Recycling in action

Leading case studies across England and Wales

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<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>The Mersea Island Trial</td>
<td>4</td>
</tr>
<tr>
<td>Wealden’s Crown Scheme</td>
<td>7</td>
</tr>
<tr>
<td>Sutton</td>
<td>10</td>
</tr>
<tr>
<td>Daventry</td>
<td>12</td>
</tr>
<tr>
<td>Bournemouth Borough Council</td>
<td>14</td>
</tr>
<tr>
<td>Bath and North East Somerset</td>
<td>16</td>
</tr>
<tr>
<td>Poole</td>
<td>19</td>
</tr>
<tr>
<td>Dorset</td>
<td>21</td>
</tr>
<tr>
<td>St Edmundsbury</td>
<td>23</td>
</tr>
<tr>
<td>Hounslow</td>
<td>26</td>
</tr>
<tr>
<td>Bristol</td>
<td>29</td>
</tr>
<tr>
<td>Brighton and Hove</td>
<td>31</td>
</tr>
<tr>
<td>Powys County Council</td>
<td>34</td>
</tr>
<tr>
<td>Bulky Household Waste in Liverpool</td>
<td>37</td>
</tr>
<tr>
<td>Gwynedd</td>
<td>39</td>
</tr>
<tr>
<td>Market Development</td>
<td>41</td>
</tr>
<tr>
<td>Frequently asked questions</td>
<td>43</td>
</tr>
</tbody>
</table>
Introduction

This report highlights a selection of leading and innovative recycling and composting schemes in England and Wales. They operate in very different environments, from urban areas to isolated rural communities, and collect a variety of different materials. Specific methods and techniques have been developed to fit local areas, showing that recycling and composting can work almost anywhere, and can bring enormous social and community benefits as well as environmental improvements.

European legislation and Government targets mean recycling in England and Wales is set to increase rapidly: the Government’s Waste Strategy 2000 sets a national target to recycle and compost 30% of our waste by 2010, and 33% by 2015. These examples provide inspiration and show that such an increase is clearly achievable.

Friends of the Earth believes that we should be aiming well beyond the Government targets, and that we can meet our European requirements for landfill diversion through recycling and composting alone, without the need for new incineration or landfill capacity. We advocate a target of 50% recycling and composting by 2010, and higher targets beyond this, indicating there is not a ceiling on recycling possibilities. The potential for recycling and composting everyday materials in the household waste stream is huge: research shows that currently at least 80 per cent can be recycled or composted, and countries and communities around the world are already achieving rates of 60-80%. In the long term, Government should work with industry to design all products for ease of recycling or composting, and ultimately we should aim towards zero residual waste.

England and Wales are missing out on the benefits of a recycling industry enjoyed by many other countries, and we still have a pitifully low recycling rate of just 9 per cent, among the worst in the international recycling league. Switzerland already recycles 52 per cent of its household waste, and the Netherlands around 60 per cent. However there are pockets of excellent practice around England and Wales, where recycling and composting are a way of life for those participating.

The pro-active communities and local authorities in this report prove that we can match international achievements, which have long demonstrated that the majority of household waste can be managed through recycling and composting. Impressive advancements have been made over the last few years, and the potential for future improvement is clear.

Friends of the Earth wants every household to be provided with an effective collection for all recyclable household waste. There is still a long way to go, but these examples prove it is possible. They are the start of a cultural change that will affect the whole country, and make recycling and composting an everyday activity for us all.
The Mersea Island Trial

- **Local Authority:** Colchester Borough Council
- **Area profile:** Mersea Island, Langenhoe, Fingeringhoe, Salcott, Peldon and Abberton – all in Essex
- **Population:** 10,000 (4,500 households)
- **Waste management contract:** Colchester Borough Council Direct Services Organisation (DSO)
- **Recycling subcontractor:** Colchester DSO
- **Recycling Rate:** 57%

“We really enjoy picking up the recyclable stuff. It’s so much cleaner and safer.” Collection operator.

“93 percent of residents report that less waste is going into their refuse sack.” Envisos-Aspinwall Report.

Reason for the trial

In April 1999 Essex County, Borough and District Councils jointly signed up to a commitment to recycle and compost 60% of their household waste by 2007. This high recycling strategy is being tested in the Mersea Island trial that began in June 2000.

Mersea Island was chosen for the trial because of the fact that it already had well established recycling schemes in operation, with high public participation and recycling rates of 28.5%.

In the first three months of the trial a recycling rate of 57% was attained, showing clearly that the 60% county target is achievable.

**Keys to success:**

- Collecting recyclables on the same day as the refuse collections reduces confusion and therefore there are fewer contamination problems.
- Including a wide range of materials to be collected.
- Intensive and targeted publicity campaign.
- Dedicated Recycling Officer for the trial.
- Before the trial high recycling rates were already being achieved on the island, using less intensive methods of collection.
- More than three quarters of organic waste, cans and glass bottles are collected for composting or recycling. The weight of cans and glass collected is almost at the physical maximum of that available in the waste stream.

Collection methods

Before the trial there were two separate fortnightly collections. One of mixed paper, card and textiles, the other of glass (three colours) and mixed cans. These were collected from outside people’s houses on specified days and sorted from the boxes into purpose-built vehicles. During the trial these collections were increased to a weekly service, to which have been added an additional weekly plastic bottle collection, and a weekly kerbside collection of green waste. Furthermore, the kerbside box scheme for glass and cans also now accepts aluminium foil. White goods continue to be collected for recycling on request. There are still bring banks (centralised facilities for all members of the community) to support opportunistic recycling.

In addition, a new permanent Civic Amenity and Recycling Centre opened in June on Mersea Island. Residents can take bulky household items and residual waste to this site, as well as a full range of materials for recycling such as car batteries, engine oil, cardboard, cans, glass, white goods, scrap metal, timber, plastic bottles, textiles, hardcore, soil and green garden waste.

According to a report by consultants Enviros-Aspinwall the quantities of household waste arisings on the Island has increased from 1032 kilograms to 1268 kilograms. This is because people are taking rubbish to the Recycling Centre instead of to the established Civic Amenity site on the mainland, and because reporting procedures are better. Already 59 per cent of all the waste delivered to the household waste site is being diverted from landfill.
The Mersea Island Trial

Summary of the project

- Increasing collections of recyclable waste to a weekly service.
- Adding a weekly plastic bottle collection, and a weekly house to house collection of green waste.
- White goods continue to be collected for recycling on request.
- A new six-days-a-week permanent Civic Amenity and Recycling Centre was opened in June on Mersea Island.
- Free home composters were taken up by 41% of households and 82% of these households are using them.

Participation Rates

The consultant’s report shows that 82 per cent of households in the trial area were putting their boxes out for collection each week. As some people may not fill their boxes weekly but still recycle their rubbish, the level of participation over the course of a month is likely to exceed 90 per cent.

It was estimated that home composting was practised by 10 per cent of households in the area before the trial started. Since then 1,832 home composting units have been taken-up by residents, of which 82 per cent are being actively used.

98 per cent of people thought the trial was a good idea and should continue.

Waste Compositional analysis

<table>
<thead>
<tr>
<th>Material</th>
<th>Proportion of domestic waste stream</th>
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<tbody>
<tr>
<td>Putrescibles</td>
<td>38%</td>
</tr>
<tr>
<td>Paper and card</td>
<td>21%</td>
</tr>
<tr>
<td>Glass</td>
<td>10%</td>
</tr>
<tr>
<td>Plastics</td>
<td>5%</td>
</tr>
<tr>
<td>Cans</td>
<td>2%</td>
</tr>
<tr>
<td>Textiles</td>
<td>2%</td>
</tr>
<tr>
<td>Residue</td>
<td>18%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4%</td>
</tr>
</tbody>
</table>

A waste composition analysis was conducted by Network Recycling Ltd on behalf of the council. Work was undertaken to find out what fraction of the overall waste stream is available for recycling. The study shows that approximately 70 per cent of available household waste is in fact recyclable or compostable.

Educational activities underway

A vital component of making any recycling scheme a success, whether it is a trial or a full-scale permanent operation, is publicity and community outreach. This serves a number of purposes.

Firstly it encourages greater rates of participation so that more households contribute to the recycling scheme.

Secondly, it disseminates information concerning the types of materials required, thereby maximising quantities of recyclables set-out and minimising contamination.

Thirdly it asks for advice and provides feedback to the community, so giving them more ownership of the scheme, and maintains recycling momentum by presenting results of the good work being done.

A great deal of promotional work has been carried out by Colchester Borough Council and Essex County Council. The era logo (Essex Recycling in Action) was used to brand all promotional and publicity material in the trial area and the new Civic Amenity and Recycling Centre.

A lot of work has been done with schools. The Essex Waste Buster educational vehicle made initial visits to all schools in the trial area, and follow-up workshops were arranged in partnership with Schools Waste Action Club and Colchester Borough Council.

Other initiatives include

- Newspaper articles written at the commencement of the trial for the Mersea Courier and parish newsletters, and ongoing publicity articles for the Mersea Courier to guide households through changes in collections.
- Household leafleting and mail drops to trial area clubs and societies to encourage group recycling.
- Information and advertising posters placed in prominent public places (Post Offices, shops, libraries, parish notice-boards).
- Operation of an information stand at the August Alternative Energy Show.
- Listening sessions organised at Mersea Library.
The Mersea Island Trial

- Follow-up school workshops by the ECC Waste Education Officer, Colchester Borough Council and Schools Waste Action Club.
- Surveys to gauge public opinion. These were conducted via postal and telephone questionnaires to uncover problems with the operation of the system and take public suggestions as to how the collections could be improved.

**Future initiatives include**

- Attendance at community events and further library listening sessions, supplemented with evening workshops at local schools.
- Material and season-specific targeted campaigns.
- Production of a regular community newsletter to be delivered to all households in the trial area giving information on the recycling of different materials, composting articles, good separation techniques to avoid contamination, tips on waste reduction, recycling pathways for collected materials, trial progress updates, etc.
- Encouraging more home composting.

**What is the potential for expansion of recycling in the area?**

It is likely that a recycling rate of 65 per cent to 70 per cent will be achieved as traditionally lower capture rate materials such as cardboard, plastics & textiles are targeted. This is a four-year trial and future initiatives include starting collections of mixed recyclables to try and reduce the number of vehicles involved and thereby reduce costs.

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**Wealden’s Crown Scheme**

- **Local Authority:** Wealdon District Council
- **Area profile:** Rural
- **Area:** 83,635 hectares
- **Population:** 139,900 - half the population live within the Districts’ five main towns: Crowborough, Hailsham, Heathfield, Polegate and Uckfield. Outside the towns the area is predominantly rural.
- **Waste management contract:** Wealden District Council Direct Services Organisation (DSO)
- **Recycling subcontractor:** Wealden District Council DSO
- **Recycling rate:** (1999/2000): 53% in CROWN areas

**The CROWN Scheme**

The segregated waste collection initiative that the Council calls its CROWN service (Composting and Recycling Our Waste Now) was piloted in 1,000 properties for 12 months and demonstrated recovery levels of 48 per cent. CROWN is no longer a pilot - since October 1999 the service has been expanded on a phased basis of 5,000 households every six months. It is running across 12,000 households at present, and two-thirds of the district (34,000 urban households) will be served by 2003.

**Summary of Projects**

**On-Farm Composting**

A partnership between the council, KPS Composting Services and local farmers sees green waste delivered to farms for processing and use on-site. A private contractor (KPS Composting Services) provides a mobile service to shred and compost the material in open-windrows that are turned regularly. After 12 weeks the compost is screened to remove any plastic and pieces of wood. It is then ready to be used by the farmer as a soil conditioner.

