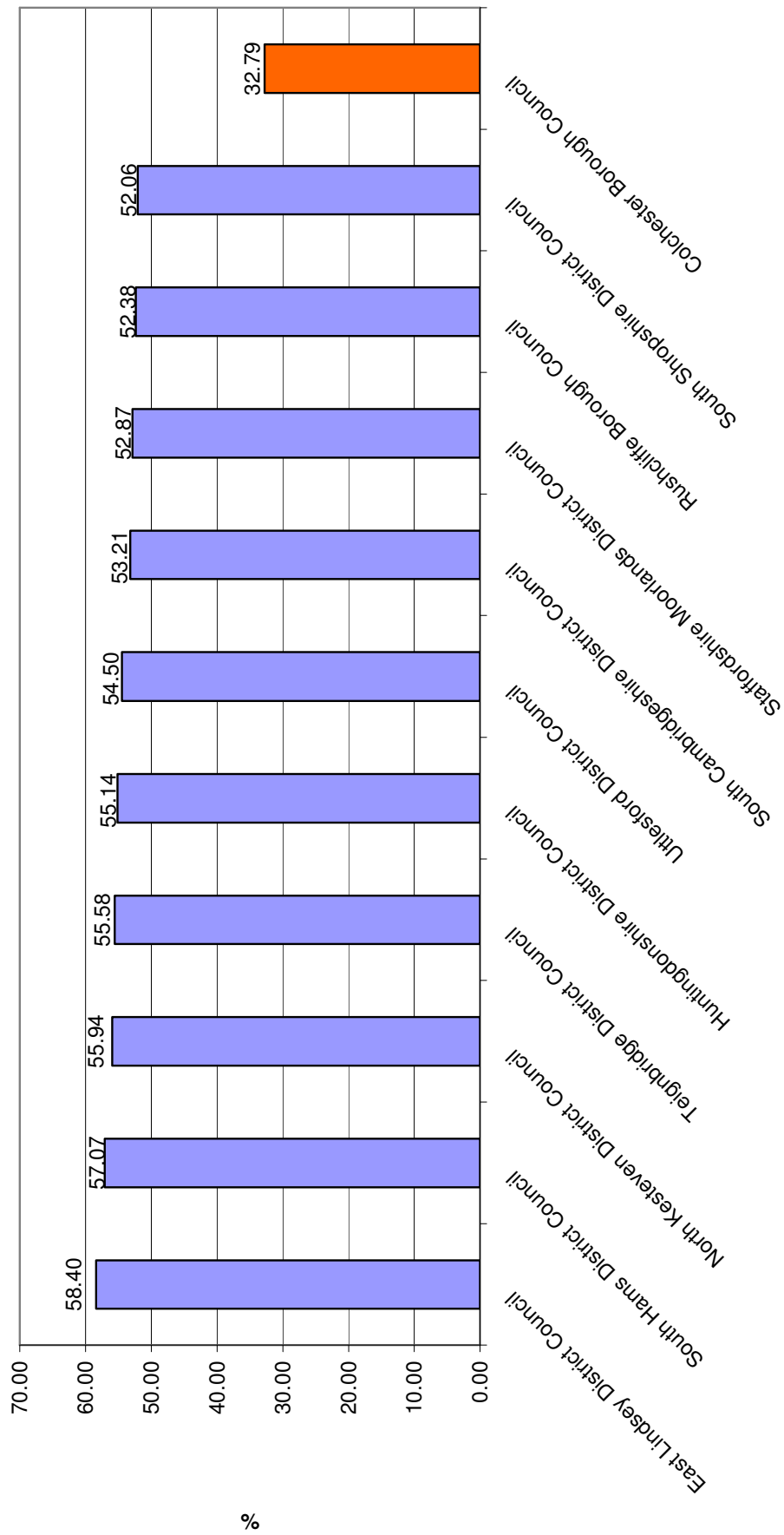
- It should be noted that KAT is unsuitable for use by a local authority if refuse is not collected from individual households, ie it cannot be used if refuse is collected in communal systems, such as paladins or euro-bins. Therefore, our refuse and recycling collection from flats' communal bins is not included in the final costs.
- Any costs related to the spare vehicles and home deliveries of recycling containers are not included.
- Neither the substantial increase in fuel costs, nor the considerable drop in recyclable materials' value this year has been factored into the fuel price.
- There are no costs added to run and to maintain both the depot and the workshop.
- Even though the final costs do not include the budget of the Strategic Waste & Sustainability Team, both baseline and all options do include an annual education cost per household, which is split equally between ECC and each district (see assumptions section below for further details).

Comparison for Colchester's Cost of waste collection per hd, £ (BV86) with the top 10 performing authorities for recycling and composting 2007/08



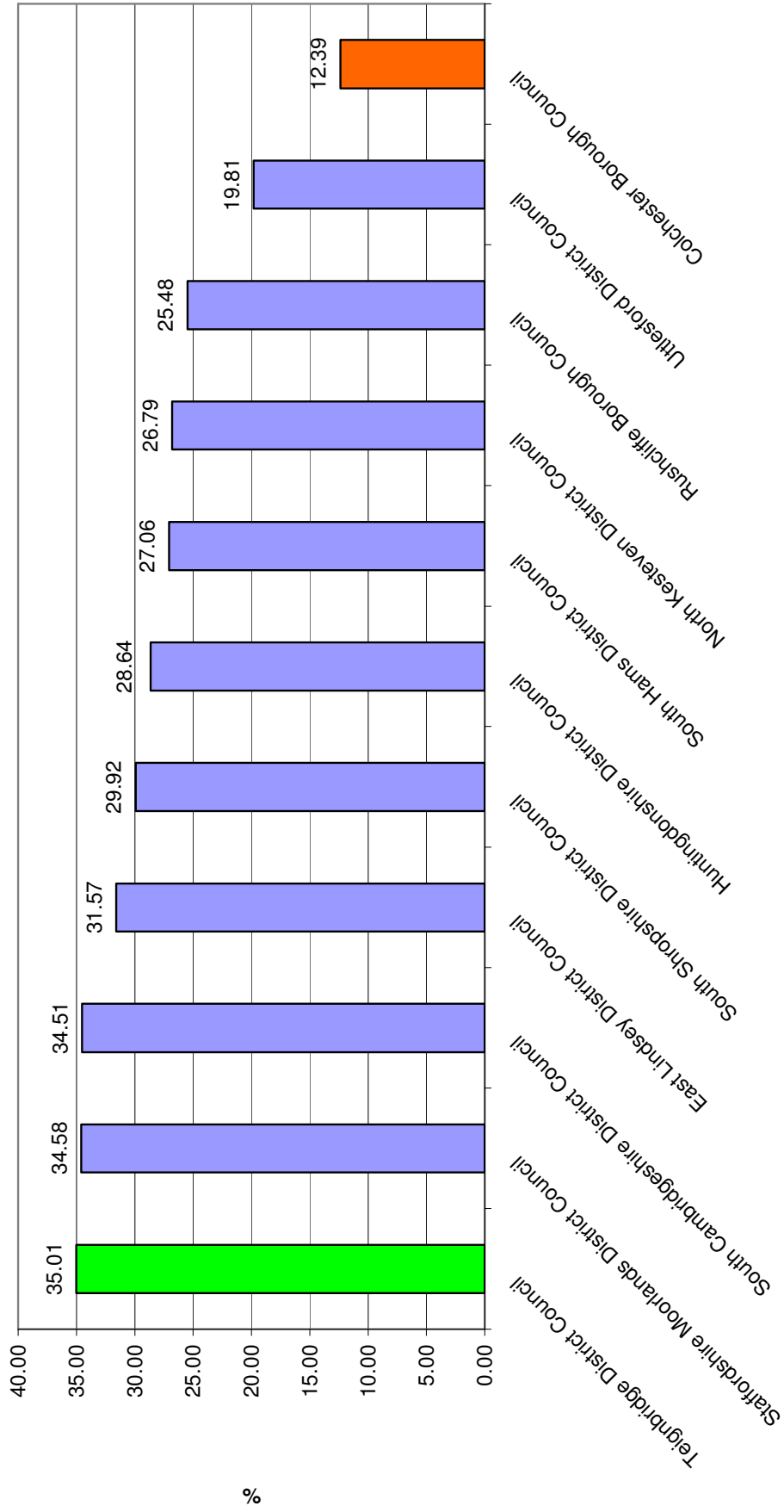
£

Colchester's combined recycling and composting performance compared with the top 10 performing authorities for recycling and composting 2007/08



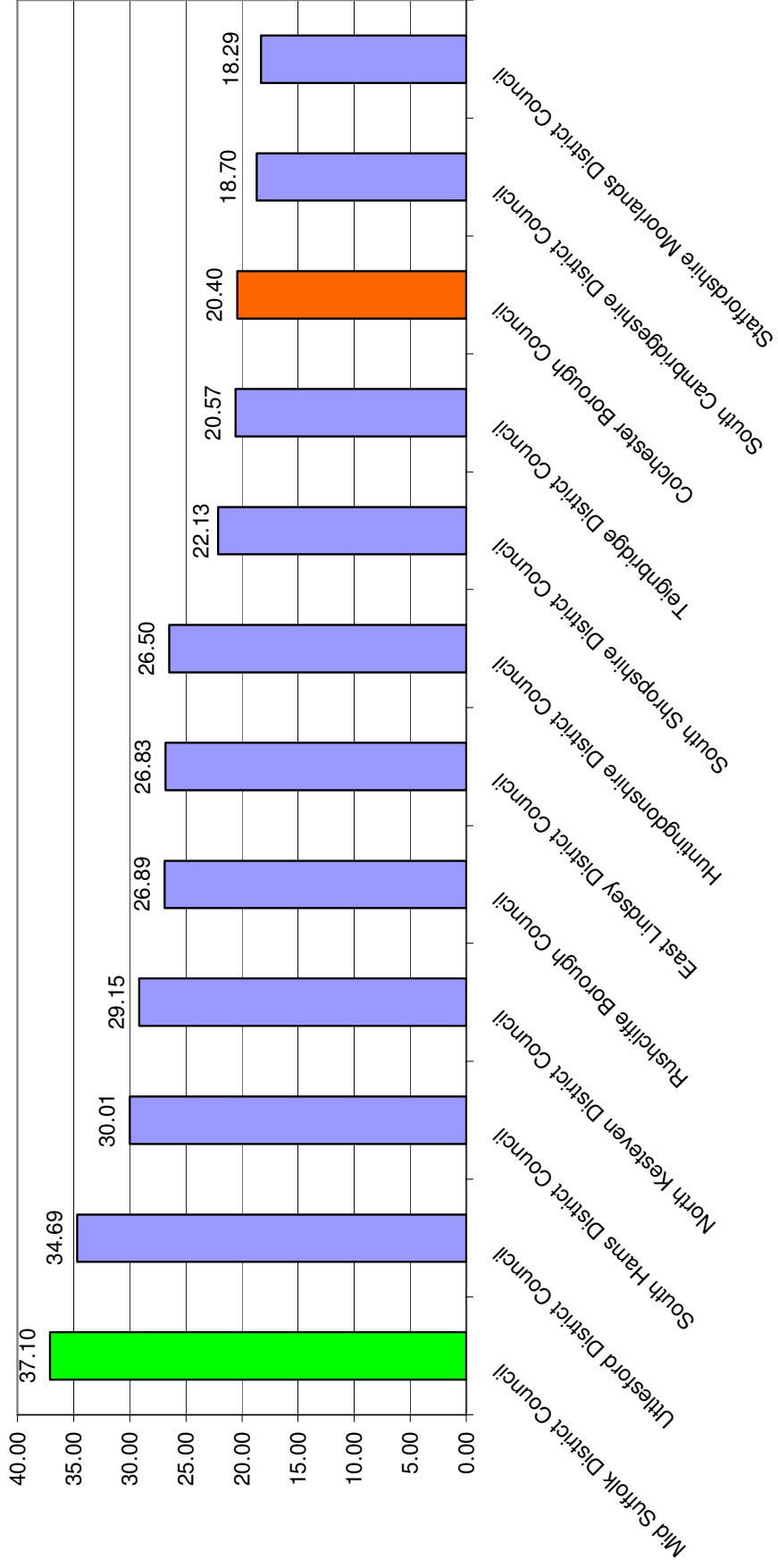
Colchester's percentage of garden waste composted compared with the top 10 authorities for recycling and composting 2007/08

Teignbridge are the top performing authority for garden waste

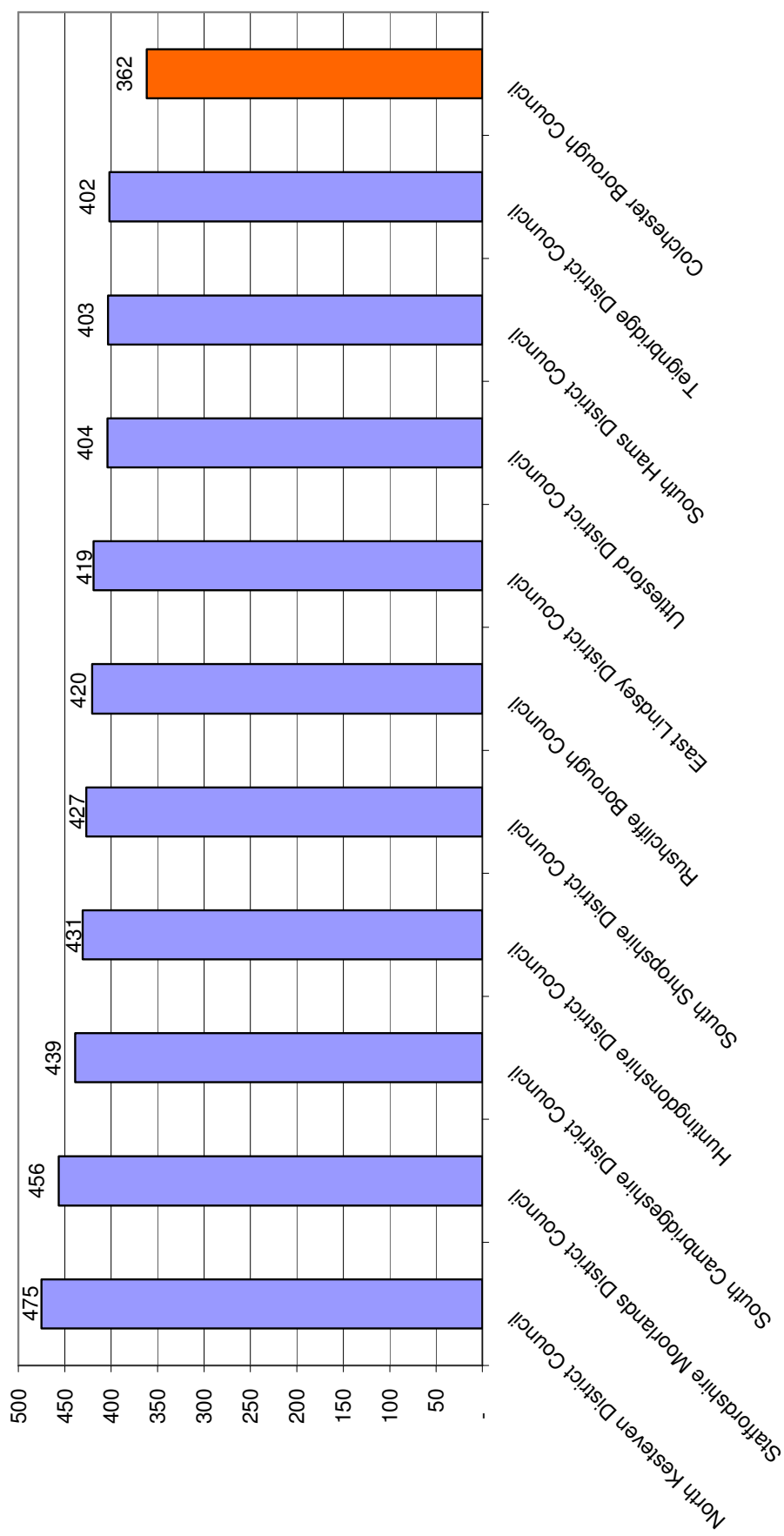


Comparison of Colchester's Dry recycling % with the top 10 performing authorities for recycling and composting 2007/08.

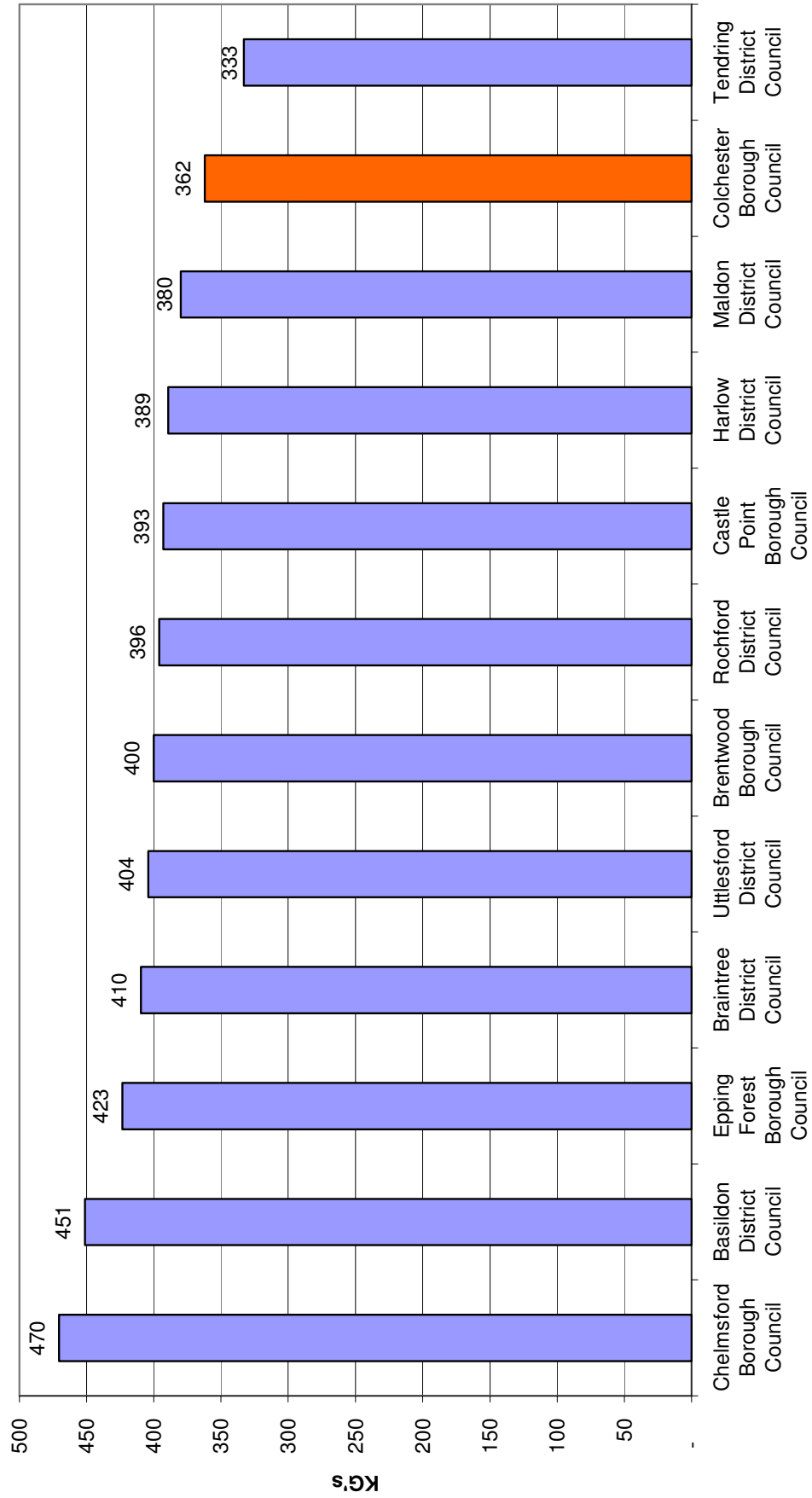
Mid Suffolk are shown as the top dry recycling authority.



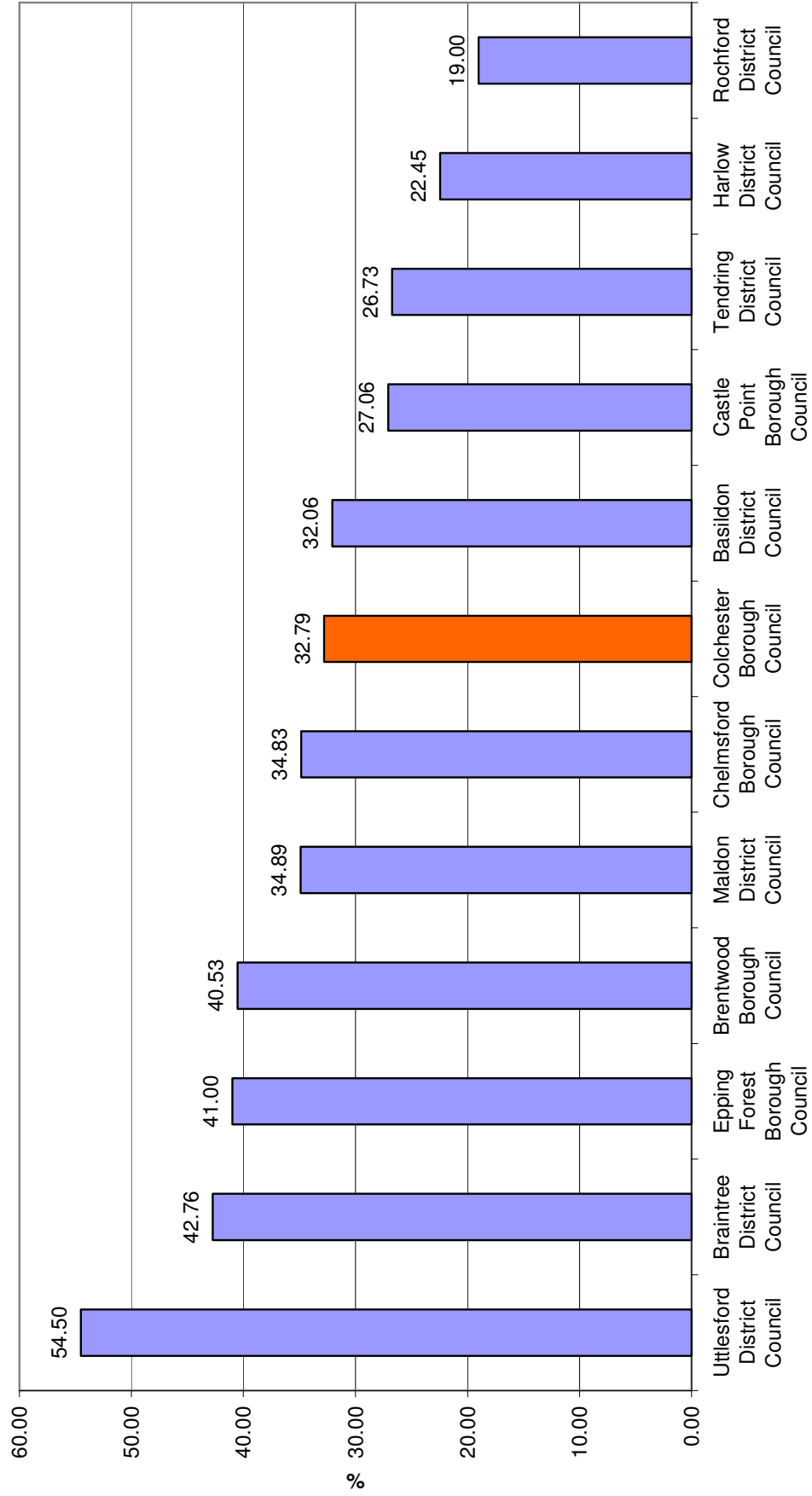
Comparison of Colchester's Collected Household waste per person, kg (84a) with the top ten performing authorities for recycling and composting 2007/08



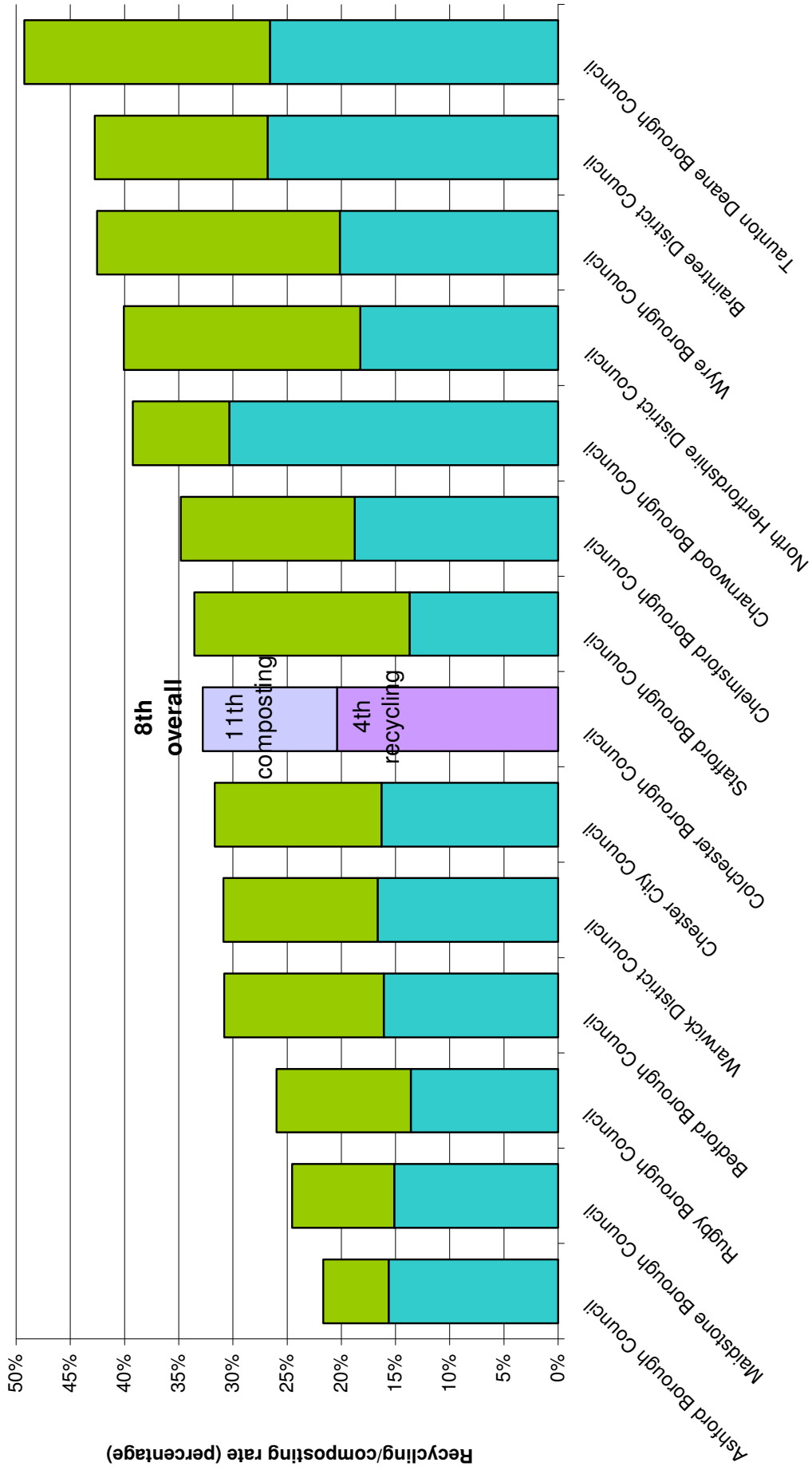
Comparison of waste per person for Essex Waste Collection Authorities 2007/08



Essex Waste Collection Authorities Recycling Performance 2007/08



Recycling performance in 2007/08 of our 'Best Value family' (source: defra, apart from CBC)





Policy Review and Development Panel

Item

8

2 March 2009

Report of	Head of Street Services	Author	Samantha Preston
Title	Nottingham Declaration Strategy and Action Plan		
Wards affected	All ward's affected		

This report concerns the Council's Nottingham Declaration on Climate Change – Strategy and Action Plan

1. Decision(s) Required

- 1.1 The panel is invited to consider the final draft of the Council's Strategy and Action Plan developed under its Nottingham Declaration Commitment and provide views and recommendations on its suitability for mitigation and adaptation to climate change to be considered by Cabinet prior to its adoption.

2. Reasons for Decision(s)

- 2.1 To obtain opinion from Members on the suitability of the attached Strategy and Action Plan to support the Council's work to mitigate and adapt to climate change. Members are asked to consider whether the strategy and action plan is appropriate and will be effective in lowering CO₂ emissions in Colchester with subsequent benefits across the borough, nationally and globally. Members are also asked to consider the effectiveness of this Strategy for dealing with longer term implications of climate change through adaptation for the Council and across the borough.

3. Alternative Options

- 3.1 To decide that the Strategy and Action Plan is not suitable in mitigating and adapting to climate change.

4. Supporting Information

- 4.1 The Nottingham Declaration Commitment was signed by Colchester Borough Council in February 2007. As the Council is a signatory to the Nottingham Declaration it must produce an Action Plan to demonstrate its commitment. However, this is not prescriptive so the Council could choose to do more or less than is suggested in the attached draft Strategy and Action Plan.

- 4.2 Other climate change related targets include;

- NPI 185, CO₂ reduction from local authority operations (requires year on year percentage decrease)
- NPI 186, Per capita reduction in CO₂ emissions in LA area
- NPI 188, Preparing to adapt to climate change
- NPI 194, reduction in PM10 and NO_x gases to improve local air quality
- Colchester's Carbon Challenge, 30% reduction in CO₂ emissions in the borough by 2020

- Local Authority Carbon Management programme (LACM) – 25% reduction in CO₂ emissions from our own operations by 2012.

5. Proposals

- 5.1 Under the Nottingham Declaration Commitment the Council is required to produce a Climate Change Strategy and Action Plan. This was drafted in September 2008 and has undergone public consultation. The results of the consultation were extremely positive and the strategy has been adapted to accommodate many of the comments that were received.
- 5.2 The overall aim of the strategy was to incorporate all climate change related targets under an 'umbrella' document, allowing progress in this area to be monitored in a joined up way. Under this strategy the Council has four priorities relating to climate change, each of which includes aspects of mitigation and adaptation. The strategy is accompanied by a full action plan.
- 5.3 The Strategy has been developed to be accessible to all, providing information on why the strategy is necessary and the possible impacts of climate change. The introduction also sets out the Council's vision for climate change mitigation and adaptation and its four main priorities in this area. For each priority there is a description of the type of work that will be undertaken accompanied by a summary stating;
Where we are now? Where we want to be? How we will get there?

Reducing our own emissions

- 5.4 The first priority aims to support the Council in reducing CO₂ emissions from its own buildings and operations. To reduce the CO₂ emissions from Council operations we have joined the 5th phase of the Carbon Trust's LACM programme. A LACM Strategy and Implementation Plan has now been adopted and the first phase of projects is now underway. The first phase will provide savings of approximately 1,127 tonnes of CO₂ per annum through buildings projects and awareness campaigns.

Some of the projects completed and commissioned so far include;

- Staff awareness campaign
 - Snooze button, shutdown software for Council PC's
 - Installation of PowerPerfector at the top 10 electricity usage sites
 - Ecoflow fuel optimisation device
 - Refurbishment of the fitness pool at leisure world
 - Refurbishment of Lion Walk toilets
 - Use of fuel additive in waste and recycling fleet
 - Valve and flange insulation at 12 sheltered housing sites
- 5.5 This priority also includes a Sustainability Action Group, developed to take forward sustainability projects across the council and also the improved use of renewable energies. Many projects involving the use of renewable energy will be included in the LACM, however it is important to emphasise the importance of low carbon technologies as a solution to problems such as security of energy supply and increased fuel costs whilst lowering CO₂ emissions.