Two farms are taking part in the scheme and all compost produced has to be used on-site as part of a planning condition. It is anticipated that certain sites will soon be granted planning permission to operate as waste disposal sites. This will mean that materials from a wider range of sources will be accepted and the finished compost could be sold. One of the farms included in the scheme has organic Soil Association accreditation and is successfully using this end-product. Because it is a small-scale activity it is exempt from requiring a licence from the Environment Agency. Wealden aims to establish a network of farms, enabling garden waste to be handled in the locality.

**East Sussex Recycling Consortium**

Wealden District Council is part of the East Sussex Recycling Consortium. This is an initiative between the local authorities in East Sussex to maximise recycling. The consortium pools resources and organises joint collection contracts to reduce costs and maximise profits.

**Real Nappy Campaign**

Wealden supports the Real Nappy Campaign, which promotes modern washable nappies as well as two local nappy laundry services. Crowborough Birthing Unit has an on-ward policy to promote cotton nappies and a laundry service is provided which is free to post-natal mothers.

**Background**

Disappointed with its recycling rates the council reviewed its approach and set the following objectives:

- to provide a more integrated waste collection service
- to maximise the use of existing resources to achieve a net reduction in costs
Wealden’s Crown Scheme

- to encourage greater awareness and ‘ownership’ of waste issues, through extensive publicity and consultation with all stakeholders
- to significantly increase recovery levels in accordance with national targets, the local authority’s draft local waste plan and the EU landfill directive
- to develop a partnership approach to service delivery
- to minimise the distances for transporting waste.

The CROWN service was devised to meet these objectives. In particular, it aimed to address the biodegradable element of the household waste stream, which could account for as much as 30 per cent according to waste analysis results.

Participation Rates

CROWN has been set-up to restrict the capacity of the refuse bin and this ensures high participation rates in the scheme. Over 90 per cent of people living in CROWN areas are taking part, and 81 per cent find it easy to separate out their waste.

One resident said “We were a little bit dubious, we weren’t quite sure what was going in where, but as its gone on we’ve found its quite simple.” Another said “It is no problem whatsoever, it is very easy, straightforward and takes no time.

CROWN has resulted in a major change in the way people think about and manage their waste - 89 per cent of residents thought the CROWN service had made them more aware of the amount of waste they throw away. Just over half (52 per cent) had not recycled before the CROWN scheme was in place. Comparisons of pre- and post-CROWN tonnages, combined with waste analysis results, demonstrate a 15 per cent reduction in total waste arisings.

Collection Methods

An alternate weekly collection consisting of a wheeled bin for green waste (garden and uncooked organic kitchen waste) and cardboard. A kerbside box for mixed paper, cans and foil and a wheeled bin for residual refuse.

The kerbside box and green waste bin are emptied one week and the residual refuse bin is emptied the next using the same vehicle and crew. The service requires minimal additional resources over and above the standard refuse/kerbside service, because the collection is undertaken using the separate split-compartment vehicle used on existing kerbside rounds.

There are approximately 70 Bring Sites in the District which have containers for collecting glass.

Materials Collected and Destination

All recyclable materials are delivered to the Materials Reclamation Facility (MRF) in Uckfield. The glass collection vehicles have two compartments, so two colours of glass can be collected at the same time. At the MRF the materials are sorted, contaminants are removed, and they are bulked up prior to being transported.

Income

Wealden receives market price for all materials except green waste and textiles. Textiles are given to the Salvation Army.

Income from recycling credits is received on all materials.

Keys to success

- CROWN’s partnership with the waste disposal authority (WDA) is vital. The WDA provides material from household waste sites to ensure the correct mix of material for composting purposes.
- Kent and service for composting the material to Soil Association standards. Whilst it has been developed ‘on-farm’, the system could be replicated for parks and allotments.
- The alternate weekly collection pattern of CROWN means that many residents find they need to maximise participation in the scheme, in order to manage the quantity of waste in their residual refuse bin over the two week period.
- Extensive ongoing promotion/education programme across all sectors of the community.
- Collections are carefully monitored throughout the first six weeks to ensure that residents are aware of the requirements of the scheme. This is done on an individual basis with specific advice offered to those experiencing any difficulties.
- Communication and consultation with residents is ongoing. Customer satisfaction surveys are used to gain feedback and to help refine the service.
- Regular updates are provided and information gained is used to improve the scheme. For example, the decision to include cardboard within the green waste bin was in response to concerns about the amount of space that this particular material occupied in the residual refuse bin.
- East Sussex Recycling Consortium maximises resources by organising joint collection contracts.
Wealden’s Crown Scheme

<table>
<thead>
<tr>
<th>Material collected</th>
<th>Destination</th>
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<tbody>
<tr>
<td>Paper</td>
<td>Aylesford Newsprint, Kent</td>
</tr>
<tr>
<td>Steel cans</td>
<td>South Wales to be de-tinned and then used by Corus for a variety of new steel goods, for example scissors, paper clips, mountain bikes and refrigerators.</td>
</tr>
<tr>
<td>Aluminium cans</td>
<td>Alcan, Warrington, Cheshire, where they are recycled into new aluminium drinks cans</td>
</tr>
<tr>
<td>Aluminium foil</td>
<td>Local scrap dealer sells the foil to be recycled into cylinder casings for car engines.</td>
</tr>
<tr>
<td>Glass</td>
<td>British Glass Recycling Company (BGRC)</td>
</tr>
<tr>
<td>Green waste</td>
<td>Taken to local farms for composting</td>
</tr>
<tr>
<td>Textiles</td>
<td>The Salvation Army takes textiles to Northampton where they are sorted, and wearable clothing is donated to those in need. The remainder is sold in Africa and Eastern Europe. Other textiles are recycled into a wide range of products including bank notes, mattress filling and cloths.</td>
</tr>
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Educational and Promotional Activities

- The CROWN service requires extensive and ongoing promotion, publicity and monitoring in order to achieve maximum participation and compliance levels. This is why the scheme is being introduced on a phased basis.
- A range of promotional methods are used including leaflets, public meetings, collection calendars, information packs, workshops, presentations and local media coverage. The council also commissioned a short video, ‘Honey, I Shrunk the Rubbish’, to demonstrate why the scheme is being introduced and how it operates. It aims to maximise participation and compliance levels. It has proved to be useful for public meetings and presentations to school and community groups.
- A purpose-built classroom at the MRF is used for educating children about recycling.
- A Council A-Z recycling directory promotes small-scale initiatives with local community groups.

Markets

Alison Redman, Senior Waste Management Officer at Wealden District Council, said “We’ve overcome market barriers through focusing on local farm outlets for green waste, and agreeing CROWN tonnage allocations with Aylesford Newsprint in advance.”

Future Targets

Although a 53 per cent diversion rate is being achieved within the CROWN area, the district-wide rate is only nine per cent. During the next few years the scheme is being introduced to cover two-thirds of the district. It is anticipated that this will result in an overall recovery rate of 32.4 per cent by 2002/3.

The service is being continuously reviewed to identify any opportunities for improvement. The council is investigating the potential for selling some of the composted material at local outlets and consideration is being given to collecting plastic milk bottles as part of the kerbside service.

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Sutton

• Local authority: London Borough of Sutton
• Area profile: Southern London suburb
• Area: 4,342 Hectares
• Population: 176,487
• Waste management contract: Sutton Council Direct Services Organisation (DSO)
• Recycling subcontractor: Sutton Council DSO
• Recycling Rate: (1999/2000): 44%

A report by Aylesford Newsprint, the paper mill that receives Sutton’s collected paper, indicates that 70% of the public would recycle more if a charity was involved.

**Key to success**

“Everybody is working to the same agenda.”
*Penny Spirling, Sutton Recycling Officer.*

Having had a system in place for a number of years the public are familiar with recycling. The introduction of the alternate weekly collections on a trial basis showed that the system could work. This was rolled out to the entire borough, which massively increased the recycling rate.

**Financial Savings**

Two years ago a Sutton Council study revealed that the average income from the sale of collected materials was £28 per tonne. This figure has risen since then as the price of waste plastic has increased. In addition the markets for materials has become more stable which aids the council in the planning of future activities.

**Collection Methods**

• All householders in the borough are given one 140 litre brown wheeled bin for non-recyclable waste and one 140 litre green wheeled bin for recyclable waste. These are collected from outside peoples’ houses by the Council on an alternate weekly basis: brown one week, green the next.

• The system was set up as a trial in 1997 and extended to all residents during 1999.

• Householders can request larger 240 litre containers.

• Green waste from peoples’ gardens is collected during the summer months.

• Home composting bins were offered free of charge as part of the scheme to introduce of wheeled bins.

• A Waste and Recycling Centre is open to the public seven days a week. The centre is free to Borough residents, whereas non-residents and commercial users are charged. Residents must show Council Tax documentation in order to have a free service and always report to the weighbridge.

**Material Collected**

<table>
<thead>
<tr>
<th>Material</th>
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<tbody>
<tr>
<td>Paper</td>
<td>Aylesford Newsprint, Kent</td>
</tr>
<tr>
<td>Cardboard and mixed paper</td>
<td>Severnside Waste Paper, local depot</td>
</tr>
<tr>
<td>Glass</td>
<td>British Glass, Harlow and others</td>
</tr>
<tr>
<td>Aluminium cans</td>
<td>Firbanks, Bedfordshire</td>
</tr>
<tr>
<td>Steel cans</td>
<td>AMG, North Wales</td>
</tr>
<tr>
<td>Plastic bottles</td>
<td>Recoup, Peterborough</td>
</tr>
<tr>
<td>Textiles</td>
<td>L M Barry, East London</td>
</tr>
</tbody>
</table>
The Adopt-a-Bank scheme

This scheme encourages community involvement in the Council’s recycling programme. Community groups such as schools, residents associations, hospitals and voluntary organisations are invited to 'adopt' bring sites (these are facilities to which the public can take their recyclable materials). Participating groups agree to look after a site, clearing up broken glass, keeping the surrounding areas tidy and litter-free, and informing the council of any more serious problems or repair work which may be needed.

• In 1989 there were just 32 public neighbourhood recycling sites. There are now 186 recycling centres and 140 Community Groups registered with the Adopt-a-Bank scheme.

• In return for looking after the bring-banks the groups are paid £6.50 per tonne for the paper and glass which is collected.

• The Council hope that the Adopt-a-Bank groups promote their recycling centres to their own members, friends and neighbours therefore maximising the use of the recycling facilities.

• The scheme brings money from recycling back into the community, involving them in the financial benefits as well as giving them the opportunity to be part of environmental solutions.

Participation rates

There are levels of participation approaching 99 per cent. In some of the more economically disadvantaged areas there is a problem with contamination of the green box materials where residents are including non-recyclable materials. This can be overcome by education.

Promotional activities

There are school presentations underway throughout the borough, with competitions to increase interest. Recycling entertainers have visited schools.

The council holds regular visitor events at the Sutton Materials Recycling Facility, where people are invited to see what happens to the goods collected by the council Dual Wheeled Bin Recycling Scheme.

Future recycling targets

Sutton is on target to achieve a recycling rate of 50 per cent for 2000/2001 and has set an ambitious target of 80 per cent by 2005.