Being a Community Leader

- 5.6 This priority sets out how the Council will help to raise awareness of climate change across the borough and the various projects that will support a reduction in CO₂ emissions from schools, businesses and residents. Research carried out by the Local Government Association has shown that Local Authorities are well placed within a community to take a lead on climate change, emphasising the importance of this as a priority.
- 5.7 The Council will be working closely as a partner of Colchester2020 to support the 'Colchester Carbon Challenge'. The actions for each of the partners are set out in the Colchester2020 Sustainable Communities Strategy. Other initiatives under this priority include promoting Essex CRed, an energy saving pledge scheme for which we already have received nearly 2000 pledges equating to around 500 tonnes of CO₂ saved. Also work to promote waste minimisation and recycling, sustainability in local schools through the Eco-Schools programme, reduce fuel poverty and promote the 'Warm Homes' scheme to vulnerable people.
- 5.8 A significant section of this strategy focuses on raising awareness of CO₂ reduction. We will be looking at all of the services that the Council provides to see how we can promote sustainable living and energy efficiency in a clear and consistent way. The Council's Climate Change Officer will work with the Life Opportunities service to support community groups. We have already worked with the Hythe Community Centre in a bid to access funding Photo-Voltaic Panels for their roof with an awareness campaign; we hope to offer this support to other groups across the borough. Work will be done with the Enterprise team to support local businesses to become more energy efficient, and educational materials will be developed and awareness campaigns carried out across the borough to show the benefits of domestic energy efficiency.

Delivering Sustainable Services

- 5.9 If we are to make a real difference tackling climate change it is important that we look into each of the Council services and ensure that they are delivered in a sustainable way. This is also vitally important in terms of climate change adaptation. We need to ensure that the possible impacts of climate change will not prevent the Council from delivering its services to the best possible standard. The Council's Climate Change Officer will work closely with each service and its Group Management Teams to support this and will include actions in the Nottingham Declaration to monitor progress. Actions for each service area to compliment the Nottingham Declaration priorities and actions will be included in group service plans.
- 5.10 Transport accounts for around 30% of CO₂ emissions in the borough, making it another area of focus in tackling climate change. The Council is a member of the Colchester2020 Travel Plan Club and has its own Travel Plan to promote sustainable transport for employees. Work is also being carried out to encourage other businesses and organisations across the borough to develop their own travel plans.
- 5.11 The Council will be required to comply with various climate change related legislation such as the Energy Performance of Buildings Directive. This directive requires qualifying buildings to have Display Energy Certificates, publically showing the energy efficiency of that building. Future legislative requirements must also be considered; with the passing of the Climate Change Bill in 2008 (requiring 80% reduction in emissions by 2050) it is highly likely that more stringent targets and controls will be put in place. In 2010 CBC will be required to take part in the Carbon Reduction Commitment. Although steps have been taken to lower our CO₂ emissions, this is a 'cap and trade' scheme that

will have significant financial implications for the Council. Key operating guidance and regulations relating to the operation of this scheme are due in March 2009 from the Department for Energy and Climate Change.

Using our powers

- 5.12 The purpose of this priority is to ensure that the Council can maximise its existing influence across the community to help mitigate and adapt to climate change. Having a sound and robust Local Development Framework will help to ensure sustainable development in the borough for the future. Considering flood risk and other potential impacts of climate change will help Colchester to be resilient in the future.
- 5.13 Tackling congestion and promoting sustainable transport will have a significant impact on lowering CO₂ emissions but will also have many other benefits such as improved congestion and air quality. Development control can help to make existing houses more energy efficient, while building control will ensure that new developments are up to efficiency standards.
- 5.14 We have the opportunity through procurement to encourage our suppliers of goods and services to become more efficient. A Sustainable Procurement Strategy would ensure money spent by the Council is not indirectly damaging the environment, showing strong community leadership. The Council's own community – its employees will also be encouraged to become more energy efficient and sustainable, not only at work but also at home.

6. Strategic Plan References

- 6.1 This decision relates to the strategic plan 2009 – 12 through the corporate objective to be cleaner and greener.

7. Consultation

- 7.1 We have carried out a consultation on the Nottingham Declaration Strategy and the overall response has been very positive. Out of 141 of respondents asked whether they believe that climate change is real and will affect them, 90% said yes, 92% of respondents also agreed that the Council has a duty to something about it. The majority of respondents agree with the Council's priorities under the Nottingham Declaration.
- 7.2 Comments from the consultation included several respondents saying that they felt transport should be more of a priority, therefore we will be expanding on this in the final draft of the strategy. Other comments also include that respondents think we should be using our powers more to enforce action rather than encourage it.

8. Publicity Considerations

- 8.1 As no decision is required there are no publicity considerations. However as with all of the projects under the Nottingham Declaration and LACM we will be communicating updates as set out in the Nottingham Declaration Action Plan.

9. Financial Implications

- 9.1 There are separate financial implications for each of the actions within the action plan.

10. Equality, Diversity and Human Rights Implications

10.1 An Equality and Diversity Impact Assessment has been carried out for the Nottingham Declaration Strategy and found that there may be implications under priority two, 'Being a Community Leader'. In order to ensure that we access all groups in awareness raising activities we will monitor users with a questionnaire or demographic indicators such as age, ethnicity, gender and postcode.

11. Community Safety Implications

11.1 There are no community safety implications.

12. Health and Safety Implications

12.1 There are no health and safety implications

13. Risk Management Implications

13.1 The Nottingham Declaration Commitment relates to both climate change mitigation and adaptation. In the future threats of various implications of climate change means that risk management will be very closely related to the Councils Climate Change Strategy. Under NPI 188, preparing to adapt to climate change, risk management and business continuity will be a vital part in achieving the Council's target. We will be looking into risk management plans for each service to ensure that they have plans in place to continue service in a changed climate such as extreme weather conditions, flooding and drought.



Nottingham Declaration Strategy



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Cllr Barton



There is now global scientific consensus that human activity is impacting on climate change and that action needs to be taken now to avoid irreversible damage to our planet. UKCIP scenarios show that the low lying region of the East of England is at significant risk from sea level rises, and there will be many other problems but also opportunities that arise from a changing climate. Colchester has made tremendous strides towards tackling the causes and effects of climate change over the last two years and as a Council we will go from strength to strength in this area. Climate Change is an important and relevant issue for all of us and Colchester Borough Council aims to support everyone in the borough to do their bit and be well prepared for any challenges climate change may pose in the future.

This strategy sets out the Council's four priorities for mitigating and adapting to climate change. We aim to use our existing resources and influence across the Borough whilst developing new and innovative projects to lead the way on this issue.

We have made a strong statement of our commitment by signing the Nottingham Declaration in February 2007. The Nottingham Declaration Action Plan will support the Council to fully embrace its role as a community leader in this area and ensure that carbon dioxide emissions are reduced across the borough. It will also ensure that appropriate planning is in place to help us adapt to a changing climate.

A handwritten signature in black ink, appearing to read 'H. Barton'.

Adrian Pritchard



Colchester Borough Council is the organisation charged with providing community leadership for the area and our communities. The wellbeing of the environment is part of that community leadership and is integral to the residents, businesses and visitors we serve. Climate change, something that will affect us all, is high on the agenda. With scientific evidence making clearer the effects we are having on global warming, we must take strong action to mitigate our own impacts as a Council and take a lead in supporting the wider community to do the same.

Lowering CO₂ emissions not only reduces Colchester's impact it also has benefits for the wider financial and sustainable environment. Increased energy efficiency is an example which not only results in a reduction in CO₂ it also results in lower energy expenditure for local businesses, increasing overall profitability. The same principles also help to lower domestic fuel bills, helping the most vulnerable to keep warm and well.

Our ability to adapt to the effects of climate change will also be key in the future. As a Council we need to plan for the potential impacts of climate change to ensure business continuity, and the provision of the best possible services. By maximising our ability to diversify we will be able to benefit from a range of opportunities that could arise from a changing climate. We will also support the wider community to be prepared and consider how they may be affected.

This strategy clearly sets out how the Council will support a reduction in CO₂ emissions across the borough, working with partners to ensure that a real sustainable difference is made.

It is up to each of us to do what we can to ensure that the vision set out in this strategy becomes a reality.

A handwritten signature in black ink, appearing to read 'A. R. Pritchard'.

Introduction

Colchester Borough Council is committed to tackling the causes and effects of climate change

In February 2007 Colchester Borough Council (CBC) signed the Nottingham Declaration on Climate Change. The declaration is a tool to secure commitment from UK Councils to tackle the causes and effects of climate change. CBC believe climate change is real and is accelerated by human activity, and this document sets out the Council's strategy for mitigating (reducing our impact) and adapting to these issues. Through this commitment CBC will fully embrace its role as a strong community leader on climate change.

The aim of the strategy is to set out recommendations on how the Council can take an innovative approach that addresses local and global impacts. An action plan has been developed to monitor progress and ensure that improvements and targets are met, whilst improving and preserving the local environmental quality.

CBC supports the view that there are enormous environmental, social and economic risks and benefits associated with climate change. As a coastal authority, it is a real issue for Colchester. It is predicted that the East of England, as it is low-lying, will be at significant risk of coastal flooding. However it is also well placed to take advantage of opportunities climate change may present⁽¹⁾. By improving energy efficiency we will not only help to reduce our CO₂ emissions but could potentially improve social and economic problems such as fuel poverty, whilst supporting the local business community. By utilising both public and private partnerships, through this strategy we will establish Colchester as a leading Council on climate change.

Objectives

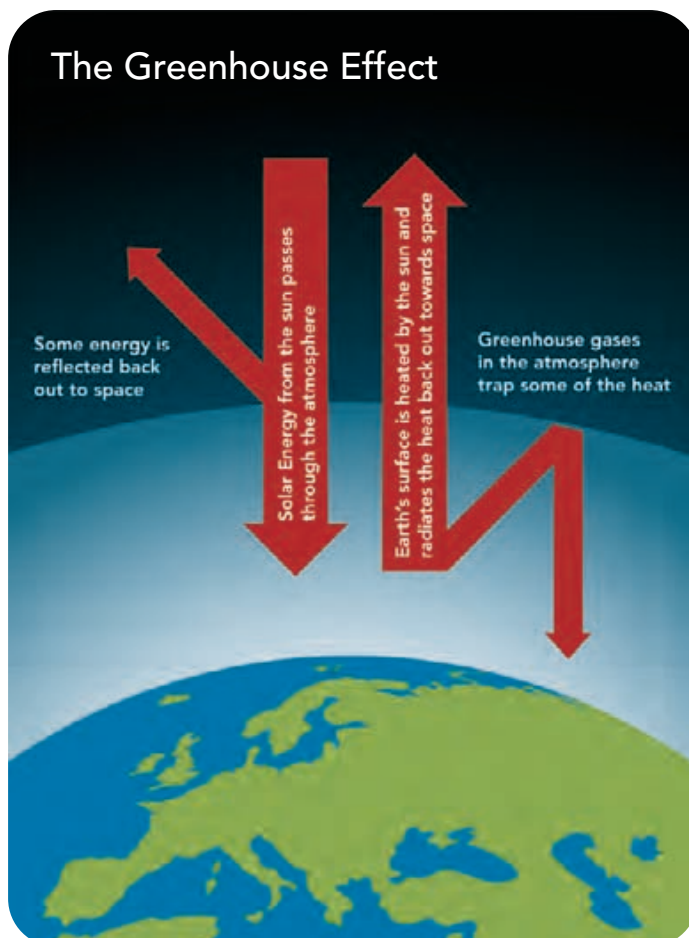
- **Reducing our Carbon Footprint:** Reduce the amount of CO₂ produced from our services and operations and increase the use of renewable energy in the borough
- **Becoming a community leader:** To lead by example and take forward our knowledge, partnerships and resources to help and encourage the wider community to become more sustainable
- **Delivering sustainable services:** To ensure that sustainability and carbon reduction is embedded into all of our services and operations and to ensure that we are in a position to exploit opportunities created through a change in climate
- **Using our powers:** To encourage businesses and residents to be more sustainable by using our influence through procurement, private sector housing and spatial policy.

Our vision

Colchester Borough Council is fully committed to reducing its impact and adapting to the biggest global challenge we have faced – climate change. We aim for climate change and sustainability to be fully embedded into all Council services and to use our knowledge, resources and power to influence the wider community. We want everyone in Colchester to be aware of the impacts and understand what they can do to mitigate and adapt to climate change.

This document links to other strategies including the Waste to Resources Strategy, Sustainable Communities Plan and the Local Development Framework for the following reasons:

- To meet commitments under the Nottingham Declaration and progress in a joined-up way
- To enable the Council to keep track of all targets in relation to climate change
- To establish a clear contribution to the Council's commitment to 'Colchester's Carbon Challenge' through the Local Strategic Partnership (LSP), Colchester2020
- To enable climate change to be embedded into all Council services and policies
- To provide an additional way of securing potential funding for any climate change related initiatives.



About climate change

What's all the fuss about?

The climate of the Earth has changed many times in the past for various reasons. However there is now scientific consensus that man-made emissions are accelerating this change. The effects in the UK include rising sea levels, changes in weather patterns, higher temperatures and worsening pollution problems. Climate change is already having an effect – the large-scale flooding in the North and West of England during 2007 may reflect what we as an authority will have to deal with in coming years.

We must be prepared for negative impacts of climate change but also be ready to maximise new opportunities it may create. For example, warmer temperatures could help to further develop the tourism industry within the borough.

Headline Impacts for the East of England

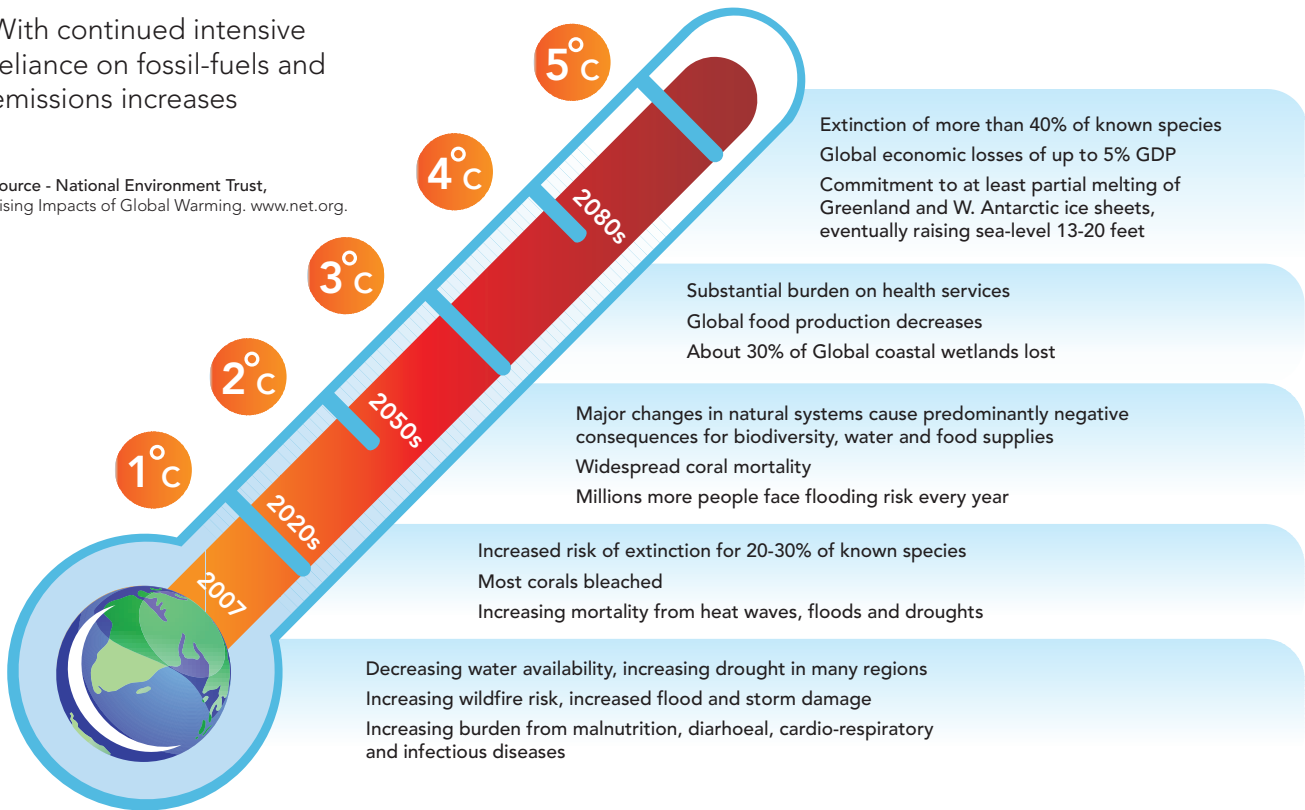
Scientists from UK Climate Impacts Programme (UKCIP) have already carried out a great deal of research for the East of England. They have predicted that by the 2080s the East of England can expect a sea level rise of approx 54 cm, winter rainfall to increase by up to 30%, though summer rainfall may fall by 20% over the same period, whilst average daytime temperatures will increase by between 1° and 5°C⁽¹⁾.

There is now overwhelming evidence to suggest that not only is climate change happening but it is directly related to human activity. This is the message given from a report by the Inter-governmental Panel on Climate Change (IPCC).⁽²⁾

Rising Impacts of Global Warming

With continued intensive reliance on fossil-fuels and emissions increases

Source - National Environment Trust, Rising Impacts of Global Warming. www.net.org.



We must not ignore the global implications of climate change which show that some of the world's poorest countries could be the most seriously affected. We have the power, resources and technologies to act on this now and must accept our responsibility to the developing world by taking a lead on these issues.

The human-produced gases from the burning of fossil fuels such as Carbon Dioxide and Nitrogen Oxides not only contribute to the 'enhanced greenhouse effect' that causes climate change but are often also responsible for other issues such as smog and acid rain. A reduction in these emissions will therefore have many other positive effects. A major new drive is required in Colchester to link improvements in energy efficiency, new buildings, air quality, transport networks, coastal defence and increase the use of renewable sources of energy.

It is clear that unless we make significant changes now, the way in which we all live in Colchester will be affected by climate change. The EU and UK have defined a safe level of temperature increase to be 2°C. Research carried out by the Tyndall Centre for Climate Change Research, has found that it is feasible to keep CO₂ to a level that would give a 70% chance of exceeding 2°C and a 50% chance of exceeding 3°C⁽³⁾.

One misconception is that there is plenty of time to deal with this issue. In actual fact all of the CO₂ emissions we are pumping into the atmosphere every day will stay around for about 100 years. This is where we have the problem of cumulative emissions, today's emissions will add to yesterday's and they will add to tomorrow's. To put this in context we must consider that we have a 'Carbon Budget'. Between 2000 and 2050 the UK's budget is 4.8 billion tonnes of CO₂. However we have already used ¼ of our budget between 2000 and 2006 (1.2 billion tonnes CO₂). To stay within our budget we must only use the remaining ¾ which would require a 9% reduction in CO₂ per annum.

Is it already too late?

No – evidence shows that we have time to mitigate global warming before the effects are irreversible. However if we take into account research by the Tyndall Centre it is clear that we must take action to reduce emissions now to achieve a cumulative reduction by 2050. The Stern Review Report, an independent review commissioned by the Chancellor of the Exchequer, was released in October 2006. The report looks at the evidence and from this builds an understanding of the economics of climate change. This review states 'The benefits of strong, early action on climate change outweigh the costs' which essentially means that although we need to put money into reducing emissions now, this is an investment for our future, without which the cost would be a lot more in the long term. Without action now it is predicted that there will be an increase in resource use, levels of pollution and generation of waste rather than a reduction. The point is not that it is too expensive to do something about climate change but rather that it would be too expensive to ignore⁽⁴⁾.

Stern Review – Reducing greenhouse gas emissions⁽⁴⁾

1. Reduce the demand for emissions-intensive goods and services
2. Increased efficiency, which can save both money and emissions
3. Action on non-energy emissions, such as deforestation
4. Switching to lower-carbon technologies for power, heat and transport.

Economic benefit of reducing CO₂ by 30% in Colchester.

If everyone in Colchester reduced their CO₂ by 30% we could save a total of £132,938,820. Just think what we could spend all that money on.

Colchester Carbon Challenge – Business Case (calculated using Stockholm Environment Institute data)⁽⁵⁾



What is being done about it?

Globally

The Kyoto Protocol is an international agreement linked to the United Nations' Framework Convention on Climate Change. In 1997 the UK signed the legally-binding agreement which has the objective of reducing greenhouse gases that contribute to climate change 5.2% below 1990 levels by 2012. To meet this target the Government developed a National Climate Change Programme to achieve a marked change in people's habits across the country over the next decade⁽⁶⁾.

Nationally

The UK Government passed the 'Climate Change Bill' in 2008 which sets a national target of an 80% reduction in Carbon Dioxide by 2050. At present this is recognised as a leading policy in the world. There is also a target stating that 10% of all UK electricity is to be supplied by renewable energy by 2010⁽⁷⁾.

Regionally/Locally

Working with Essex County Council on the Local Area Agreement, CBC now has a target reduction in Carbon Dioxide of 12.6% by 2012. This target is one of the National Performance Indicators which means we are required to report annually to government on how we are progressing.

Under Section 2 of the Local Government Act 2000, Councils have the power to do anything they consider likely to promote the economic, social and environmental well-being of their areas in order to respond to the needs of their local communities. As a Council we aspire to continuing action on climate change that will ultimately achieve a sustainable borough for all those who live, work and visit us⁽⁸⁾.

What are the benefits of acting now?

Cost Saving Energy, be it gas, electricity or petrol is becoming increasingly expensive. If we are more energy efficient we will be able to reduce these energy costs, benefiting Colchester's economy whilst reducing CO₂ emissions.

Risk Management We must ensure business continuity and be prepared for the 'worst case scenario' with regards to climate change so that Colchester's businesses and organisations will be able to stand up to pressures in the future.

Health and Lifestyle Gases that cause climate change are also responsible for pollution which can cause many health problems such as asthma. By reducing our carbon emissions we will be able to improve air quality and support CBC's vision of being a clean and green borough.

Global

Kyoto Protocol 5% reduction in greenhouse gases by 2012 (signed in 1997). It is likely that any succeeding target will be much higher.

National

Climate Change Bill 80% reduction by 2050.

National Performance Indicators 5 of our 25 priorities relate to Climate Change and environment.

Regional

LAA2 Essex County Council
Regional Cities East

Colchester/CBC

Colchester2020 'Carbon Challenge'
30% reduction by 2020.

Nottingham Declaration Action plan to incorporate all Council targets, schemes and projects borough-wide to mitigate and adapt to Climate Change.

LACM 25% reduction by 2012
(within Council operations).

Priority 1 Reducing our Carbon Footprint

Local Authority Carbon Management programme (LACM) We aim to reduce our own carbon footprint by 25% by 2012

Carbon Reduction Champions The champions will help us to make staff more aware of how they can be more energy efficient at work

Sustainability Action Group A group made up of employees from different service areas who work together to make CBC more sustainable and energy efficient

Renewable energy CBC will be looking into ways of providing energy for itself and also for across Colchester by using renewable sources

CBC felt that by reducing its own emissions it can provide an example to others in the wider community. The main aim of this priority is to ensure that climate change and sustainability are at the top of the agenda for the Council. It is imperative that we have full backing from senior management and our Cabinet, to show others that this is a serious issue and that it requires action now. Signing the Nottingham Declaration was the first step to showing this commitment.

Local Authority Carbon Management (LACM)

Where are we now?

We have adopted the LACM Strategy and Implementation Plan. Energy saving projects are underway and we have 19 Carbon Reduction Champions (CRC) who lead an awareness campaign in their work area.

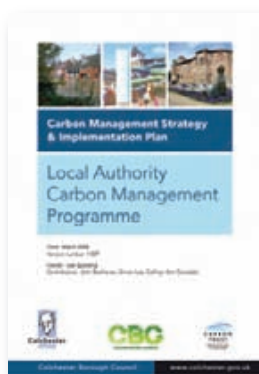
Where do we want to be?

Continue progress through the LACM action plan to achieve a 25% reduction in CO₂ by 2012. We want a CRC to lead the awareness campaign in every service area.

How do we intend to do this?

An LACM core group meets monthly to monitor progress and each project has a lead officer to monitor progress. We will continue the awareness campaign and will continue to recruit CRCs in each service area.

Local Authority Carbon Management programme (LACM)



We are committed to reduce our CO₂ emissions by 25% by 2012 and are working with the Carbon Trust to do this. The 'value at stake' has been calculated to be £3.2 million which essentially means that by meeting our target we could avoid paying an extra £3.2 million in energy bills. To achieve this level of reduction we have considered all areas of the Council and identified where we can make changes. We

have held a number of councillor and staff workshops to keep people informed and encourage them to get involved. The LACM Strategy and Implementation Plan has now been agreed and adopted and the first phase of projects is well underway. A full list of LACM projects can be found in the Nottingham Declaration Action Plan.

Reducing the amount of energy we waste

It is incredible when we look into the energy we use, just how much of it goes on absolutely nothing. Things left on standby, lights being left on. It's all very simple but makes a huge difference to our carbon footprint.

Our staff awareness campaign is not the biggest saver in energy out the LACM projects but if each member of staff takes their new habits home, it could make all the difference. We started by encouraging people to 'Switch Off' office equipment when not in use, and now have a group of Carbon Reduction Champions who volunteered to be the facilitators of the campaign within their own department.

The target reduction in CO₂ for the awareness campaign is to be using 57 tonnes less per year by 2012. This would equate to a financial saving of almost £14,000 per year. The campaign started in August 2007 and within a year managed to reduce the amount of CO₂ by 49 tonnes, showing that we are well on our way to achieving this target. We will be continuing the LACM awareness campaign until 2012 and beyond and will focus on different aspects of energy usage, recycling and also transport.

CBC has taken on board that we may need to invest a little to lower our carbon footprint, but ultimately the cost of the energy saved will more than make up for what we put in. We have developed projects that will help to reduce the emissions from our buildings and make them more sustainable. This programme has also allowed us to take advantage of existing projects by making them more sustainable. For example, refurbishment of Colchester's fitness pool has been developed to make the pool more energy efficient thus reducing its environmental impact.

Sustainability Action Group

The Sustainability Action Group (SAG) meets every two months and is a group made of officers from across all Council services. These meetings allow us to share ideas and discuss how to take forward projects that will make the Council more sustainable. The SAG group members will act as a critical friend for the Nottingham Declaration action plan and will be consulted at every stage.

Once the strategy is adopted this group will ensure that implementation of the actions takes place. They will then monitor and review progress and co-ordinate our future actions under our Nottingham Declaration Commitment. This group will become the focus of expertise on sustainability within the Council by providing support and advice to services as they address the issues and mitigate the impacts of climate change.



Refurbishment of the Fitness Pool at Colchester Leisure World – estimated saving 412 tonnes CO₂



Replacement of heating system at Colchester Castle – estimated saving 18 tonnes CO₂



Draught sealing of Colchester Town Hall windows – estimated saving 23 tonnes CO₂

Sustainability Action Group (SAG)

Where are we now?

The SAG meets every two months to discuss sustainability and energy saving initiatives.

Where do we want to be?

SAG to monitor progress from across the Council on the Nottingham Declaration Action Plan.

How do we intend to do this?

We will continue to use SAG meetings to engage services to drive positive change across the Council.

Renewable Energy

Where are we now?

We have no sources of renewable energy. We are using biodiesel in our vehicle fleets.

Where do we want to be?

We want to source renewable energy for our buildings and develop a renewable energy supply for Colchester. We will promote the use of renewable energy to residents and businesses and promote more energy efficient cars/sustainably sourced biodiesel.

How do we intend to do this?

We will use partnerships to establish an advice scheme for people in Colchester. We will consider renewable energy through our LACM. We will support the development of a wind turbine in the North of Colchester and will include aspects of sustainability through the Local Development Framework.

Renewable Energy

The energy used across the borough is increasing in line with national trends and developing renewable energy sources could help to offset this. The use of renewable energy has the potential to reduce greenhouse gas emissions, improve air quality, reduce fuel poverty, increase prosperity, generate local jobs alongside the electricity and could also provide an income stream for the local authority.

Within the Council our waste and recycling collection fleet has already started to use biodiesel. As a massive user of fuel within the Council, switching to renewable fuels will make a significant reduction to our carbon footprint. In 2006/07 the fleet used an estimated 400,000 litres of biodiesel. Based on the assumption that biodiesel emits 55% less Carbon Dioxide than normal diesel and that 1 litre of normal diesel uses 2.7kg of CO₂, we are already saving 486 tonnes of CO₂ a year.

Plans have been put forward to have a wind turbine in the North of Colchester and we are researching in to the best way of going about this. This is a fantastic opportunity for Colchester to provide carbon neutral energy for the borough.

Energy sources such as wind energy, solar, combined heat and power, ground source heat pumps and Photovoltaics (alternative to solar) will all be considered by the Council. We are also looking to develop a way to provide advice and funding information for people considering installing renewable energy in their homes and local businesses.

Our Sustainable Construction Supplementary Planning Document (SPD) offers advice on the different types of renewable energies technologies, including prices and planning considerations.



Priority 2 Being a Community Leader

Colchester 2020 Our Local Strategic Partnership (LSP) set Colchester a Carbon Challenge to reduce CO₂ by 30% by 2020

CRed This is a scheme where people can pledge to improve their carbon footprint

Awareness raising We want everyone in Colchester to understand how they can reduce their impact on climate change and how they can adapt to it

Waste to Resources Our Waste to Resources strategy aims to improve recycling in Colchester

Eco-Schools It is important that we educate the young people in Colchester about sustainability

Warm Homes We will tackle fuel poverty and climate change in the borough by helping people to get their homes insulated

Private Sector Housing The Home Energy Conservation Association (HECA).

A vital role for any local authority is to provide strong community leadership and with an issue such as climate change it is essential that CBC embraces this role. Everyone in Colchester has the ability to make a difference, and we aim to help and support them to do just that.

By showing people what we have managed to achieve through a limited budget we will encourage others to do the same. Our own awareness campaign has had a massive impact on our carbon emissions and will save us thousands of pounds, even better, it was virtually free to do.

Colchester2020 – The ‘Carbon Challenge’.

30% reduction in Carbon Dioxide by 2020

As a member of the Local Strategic Partnership (LSP), Colchester2020, we have committed to Colchester’s Carbon Challenge. Through this we will be working with the partners to show best practice across the borough. In order to achieve a 30% reduction by 2020 we will be prioritising working with businesses and raising awareness across the wider community. Within Colchester, small and medium sized businesses are responsible for around 32% of CO₂ emissions; this could be significantly reduced by offering help and support for them to become more energy efficient. To maximise our impact we will be looking to develop strong partnerships with organisations that have an expertise in working with businesses and that could help us to source funding.

As always, creating wider awareness on issues of climate change across the borough is a major priority. By declaring a ‘Carbon Challenge’ for the whole of the borough, Colchester2020 has shown that it is vital for everyone to get involved.

Colchester’s Carbon Challenge

Where are we now?

The ‘Carbon Challenge’ was made in February 2008 and the Colchester2020 Sustainable Communities Strategy sets out the action plan for reducing Carbon Dioxide by 30% across the borough.

Where do we want to be?

We want to help businesses in Colchester to become more energy efficient and raise awareness across the borough to encourage residents to be more efficient in their homes.

How will we do this?

We will use partnerships to help us target businesses that could benefit most from help in saving energy by using organisations such as Groundwork. We will raise awareness through the CRed pledge scheme.

CRed Essex

Where are we now?

We have received around 700 energy saving pledges from Colchester residents which could save around 300 tonnes of CO₂.

Where do we want to be?

We will increase the number of pledges from across the borough. Each year CBC will aim to get 2000 pledges.

How will we do this?

We will work in partnership with Essex County Council. We will have CRed information stands and pledging opportunities during all awareness raising events. We will use various methods to advertise and promote the scheme.

Raising Awareness

Where are we now?

We have a successful awareness campaign within the Council. As a partner in Colchester2020 we have held events around the launch of the Carbon Challenge. We have developed various educational material for residents and businesses.

Where do we want to be?

We want to reduce CO₂ emissions for Colchester by raising awareness of energy efficiency and the impacts of climate change. We will reach a large proportion of Colchester's population through events, mail-outs and our website and will measure the effectiveness of this through CRed pledges and energy use data for the borough.