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Daventry

- **Local Authority:** Daventry District Council, Northamptonshire
- **Area profile:** Mainly rural
- **Area:** 66,601 Hectares
- **Population:** 69,000 (29,500 households)
- **Waste management contract:** Daventry District Council Direct Services Organisation (DSO)
- **Recycling subcontractor:** Daventry DSO
- **Recycling Rate:** (1999/2000): 36%

“Daventry District Council has certainly set the standard for other local authorities to follow.” Simon Chapman, Regional Chairman of Going for Green.

Results from a waste analysis commissioned by Daventry District Council show that their system of waste collection and processing has the potential to divert 70 per cent of domestic waste away from landfill.

**Keys to success**

There is a fully interlinked service in the district comprising a weekly kerbside collection of dry recyclables, a fortnightly collection of organic kitchen and garden waste and cardboard for composting, and a fortnightly collection of residual waste for landfilling. The local authority has worked hard to overcome the public apathy towards waste recycling through a variety of communication and education schemes. A telephone help line and home visits are available for those residents experiencing problems with the change to the collection service.

Prior to the introduction of the brown bins any compostable waste put out for collection by residents went to landfill. Now that this material is collected separately it can be diverted from landfill.

**Collection Methods**

- A red and blue box scheme was introduced in 1995. These colour-coded boxes take different types of material. Blue boxes are for food and drink cans, glass bottles and jars, aerosols and plastic bottles; red boxes are for newspapers, magazines, pamphlets, periodicals and textiles. Residents put these containers outside their houses for collection by the council DSO each week. These materials are taken to the Daventry DSO Materials Reclamation Facility (MRF) where they are sorted and bulked ready for transport to the reprocessors.

- From August 1998 to September 1999 the council phased in a system whereby brown bins are used for organic waste and grey bins for all other non-recyclable waste. These bins are collected on an alternate weekly basis: brown one week, grey the next.

- An aluminium buy-back scheme operates at the MRF from Monday to Friday, where the authority will purchase by the kilogram aluminium cans that have been collected by local groups and charities.

**Other Initiatives**

**Home composting**

Since 1997 the home composting campaign has issued over 2000 home composting units at a subsidised rate.

**Christmas tree recycling**

Parish councils are requested to arrange a site where the public can leave their unwanted trees after Christmas. They are collected and mixed in with the organic waste for composting. After Daventry District Council won the Going for Green Christmas tree recycling award in January 2000, Simon Chapman, the regional chairman said “Daventry District Council has certainly set the standard for other local authorities to follow.”
Public participation
Between 80 and 90 per cent of all properties are registered as having the brown bin and the red and blue boxes.

Materials collected
The following materials are collected in the red and blue boxes:

Newspapers, periodicals, magazines, pamphlets, textiles (including shoes, handbags, belts, curtains, duvet covers, and pillow cases), plastic bottles, food cans, glass bottles and jars, aluminium cans, steel cans, and aerosols. These materials are taken to the MRF for sorting prior to sale to reprocessors.

All of these reprocessors are based in the UK and there are agreements with each of them for ongoing sales based on the continuation of consistently well sorted materials. At present the council is finding that the incomes generated are stable.

Garden and kitchen waste is composted at a local site operated by a private firm, RNC, where 8000 tonnes has been processed in the year to March 2001. This composting on a large scale allows greater control of the conditions so that the materials can decompose faster. The resulting compost is used mainly for re-vegetation purposes, although thirty skip-loads have been distributed to the public during a free one-off promotion.

In addition to the income from the sale of materials, Daventry Council receives recycling credits from Northamptonshire County Council for reducing the costs of landfill paid for by the county.

Educational activities
- An exhibition caravan was used across the district prior to the introduction of the green waste collection in an attempt to spread the word to the rural residents.
- Talks are given to schools, youth organisations, clubs, societies, parish councils and Women’s Institutes. These include visits by ‘Cycler’ the rapping robot courtesy of Waste Watch.
- The MRF has an education room where schools, students, councillors and any interested members of the public can come and see interpretative displays and activities and enjoy a tour to see what happens to the recyclables once they leave the red and blue boxes.
- The council has produced a CD-ROM, which includes information about waste management, recycling, composting and related issues in the district. This is available to interested parties on request.
- As part of the council magazine, ‘Daventry Calling’, the waste management team have a dedicated section called ‘It’s Not Only Rubbish’ to help remind residents of how and why they should recycle. This is issued to every household six times per year.

What is the potential for expansion of recycling in the area?
The target for recycling in Daventry is 46 per cent for 2000/2001. The recycling rate is closely monitored and is presently running at 49.5 per cent up to the end of December 2000. This may fall off slightly due to seasonal trends but it is anticipated that the target will be met.

During the next phase of the project the Council are planning to concentrate their efforts on establishing the schemes and maintaining high levels of public interest, so as to stabilise the recycling rate following the success of the first year.

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**Bournemouth Borough Council**

- **Local Authority**: Bournemouth Borough Council
- **Area**: Situated in Dorset, Bournemouth is a leading seaside holiday town.
- **Population**: 162,500. Total no. households 75,596.
- **Waste management contract**: DSO
- **Recycling subcontractor**: Various private companies, including Perry’s Recycling, Severnside, Weymouth and Sherborne Recycling
- **Recycling Rate**: (1999/2000): 31%

"Most of our recycling has been achieved through private sector partnerships, and there are definite opportunities for closer involvement with local community groups and the voluntary sector." Roy Osborough, Cleansing and Waste Development Officer, Bournemouth Borough Council.

**Keys to success**

A three strand recycling strategy, managed in partnership with private sector companies, has resulted in Bournemouth Borough Council attaining a recycling rate of above 30 per cent for the past three years. Throughout the borough, there are 54 bring sites that are serviced by commercial contractors. Another private company, Perry’s Recycling, is contracted to provide a kerbside recycling scheme. A very effective civic amenity recycling site collects the ‘lion’s share’ of the town’s recycling tonnages, and this is managed by commercial company Weymouth and Sherborne Recycling.

The Borough Council has persuaded private companies to enter into long term contracts at favourable rates. These long term contracts lessen the cost of recycling for the council, and provide private companies with a stable income. This is important as the UK’s volatile market prices means that a stable income from sale of materials alone is not possible.

**Collection methods**

- Weekly multi-material kerbside collections in Bournemouth, operated by Perry’s Recycling. Newspaper, magazines, crushed mixed cans and textiles are collected from domestic properties in heavy duty, returnable blue plastic bags of 60-litre capacity.
- The collections take place on the same day as the normal refuse service for a particular area and bags are picked up, emptied and returned to the wheelie bin pick-up point at the kerbside. Approximately 57,000 collections per week are carried out in this way.
- Multi-occupancy properties have a different collection mechanism involving the use of 80-litre plastic refuse bins in place of blue bags.
- 54 bring sites are situated across the borough, often taking the form of mini recycling centres in supermarkets. Bournemouth Borough Council pays recycling credits to private contractors that service the centres. Paper is collected by Perry’s Recycling, Glass by Weymouth and Sherborne Recycling, cardboard by Severnside and Oil by A B Oil.
- A well used civic amenity recycling site, managed by Weymouth and Sherborne Recycling. The public brings bulky household and garden waste to the site, where it is sorted into bays. Cardboard, green waste, construction waste, glass, plastics and oil are all disposed of. The commercial contractor is paid a flat management fee, and is responsible for paying any residual waste that goes to landfill. It is therefore in the company’s interest to recycle and sell as much material as possible. The company also manage a further nine sites across the UK.
- A local furniture recycling charity, Reclaim, also recycles bulky household waste.

(A recent clamp down on the amount of commercial construction waste being dumped at the site has resulted in a drop in this year’s overall recycling rate.)
**Participation rates**
The percentage of households participating in the kerbside scheme currently stands at 75%. On an average weekend the civic amenity recycling site receives collections from 7,000 cars.

**Future Plans**
- A Green waste kerbside collection may be introduced, and would increase the borough recycling rate to over 50 per cent.
- The council is investigating the feasibility of a scrap store and a paint store in conjunction with a local charity and the local community.

**Contact**
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Email: roy.osborough@bournemouth.gov.uk
Website: www.bournemouth.gov.uk

<table>
<thead>
<tr>
<th>Material Collected</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>Taken to a local MRF for bulking and transportation to Cheshire.</td>
</tr>
<tr>
<td>Plastics</td>
<td>See above</td>
</tr>
<tr>
<td>Paper</td>
<td>Bulked at local warehouse and transported to a contractor's premises out of county for transport to a reprocessor.</td>
</tr>
<tr>
<td>Garden waste</td>
<td>Bulked at CA site and taken to a local composting plant.</td>
</tr>
<tr>
<td>Brick rubble</td>
<td>Bulked at CA site and taken to a local concrete recycling plant.</td>
</tr>
</tbody>
</table>
Bath & North East Somerset

- **Local Authority:** Bath and North East Somerset
  Unitary Authority
- **Area profile:** Urban and rural
- **Area:** 35,112 Hectares
- **Population:** 167,000 (72,000 households)
- **Waste management contract:** Refuse collection and street cleansing contracts undertaken by the council Direct Services Organisation. Transfer stations and Household Waste & Recycling Centres are operated in-house. Disposal contracts with landfill operators currently being re-tendered.
- **Recycling subcontractor:** Bath & NE Somerset Community Recycling
- **Recycling Rate:** (1999/2000) 27.1% (includes home composting)

**Key to success**

"Working in partnership with the community sector gives our recycling service an added environmental credibility that a purely Council run service may lack."

*Esther Williams*

The current system has been developed through a series of pilots, which tested different collection systems to see which generates the greatest quantities of recyclable material. The public was consulted to find the most popular method of collection. This has led to incremental changes, with the most acceptable system for all parties being further developed.

**Collection Methods**

- Weekly kerbside collections of green recycling boxes. Householders are given the boxes and requested to put their recyclables in them, placing them outside their houses for collection each week. Paper, plastic bottles, glass bottles and jars, steel and aluminium cans and foil are all collected in the boxes. People can also put car batteries and waste engine oil out for collection alongside their green boxes.

- The scheme is a not for profit partnership between Bath & NE Somerset Community Recycling and the council, and covers 90 per cent of the district, the remaining 10 per cent receiving monthly collections (these will all be on weekly collections by the end of March 2001). Materials are collected from the kerbside boxes by lorries, vans and a horse drawn vehicle and taken to a local depot for bulk storage and further sorting where necessary.

- Mini-recycling centres are used for flats. Wheeled bins are attached to a purpose-built frame outside residences where the kerbside box collections are impractical. These are serviced by Bath & NE Somerset Community Recycling using a specially adapted 7.5 tonne vehicle.

- A trial garden waste collection service began in September 1999. A successful partnership was developed between the local authority and commercial composters Hinton Organics. Paper bags are sold to householders for £1.25 each, to be filled with domestic garden refuse and left for collection on the standard waste collection days. A project is being established to review and improve upon the service.

- Three Household Waste and Recycling Centres. These are facilities open to the public where they can take their unwanted materials and bulky items. There are different containers for different materials so that they can be easily recycled. Avon Friends of the Earth staff are present at these centres during peak periods (weekends and holidays) to assist members of the public in separating their recyclables, and to give information and advice.
Participation rates
An extensive study set up by the Council in 1998 showed that participation rates over a four week period were 68 per cent, with the weekly rate at 40 per cent. The equivalent figures for 1999 were 76 per cent and 47 per cent. In 1999 the average weight collected per participating household per week was 4.2kg.

Costs
During 1998/1999 the cost of refuse collection was £36 per tonne (£21 per household), while the cost of recycling (including savings in waste disposal) worked out at £27 per tonne (£5 per household).

During 1999/2000, the council had a budget of £587,500 for recycling, which was taken out of a total waste management budget of £3,330,490.