CRed Essex – Pledges that could make all the difference



We are working with CRed Essex to get as many pledges from Colchester businesses and residents as possible. All of the pledges can then be converted into carbon dioxide saved if everyone manages to keep them up. By doing this we should be able to

estimate how much CO₂ we have saved through awareness campaigns across the Borough. Colchester2020 has committed to getting a 25% pledge rate for the population of Colchester and we will be helping them to achieve this target.

www.cred-uk.org/essex/

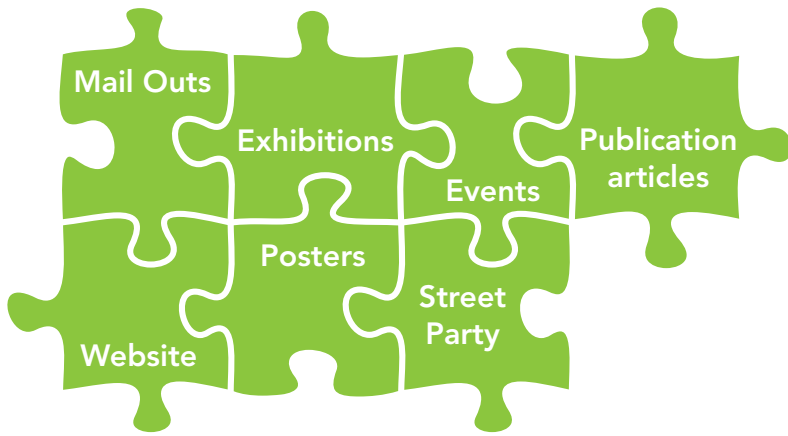
The scheme works by the individual or business making a pledge online or on a form to reduce their own emissions through simple changes like switching to energy saving light bulbs. We will promote this scheme through various awareness events, our website and our publications.

Engaging people and allowing them to make a personal commitment not only gives them an extra push to make changes but will also make them consider their impact on the environment. We will offer advice and information to people in Colchester to help them achieve any pledges they make.

Each year, about nine tonnes of CO₂ is released for every person in the UK – enough to fill five hot air balloons. To make this 60% cut, each of us needs to lose the equivalent of three hot air balloons every year. The Community Carbon Reduction Programme, CRed, aims to achieve this by 2025.⁽⁹⁾

Raising awareness

CBC carried out a successful awareness campaign through the LACM, it was developed to stand out and grab people's attention by making it fun yet informative. Giving simple tips and advice on how we can be more energy efficient in a fun way can help to keep people engaged. 'Climate Change' now often holds many negative connotations especially as it is a topic that is often forced upon people through the media. CBC will take a positive stance when raising awareness and show that it doesn't have to be complicated or difficult to do something. When it comes to the environment, even the smallest actions really do make a difference. There are many easy changes we can make in our everyday lives to help protect and improve our environment – it just involves a little extra thought in what we do.



Raising awareness also means educating people and businesses on how they can adapt to the effects of climate change. Businesses based on coastal and estuarine areas could need an increase in coastal protection funding and higher insurance premiums are almost certain with the increased occurrence of flooding. However, new market opportunities and business diversification will help to mitigate any negative effects. A business that is known to be 'green' may now have an advantage over its rivals as the demand for environmentally friendly products and services is increasing.

How will we do this?

We will launch the Nottingham Declaration Action Plan through an energy awareness week. This will include working with partners and other organisations. We will be developing posters for the Borough and will be promoting our website for more information. In order to work with as many SMEs as possible, we will need to create partnerships with other organisations. We also want to identify which businesses are doing a lot to become more efficient and celebrate these achievements. We will be working with community groups to hold sessions on climate change and to also help them become more efficient.

Residents

We will engage with residents in Colchester on climate change by promoting what we as a Council are already doing and how easy it is to become a little more efficient. An example of how we will do this is by putting large messages on the side of our waste and recycling fleet. These vehicles visit every household in the borough which makes it a simple way to access every resident.

Community Groups

Within Colchester there are many established voluntary and community groups, some of which already work with the Council through the Community Developments team. This is a great opportunity to use the connections we have by contacting these groups with information on climate change.

A good example of the work already being carried out by the Community Development Team is 'Give and Take Days.' En-form, an environmental information centre, recently obtained funding to hold 'Give and Take Days' that would allow people to give things they no longer want to someone that can make use of it. The Community Development Team promoted the scheme to the voluntary and community groups that they work with.

Businesses

Potential barriers to adaptation and mitigation for businesses may include a lack of awareness about climate change and expertise about how to exploit internal efficiencies or new revenue opportunities. The time and money required to make proposed changes could also compete with other priorities they have. To help overcome these barriers CBC aims to ensure businesses have access to information on climate change and related legislation, taxation and technology, to allow a proactive approach.

We will work with businesses to help them make the most of opportunities presented to them and mitigate exposure to any apparent risks from climate change. To support businesses CBC is helping to set up a business resource efficiency club, to bring local businesses together to address climate change issues.

Waste to resources

Where are we now?

Colchester recycled 20.4% (12,619 tonnes) of all the waste produced by households in the borough in 2007/08 and composted 12.39% (7,667 tonnes) giving an overall recycling rate of 32.79%. This means that Colchester produced 362kg of household waste per person in 2006/07.

Where do we want to be?

By working towards recycling targets in the Local Area Agreement, CBC wants to achieve 26% recycling and 14% composting across the borough by 2011. CBC will also work towards reducing the amount of residual waste that is sent to landfill and the target for this is an average of 508kg per household by 2011.

How will we do this?

We will assess our options to use the most suitable in terms of performance and cost to meet the objectives of the Waste to Resources Strategy. We will be focusing on waste minimisation and will continue to raise awareness of this across the borough.



Waste to Resources



CBC has a Waste to Resources Strategy which sets recommendations to improve recycling in the borough.

As a society, we are consuming natural resources at an unsustainable rate. If every country consumed natural resources at the rate the UK does, we would need three planets to live on. Using the planet's resources within the limits of its eco-systems is vital to the survival, health and prosperity of future generations. Waste management generates carbon dioxide and methane. Methane emissions from (biodegradable waste in) landfill account for 40% of all UK methane emissions and 3% of all UK greenhouse gas emissions.

The Council's vision for the future of waste management in the borough is one where:

- Less waste is produced by everyone
- There is an active reuse culture
- Home composting is 'the norm'
- Being able to recycle is easy for everyone
- More waste is recycled and composted than sent to landfill
- The collection service is high quality
- There is high customer satisfaction with the service.

In order to make significant improvements in waste management we must follow three processes:

Waste prevention – avoiding unnecessary waste like excessive packaging to reduce the demand for raw materials. Waste prevention is the most important aspect of waste management in terms of greenhouse gas reduction.

Reuse – is a way of prolonging the life of resources. There are many ways in which we can reuse things or pass them on for others to use rather than throw them away.

Recycling and composting – can allow valuable resources to be used again and save energy in the process. Amazingly, recycling an aluminium can requires only 5% of the energy it takes to make a new aluminium can and each tonne of aluminium recycled saves 11 tonnes of CO₂.

The Strategic Waste team develop schemes to get more residents, schools and businesses recycling. Another major aspect of the waste going to landfill is food. When we throw food away, we also waste all the carbon generated as it was produced, processed, transported and stored. This is particularly important given that the whole food supply chain accounts for around 20% of the UK's greenhouse gas emissions. We could make carbon savings equivalent to taking an estimated 1 in 5 cars off the road if we avoided throwing away all the food that we could have eaten.

Eco-Schools



It is vital that we educate young people in Colchester about environmental issues, as they will be the people who have to live with and deal with the longer term impacts of climate change. The Government has made it clear that they want every school to

be sustainable by 2020. For this reason we are now supporting Eco-Schools which is an international award programme that guides schools on their sustainable journey, providing a framework to help embed these principles into the heart of school life.

The Eco-Schools programme consists of nine key environmental topics – water, biodiversity, energy, global perspectives, healthy living, litter, school grounds, transport and waste. The benefits to schools not only include financial and environmental improvements but the programme can also be used as an educational tool and to forge better links with the community.

The Strategic Waste team will be encouraging schools to join this programme by carrying out waste audits and offering presentations and activities for schools that sign up. In the first year of supporting this scheme we have already seen 42 schools in Colchester signing up with many more showing an interest.

Eco Schools

Where are we now?

42 Schools have signed up to Eco-Schools in Colchester so far.

Where do we want to be?

We want to improve recycling and environmental awareness in Colchester schools. To do this we want to get as many schools as possible signed up to the Eco-Schools programme from across the borough.

How will we do this?

We will be offering trade waste contracts to schools that sign up to the programme which could offer significant financial savings. Schools that agree to sign up will also be able to access talks, presentations and activities for their pupils.



Warm Homes

Where are we now?

The Warm Homes Project has been operational for 7 years, and during this time has assisted more than 4,000 households in the borough. This has had a big impact on CO₂ reduction.

Where do we want to be?

We want more local people to live in warm, affordable and energy efficient homes. This is particularly important with the continuing rises in energy and fuel costs.

How will we do this?

We will identify as many residents at risk of fuel poverty as possible and then help them to maximise their income, reduce their fuel needs and increase the energy efficiency of their homes. We will continue to hold awareness raising campaigns through the local media and to liaise with internal and external partners to identify sources of practical and financial help available to local people.

Warm Homes

Almost of a third of the heat is lost from an un-insulated home, which means that £1 of every £3 spent on heating bills is being wasted. Our Warm Homes project raises awareness of the benefits of getting your home fully insulated not only around health and fuel poverty but also the potential environmental impacts. Between April 2007 and March 2008 the Team had contact with more than 700 households in the borough. This project is vitally important in a time where fuel prices are rising so rapidly and in response to this 'fuel poverty' crisis we will be promoting insulation as a way to cut costs for those most at risk. Each home that is insulated can save around 1.7 tonnes of CO₂, and we feel that this is a great opportunity to reduce Carbon Dioxide emissions.

CBC has a Warm Homes project officer who is dedicated to help the residents of Colchester with heating and keeping warm at home.

How Warm Homes can help:

- They can check if the customer is eligible for a grant for insulation or heating
- For customers not eligible, they provide information on other discount schemes
- They give energy efficiency advice
- They can help the customer access a Credit Union loan for measures such as a new boiler
- They can put the customer in touch with other agencies that may be able to help
- They can give presentations and energy efficiency quizzes
- They raise awareness about the health effects of cold damp housing.



Private Sector Housing – UK Home Energy Conservation Association (UK HECA)



HECA aims to secure improvements in energy efficiency in the domestic sector. The act made all Local Authorities become Energy Conservation Authorities, giving them responsibilities to record, and report, data showing the improvement in energy conservation in their areas. The UK HECA is a network of support groups made up of local government HECA officers.

CBC has an officer leading energy efficiency in the Private Sector Housing Team. As part of this the Housing Health and Safety Rating System (HHSRS) can help to identify properties suffering from hazards linked to poor energy efficiency and disrepair. The Private Sector Housing Officers can use HHSRS to take informal action and where necessary enforcement action to remove or reduce the hazards to acceptable levels.

How can CBC's Private Sector Housing team help?

- They can offer financial help to top up Warm Front Grants where clients cannot afford their contribution
- They offer financial assistance to help eligible owner occupiers or leaseholders improve their homes
- They identify customers who could benefit from grant funded energy efficiency schemes and refer them to our Warm Homes Team.

CBC is a member of the following groups;

- Eastern Home Energy Officers Network (E-HEON)
- National Energy Action (NEA)
- Carbon Reduction Officers Essex (CO₂RE)
- UK Home Energy Conservation Association (UK HECA).

Private Sector Housing – Home Energy Conservation Act (HECA)

Where are we now?

CBC's lead officer for energy efficiency in the Private Sector Housing Team offers assistance for homeowners and leaseholders to improve the energy efficiency of their homes.

Where do we want to be?

We want to promote energy efficiency and reduction in CO₂ emissions through the education of team members, providing information and expertise to local residents and landlords and improving the scope of financial assistance we are able to offer.

How will we do this?

We will revise our Financial Assistance Policy to further help people and to include renewable energies where they currently fall outside the qualifying criteria for existing assistance. We will continue to source other funding and grants. We will continue to develop promotional and educational material and ensure it reaches as wide an audience as possible. The Private Sector Housing Team will continue to improve their level of expertise in this area.

Priority 3 Delivering Sustainable Services

Targets CBC has several targets relating to climate change through the Local Area Agreement and the LACM

GMT agendas We will put sustainability high on the agenda for our Group Management Teams

Corporate Strategies We will embed climate change and sustainability across the Council – which means into all corporate strategies and objectives

Travel Plan Through the Colchester2020 Travel Plan Club we will ensure that our staff are using the best modes of transport to help protect our environment

Energy Performance of Buildings Directive We will be required to display Energy Performance Certificates in our buildings.

We need to secure support from across the Council and include climate change objectives in our corporate strategies. Priority 3 lays out how we will ensure that climate change is at the top of the agenda for the Council.

This priority not only includes our Nottingham Declaration commitments but also statutory obligations that the Council has. We will be required to meet requirements made by central government, for example the 'Energy Performance of Buildings Directive' and will also be required to participate in future schemes such as the 'Carbon Reduction Commitment'.

Our Targets

Where are we now?

We have national, regional and local targets.

Where do we want to be?

We want to ensure that each of our targets is monitored appropriately to ensure that they are progressing well and being achieved.

How will we do this?

The Nottingham Declaration Strategy will help to bring all of CBC's targets together. A full Nottingham Declaration Action Plan will be developed to allow monitoring of all targets.

Our Targets

As part of the Local Area Agreement we have several priorities that require us to act on issues around climate change. National Performance Indicators (NPIs) are created by Government and the Council can choose 25 which are priorities to them. For CBC, 5 out of the 25 priorities relate to climate change. These NPIs are:

- CO₂ reduction from local authority operations
- Per capita reduction in CO₂ emissions in the LA area
- Planning to adapt to climate change
- Air quality % reduction in NO_x and primary PM10 emissions through local authority's estate and operations
- Improved local biodiversity proportion of local sites where positive conservation management has been or is being implemented. These targets will be monitored through the Nottingham Declaration alongside the LACM and Carbon Challenge.

'In 2007, UK net emissions of carbon dioxide were provisionally estimated to be 543.7 million tonnes. This was 2% lower than the 2006 figure of 554.5 million tonnes. The decrease resulted from fuel switching from coal to natural gas for electricity generation, combined with lower fossil fuel consumption by households and industry.'

Source – Defra

GMT agenda

In order to embed sustainability into all of our services, it is important that we have the Group Management Teams (GMTs) on board. As the managers within a service they will have the knowledge and understanding about how we can incorporate these issues in a suitable way. We will ensure that climate change is on the agenda for GMT meetings; CBC's Climate Change Officer will co-ordinate this to provide frequent progress reports.

Corporate Strategies

CBC's Strategic Plan is a vital document because it sets out what we will do to maintain and improve the quality of life in the borough. It commits us to making sure that providing excellent day-to-day service remains at the very heart of what we do. Climate Change will be incorporated into the Strategic Plan to show that we are committed to these issues.

The Council is made up of several service areas, each of which has a 'Group Summary Service Plan'. These documents set out the core objectives for that service; sustainability and climate change will be included as one of these objectives.

We must also be prepared for legislative requirements such as the 'Carbon Reduction Commitment'.

Travel Plan

Colchester2020 Travel Plan Club

The Council developed a travel plan to cover employees' journeys to and from work and

on business. The travel plan promotes sustainable transport and reducing the need to travel, especially by private car. A package of measures has been developed including:

- Discounted public transport tickets
- Discounts on bikes for work
- Facilities for cyclists and walkers
- Car share schemes
- Parking charges
- Better information and a personal travel planning service.

By addressing all aspects of travel within the Council, including the sustainability of business partners' travel, we are able to positively contribute to air quality and climate change targets.

The Council, along with other LSP members, is a member of the Local Strategic Partnership's Travel Plan Club. All have their own tailored travel plan that promotes alternative travel to their staff, students and visitors. Working collectively enables the Club to secure better deals, for example with bus operators. The Club is working to expand its membership to include more organisations in Colchester to increase the impact on reducing emissions.

GMT

Where are we now?

The Senior Management Team have agreed for climate change to be on the agenda at Group Management Team (GMT) meetings.

Where do we want to be?

We want GMTs to lead on climate change in their services areas.

How will we do this?

Climate change will be on the agenda for GMT meetings.

Corporate Strategies

Where are we now?

Council strategies do not have climate change objectives.