Educational activities
The Rethink Rubbish Waste Action Campaign promotes the reduce, re-use and recycle message and co-ordinates local waste action in the district. A Schools Waste Challenge took place in 1999 involving 24 schools taking a look at their waste and thinking of ways to reduce, re-use and recycle. Awards and prizes were given out, and promotional materials handed to children to take home. This work is to be followed in 2000 by the GreenAbility Project, where schools are encouraged to work towards Eco-Schools status (awarded if they achieve certain environmental standards).

Summary of projects:

- **The Rethink Rubbish Campaign.** This is a promotional campaign with the aim of educating the public about the problems associated with waste, and the need to reduce, re-use and recycle waste.

- **Community Waste Action.** A Waste action campaign in the district that promotes the reduce, re-use and recycle message and co-ordinates local waste action. A Community Waste Action worker from Bristol’s Recycling Consortium is based permanently at envolve (an environmental information resource centre) in Bath.

- **Home Composting.** A council-run campaign promotes home composting by providing subsidised compost bins and giving advice.

- **Compost Sales Project.** Green waste collected from CA sites and kerbside collections is composted locally by Hinton Organics. Since the project began in September 1999, 10,000 paper sacks have been sold to the public. When the material (including the sacks) has been composted it is sold back to the public at £3.50 per bag. So far approximately 1500 bags have been sold. A further 1000 bags have been sold at special ‘fill your own’ composting events.

- **Junk Swaps.** Special public events to pass on unwanted items to other people rather than throw them away.

<table>
<thead>
<tr>
<th>Material collected</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Aylesford Newsprint, Kent</td>
</tr>
<tr>
<td>Glass (colour separated at source)</td>
<td>British Glass, Yorkshire</td>
</tr>
<tr>
<td>Aluminium cans</td>
<td>Alcan, Warrington</td>
</tr>
<tr>
<td>Steel cans</td>
<td>Corus, Newport (for de-tinning)</td>
</tr>
<tr>
<td>Plastic bottles (6500 properties only)</td>
<td>Stratford upon Avon and St.Helens. Recoup act as marketing agents.</td>
</tr>
<tr>
<td>Green waste</td>
<td>Hinton Organics, Somerset</td>
</tr>
<tr>
<td>Car batteries</td>
<td>Britannia, Essex</td>
</tr>
<tr>
<td>Waste engine Oil</td>
<td>OSS, Wales</td>
</tr>
<tr>
<td>Aluminium Foil</td>
<td>Alcan, Warrington</td>
</tr>
<tr>
<td>Waste paint</td>
<td>Used by local not-for-profit groups</td>
</tr>
</tbody>
</table>
What is the potential for expansion of recycling in the area?

Bath and North East Somerset Council has set minimum recycling targets of 30 per cent by 2000/01 and 35 per cent by 2002/03. There is a non-time specific target recycling rate of 50 per cent, and the authority’s revised Waste Strategy is due to be published in mid 2001. This will set out ways in which this target is to be achieved.

There is a strong focus on waste minimisation at source through the Rethink Rubbish and home composting campaigns. Public participation and council budgets limit the quantities that could currently be recycled. By the end of March 2001, however, every household in the district will be included in the weekly multi-material kerbside collection scheme. There are plans to extend the collection of plastics throughout the district, and to start collecting kitchen wastes and cardboard, which are dependent upon achieving external funding.

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Website: www.bathnes.gov.uk
**Poole**

- **Local authority:** Poole Borough Council (Unitary), Dorset
- **Area profile:** Urban and suburban
- **Area:** 6,475 hectares
- **Population:** 141,221
- **Waste management contract:** In-house Refuse and Cleansing Section
- **Recycling subcontractor:** In-house Refuse and Cleansing Section
- **Recycling rate:** (1990/2000) 26%

### Collection methods

- The Kerbside Recycling Scheme was set up as a pilot in 1996 and now covers 41,500 households (there are a total of 61,000). The scheme is likely to be extended to all properties. The Borough of Poole provides a black box in which residents place newspaper and magazines, cans (steel and aluminium) and plastic bottles. The boxes are collected every fortnight.
- Poole has 72 bring sites where glass, mixed cans, newspaper, magazines, textiles, shoes, books, plastics, aluminium foil can all be recycled. During 1999/2000 1,361 tonnes of glass, 38 tonnes of cans, 1156 tonnes of newspaper and magazines, 79 tonnes of textiles and 91 tonnes of plastic were recycled through bring sites.
- Nuffield Civic Amenity Site aims to achieve a high level of recycling and reuse. It has a full range of recycling banks, and includes a facility for recycling car batteries and oil. Garden waste is separated for composting and the resulting Eco-mix compost and mulch can be purchased on site.
- Kerbside. Newspaper and magazines, cans (mixed) and plastics are collected and then taken to the Materials Recycling Facility (MRF) at Hurn were they are separated and baled.

### Material Collected

<table>
<thead>
<tr>
<th>Material Collected (Kerbside)</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper and magazines</td>
<td>Shotton, North Wales</td>
</tr>
<tr>
<td>Cans</td>
<td>Alcan, Uxbridge</td>
</tr>
<tr>
<td>Plastics</td>
<td>Reprise, St Helens, Merseyside</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material Collected (Bring Site)</th>
<th>Destination</th>
<th>Tonnes recycled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textiles, shoes and books</td>
<td>Oxfam</td>
<td>79</td>
</tr>
<tr>
<td>Waste engine oil</td>
<td>ORCOL</td>
<td></td>
</tr>
<tr>
<td>Cans (mixed)</td>
<td>Collected by Perrys taken to Corus, Wales</td>
<td>38</td>
</tr>
<tr>
<td>Glass</td>
<td>Knortingly, Yorkshire</td>
<td>1361</td>
</tr>
<tr>
<td>Newspaper and magazines</td>
<td>Collected by Perrys taken to Aylesford, Kent</td>
<td>1156</td>
</tr>
<tr>
<td>Plastics</td>
<td>Collected by SITA taken to Reprise, St Helens, Merseyside</td>
<td></td>
</tr>
<tr>
<td>Aluminium foil</td>
<td>Collected and bailed by Fourways/Lodge Hill day centres, taken to Tame Valley Alloys, Staffordshire.</td>
<td></td>
</tr>
<tr>
<td>Garden waste</td>
<td>ECO composting, Hurn</td>
<td>8,886</td>
</tr>
</tbody>
</table>
Other Initiatives

### Aluminium Foil Recycling Scheme
The Borough of Poole, Bournemouth Borough Council, East Dorset District Council and Purbeck District Council are working in partnership with the Aluminium Packaging Recycling Organisation (Alupro), Lodge Hill and Fourways Day Centres to recycle aluminium foil. There are 29 banks where aluminium foil can be taken, it is then collected and taken to Fourways Day Centre where it is sorted, baled and then sold. Any money raised through the sale of the foil is used to fund the scheme; additional money is put into an amenity fund for the day centres. In the future workers will receive therapeutic earnings for their labour. The Aluminium Foil Recycling Scheme is looking to obtain funding for a full-time position so that one person is responsible for the running and development of the scheme. At present the work is split between several people. The scheme hopes to obtain larger premises as it is only scratching the surface of foil collection in the area.

### The Green Exchange
Poole Council has set-up an advertising board for recyclable items to encourage re-use. The scheme works on the basis that while you may not want empty yoghurt cartons a playgroup might. People can advertise both ‘available’ and ‘wanted’ items on a noticeboard for free. There are nine noticeboards located within the Borough as well as an online version on the council’s web site.

### Christmas Tree Recycling
During January and February three sites are set up for the collection of Christmas trees. They are then chipped and used as mulch.

### Yellow Pages
During November and December when new editions come out, three sites are set up for the collection of old Yellow Pages. In the last two years, 20 tonnes of Yellow Pages have been collected and shredded to make cardboard.

### Compost and Waterbutt Sale
In May 1999 and 2000 the council held a one-day compost bin and waterbutt sale. They sold 1,400 composters and 3,000 waterbutts in 1999 and 819 composters and 423 waterbutts in 2000.

### Computer Recycling
In March 1999, Poole Energy Advice Centre launched a computer recycling scheme in partnership with Computers For Charity. Computers are refurbished and cleared of all data and sold on to voluntary groups, charities, disabled people and individuals that are in receipt of income-related benefits. Anyone purchasing a computer from the scheme will receive on-going support at the end of the phone.

### Charity

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**Poole**

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**Other Initiatives**

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### Charity

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**Keys to Success**
Louise Lowans, Poole recycling officer believes that high rates have been achieved because of: “the diversity of the recycling facilities that we offer, kerbside, bring sites CA site and the cooperation of the local residents which has been built up through awareness raising campaigns”.

### Income
Income is generated from the sale of glass and textiles.

### Education
- The council works in conjunction with Dorset Health Works - who have implemented a scheme for all schools in Dorset called ‘Health Promoting Schools’ which covers waste minimisation and recycling.
- Waste minimisation is promoted by the local newspaper.
- A waste minimisation awareness campaign called ‘Wastewatchers’ has been set up.

### Future
Poole is looking at expanding its kerbside collection to recover green waste and glass and hopes to recover 33 per cent of its waste by 2003.

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Dorset

- Local authority: Dorset County Council
- District Councils in County: Christchurch, East Dorset, North Dorset, Purbeck, West Dorset and Weymouth & Portland.
- Area profile: Mainly rural
- Area: 254,181 hectares
- Population: 381,900
- Waste management contract: SITA
- Recycling rate (1999/2000): 26%

Collection Methods

Kerbside collections
- Kerbside collections are undertaken by the individual District/Borough Councils as waste collection authorities (WCAs). Currently five of the six WCAs provide fortnightly kerbside 'green box' schemes to some domestic properties within their areas. Overall 47 per cent of households in the Dorset County Council (DCC) area are covered.
  - A recycled plastic box is provided by the WCA for the mixed collection of newspapers, magazines, cans and plastic bottles. The collected materials are taken to the automated sorting plant at Hurn.
  - A Materials Recycling Facility at Hurn, set up by SITA, sorts co-mingled materials into paper, three polymers of plastic bottles and aluminium and steel cans.

Bring sites
- A network of large recycling centres in urban areas have facilities for the collection of steel and aluminium cans, glass bottles and jars, newspapers and magazines, light cardboard, foil, textiles, and plastic bottles.
  - Smaller mini banks are located at pubs and rural locations. These take glass bottles and jars, newspapers and magazines, and steel and aluminium cans.
  - There are over 270 recycling sites within Dorset.

Civic Amenity Sites
- Dorset County Council provides 11 Bulky Household Waste Recycling Centres (or civic amenity sites) across its area. The centres are managed on behalf of the County Council by contractors who are encouraged through financial incentives (penalties and bonuses) to recover as much waste as they can for re-use, recycling and composting. The contractors are allowed to sell reclaimed materials on site.
  - In 1999/2000 the Bulky Household Waste Recycling Centres accepted some 65,000 tonnes of household waste. Of this, over 44,000 tonnes was recovered: 12,000 tonnes for re-use, 10,000 tonnes for recycling and 22,000 tonnes for composting.

Summary of Projects

Centralised Composting
The council segregates green waste at its civic amenity (CA) sites. This is taken to local composting facilities where it is processed to make soil improvers and mulches. Dorset County Council funds composting operations through a gate fee per tonne of waste diverted for composting. In 1999/2000 22,500 tonnes of green waste from its 11 CA sites was composted. The compost is sold back through the CA sites to 'close the loop' as well as through garden centres and direct from the producers: Eco Composting, Hurn and Weyport Services, Weymouth.

Home Composting
The Dorset Recycling Group has promoted home composting for several years. In 2000 it coordinated a series of one-day sales of home composters throughout Dorset, distributing nearly 6,000 units. Further activity is planned for 2001.

'Wake Up To Waste' Campaign
The Wake Up To Waste campaign aims to raise public awareness of waste issues in Dorset and promote waste reduction and recycling initiatives. The campaign is a partnership between Dorset County Council, the district/borough Councils and the local office of the Environment Agency. The campaign is part of the authorities' joint commitment to developing a joint waste management strategy.

Other schemes in the area
- Schools, scouts and other community groups collect paper
- Several charities collect textiles
- Three local furniture refurbishment schemes

Materials Recycled

Costs
Civic amenity site recycling saves landfill costs and the contract includes penalties/bonuses to encourage recycling.
Dorset County Council pays recycling credits to district/borough Councils and voluntary/charity groups. Dorset County Council pays the management fee for the Materials Recycling Facility.

Dorset County Council does not receive income from material sales or PRNs.

<table>
<thead>
<tr>
<th>Materials Collected (Bring Sites)</th>
<th>Tonnage 1999/2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>5,520</td>
</tr>
<tr>
<td>Cans</td>
<td>290</td>
</tr>
<tr>
<td>Paper</td>
<td>4,830</td>
</tr>
<tr>
<td>Textiles</td>
<td>210</td>
</tr>
<tr>
<td>Plastic</td>
<td>260</td>
</tr>
<tr>
<td>Total</td>
<td>11,110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collection Method</th>
<th>Tonnes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bring Sites</td>
<td>11,110</td>
<td>5.86</td>
</tr>
<tr>
<td>Kerbside collections</td>
<td>5,610</td>
<td>2.96</td>
</tr>
<tr>
<td>Green collections</td>
<td>140</td>
<td>0.07</td>
</tr>
<tr>
<td>Voluntary collections (paper with some textiles)</td>
<td>620</td>
<td>0.33</td>
</tr>
<tr>
<td>CA site recycling/compost [inc. re-use]</td>
<td>[32,470]</td>
<td>17.13</td>
</tr>
<tr>
<td>[44,420]</td>
<td>22.04</td>
<td></td>
</tr>
<tr>
<td>Total recycling [inc. re-use]</td>
<td>[49,950]</td>
<td>26.35</td>
</tr>
<tr>
<td>[61,900]</td>
<td>30.70</td>
<td></td>
</tr>
</tbody>
</table>

**Keys to Success**

Gary Simpson, waste management group manager, Dorset County Council said: *"This achievement is not rocket science, but the result of patient evolution and co-operation on a wide canvas."*

The Dorset Recycling Group (DRG) consists of the County, District and Borough Councils of Dorset and the Unitary Authorities of Poole, Bournemouth and the Environment Agency. This group has worked together to promote waste minimisation and recycling since 1990. The DRG has led to strategic development of recycling in the county, with the joint development of Recycling Plans and co-operation over contract letting for paper, glass, cans, textiles and plastic bottles. The DRG has produced educational materials and promotional initiatives on recycling and home composting. Recycling schemes have been set up as a united effort which means that information and experience is shared and best prices for materials are achieved through strong bargaining power.

Dorset County Council's innovative approach to civic amenity site contracts, and the entrepreneurial attitude of contractor Weymouth & Sherborne Recycling, have led to the recovery of large quantities of materials.

**Education/publicity**

- All districts/boroughs undertake education and promotion at a local level in schools.
- *Wake up to Waste'* leaflets promote the 3Rs and raise waste awareness countywide.

**Future**

- Dorset County Council aims to achieve Government Performance Standards for recycling and composting. This is expected to be 33 per cent in 2003/04 and 40 per cent in 2005/06.
- A Real Nappy promotional campaign is in development.

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**Dorset**

Dorset County Council pays recycling credits to district/borough Councils and voluntary/charity groups. Dorset County Council pays the management fee for the Materials Recycling Facility.

Dorset County Council does not receive income from material sales or PRNs.
St. Edmundsbury

- **Local authority:** St. Edmundsbury Borough Council
- **Area profile:** Bury St Edmunds and Haverhill make up 58% of the population, the rest of the borough is rural.
- **Area:** 65,697 Hectares
- **Population:** 95,260 (42,000 households)
- **Waste management contract:** St Edmundsbury Borough Council Direct Services Organisation (DSO)
- **Recycling subcontractor:** St Edmundsbury Borough Council DSO
- **Recycling Rate: (1999/2000):** 23.42% (excludes materials collected from civic amenity sites)

St Edmundsbury's successes

Over the last ten years recycling has risen from 2 per cent to 23.42 per cent. In the three years from 1997 to 2000 recycling rates have stabilised at between 23 and 24 per cent. The borough has achieved these high rates through a combination of house to house collections of green waste and paper and bring site recycling. During 1999/2000 the borough recycled and composted 10,940 tonnes, and landfilled 35,809 tonnes.

Since 1994 more than 77,000 tonnes of green waste has been diverted from landfill to composting. In October 1999, the National Recycling Awards recognised the borough's achievements, and St Edmundsbury was deemed the Best Recycling Target Success.

Councillor Wayman, Chairman of St Edmundsbury Transport and Works Committee, said: “It was great to receive this award, which was judged by other professionals. We were encouraged by our operational partners, the Suffolk Waste Disposal Company and Forest Heath District Council, to submit the scheme for consideration. This award is an acknowledgement by the recycling industry itself that St Edmundsbury Borough Council provides the most effective and sustainable recycling service in the country. This is a team award for the whole of the borough’s Recycling and Waste Management Section.”

Setting up the system

A survey called a waste composition analysis was carried out before the schemes were implemented to work out which would be the most effective materials to collect from the waste stream to achieve high diversion rates from landfill disposal. This was done in 1993 by Warren Springs Laboratory, and the results are shown right.

With the aim of reducing the amount of waste generated and disposed of to landfill, the borough council used the information gained from this analysis and from a number of trial schemes to find the most effective waste management option.

<table>
<thead>
<tr>
<th>Material</th>
<th>Percentage composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>33 (of which newspapers and magazines were 17%)</td>
</tr>
<tr>
<td>Putrescibles (organics)</td>
<td>25</td>
</tr>
<tr>
<td>Glass</td>
<td>8</td>
</tr>
<tr>
<td>Plastics</td>
<td>8</td>
</tr>
<tr>
<td>Fines</td>
<td>8</td>
</tr>
<tr>
<td>Metal</td>
<td>7</td>
</tr>
<tr>
<td>Textiles</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>9</td>
</tr>
</tbody>
</table>

Collection methods

The Council implemented a number of recycling initiatives, involving a mix of multi-material bring sites (centralised facilities where the public can take their waste for recycling) and kerbside collection schemes (door to door collections from residents houses).
A network of 52 recycling centres and individual banks have been installed. These are facilities where the public can take their unwanted materials for recycling. During 1999/2000 a total of 1,486 tonnes were collected for recycling from these. This consisted of paper, glass, steel cans, aluminium cans, plastics, and textiles.

A kerbside collection of newspapers and magazines was introduced in July 1996, which now covers 24,000 households (54% of households). There is a partnership between the Council and private firm Holmen Paper Ltd to provide this collection service.

Two collection vehicles are used, one operating out of Bury St Edmunds and one out of Haverhill. Collections are made every fortnight on the same day as normal refuse collections. Householders are asked to put their newspapers, magazines and junk mail in a bag or bundle next to their wheeled bins for collection. The paper is put onto the collection vehicles and transported to Chattam in Kent, for baling prior to being transported to reproprocessors. During 1999/2000, approximately 1,500 tonnes of paper was recycled. Between July 1996 and July 1999, 6,000 tonnes of paper had been collected.

A lot of focus has been placed on the diversion of green waste from the household waste stream. This is because the results of the composition analysis revealed that one quarter of the waste is made up of suitable material, and also because the council took the view that there was more scope for finding markets for the end product in the rural surroundings of Suffolk.

The Council investigated village shredders, home composting and kerbside collection and concluded that kerbside collection was the most effective system. A two-bin system was introduced in partnership with Suffolk Waste Disposal Company Ltd and County Mulch Ltd. This system consists of the ongoing weekly collection of the refuse wheeled bins alongside a fortnightly collection of green waste (kitchen and garden waste and cardboard) in brown wheeled bins. The collections are done on the same day for both black and brown bins. 32,000 households (76 per cent of the Borough) have so far been supplied with brown wheeled bins. Dedicated vehicles are used for green waste collection, which is taken to a central 'windrows' composting facility (this is where the material is aerobically decomposed in long piles).

Markets for the composted materials

The material collected is shredded, composted, screened and blended to make 'Greentop' products. These are marketed as soil improver, surface mulch and lawn dressing and sold for landscape gardening use, horticultural use and direct to the general public via Household Waste Sites. 3,500 cubic metres of the material was used at Sizewell power station to improve the soil during a landscaping scheme.

Materials collected and destinations

St Edmundsbury Borough Council operates the bring site and kerbside collection schemes. The following table shows the amount and destination of each material collected.

<table>
<thead>
<tr>
<th>Material</th>
<th>Tonnes recycled 1999/2000</th>
<th>Destination/markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>670.3</td>
<td>Aylesford Newsprint Ltd, Kent and Holmans Paper Ltd, Chatham, Kent</td>
</tr>
<tr>
<td>Glass</td>
<td>820</td>
<td>Anti-Waste Ltd, Thetford, Norfolk</td>
</tr>
<tr>
<td>Cans</td>
<td>19.2</td>
<td>Pearson's Ltd, Thetford, Norfolk</td>
</tr>
<tr>
<td>Plastic</td>
<td>49</td>
<td>Pearson's Ltd, Thetford, Norfolk</td>
</tr>
<tr>
<td>Textiles</td>
<td>62.5</td>
<td>Oxfam and Black Country Rag &amp; Wiper Ltd, West Midlands</td>
</tr>
<tr>
<td>Green waste</td>
<td>Nil</td>
<td>Local composting to make</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Greentop' soil conditioner</td>
</tr>
<tr>
<td>White goods</td>
<td>Nil</td>
<td>Waste Recycling Ltd, Thetford, Norfolk</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,621</td>
<td>9,327.7</td>
</tr>
</tbody>
</table>
**Education and promotion initiatives**

- The Waste Management Section provides a 24-hour help line number (with an answerphone outside of office hours), which offers proactive information and advice about compostable waste. A calendar is also supplied to all households with collection dates and recycling information.
- Education initiatives in school are linked to the national curriculum.
- Use of the Waste Watch’s Cycler programme - over 5,000 children have seen the interactive show at 33 schools in the borough.
- Promoting waste awareness at public events - Newton Park Country Fair, Haverhill Show, Suffolk Show and the South Suffolk Show.

The Council also supports public information and awareness campaigns. These have included:

- The ‘Slim Your Bin’ regional campaign to promote recycling, home composting and ‘shop smart’. The Borough hosted one of the thirty roadshows, and the brown bin scheme was featured in the Anglia TV documentary on the campaign.
- Two annual compost days were held in partnership with County Mulch Ltd and neighbouring Forest Heath District Council. The aim was to encourage householders to take responsibility for the waste that they generate and to encourage use of the ‘Greentop’ compost. In St. Edmundsbury, 317 tonnes of the soil improver was sold and given away. In addition 2,472 home compost bins and 1,726 water butts were sold.