Where do we want to be?

We want all Council strategies to have climate change objectives. We will participate in the Carbon Reduction Commitment (CRC).

How will we do this?

We will revise our strategies to include climate change objectives. We will have a lead officer for the CRC to ensure we comply with the scheme.

Travel Plan

Where are we now?

CBC has a travel plan and is a member of the Travel Plan Club to help promote more sustainable travel options.

Where do we want to be?

We want every Colchester business and organisation to have their own travel plan to reduce car use across the borough.

How will we do this?

By strengthening and promoting our own travel plan to lead by example and continuing our support of the Travel Plan Club.

Energy Performance of Buildings Directive (EPBD)

Where are we now?

We do not have Energy Performance (EPC) or Display Energy Certificates (DEC) in our buildings.

Where do we want to be?

We now have DECs for the Town Hall, Angel Court and Leisure World. We will require EPCs for some of our buildings that sit under our Estates service such as the community stadium. These need to be obtained when the property is built, sold or re-let.

How will we do this?

The DECs will be provided by our energy management company.

Energy Performance of Buildings Directive (EPBD)

Buildings in the UK are responsible for almost 50% our energy consumption and carbon emissions. Measures are now being introduced to help improve the energy efficiency of our buildings which includes the use of Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs). Both these certificates will give buildings an energy efficiency rating of between A-G (A being most energy efficient) and will also set out recommendations for improvement.

The scheme began on 1 October 2008. An EPC will be required for any new building, or for any existing building when it is sold or leased. DECs are required for any public buildings over 1000m². The buildings must display the certificate in a public area and fines will be introduced for building owners that do not produce an EPC or display a DEC as they should.

CBC currently has three buildings that meet the criteria for a DEC namely the Town Hall, Angel Court and Leisure World. Once we have the certificates in place they are reviewed annually, but they will only need to change pending some major alterations or improvements to the building.



Priority 4 Using our powers

Local Development Framework (LDF) A sound and robust LDF can ensure future developments in the borough will be sustainable

Building Control Our team of building control surveyors ensure that new buildings meet the Building Regulations set by Government

Procurement We want to use our impact on the marketplace to demand more sustainable products and services from suppliers

As an employer CBC employ more than 1000 people, we have the ability to ensure that sustainability and energy efficiency is part of the job.

As a local authority, CBC has significant influence across the borough not only through our own actions but through the level of control we have over others such as the planning system. It is important that through Priority 4 we harness this influence to its best advantage and use our powers to ensure we develop a more sustainable borough for the future.

Local Development Framework (LDF)

The Planning and Compulsory Purchase Act 2004 places a duty on local planning authorities to contribute to sustainable development. The Council is committed to this through better decision-making and adaptation strategies in policy areas such as developments on floodplains, waste management, business support, habitat management, transport infrastructure and urban design.

Planning and Resource Conservation

Developments should be designed to minimise their overall demand for natural resources. Proposals for development will need to take into account, for example:

- The opportunity to reuse buildings.
- The opportunity to reuse building materials and/or the use of sustainably sourced and local materials.
- The design of long-life and flexible buildings.

Local Development Framework (LDF)

Where are we now?

The Local Development Framework consists of a portfolio of documents that will act as the blueprint for future development in the Borough. The first of these documents, the Core Strategy, underwent an Examination in June/July 2008, it was adopted in autumn 2008. The Site Allocations Development Plan Document (DPD) and Development Policies DPD are being progressed in parallel. An Issues and Options Paper for both DPDs was consulted upon in December 2007 and a Preferred Options document issue to be consulted upon in early 2009.

Where do we want to be?

We want to have a sound and robust LDF that will achieve sustainable development and tackle climate change.

How will we do this?

We will work with stakeholders and the public to ensure that the LDF can be delivered and will not result in any adverse impacts on, for example, the highway network, sites of importance for nature conservation and existing communities.

As a local planning authority, the Council is producing an LDF, which will:

- Direct development to sustainable locations, with a range of services and facilities.
- Reduce the need to travel and promote sustainable modes of transport.
- Provide a framework to support renewable energy and low carbon technologies.
- Promote sustainable design and construction.
- Provide measures to enable the borough's biodiversity to adapt to environmental changes driven by climate change, for example green infrastructure.
- Protect properties at risk from rising sea levels and increased risk of flooding.

Planning Policy Statement 22 (PPS22) – Renewable Energy

Renewable energy can contribute to tackling climate change and under PPS22 local planning authorities have more powers to encourage the use of this. Under the Core Strategy, at least 15% of the energy from new developments is to be provided by renewable or low carbon technologies where feasible.

Coastal Defence



The Council has due concern for coastal defences, which may be compromised by sea level change. The Council supports the Government's aims and objectives for flood and coastal defence and is committed to achieving a more integrated coastal zone management system.

As part of the LDF, a Strategy Flood Risk Assessment has been carried out which models the risk of flooding based on various scenarios, there is a strong presumption against development in any area found to be at risk. The Council will work with the Environment Agency to ensure improved flood forecasting and warning systems are in place.

The Council is also involved in the development of the second Shoreline Management Plan for Essex, which will set out a sustainable management programme for the Borough's coastal defences in the future.

Changing Travel Behaviour and Transport Infrastructure



Road, and particularly car, transport accounts for around 25% of all CO₂ emissions. The Council is committed to reducing dependence on car use in Colchester particularly for short, local journeys, where there are significant health benefits from walking or cycling instead, as well as large carbon savings. Colchester has been awarded Cycling Town Status and will improve the existing network, educate, and market the benefits of cycling to the community. Our target is to increase cycling levels by 75% by 2011. Colchester North Station is one of 31 stations to have been awarded Station Travel Plan Pilot Status. With our partners we have a number of objectives including reducing Carbon Dioxide emissions by reducing

single car occupancy trips to the station and increasing walking, cycling and public transport. The Council will seek to set up a travel behavioural change programme focusing on existing communities to complement existing travel plan activities.

Improved promotion and facilities for alternatives to the private car such as public transport services will be made in partnership with Essex County Council, the Transport Authority and transport operators. Congestion is a priority issue and in the town centre it greatly affects the operation of public transport services. A strategy for wider improvements to the town centre will seek to make improvements for reliable operation of public transport.

We will work with developers to ensure new developments have good access to amenities and services by sustainable means. Where developments are close to the town centre 'car free' or 'low car' developments will be promoted. The Council is currently piloting a 'Low Emissions Parking Scheme' which is one of the first of its kind in the UK, in Sheepen Road Car Park. This scheme allows the customer to access cheaper parking if their car is within a low tax bracket (below B). The basis of the idea is to influence behavioural change through car park charges to encourage more sustainable forms of transport such as walking and cycling. For those that are unable to participate in more sustainable transport, this scheme will offer an incentive for the use of more efficient cars. If this pilot scheme is successful it will be rolled out to all other, Council owned, long stay car parks.

Limited improvements to the road network will be made, including the A133 Central Corridor, providing a new A12 Junction and Northern Approaches to relieve pressure on congested corridors and accommodate growth in a sustainable manner. We support the Highways Agency in enhancing the A12 trunk road to improve the reliable operation of this route through the Borough

Development Control



There are potentially huge CO₂ savings to be made with the existing building stock, for example retrofitting and refurbishment standards.

We aim to give residents in Colchester advice on how they can best adapt their homes to become more energy efficient, including the promotion of insulation and giving advice for the use of renewable energy.

Building design is likely to be very different in the future. Changes in the weather, such as with rainfall, wind and the frequency of storms will put extra pressure on buildings, and we must ensure that the existing housing stock can stand up to this and ensure residents are safe in their homes.

We have the ability to grant planning applications to help people to be more sustainable. However schemes will need to demonstrate that they will not result in adverse impacts for example, noise pollution, visual pollution and impacts on residential amenity. The Development Policies DPD will include a policy on renewable energy schemes, which will set out the key criteria that will be used to judge planning applications.

Building Control

Where are we now?

The Building Control Service offers advice and ensures that all controlled buildings meet energy efficiency standards.

Where do we want to be?

The Government has set plans to increase energy efficiency standards in 2010, 2013 and 2016 to achieve carbon zero homes for the future. Our team will enforce these standards.

How will we do this?

By administering the Building Regulations to ensure works are carried out in accordance with Government standards.

Procurement

Where are we now?

Research has been carried out into some areas of procurement, for example our paper supply. We use 72 tonnes of paper a year, and by changing the type of paper we use we can reduce the amount of carbon dioxide created through the manufacturing process by half.

Where do we want to be?

We want the procurement strategy to ensure that all of the products and services we use are from the most sustainable source possible.

How will we do this?

To achieve this, sustainability must be fully embedded into the procurement process through the strategy and also staff training.

Building Control



The building control team provide technical advice on all building regulations including energy conservation. The building control surveyors enforce building regulations throughout Colchester, which includes ensuring the conservation of fuel and power in new and existing buildings. The scope of the regulations is continually expanding and water conservation is soon to be included.

New buildings must achieve an individually set sustainability standard, be it through insulation, efficient heating or the installation of renewable energy sources. This area is set to become more vital in issues of climate change as the Government has already increased energy efficiency standards for new buildings by 20% based on 2002 regulations. This will rise again in 2010 and 2013 with a view to achieving zero carbon by 2016. The Code for Sustainable Homes states that new homes must meet certain criteria in terms of energy efficiency, water conservation, materials, waste, pollution, health and wellbeing, management and ecology. This is currently voluntary but is likely to become part of statutory building regulations in the near future.

Procurement

Colchester Borough Council has revised its Procurement Strategy to ensure that any services or goods we use will be commissioned with sustainability in mind to minimise environmental impact.

Goods produced locally have less carbon associated with them as they have travelled less from source to end use. Additionally the Council must look at whole-life issues by taking into account ease of recycling and end of life disposal costs.

The public sector spends around £150 billion each year on goods and services, showing the scale of the impact we could have on the local marketplace. We will use this influence to encourage suppliers themselves to become more sustainable and by working in partnership with organisations such as the Essex Procurement Hub can maximise the impact of this.

As an employer

Where are we now?

We have an awareness campaign to promote sustainable energy use.

Where do we want to be?

We want each member of staff to actively reduce the energy they use and become more sustainable.

How will we do this?

We will continue with our awareness campaign. We will include sustainability in people's individual objectives.

As an employer

Colchester Borough Council is a large employer in the borough with more than 1000 employees. It is important that all Council employees are actively reducing the energy they use at work and for this reason we will include an aspect of sustainability in each individual's objectives. We will ensure that any new employees are aware of our Nottingham Declaration commitment and our focus on sustainability and energy efficiency as a top priority. To share this message we will include sustainability in induction training to support the general staff awareness campaign.

We are keen to listen to our employees and have carried out a staff survey to establish what our employees already do, their opinions on sustainability issues and also their suggestions on what we should be doing. We had a great response rate of 268 completed surveys which gave us some strong positive feedback. From the results we found that 96% of employees believe that climate change is happening and will affect them and their families, and 99% said that they think it is the Council's duty to reduce our carbon footprint.

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- (9) CRed Essex 2008 – pledge leaflets. Website available at <http://www.cred-uk.org/essex/>

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“Nobody makes a greater mistake than he who does nothing because he could only do a little”

Edmund Burke (1729-1797)





Nottingham Declaration Action Plan



Priority 1 – Reducing our carbon footprint

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Local Authority Carbon programme (LACM)	<p>Strategy and Implementation Plan (SIP)</p> <p>Work with Carbon Trust to assess all CO₂ emissions from Council services and operations to develop a baseline and from this establish a target for reduction.</p>	No direct cost – officer time only	<p>The strategy and implementation plan will be a working document that can be followed to ensure progress is made in achieving the target.</p> <p>The document sets out a programme of activities. We believe that this programme of activities will not only deliver carbon reductions in line with our Climate Change Strategy and significant cost savings for the Council, but will also position ourselves for impending new regulatory requirements such as the EPBD, The National Framework of Performance Indicators and the Colchester 2020 Carbon Challenge.</p>	Completed March 08	Lee Spalding
LACM	Refurbishment of fitness pool at Leisure World	£372,000	Annual saving of 412 tonnes of CO ₂ and £60,000 in energy costs	Jan 09	Lee Spalding
LACM	Replacement of cremators at Colchester Crematorium	£750,000	Annual saving of 167 tonnes of CO ₂ and £23,000 in energy costs	2009	Lee Spalding
LACM	Replacement of heating system and insulation of roof at Colchester Castle	£326,000	Annual saving of 18 tonnes of CO ₂ and £3,000 on energy costs	2010	Lee Spalding
LACM	Replacement of lighting at Rowan House offices	£150,000	Annual saving of 36 tonnes of CO ₂ and £5,000 on energy costs	TBC	Lee Spalding

Workstream	Action	Cost	Outcome	Timescale	Lead officer
LACM	Snooze Button	£2,500	Annual saving of 39 tonnes of CO ₂ and £5,000 on energy costs	Dec 08	Lee Spalding
LACM	Time control for vending machines	£90	Annual saving of 56 tonnes of CO ₂ and £7,000 on energy costs	Completed/ on-going	Lee Spalding
LACM	Installation of PowerPerfector at top ten electricity usage sites	£113,000	Annual saving of 313 tonnes of CO ₂ and £41,000	Jan 09	Lee Spalding
LACM	Installation of Eco Flow fuel conditioning at the Town Hall	£1,000	Annual saving of 6 tonnes of CO ₂ and £1,000	Completed July 08	Lee Spalding
LACM	Draught sealing of Colchester Town Hall windows	£10,000	Annual saving of 23 tonnes of CO ₂ and £3,000	Jan 09	Lee Spalding
LACM	Staff awareness campaign	No direct cost – officer time only	Original target within the Strategy and Implementation Plan is to provide an annual saving of 57 tonnes of CO ₂ and £14,000. The purpose of the awareness campaign is to engage staff with saving energy at work. This will hopefully be something that employees then also take home with them. The campaign was split into separate phases to keep it relevant and up to date. Monthly updates are sent out to staff and can also be found on the HUB. To date we have saved approximately 64.7 tonnes of CO ₂ which equates to financial savings of £15,890.	Completed/ on-going	Sam Preston
	Poster campaigns				
	Switch off stickers and monitor switch off league tables				
	Carbon reduction Champions – quarterly meetings				
	Tips, information and updates on the HUB (include daily tip banner on homepage)				
	Articles in one magazine on major projects and updates				

Workstream	Action	Cost	Outcome	Timescale	Lead officer
LACM	Refurbishment of Lion Walk Toilets	£342,000	Annual saving of 12.6 tonnes of CO ₂ and 640,000 litres of water	Completed – July 08	Dave McManus
LACM	Fuel additive added to diesel for waste and recycling fleet	£130 / month	Annual saving of 43.5 tonnes of CO ₂ and £12,325 on fuel costs	Completed/ on-going	Paul English
LACM	Valve and Flange insulation at 12 sheltered housing sites (Colchester Borough Homes)	No cost	Annual saving of 164.8 tonnes of CO ₂ and £17,266 on energy costs	Completed	Bob Barnes
LACM	Upgrading of heating and hot water systems and controls at sheltered housing schemes	£50,000	Annual saving of 111 tonnes of CO ₂ and £15,000 on energy costs	Mar 10	Lee Spalding
LACM	Installation of PowerPerfector within sheltered housing schemes	£30,000	Annual saving of 100 tonnes of CO ₂ and £16,000	Aug 09	Lee Spalding
LACM	Replacement of lighting in multi-story car parks	£500,000	Annual saving of 137 tonnes of CO ₂ and £21,000	Sep 09	Lee Spalding
LACM	Upgrading Moot Hall roof insulation and lighting within Colchester Town Hall	£5,000	Annual saving of 9 tonnes of CO ₂ and £1,000	Jun 09	Lee Spalding
LACM	Upgrading of Building Energy Management systems	£180,000	Annual saving of 189 tonnes of CO ₂ and £26,000	Mar 10	Lee Spalding
LACM	Bio-mass heating system for Highwood Resource Centre	£30,000	Annual saving of 8 tonnes of CO ₂ and £1,000	Feb 09	Lee Spalding
LACM	Replacement of business mileage with electric pool cars	£160,000	Annual saving of 45 tonnes of CO ₂ and £115,000	TBC	Lee Spalding