**Participation and public satisfaction**

The composting and recycling schemes are very popular. A customer satisfaction survey in 1998 showed that of the 2,500 households surveyed -

- 93 per cent take part in the brown bin collection scheme, and 95 per cent are satisfied or very satisfied.
- 85 per cent take part in the paper collection service and, again, 95 per cent are satisfied or very satisfied.
- 24 per cent are composting their organic waste at home.

**The future**

Work is being carried out to develop a partnership between Forest Heath District Council (a neighbouring local authority) and Suffolk Waste Disposal Company. The partnership will introduce kerbside collections of other recyclable materials (i.e. paper, cans, glass, plastic, textiles) to boost recycling rates still further. No extra separate collections would be necessary and the scheme would potentially collect 5,000 tonnes of extra recyclables, resulting in an equivalent reduction in landfill.

The borough is planning to extend the brown bin scheme to a further 9,000 households. It is estimated that this will remove a further 2,863 tonnes of waste from landfill.

Once these schemes are put into place, there will be a likely diversion of about 16,000 tonnes of material from landfill into recycling and composting. Depending how overall waste arisings change, this would equate to a borough-wide recycling rate of 35% (based on a waste stream of 45,000 tonnes).

**Contact:**

St. Edmundsbury Borough Council  
PO Box 122  
St Edmundsbury House  
Western Way  
Bury St. Edmunds  
Suffolk  
IP33 3YS  
Tel: 01284 757337  
Fax: 01284 757462  
Email: mark.christie@stedsbco.gov.uk  
Website: www.stedmundsbruy.gov.uk
**Hounslow**

- **Local authority:** London Borough of Hounslow
- **Area:** 5,852 hectares
- **Population:** 213,000
- **Waste management contract:** DSO / Ealing Community Transport Recycling (ECT) Ltd
- **Recycling subcontractor:** ECT
- **Recycling Rate: (1999/2000):** 17.8%

**Collection Methods**

- Weekly multi-material ‘green box’ kerbside collections are operated by Ealing Community Transport Recycling, a not for profit community group. Kerbside collections take newspapers and magazines, junk mail, household paper, glass jars and bottles, food tins and drinks cans, textiles, clothes and shoes, aluminium foil and motor oil. Collections are carried out using caged vehicles with separate compartments for each material. Boxes are hooked onto the side of the vehicle so that crews can easily sort materials into different compartments. Any ‘contaminants’ are left in the green box with an explanatory card to remind residents what can and can’t be recycled. Sorting at the kerbside prevents the needs for an additional Materials Recycling Facility (MRF). Compartments are emptied separately using a forklift truck at the depot and tipped directly into storage skips or bulking bays for transportation to reprocessors.

- High-rise collections are operated by caretakers from the Housing Department. The collections are operated in six 22 storey towers on an estate. Each resident has a storage basket with handles and a sticker stating what can be collected. Baskets are left out on each landing on a set collection day and material is collected in wheeled bins using the lift. Materials are sorted at ground level and stored in a garage next to the towers.

- A partnership with London Borough of Richmond for glass and can collections.

- 1 Civic amenity site

- 50 recycling sites

<table>
<thead>
<tr>
<th>Material Collected (Bring Sites)</th>
<th>Destination</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Cheshire</td>
<td>Pay for service</td>
</tr>
<tr>
<td>Cans</td>
<td>SITA, Richmond upon Thames</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>British Glass, Richmond upon Thames</td>
<td>Pay haulage but receive payment for all colours</td>
</tr>
<tr>
<td>Textiles</td>
<td>L.M. Barry</td>
<td>Receive payment</td>
</tr>
<tr>
<td>Cardboard</td>
<td>Severnside</td>
<td>Receive payment</td>
</tr>
<tr>
<td>Scrap metal</td>
<td>Parrys</td>
<td></td>
</tr>
<tr>
<td>Green waste</td>
<td>Shorts, Ascot</td>
<td>Pay on gate fee but receive composting credits</td>
</tr>
</tbody>
</table>
Hounslow

Other initiatives

**Home composting**
Hounslow has supplied 5,700 composters to residents. Each has a 220 litre compost bin with a hatch for easy access, and is supplied with a kitchen bin - a small green bin with a lid and a handle for storing fruit and vegetable peelings before transferring them to the composter. The kitchen bins are very popular with residents because they don’t have to go out to the composter every day, this in turn boosts compliance during the winter. Seasonal newsletters are sent to residents during the first year with hints and tips on how to compost, and there is a number to call for advice. Residents can attend a training workshop, run in conjunction with HDRA.

**Garden waste collection**
In Summer 1999 Hounslow piloted a garden waste collection. Two areas of 2,500 households were chosen, where targeted home composting promotions had not occurred. Residents were sent a leaflet explaining the scheme and were invited to purchase bags at £1 each, obtained by post or from the council offices. The pilot lasted for three months and collections took place once a fortnight on a Saturday. Last summer the scheme was expanded to cover four areas of 2,500 households. Following feedback from residents the price of the bag was reduced to £0.50. The bags are picked up using a spare refuse truck and caged vehicle, so extra vehicles are not required. In Summer 2001 the scheme will run from April until October to facilitate the collection of autumn leaves. The bags purchased for the pilot are non-compostible, but when the scheme rolled out borough-wide in the

**Material Collected - Kerbside**

<table>
<thead>
<tr>
<th>Material</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cans</td>
<td>AMG, Llanelli, North Wales</td>
</tr>
<tr>
<td>Paper</td>
<td>Aylesford, Kent</td>
</tr>
<tr>
<td>Card</td>
<td>Pearce Recycling, St Albans</td>
</tr>
<tr>
<td>Glass</td>
<td>British Glass</td>
</tr>
<tr>
<td>Foil</td>
<td>Alcan</td>
</tr>
<tr>
<td>Oil</td>
<td>Malory Oils</td>
</tr>
<tr>
<td>Textiles</td>
<td>Local dealer</td>
</tr>
</tbody>
</table>

**Community Composting**
Green waste is taken to the civic amenity site, composted and then sold back to the public.

**Bring Sites**
To improve participation rates, some sites on pricontinued vate estates have sound-proofed glass banks. Other sites have been landscaped to improve the appearance of the local area, for example bushes to screen the site.

**Local Waste Action Group**
Brentford Recycling Action Group (BRAG) is a resident-led group that cares about the local environment and is committed to promoting waste reduction and recycling in Brentford. The group devised a questionnaire with local residents to find out more about their recycling knowledge. It has monitored participation in the green box scheme and produced an A-Z guide informing residents how they can reduce, reuse and recycle their waste. Another waste action group is planned for 2001.

**Real Nappy Campaign**
Hounslow is working with other west London boroughs to promote real nappies. The group has produced an information sheet for parents about real nappies and the nappy washing service that is provided. Posters have been distributed to local GPs and community groups.

**Christmas Tree Recycling**
Residents are encouraged to take their Christmas trees to one of eight local sites to be chipped. The chippings are used on parks as mulch or sent for composting with green waste.

**Kerbside Destination**
On all recycled tonnage Hounslow receives a full (kerbside) or 90 per cent (bring system) recycling credit of £40 per tonne.

ECT organises the end users of materials collected and retains income from the sale of materials collected in multi-material kerbside collections: newspapers and magazines; glass bottles and jars; food tins; drinks cans; kitchen card; foil and engine oil.

**Costs**
The cost of kerbside collections is between £8 and £15 per household per year, depending on the contract, and it is offset by the sale of materials.

Composting costs £15 per household including composter, kitchen bin, delivery and leaflets. The composter pays for itself in less than two years.
Hounslow

Other Schemes in the area

- Brownie groups operate a cork recycling scheme.
- Alcan collects from schools and businesses.
- Aylesford Newsprint collects from schools and community groups.
- Oxfam, TRAID and Salvation Army operate a textile collection.

Keys to success

- Constant promotion to all sectors of the community including talks to schools and community groups. This includes leaflets translated into several languages telling residents where they can recycle different items.
- A quarterly newsletter
- Using a variety of collection methods, including a weekly multi-material kerbside collection.
- A council partnership with not for profit community group ECT appeals to the public. Dan Waltzer of ECT said: “We have a realistic outlook - financially and operationally, and an understanding of local government.”
- Strong support from council members.
- All promotional work contributes towards more recycling which generates recycling credits.

Educational and promotional activities

- Targeted door knocking campaigns in poor participation areas.
- Poster and leaflet campaigns.
- Real nappy campaigns - targeted and borough wide.
- Work with schools, and the development of an education unit at the civic amenity site.
- Community waste action group, BRAG involved in promoting reduction, reuse and recycling of waste.

Markets

Hounslow has overcome any potential market problems by not relying on one single contractor. Kate Radford, principal recycling officer, said: “If our bring system contractor could not take our glass or cans anymore, we would be able to approach ECT, our kerbside contractor. So we always have a few options.”

Future targets

Hounslow is aiming to reach a recycling rate of 24 per cent by 2005. To achieve this, the council is planning to extend its garden waste collection scheme and to introduce the recycling of Yellow Pages and paint at its CAsite. Plastic recycling will take place within the next few years.

Contact

The Recycling Team
Environmental Services Department
London Borough of Hounslow
Civic Centre
Lampton Road
Hounslow
Middlesex
TW3 4DN
Tel: 020 8583 5060
Fax: 020 8583 5060
Email: recycling@hounslow.gov.uk
Web site: www.hounslow.gov.uk

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- Real nappy campaigns - targeted and borough wide.
- Work with schools, and the development of an education unit at the civic amenity site.
- Community waste action group, BRAG involved in promoting reduction, reuse and recycling of waste.
**Bristol**

- **Local Authority:** Bristol City Council Unitary Authority
- **Area:** 10,954 hectares
- **Population:** 400,000 (168,470 households)
- **Waste management contract:** SITA Contract Services
- **Recycling subcontractor:** Resourcesaver (not-for-profit group employing 60 staff)
- **Recycling Rate:** (1999/2000): 13.1%

**Key to success**
"Combining ideas and expertise from a diversity of sectors via partnerships" - Bristol City Council spokesperson.

**Collection Methods**
- Weekly black box multi-material kerbside collection scheme operated by Resourcesaver. This system provides all householders with an open black box in which they are asked to put their paper (including Yellow Pages), glass bottles and jars, aluminium and steel cans, aluminium foil, textiles (including shoes), and eyeglasses. The materials are sorted from the boxes, on the street into purpose built vehicles weekly on specified days. Residents can also put out their car batteries and waste engine oil for collection alongside their black boxes. All of the materials are then taken to Resourcesaver’s depot before being transported to the reprocessors.
- More than 90 mini-recycling centres are positioned at high rise tower blocks, nursing homes and flats that are inappropriate for the normal collection service. These centres are financed by the council and SITA, and collections are made by Resourcesaver.
- There are also 50 glass bring sites around the city where people can take their glass for recycling, and there are two civic amenity sites from which materials are also collected for recycling purposes.

**Participation rates**
The overall participation rate amounted to 52 per cent with the variation in individual streets ranging from between 6 per cent and 89 per cent. It appears that participation is affected by the socio-economics of the area with the bulk of materials being collected in the high income areas of the city. A target rate of 70 per cent for Bristol has been. The next stage is to look at how to improve participation. One idea is to stimulate higher involvement by getting ‘community leaders’ on board and have them persuade their communities of the need to recycle.

**Educational and promotional activities**
The Rubbish Revolution promotional campaign run by The Recycling Consortium raises public awareness of the need to minimise waste and recycle, and includes work with schools in the city.

**What is the potential for expansion of recycling in the area?**
Weekly kerbside collections will continue bringing in increasing quantities of recyclables, and with the further development of the mini-recycling centres and CA sites, the city should experience an increase recycling rates. In some areas, low public participation rates are a problem, and this is being tackled by campaigns driven by the Recycling Consortium. The work by the Consortium to boost participation rates from 52 per cent to 70 per cent will increase the amount of materials collected.
What becomes of the materials collected?

<table>
<thead>
<tr>
<th>Material</th>
<th>Destination</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Aylesford Newsprint, Kent</td>
<td>Fluctuates</td>
</tr>
<tr>
<td>Glass (colour separated)</td>
<td>British Glash, Sheffield</td>
<td>Depends on colour</td>
</tr>
<tr>
<td>Textiles and shoes</td>
<td>Merlin Community Recycling, Newport</td>
<td>Income offsets transport costs</td>
</tr>
<tr>
<td>Aluminium cans and foil</td>
<td>Swindon Metal Merchant</td>
<td>£750 per tonne</td>
</tr>
<tr>
<td>Steel cans</td>
<td>Llanelli, South Wales</td>
<td>Fluctuates</td>
</tr>
<tr>
<td>Waste engine oil</td>
<td>Evergreen, Avonmouth</td>
<td>Collected free of charge</td>
</tr>
<tr>
<td>Car batteries</td>
<td>Britannia Reclamation, Kent</td>
<td>Income offsets transport costs</td>
</tr>
<tr>
<td>Plastic (separated into four types)</td>
<td>Recoup, Peterborough</td>
<td>£90 per tonne</td>
</tr>
<tr>
<td>Yellow Pages</td>
<td>Made into animal bedding and jiffy bag filler</td>
<td>Fluctuates</td>
</tr>
<tr>
<td>Glasses</td>
<td>Local optician for charities abroad</td>
<td>No income</td>
</tr>
</tbody>
</table>

Total quantity of materials recycled in 1999/2000: 24,778 tonnes

Other initiatives

**Home composting campaign**
The Rubbish Revolution campaign has set a target of 10,000 home compost bins sold by the end of their three-year campaign. Up to September 1999 the total number sold rose to 8,000, an increase of 1,200 bins on the figure reported for 1998/99. A one-day sale of compost bins and water butts took place through the Rubbish Revolution campaign. 1,247 compost bins and 1,046 water butts were sold at the event.

**Real Nappy Campaign**
The Rubbish Revolution, in conjunction with neighbouring councils, backed a national campaign highlighting the environmental effects of disposable nappies.

**SOFA project furniture campaign**
A furniture and re-use project based in the city. This project refurbishes discarded items of furniture and passes them on to people in need through social care agencies. Due to expansion the project has just moved into larger purpose-built premises.

**The Childrens Scrapstore**
This not-for-profit voluntary organisation collects re-usable scrap from around 400 businesses in and around Bristol and passes them on to for creative and play purposes.

Contact:
Bristol City Council
Neighbourhood and Housing Services
PO Box 595
Brunel House
St. Georges Road
Bristol
BS99 2AW

Tel: 0117 9223020
Fax: 0117 9222849
Email: bryn-williams@bristol-citygov.uk
Website: www.bristol-city.gov.uk
Brighton and Hove

- **Local authority:** Brighton & Hove Unitary Authority
- **Area profile:** Urban and suburban
- **Area:** 8,473 Hectares
- **Population:** 248,956
- **Waste management contract:** SITA Contract Services
- **Recycling subcontractor:** Magpie Community Recycling
- **Recycling rate:** (1999/2000): 11.1%

**Keys to success**

- Community sector recycling group Magpie and other organisations that collect waste for re-use and recycling contribute hugely to the area’s recycling performance. There are active partnerships in operation between the local authority and these groups, in the case of Magpie this relationship goes back to 1991.

- Involvement of the community sector allows for very low cost expansion of recycling. In the year 2000 Brighton and Hove Unitary Authority made a cost saving against standard refuse collection and disposal of £43,400 by involving Magpie’s green box collection service.

- A lot of work has been done to gain the support of a sizeable number of residents who have subsequently become concerned and active in their support of environmental initiatives.

- Charging the public to have their recyclables collected by Magpie has given them a greater ownership of recycling activities and resulted in greater quantities of materials being collected.

**Collection methods**

- Multi-material kerbside collections operated by Magpie Community Recycling. Residents are charged £16 per quarter by the group to be given a green box into which they place their recyclable materials instead of putting them in the bin. Materials collected are paper (all grades), cardboard, glass bottles and jars, textiles, steel and aluminium cans and foil, and plastic bottles. These materials are sorted from the boxes onto custom-built (by Magpie) electric vehicles on the street and taken to a Magpie depot. From there they are stored ready for transport to the reprocessors.

- High rise mini-recycling centres have been set up so that people who live in places inappropriate for the normal Magpie service can recycle easily. These centres serve a whole block of flats instead of individual households. Magpie collects the materials from these centres each week and they are then included with the recyclables from the door to door service.

- ‘Bring sites’ situated in easily accessible locations where the public can take recyclable materials to a centralised container. These are serviced by Magpie on contract from the local authority. There are currently 100 recycling points throughout Brighton and Hove.

- Green waste is collected for composting from civic amenity sites (facilities where residents can take their waste, usually bulky household and garden rubbish). The garden waste is collected by a company called Ecowert and taken to KPS where it is composted and used to improve the fertility of local farms.

**Public participation in the collection service**

There are currently 5000 households participating in the Magpie scheme.
Materials collected at Bring Sites

<table>
<thead>
<tr>
<th>Material collected</th>
<th>Destination</th>
<th>Net cost savings (baseline cost for collection and disposal is £54.80 per tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Aylesford and other mills</td>
<td>£18.58</td>
</tr>
<tr>
<td>Cardboard</td>
<td>Millbanks, Newhaven</td>
<td>£43.36</td>
</tr>
<tr>
<td>Glass</td>
<td>Bellbrook/British Glass through partnership with East Sussex County and districts - the Glass Consortium</td>
<td>£17.65</td>
</tr>
<tr>
<td>Textiles</td>
<td>Charity (Salvation Army and Oxfam collections)</td>
<td>£54.80</td>
</tr>
<tr>
<td>Green waste</td>
<td>Collected at CA sites and taken to on-site farm composting site</td>
<td>£37.76</td>
</tr>
<tr>
<td>Steel / aluminium cans</td>
<td>Bellbrook for bulking prior to onward transport to reprocessor</td>
<td>£31.58</td>
</tr>
<tr>
<td>Corks</td>
<td>Used locally at bowling greens</td>
<td></td>
</tr>
</tbody>
</table>

Average Weights

During 2000 the average weight of the boxes collected by Magpie was 8.2 kg. This is significantly higher than comparable schemes around the country and it seems that by having people buy their inclusion into the scheme they put more effort into separating their recyclables from their refuse.

Costs

The direct cost to the local authority was £26 per tonne in recycling credits (this is money which is paid to Magpie by the Council, and is equivalent to the saving they have made by not having to landfill the material). Therefore the local authority, by involving community recyclers Magpie, have saved £28.80 per tonne (£54.80 - £26.00) on the waste that Magpie are collecting for recycling. This equates to a total annual saving of £43,400 (£28.80 X 1507).

Other Initiatives

- 'Play your part, reduce your waste campaign' educational and promotional campaign run by Brighton and Hove Council. This campaign promotes waste minimisation and recycling during radio broadcasts and magazine reports. Mouse mats have been issued to the districts’ libraries, and fridge magnets given out to the public to promote Christmas tree recycling.
- The Real Nappy Consortium is made up of a variety of people with an interest in promoting the use of non-disposable nappies. It includes members from the local authority, representatives from companies who manufacture washable nappies, midwives and parents. The Consortium recognises the fact that 9 million disposable nappies are thrown away every day in the UK (making up 4 per cent of domestic waste), and seeks to inform parents about nappy choices. Consortium members make house visits to parents who are deciding which type of nappy to use so that any confusion can be clarified.
- Research is being done into the feasibility of a real nappy laundry service, which would create jobs in the area as well as being better for the environment. Focus groups will look into the demand and possible incentives to bring more parents into the scheme.
- Brighton and Hove Wood Recycling Project was the first scheme of its kind in the country. The project collects ‘waste’ wood from building merchants in the area and sells it on to the public. 1000 tonnes of timber have been redirected since July 1998. Contact: Project Officer on (01273) 570500.

Educational activities underway

The 'Play your part, reduce your waste’ campaign. This includes the 5R’s message (reduce, re-use, refill, recycle, and re-educate) in:-

- the ‘Is your pack lunch a friendly lunch’ initiative
- a home composting campaign including a worm bin initiative
- the Recycling Rudolph Christmas campaign
- a waste reduction & recycling education pack.
Materials collected by Magpie

<table>
<thead>
<tr>
<th>Material collected</th>
<th>Destination</th>
<th>Tonnes collected (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>Smurfit Board Mill, Kent</td>
<td>730</td>
</tr>
<tr>
<td>Cardboard</td>
<td>SCA, Newhaven for transport to SCA, Aylesford</td>
<td>170</td>
</tr>
<tr>
<td>Glass</td>
<td>Bellbrook</td>
<td>470</td>
</tr>
<tr>
<td>Textiles</td>
<td>Local textile merchants for sorting</td>
<td>21</td>
</tr>
<tr>
<td>Steel and aluminium cans</td>
<td>BFI Community Recycling Materials Reclamation Facility (owned by Onyx) for sorting prior to transport to UK reprocessors</td>
<td>78</td>
</tr>
<tr>
<td>Plastic bottles</td>
<td>As above (includes PVC, HDPE, PET and polystyrene)</td>
<td>38</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1507</strong></td>
</tr>
</tbody>
</table>

The future

Magpie Community Recycling operate the kerbside collections and are planning to expand their services into activities to reduce waste at source and to re-use schemes while also developing local markets for reclaimed materials. They are supported by the council which has been involved since 1991.

There are forthcoming initiatives to develop a mobile phone recycling project, and to research the feasibility of a real nappy laundry service.

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Brighton and Hove Council
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Brighton
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Tel: 01273 292213
Fax: 01273 292250
Email: sue.strong@brighton-hove.gov.uk
Website: www.brighton-hove.gov.uk
• **Local Authority:** Powys County Council

• **Area:** 517,900 hectares. Powys is a county of hills, moors and mountains. The area is characterised by a small number of medium-sized urban areas and a large area containing sparsely populated and often remote communities.

• **Population:** 124,000. Total no.households 47,047.

• **Waste management contract:** Powys County Council Direct Services Organisation

• **Recycling subcontractor:** Cae Post Ltd. Various other community groups. Evolve Composting.

• **Recycling Rate:** (1999/2000) 9.27%

"Knighton has developed a healthy rivalry with the neighbouring town of Presteigne over recycling - it’s a bit like Manchester Utd. versus Liverpool really." Ken Harris, Community Recycling Advisor for Knighton, Powys.

**Keys to success**

Powys County Council actively supports recycling and composting at all levels. The topographical barriers to recycling which the area presents have been overcome by the council’s Waste Management Section, which encourages local communities to take social responsibility for the waste that they create. The council was the first local authority in England and Wales to produce a government approved waste management strategy and recycling plan.

The council has developed a recycling strategy based upon partnerships with local community groups and the voluntary sector. It operates an ‘adopt a bring-site’ scheme and pays community groups to service 18 of the 58 bring-sites in the area. A community group also operates the main kerbside collection service in the county. A Powys network of Community Recycling Advisors has been established, and capital is set aside every year by the council to purchase equipment for the use of community recycling projects. In this way communities become intimately involved with the recycling operations in their area, and the costs associated with collecting in a rural location are also kept to a minimum.