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Sustainability Action Group	Quarterly meetings with a sustainability representative from each service area	No direct cost – officer time only	Enables the group to discuss environmental initiatives from across the Council and allows for joint working where possible. Acts as a critical friend for any proposed project.	On-going/ quarterly	Matthew Young
Waste and recycling collection	Using biodiesel in the waste and recycling collection fleet	£400,000 / year	Rough estimate – annual saving of 486 tonnes of CO ₂	Completed/ on-going	Paul English
Wind Turbine project	Development of large scale wind turbine in the North of Colchester	TBC	The turbine will provide renewable energy – approximately 2 Mega Watts of electricity which can be sold or used for nearby developments	TBC	Chris Dowsing
Wind Turbine project	Development of wind turbine project group Project group meetings and project plan	No direct cost – officer time only	Group can assess options for taking forward the wind turbine project forward	On-going	Lee Spalding
Spatial Policy	Sustainable Construction Supplementary Planning Document	No direct cost – officer time only	Offers advice on the different types of renewable energy technology, including prices and planning considerations	Completed Oct 07	John Buchanan

Priority 2 – Becoming a community leader

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Colchester2020 Carbon Challenge	Colchester2020 carbon challenge assembly meeting	No direct cost – paid for by Colchester2020	Raising awareness and launch of the Carbon Challenge which is to reduce CO ₂ emissions across the borough by 30% by 2020	Completed March 08	Chris Dowsing
Colchester2020 Carbon Challenge	Colchester2020 business breakfast	No direct cost – paid for by Colchester2020	Raising awareness of carbon reduction to local businesses by bringing them together to share best practice and offer advice and information	Completed November 08	Chris Dowsing
Cred Essex	Obtain 2000 energy saving pledges from local people	No direct cost – officer time only	Raising awareness of carbon reduction to local people. From the pledges we can quantify CO ₂ savings. So far we have 1457 pledges which equate to savings of around 549 tonnes of CO ₂	Apr 09	Sam Preston
LACM	Publicising LACM – develop communications plan	No direct cost – officer time only	To set out how we can make clear to residents, businesses and visitors, the Council's commitment to getting 'its own house in order' by reducing its carbon footprint	Completed	Cathryn Cansdale
LACM	Press release for all major projects	No direct cost – officer time only	This will keep people informed of what the Council are doing Examples so far include; - Colchester Borough Council receives ministerial backing in its fight against climate change (Nov 08) - Carbon Reduction Commitment (Oct 08)	On-going	Sam Preston
LACM	Articles in Courier and Common Ground on all major projects or energy saving updates	No direct cost – officer time only	This will keep people informed of what the Council are doing	On-going	Sam Preston

Workstream	Action	Cost	Outcome	Timescale	Lead officer
LACM	Development of LACM area on the Council's website	No direct cost – officer time only	This will keep people informed of what the Council are doing. Updates will also be added to reflect any relevant press releases	On-going	Sam Preston
Raising awareness – local community/residents	Promotional events	No direct cost – officer time only	<p>This will help to encourage local people to reduce their carbon footprint and become more energy efficient. Examples so far have included:</p> <ul style="list-style-type: none"> - Attendance to give advice and obtain personal pledges at: Wivenhoe Fair, Way We Work workshops, Bike Week breakfast event, Recycling Roadshows, Schools Fêtes, Leadership Day, B&Q for energy saving week, Colchester2020 Business Breakfast, Hythe Heritage Fun Day, Town Centre Road Show, Stanway Community Event - Presentations to: Lion Walk Activity Centre, LACM Members' Event, CBH Tenants' Conference - Publication with Environmental Publication Services (no cost to us) to go to every household and business in the borough - Nottingham Declaration, Stadium Green Way, Warm Homes and Travel Plan articles in the Courier - 'Cut your Carbon' article (Common Ground) - Climate Change section on Council website 	On-going	Sam Preston
	Town centre roadshows				
	Presentations to local groups, businesses and schools				
	Take part in local events and fun days				
	Develop publication to go to every household giving energy saving advice				
	Climate change area on webs				
Giving energy saving advice and tips, information and updates on Council/local activity					
Articles in Courier on all major awareness raising projects and events					
Press release for all major events					

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Supporting local businesses	Develop business green doctor scheme to offer free environmental consultant to local businesses	TBC – subject to funding	Businesses will be able to significantly reduce their CO ₂ emissions while increasing profit through reducing energy costs	Apr 09	Sam Preston
Supporting local businesses	Send out publication to all businesses Offering advice on how to reduce the energy they use	No direct cost – officer time only	This will give businesses advice on becoming more energy efficient and reducing their CO ₂ emissions – will also give them information of where they can get support for this	Jan 09	Sam Preston
Supporting community groups	Support funding applications for local community groups and help them to promote energy efficiency	No direct cost – officer time only	This will help community groups access money for renewable technologies and promoting the benefits of energy efficiency. We are currently working with the Hythe Community Centre to obtain funding for Photo-Voltaic panels and other energy saving initiatives.	On-going	Sam Preston
Waste to Resources	Achieve 26% recycling and 14% composting in the borough by 2011	Costs associated with services provided	Promoting 'Reduce, re-use, recycle' and adapting collection services to: - Reduce waste and associated CO ₂ emissions - Reduce waste to landfill and associated CO ₂ emissions	On-going	Chris Dowsing
Waste to Resources	Promote Eco-Schools programme to all local schools	No direct cost – officer time only	This will encourage schools to become more sustainable and also help to educate young people in the borough to be more environmentally aware	On-going	Valerie Francis
Warm Homes	Promote home insulation energy efficiency	No direct cost – officer time only	This will enable people to reduce energy use therefore CO ₂ emissions while helping to get local people out of fuel poverty. In Colchester the domestic sector counts for 42% of all CO ₂ emissions, and an uninsulated home wastes around a third of the energy used for heating. This helps emphasise the need to target local households to become more energy efficient and to insulate their homes.	On-going	Melanie Rundle


Priority 3 – Delivering Sustainable Services

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Corporate targets	Develop project plans and work towards achieving all corporate targets	No direct costs – officer time only	All Council targets will be monitored through either our Local Area Agreement or our Performance Management Dashboard. The targets will be also monitored individually through relevant project plans.	On-going / specified	Sam Preston
	National Performance Indicator (NPI) 194 Improving air quality				
	NPI 188 Adapting to climate change				
	NPI 186 Reducing per capita CO ₂ emissions				
	NPI 185 Reducing CO ₂ emissions from Council operations				
	NPI 187 Fuel Poverty				
	Colchester Carbon Challenge Reducing CO ₂ emissions across the borough by 30% by 2020				
	LACM Reducing CO ₂ emissions from Council operations by 25% by 2012				

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Group Management Teams (GMT)	<p>GMTs to put climate change on the agenda for meeting when appropriate</p> <p>Climate Change Officer to support services to include issues of sustainability in service area plans</p>	No direct costs – officer time only	This will allow group management teams to consider climate change and sustainability issues in the development of their service plans.	On-going	GMT
Transport	CBC to continue to follow their corporate Travel Plan	No direct costs – officer time only	This will encourage the staff within the organisation to reduce their reliance on the single occupant car therefore reducing CO ₂ emissions through employee travel	On-going	Sarah Ward
Transport	Support Colchester2020 to encourage local businesses to develop their own Travel Plan	CBC contribution £11,000	This will encourage the staff within other organisations to reduce their reliance on the single occupant car therefore reducing CO ₂ emissions through employee travel	On-going	Andrew Budd / Emily Harrup
Energy Performance of Buildings Directive	Obtain Display Energy Certificate and put in public areas in required buildings	£1,650	These are in place and show the public the energy efficiency of our buildings and will show where improvements can be made	Completed Oct 08	Lee Spalding

Priority 4 – Using our powers

Workstream	Action	Cost	Outcome	Timescale	Lead officer
Spatial Policy	Develop a sound and robust Local Development Framework	£63,227 (Inspector costs) £1000 (room hire) Plus officer time, legal and consultant costs and printing	There are policies and guidance documents within the LDF that will help to achieve sustainable development and tackle climate change	Dec 08	Karen Syrett
Building control	Enforce energy efficiency standards in new developments Offer support to developers on how to achieve these standards		This will ensure that new developments have a minimal impact on climate change, the overall aim is to achieve Carbon Zero developments by 2016	On-going	Peter Tyler
Procurement	Develop a new procurement that includes sustainability	No direct cost – officer time only	This will ensure that goods and services used by the Council will have a minimal impact on the environment. It will also encourage suppliers to themselves become more sustainable	On-going	Steve Heath
Human Resources	Provide energy efficiency advice to all staff and make them aware of the Council's commitments on climate change	No direct cost – officer time only	This will help to encourage staff to be more energy efficient both inside and outside of work	On-going	Sam Preston

A field of sunflowers is shown with a semi-transparent green overlay. The sunflowers are in various stages of bloom, with some fully open and others still budding. The green overlay is a uniform, medium-green color that covers the entire image, creating a monochromatic effect.

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mistake than he who does
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Edmund Burke (1729-1797)



Policy Review and Development Panel

Item

9

2 March 2009

Report of	Interim Head of Corporate Management	Author	John Gilbert ☎ 282726
Title	Equality and Diversity – the current scheme, the Equality Standard and Framework, and the Equality Bill		
Wards affected	Not applicable		

The Panel is invited to review the current Equality and Diversity Scheme and progress against the Equality Standard, and to consider the emerging Equality Framework and the introduction of the Equality Bill

1. Action required

- 1.1 The panel is asked to feedback on the Council's current Equality and Diversity Scheme, the changes taking place nationally to replace the Equality Standard with an Equality Framework, and the introduction of the Equalities Bill.

2. Reason for scrutiny

- 2.1 An annual update is brought to the Panel for its consideration of progress against the current Equality schemes, and related developments towards a Single Equality Scheme.

3. Background information

- 3.1 Colchester Borough Council is committed to ensuring that everyone can access and use its services and has the opportunity to participate in their community. This sets the context of our aim of achieving equality and diversity for all. The Council uses a framework of plans and activities to ensure customers and staff are not discriminated against and that as an organisation we value and promote equality and diversity.
- 3.2 In accordance with its Diversity Policy and Plan, the Council reviews its services to ensure that they do not discriminate against customers or staff on unreasonable grounds through a series of Equality Impact Assessments (EQIAs). These are published on the Council's website along with a three-year timetable for their review and reassessment.
- 3.3 Each service has produced an Action Plan based on these assessments to show how they will overcome, address or minimise any barriers or unintended discriminatory effects which have been identified. These Action Plans have been approved by each Group Management Team and will feed into Service Plans for 2009/10.
- 3.4 All new staff now receive an Equality and Diversity training course as part of their induction. All existing staff are encouraged to attend this course to gain greater awareness of the legislative framework and the potential needs of their customers. 48 staff attended the Equality and Diversity training course in 2008, and 40 members of staff attended EQIA training in January and February 2009.

- 3.5 In accordance with the framework set out in the Diversity Policy and Plan, the Council adopted a Race Equality Scheme in 2002, a Disability Equality Scheme in 2006 and a Gender Equality Scheme in 2007. These schemes comprise the current Equality and Diversity Scheme, and are discussed in section 4.

4 Current Equality and Diversity Schemes

Race Equality Scheme

- 4.1 The Council's Race Equality Scheme was refreshed in 2008. This scheme outlines our commitment and our intentions to meeting the requirements of the Race Relations (Amendment) Act 2000. It replaces the previous scheme published in 2002 and details how we intend to respond to the needs of all people in our increasingly diverse communities and promote race equality across the borough.
- 4.2 Our intentions remain to provide excellent examples of good practice in developing policies, working with our communities and improving service delivery. In addition, under this new scheme we commit to work in partnership with the community to ensure that all sections of the community have equal access to services regardless of other factors but particularly ethnicity.
- 4.3 The mid-2006 ONS population statistics indicate that ethnic minority groups (excluding 'other white') account for 7.09% of the borough's population, an increase from 3.82% on Census Day 2001. This is also higher than the Essex proportion of 5.85%. Colchester has the fourth largest proportion of ethnic minority groups in Essex County behind Epping Forest (9.11%), Harlow (7.81%) and Brentwood (7.33%).
- 4.4 Percentages have increased in all ethnic minority groups since the 2001 Census, but especially in the 'Asian or Asian British' and 'Black or Black British' groups. Age groups vary: 8.06% of those aged 0 to 15 years are in ethnic minority groups, whilst just 1.03% of those aged 65 (male) / 60 (female) and over were in ethnic minority groups.
- 4.5 Colchester's Polish and Scottish communities celebrated St Andrew's Day at an event organised by the Council and Community Radio Veespa, in November 2008 at Greenstead Community Centre. This was an example of an innovative way to bring an established and an emerging community together around shared themes.
- 4.6 Language Line has been implemented and enables customers whose first language is not English to access Council services through an interpreter. It has been used 4 times since April 2008 for Czech, Arabic, Russian and Polish customers.
- 4.7 Colchester Borough Council's website includes 'Babelfish' - a piece of software used to translate websites from English to other languages. The 'choose a language' page of our website was viewed 1,980 times in 2008.
- 4.8 Colchester Borough Council and Colchester Borough Homes are active participants in the Hate Crime Panel which seeks to monitor and prevent the level of hate crimes and harassment which take place in the borough. We work in partnership with the Police and TaCMEP (Tendring and Colchester Minority Ethnic Partnership) to identify areas where hate crimes occur and take action to prevent them.

Disability Equality Scheme

- 4.9 In December 2006 Colchester Borough Council adopted a Disability Equality Scheme. Its key aims are promote equal opportunities regardless of disability in the delivery of its services and employment of staff. This Scheme also seeks to ensure that people are not discriminated against, directly or indirectly, as a result of their disability.
- 4.10 The Disability Equality Scheme set in motion a number of initiatives to ensure people with disabilities in the borough and Colchester Borough Council staff were not discriminated against. A key achievement of this scheme has been the way in which the requirements of the Disability Discrimination Act have been met. This includes making sure premises more accessible and inclusive, and that services have been delivered differently to ensure disabled people can benefit from them equally.
- 4.11 The Disability Equality Scheme recognised that approximately 12.5% of the population has some form of disability or impairment, and they can experience barriers to accessing services and employment. Through the actions in this scheme and conducting a series of Equality Impact Assessments, the Council has made significant progress in removing or minimising these barriers. An example which will be completed in 2009 is the Town Hall where the installation of a lift, induction loops in its public rooms and the renovation of the Old Library will greatly improve community access to this Grade 1 listed building. This is a complex project because of the particular challenges of making such an historic building accessible, both in terms of the design of the building itself and the number of parties that need to be brought together in agreement to achieve the desired outcomes.
- 4.12 The website has been developed to enhance its ease of access for all visitors, ensuring it meets the needs of disabled users, and offers individual choice by being viewable in the widest possible range of web-browsing technology. This includes software like Browsealoud which enables people with visual, learning or literacy difficulties the option to have the information on the website read out loud to them. We ensure that all information meets accessibility standards set out by organisations such as the Royal National Institute for the Blind (RNIB), and 'tag' pdf documents to enable people who use screenreaders to access the information they contain more easily.
- 4.13 Colchester Borough Council has engaged positively with disabled people in the borough in the way it has undertaken consultation and involvement work. Examples include working with the Colchester Access Group to make the Homechoice shop and the Customer Service Centre easier to access, by implementing some practical changes such as repositioning signs. The fact that a member of CSC staff is always available near the entrance was noted as a positive feature in helping someone who may find it difficult to read signs or who may be blind or partially sighted.
- 4.14 Museum Services have developed a consultation group called Portal to ensure that Museum and Cultural Services displays are as inclusive and accessible as possible. This has led to improvements about the way that information is presented in Colchester's museums and increased numbers of visitors from people with disabilities in the borough.
- 4.15 The Council also aims to reflect the diversity of the borough's population in its workforce. In 2008/09, 6.35% of the Council's staff had a declared disability. A Disability Reference Group of staff and councillors meets to discuss issues and act as a consultation resource. An example of this is their input into the Council's flexible working practices and the proposals for Rowan House as staff move there from Angel Court.

Gender Equality Scheme

- 4.16 In August 2007 Colchester Borough Council adopted a Gender Equality Scheme. Its aims are to overcome potential discrimination that may be experienced because of gender, either in service delivery or in employment. It recognised that the significant issues facing women are around equal pay and occupational segmentation, their increased caring responsibilities and domestic violence.
- 4.17 A wide range of organisations were consulted and involved in the creation of the Gender Equality Scheme to identify and understand the barriers women face as customers and employees and the scheme sets out plans to overcome and minimise these barriers. Achievements since its publication include the provision of private areas available for breast feeding in the Customer Service Centre as well as child-friendly areas while customers are waiting.
- 4.18 Evidence of Colchester Borough Council's commitment to achieving gender equality is its extensive work in partnership with the Domestic Violence Forum to tackle Domestic Violence and support the victims and survivors of domestic violence. The Council funds the Women's Refuge, and meets 10 out of 11 (90.9%) of the criteria for BV225 – the national indicator for actions taken against domestic violence. Our Community Safety team made a successful bid for LAA 1 Reward Grant monies of £12,000 to take forward a 'sanctuary scheme' that should allow victims to remain safely in their homes once the offender has been removed.
- 4.19 Currently the Council employs a workforce which is 45.8% male and 54.2% female (46.3% male and 53.7% last year). In the last quarter the percentage of senior officers who are women was 30.0% - up from 28.4% last year. This is just above the average of 27.8% for other district councils, and is a reflection of the fact that our flexible working practices enable women to remain in and to re-enter the workplace.
- 4.20 Legislation gives certain employees the legal right to request to work in a flexible way, giving them with the opportunity to balance work and family life/personal responsibilities whilst being compatible with and beneficial to the efficiency of Council services. The Council's 'Way We Work' programme is taking this further, and helping us to "embrace flexibility in our thinking and behaviours to make best use of technology and new ways of working." Across the Council there are many services already being delivered outside the familiar 9-5 working pattern in order to best meet the needs of our customers, and this can offer flexibility in working patterns to the staff concerned – both female and male.
- 4.21 Both of the borough's senior civic roles are currently held by women – our Mayor and the Leader of the Council. Colchester is 1 of only 18% of English district councils that have female leaders and 1 of only 4 that have a majority of female Cabinet members. There are only a further 3 that have a balance of female and male Cabinet members.

5. Progress on achieving Level 3 of the Equality Standard

- 5.1 The Equality Standard is a framework with 5 levels which enable councils to ensure that they have mainstreamed equalities systematically. Each level has a different set of criteria, and the Council reached Level 2 in April 2005. We have made further significant progress in establishing valuing diversity as a core value of the organisation and this is now key to the way we operate. Members have previously determined that they wish to reach Level 3 of the Equality Standard to recognise this effort and commitment. Of the 238 district councils in England, 5 authorities declared at Level 4 and 20 authorities at Level 3 of the Equality Standard in April 2008 – the remaining 213 districts being levels 0, 1 or 2. All Level 3 authorities now need to undertake a Peer Review to continue being

able to declare this. Level 2 is a 'reasonable and proportionate' standard to have reached, and reaching Level 3 will take us into the best performing districts in England.

- 5.2 The key requirements of Level 3 require that each service within the Council has developed an Equalities Action Plan which has become part of their performance management processes. These action plans are based on the impacts identified in Equality Impact Assessments and any consultation and research which has been undertaken. Each service needs to have begun to achieve some of the objectives in their action plans and the Diversity Policy.
- 5.3 These action plans will enable services to take responsibility for promoting equity and tackling discrimination in the way we provide services. This will ensure a consistent and robust approach to mainstreaming diversity throughout the organisation. This approach must also be carried into key activities such as how our procurement and participation processes are undertaken and the way that we tackle hate crimes in the borough.
- 5.4 In addition to the existing 3 strands of Gender, Race and Disability, Level 3 of the Equality Standard requires councils to incorporate the 3 newer equality strands of Age, Sexual Orientation and Religion or Belief by March 2009. This would lead to councils having a Single Equality Scheme which covers all 6 equality strands in 1 scheme.
- 5.5 Level 3 of the Equality Standard requires an external assessment of performance to be conducted by a Peer Review team organised by the Improvement and Development Agency (IDeA). A team visited the Council in April 2008 to help us determine whether the requirements for Level 3 had been met, and to indicate any outstanding areas for further action and recommendations for other work required.

6 The Equality Framework

- 6.1 The Equality Standard has been in place since 2001, and in summer 2008 the IDeA consulted on its proposed Equality Framework. The Council responded to this consultation, and a number of the points we made have been incorporated in this Equality Framework which will now replace the Equality Standard from 1 April 2009.
- 6.2 The IDeA made this change *"to be more responsive to the challenges that councils face today. New patterns of migration, our changing democratic structure, and changing customer service mean that equality and diversity is important to us all. We need to reflect new thinking on how we understand equality and the challenges for local government, as set out in the new performance framework for local government."*
- 6.3 The Equality Framework aims to be simpler, and less process-driven; based on self-assessment and peer challenge; relevant to existing performance frameworks and to Comprehensive Area Assessment; and to be aspirational – highlighting the role of local authorities and partners in challenging inequality in their communities. A briefing on the Equality Framework was presented to the Council's Equality and Diversity Members' Liaison Group in November 2008.
- 6.4 The Equality Framework covers all 6 strands of diversity - race, gender, disability, sexual orientation, age, religion or belief. It has 3 levels – developing, achieving and excellent – instead of 5, and anticipates a generic equality public duty which will be introduced in the Equality Bill.

7. The Equality Bill and the Single Equality Scheme

7.1 In August 2007 the Policy Review Panel approved a response to the Government's consultation to implement a Single Equality duty and Scheme for public bodies.

7.2 The Government's proposals were included in the Queen's Speech in December 2008, and it stated "purpose of the Equality Bill is to make Britain a fairer place where people have the opportunity to succeed whatever their race, gender, disability, age, sexual orientation, religion or belief. Fairness and an absence of discrimination are the hallmarks of a modern decent society, with a strong economy, which draws on the talents of all."

It has also stated that the main benefits of the Bill and related secondary legislation are "to promote fairness and equality of opportunity; tackle disadvantage and discrimination; and to modernise or strengthen our law to make it fit for the challenges that our society faces today and in the future."

7.3 The Government has stated that main elements of the Bill are:

- "Making Britain fairer through a single equality duty, which will require public bodies to consider the diverse needs and requirements of their workforce, and the communities they serve, when developing employment policies and when planning services;
- Making public bodies more transparent. If inequality remains hidden, we can't measure it and make progress;
- Enabling employment tribunals to do more to tackle unlawful discrimination by making recommendations to employers on working practices which benefit their wider workforce;
- Extend existing positive action measures to allow:
 - o Employers to make their organisation or business more representative and reflective of the people they serve; and,
 - o Public bodies to deliver services in a more effective way to disadvantaged groups who may otherwise miss out; and,
 - o political parties to use all women election shortlists until 2030;
- Making the law more accessible and easier to understand, by bringing together nine major pieces of legislation and around 100 other laws in a single Bill."

The Bill has not yet had its first reading in Parliament, but is shown as 'in progress' on the current year's legislative programme. It will take some time for the detail and implementation guidance to flow out to public bodies once the Bill has been passed.

7.4 Colchester Borough Council intends to start the work required to develop a single Equality Scheme in advance of the legislation being introduced. This is to avoid delay and as it is clear that there are several strategic, operational and financial benefits to amalgamating our schemes and having a single equality scheme for the whole authority. It is envisaged that a single scheme will enable customers to have a single point of reference and will make it easier to equality and diversity elements to be incorporated into all other plans and strategies the Council produces.

7.5 The new post of Equality and Diversity Officer will be a valuable resource in co-ordinating and bringing the strands of these national developments together into a single scheme. The post will also offer a challenge mechanism for services when preparing or revisiting EQIAs, and a central co-ordination point for the Council's Diversity Steering Group, Staff Disability Reference Group and the Members' Equality and Diversity Liaison Group.

8. Strategic Plan references

- 8.1 The vision set out in the Council's Strategic Plan 2009-12 is "Colchester: a place where people want to live, work and visit." The Plan makes a strong commitment to ensuring that all the residents of Colchester can expect a good quality of life and wherever possible receive services that suit them and their circumstances. It also highlights this commitment to tackling discrimination and providing equality of opportunity as one of the core values of the organisation, which are integral to the way it works.
- 8.2 The Strategic Plan is also underpinned by the Council's statement on access and participation, which states that:

"We are committed to promoting equity and equal opportunities for access and participation for everyone, whatever their personal circumstances. This includes the use of all the services and facilities which we provide. We are committed to ensuring that everyone is treated with dignity and respect, and to eliminating all forms of harassment.

We will allocate and spend money on services as fairly as possible according to the needs of local people."

9. Consultation

- 9.1 Colchester Borough Council has developed a Community Engagement and Participation Strategy as part of its planned Single Equality Scheme. This has incorporated and built on work done to develop the Council's Statement of Community Involvement which is key component of the Local Development Framework, and the work of the Customer Insight Group. It incorporates a range of consultation and involvement methods, from face-to-face surveys to new technology such as Mosaic and Touchstone, to help staff in producing EQIAs for services. The strategy will help the Council to ensure that all its community engagement and consultation activities reflect the diversity of the population.

10. Publicity considerations

- 10.1 The Council's website has a section on Diversity and Equality where all related documents are published, with an opportunity provided for feedback and comments.

11. Financial implications

- 11.1 Colchester Borough Council will be in a stronger position to lever in resources from external funders as an organisation that has embedded diversity throughout its practices. Credibility would be improved and it would enable the organisation to take advantage of opportunities for funding, building capacity and organisational growth.
- 11.2 Improvement East, the Regional Improvement and Efficiency Partnership (RIEP) for the East of England has identified equality and diversity as one of the areas where performance needs to improve across the region's 60 authorities. This is partly historical, but also because of the significant changes taking place with demographic change, the emerging Equality Framework and the Equality Bill. There may be some assistance from Improvement East to "co-ordinate, challenge, support and accelerate the drive for improvement and efficiency to a higher level than would otherwise be possible".
- 11.3 The new post of Equality and Diversity Officer has been established as a joint post with Colchester Borough Homes from March 2009, following a reconfiguration of existing

resources. This is an effective way to create synergy by sharing knowledge, learning and best practice, as well in the new resource which this officer and their co-ordination role will bring to both organisations. This role will also be particularly important in taking forward the new requirements of the Equality Framework, the Council's single equality scheme and the Equality Bill as these develop.

12. Equality, Diversity and Human Rights implications

- 12.1 The entirety of this report is about the equality and diversity implications of the Council's activities. Having this section in all reports to members helps to raise the profile and detailed consideration of these issues.

13. Community Safety implications

- 13.1 Tackling hate crimes and harassment in the borough, whether based on race, sexuality or disability, is integral to tackling inequality and valuing diversity. The work undertaken in the Hate Crimes Panel will help to not only make the borough a safer place to live but will help to improve community cohesion. This work also extends into Neighbourhood Action Panels (NAPs) and to the extensive work of the Domestic Violence Forum.

14. Health and Safety implications

- 14.1 There are no specific Health and Safety Implications to this report.

15. Risk Management implications

- 15.1 If Colchester Borough Council is unsuccessful in embedding diversity principles throughout its practices a number of risks need to be faced. The most significant of these is the risk of not achieving our corporate aims that "we will make sure all our residents have the opportunities they need", and "we will support a range of sustainable employment choices that match the aspirations of our residents". There are numerous examples of links between groups who are deprived or disadvantaged and those who face discrimination. Probably the clearest example of this is the link between facing discriminatory barriers in employment and living in poverty. There are numerous other examples, and the Council needs to acknowledge the effects of discrimination on individuals and communities and take appropriate action.
- 15.2 As an employer and provider of public services, the Council may face legal challenges from individuals who have been discriminated against because of discriminatory practices, however unintended. The work undertaken by services to review their functions and conduct EQIAs will have reduced this risk significantly. Legal cases brought on grounds of discrimination do not have upper limits like those brought through employment tribunals so it imperative that the Council meets its responsibilities to ensure it does not discriminate in order to avoid the potential for significant financial claims.
- 15.3 There are risks to the Council's reputation and profile as an excellent organisation and an employer of choice if the organisation does not show that it has understood and met its responsibilities under the equalities legislation currently in place. Strong evidence of embedded equality and diversity is a cornerstone of the Comprehensive Area Assessment which, from April 2009, will be the "*new approach that will provide the first independent assessment of the prospects for local areas and the quality of life for people living there. It will assess and report how well public money is spent and will ensure that local public bodies are accountable for their quality and impact.*"

Background Papers

The following documents have been published, are in the public domain and are available on Colchester Borough Council's website:

- Diversity Policy and Plan
- Race Equality Scheme
- Disability Equality Scheme
- Gender Equality Scheme.

2 March 2009

Report of	Interim Head of Corporate Management	Author	Amanda Chidgey
Title	Work Programme 2008/09		☎ 282227
Wards affected	Not applicable		

This report sets out the current Work Programme 2008/2009 for the Policy Review and Development Panel.

1. Decision Required

- 1.1 The Policy Review and Development Panel is asked to note the current situation regarding the Panel's work programme for 2008/09.

2. Introduction

- 2.1 At each meeting of the Panel, the opportunity has been taken for the work programme to be reviewed and, if necessary, amended according to current circumstances.

3. Current Situation

- 3.1 The Work Programme for the Panel has progressed largely on target, with the majority of the items being considered by the panel as anticipated.

- 3.2 In terms of outstanding work, the current situation regarding the Task and Finish Groups is as follows:

- The Night Time Economy Group has had two meetings and is currently due to submit a final report to the Panel in June 2009;
- 20 mph speed limit Group had its first meeting on 18 February 2009 and is currently due to submit a final report to the Panel in June 2009;
- It has not proved possible to arrange for a meeting of the Mayorality Group to take place prior to writing this report. However, it is understood that work has already been undertaken in relation to the issues requiring consideration and it is hoped that these will be reasonably straight forward to report on in due course.

- 3.3 It was expected that a briefing paper would be submitted to the Panel during the course of 2008/09 on Neighbourhood Working. However this has not proved to be possible in this timeframe. The Government's agenda on Empowerment, which includes Neighbourhood Working, is very wide and, potentially, has significant implications. It has therefore proved necessary to undertake further research with a view to producing a briefing paper during the course of 2009/10.

- 3.4 In order to inform the Panel's Work Programme for next year, discussions will take place with the Chairman prior to the meeting of the Panel scheduled in June 2009, with a view to providing the Panel with options for consideration at that meeting.

5. Standard References

- 5.1 There are no specific strategic plan references or financial, equality, diversity and human rights, community safety, health and safety, publicity and risk management implications in this matter.

Policy Review and Development Panel
WORK PROGRAMME 2008/09

	<u>16 June 2008</u>	<u>18 August 2008</u>	<u>30 September 2008</u>	<u>3 November 2008</u>
Policy Initiatives		Night-time Economy - briefing paper to include the Annual Partnership Plan and possibly determination of Terms of Reference for Task and Finish Group; Historic Town Centre Improvement - briefing paper to include pedestrian improvements and the town centre environment and possibly determination of Terms of Reference for Task and Finish Group;	Town Centre Management - briefing paper on future arrangements.	Secondary Education - Educational Attainment in the Borough with invitation to guest speakers (now consideration of ECC consultation on Secondary Education in Colchester).
Review of Corporate Policies		Housing Strategy - final review prior to resubmission to Cabinet	Flexible Working - review of corporate policy;	
Task and Finish Groups			20mph speed limits within the urban areas of the Borough Certain issues relating to the Mayorality. Night Time Economy	

	<u>19 January 2009</u>	<u>9 February 2009</u>	<u>2 March 2009</u>
Policy Initiatives			Climate Change / Sustainability Issues // Nottingham Declaration Strategy and Action Plan
Review of Corporate Policies		Debt Management Policy	Waste and Recycling Review - result of Options Appraisal Equality and Diversity - review of corporate policy
Task and Finish Groups	20 mph technical assessment		Mayoralty Issues

Items to be scheduled for 2009/10:

Night Time Economy Task and Finish Group final report (June 2009);
20 mph speed limit final report (June 2009);
Historic Town Centre Improvements Task and Finish Group (to commence following conclusion of Mayoralty or 20 mph reviews);
Neighbourhood Working - briefing paper.