As there are no reprocessors in Powys, the unstable market for recyclables particularly affects the county. Delivery costs are high - in certain locations it takes a two hour drive to reach the nearest motorway. The small community groups do not collect large tonnages, and are not able to individually command a good price for their recyclables. But the council takes responsibility for these shortcomings by forming partnerships with other local authorities in Wales, and collaborating collection tonnages. The merged tonnages are able to command a fairer price, and community groups in the county are thereby guaranteed a more stable market for the materials they collect.

Powys County Council has further improved market stability in the region by developing the county’s own recycling infrastructure. An application to the Welsh Assembly for a Local Regeneration Fund (LRF) grant of £1 million has been made, which will be used to develop a Materials Recycling Facility in Welshpool. The MRF will sort recyclables collected in the region before selling the products on to incubator community businesses located in workshops on site. As well as strengthening the market for recyclables, such an initiative would create employment opportunities. This is important for Powys, as traditional industries such as hill farming and forestry are heavily in decline.

Powys County Council deems recycling and composting to be among the cheaper methods of household waste disposal. Deriving energy from waste is not a desirable option for the council, and there is only one landfill site in the area. As a result, recycling domestic waste is approximately 31p cheaper per tonne than landfill disposal costs.
Collection methods

- Weekly multi-material kerbside collections in Welshpool, operated by community group Cae Post Ltd. 5,000 households have been issued with special recycling sacks - one for plastic and tins and the other for paper, card and textiles. The bags are collected each week from the kerbside of each street using a dedicated vehicle, and are taken to the Trewern Depot for sorting by Cae Post and for bulking and baling. Cae Post and Powys County Council have plans to expand the scheme to cover a greater area of the County.

- Cae Post are to initiate a second kerbside recycling trial in Llandrindod Wells by Summer 2001. Up to 15,000 households could be serviced if the scheme proves successful.

- Other kerbside collections are undertaken by smaller community groups across the county.

- 58 bring-sites in operation across Powys - one per 811 households. Community groups service 18 of these sites, and receive recycling credit payments of £19 per tonne for materials collected. This money is generally ploughed back into the collecting community. Cae Post Ltd. collects plastics from many of these sites.

- ‘Recyclomobile’ bring-site used to service more remote areas of the county.

- A Bulky Household Waste Recycling Centre was established in Welshpool, June 2000. The site contains 22 different skips which members of the public can use to dispose of their bulky household waste, such as furniture and white goods. The management of the site is contracted to GF Potter and Son, a private company. A further three similar sites are being established in Llanidloes, Llandrindod Wells and Ystraglynais over the next year or two.

- Seven green waste collection banks are sited across the county. The sites are serviced by a private sector company called Evolve Composting Ltd. Green waste, cardboard and paper are composted and fed to worm beds, and around 2,000 tonnes are expected to be processed by the company over the next year.

- A recent questionnaire survey has estimated that around 56% of households in Powys home compost, using garden heaps and other traditional methods.

Material collected | Destination
---|---
Newspaper, magazine and cardboard | PAMs goes to local merchant loose, better contract to be sought this year. Cardboard goes to local merchant in Welshpool.
Plastic | Sorted, baled and transported to Reprise or ReTex
Glass | Glass Some goes to Hereford to be reprocessed, some goes through merchants BritishRecycling UK
Textiles | Bagged and transported to Birmingham
Green waste | Evolve Composting Ltd.
Aluminium cans | Alcan Waste oil Orcol, Midlands

Summary of projects

- Community group Cae Post Ltd. operates the main kerbside collection in Welshpool, to be expanded to Llandrindod Wells and rest of the county in the near future. The group also operates a plastics collection scheme via some of the county’s bring-sites. Cae Post will be instrumental in the development of a MRF at Welshpool.

- Approximately 18 community groups have adopted bring-sites across Powys. A further 53 community groups collect recyclables via a central drop-off point or collection round.

- Evolve Composting Ltd. services green waste collection banks across the county. The waste is composted and fed to worm beds.

- One Bulky Household Waste Recycling Centre is in operation in Welshpool, with a further three similar sites to be developed over the next year or two. Managed by GF Potter and Son, a private company.

Participation Rates
Household participation rates are not available at present, although a recent audit has indicated that the overall recycling performance has increased significantly from an average of 60kg per household in 1996/97 to around 90kg in 1999/00.

Educational activities/promotion of project
A network of Community Recycling Advisors has been established across Powys. Under the scheme, either a community councillor or a local person acts as the contact point between the council’s Waste Management Unit and the local community. Opportunities for local recycling initiatives are thereby identified and supported by the county council. Community recycling schemes are paid £19 per tonne recycling credits for the materials they collect, and this money is then donated to community groups such as the local school.

The scheme works well as it harnesses the community spirit that thrives in the small towns and villages of this sparsely populated county. Neighbouring communities become friendly recycling rivals, and villages often compete with one another over collection amounts, bring-site facilities etc. Ken Harris is a County and Town Councillor, as well as a Community Recycling Advisor, for Knighton:

"We collect glass, plastic, cans, clothing, shoes and green waste in Knighton. It’s a busy bring-site and serves not only the town, which has around 2,800 voters, but the entire valley area. The town council employs somebody on a part time basis to keep the site clean, and we donate the recycling credits to local groups.

"Knighton has developed a healthy rivalry with the neighbouring town of Presteigne over recycling - it’s a bit like Manchester Utd. versus Liverpool really. I encourage people to recycle because it saves the tax payers' money as the council doesn’t have to landfill the waste. It also means we bring money back into our community via the recycling credits."

Powys County Council also produces a newsletter, the ‘Powys Recycler’, which is sent out to local communities and highlights recycling initiatives across the county. Many of the community recycling projects in operation also carry out school visits.

What is the potential for expansion of recycling in the area?
Although the geography of Powys presents some barriers to recycling, the county council has proven that they can be overcome. Steve Simmons, Head of Waste Management at the council says: “Given enough money we can recycle anything. All we need is the injection of seed-corn capital to get new schemes started.”

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Fax: 01597 826260
Email: steve@powys.gov.uk
website: www.powys.gov.uk
Bulky Household Waste In Liverpool

- Create/Bulky Bob’s/Dove Designs/Revive
- Area profile: Urban
- Area: 11,276 hectares
- Population: 452,450
- Waste management: contract Onyx
- Bulky household waste collection: contract Bulky Bob’s Ltd

In Liverpool a ‘commonwealth’ of social businesses has developed which deal with the city’s bulky household waste stream, comprised mainly of furniture and large domestic appliances. CREATE/Bulky Bob’s/Dove Designs/Revive work closely together to maximise the reuse and recycling of this waste. The businesses also deliver social benefits through training long-term unemployed people and making goods available to low income households.

Bulky Bob’s Ltd, Liverpool

“With Bulky Bob’s we are showing how a new social business can genuinely join things up. Residents get a much improved and reliable collection service. Families in need get decent cheap furniture. Unemployed people get jobs in collecting, sorting, recycling and selling. Everyone wins in this new way of doing the city’s business.”

Mike Storey, Liverpool City Council.

Bulky Bob’s is a member of Liverpool’s Furniture Resource Centre group. The business was launched in June 2000 and has been awarded a six-year contract by Liverpool City Council to carry out all bulky household waste collections.

Bulky Bob’s was also awarded a three-year contract from the City’s Economic Development Unit for the development of social economy outputs. The business has created permanent employment and offers salaried training.

This year Bulky Bob’s will carry out over 30,000 collections of bulky household waste in the Liverpool area. On average each collection picks up 3 items. Once collected, goods are segregated for reuse and refurbishment at a 12,000 square foot warehouse. Approximately 20% of all goods collected are reused or refurbished.

Items in a reasonable condition are directly sold at low cost to people in need. For the financial year 2001/2 Bulky Bob’s expects to sell at least £75,000 worth of second hand goods and to have rescued at least 9000 items from the waste stream.

Sofas and chairs in need of reupholstering are sold to the Furniture Resource Centre’s upholstery workshop. Refrigerators, washing machines and cookers are sold to CREATE where they are repaired or recycled. Wooden furniture is repaired and French Polished at Dove Designs. Once restored many of these refurbished products are sold to the public through the high street store Revive. Bulky Bob’s has created 10 permanent jobs and 15 salaried training places for local people.

Collection methods

- Five wagons, each with a crew of a staff driver and two trainees collect unwanted bulky goods from households throughout the city Monday to Friday.
- Bulky Bob’s fifteen trainees have all been recruited from the long-term unemployed. They stay for one year and work for a salary.
- Bulky Bob’s expects to get over 90% of trainees who complete their year into employment.

CREATE

CREATE provides salaried training for long-term unemployed people through the refurbishment, recycling and resale of household appliances. The business assesses appliances collected by Bulky Bob’s and takes those considered suitable for refurbishment to a 16,000 square foot unit in Speke. In addition, refrigeration appliances are degassed on a subcontract basis and the CFCs sent for destruction. Approximately 3000 units will be received from Bulky Bob’s this year. Additional end-of-life appliances are sourced from retailers and manufacturers to provide sufficient material for production to meet sales demand.

- Appliances are assessed, repaired and fully tested before being cleaned for sale.
- Those that cannot be repaired are cannibalised for parts and recycled.
- Some higher value metals (aluminium and copper) and components (motors) are removed by hand and sold separately. CREATE receives £12 per tonne for light iron.
- Any appliances that cannot be restored are sent to a scrap merchant. It is estimated that £10,000 worth of scrap will be sold in 2000/01.

CREATE expects to sell £300,000 worth of household appliances in 2000/01. The business also offers a year’s paid work with training up to NVQ Level 2, for people suffering from long-term unemployment. Since 1995 the organisation has helped 60 trainees move into permanent jobs. CREATE Liverpool currently employs 15 permanent staff and up to 25 trainees.
Revive
Revive is a high street store selling new and refurbished household goods. Some of the products on sale are produced by social businesses such as Bulky Bob’s, CREATE and Dove Designs, which trains people with mental health problems. Some members of the store’s sales team are trainees. This scheme gives trainees confidence and qualifications to kick-start their future careers in retail.

Revive is exploring new ways for people to access credit to buy quality furniture. The shop intends to create a socially progressive credit scheme for people on low incomes.

Dove Designs
The Dove Designs charity works predominately with adults with enduring mental health problems. Timber furniture collected by Bulky Bob’s is restored and French polished at the business. Its overall aim is to provide work experience, vocational training and work in a commercial environment in order to improve people’s self worth and potential for long term employment.

Keys to Success
As well as recovering greater amounts of material from the household waste stream, this partnership of social businesses provides a win-win situation for local authorities and communities.

A CREATE trainee says: "The difference with CREATE is that people here are doing a job - it’s not just about training. The fact that you’re being paid for your efforts makes you feel part of the community again.”

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Email: info@createuk.com
**Keys to success**

Community group Gwynedd Recycling Service was formed in 1994 to enable local communities to improve their recycling rate. The service also provides valuable opportunities for local people to develop skills and increase their employment potential.

Gwynedd Recycling Service was set up by Antur Waunfawr, a ground-breaking company which offers training and employment opportunities to people with learning difficulties. The organisation is recognised as a key player in the regeneration of the local community, with the principles of Agenda 21 being accommodated in the company’s development plan.

Gwyn Davies, a member of the local community and chairman of Antur Waunfawr, had a vision of creating employment opportunities for people with learning difficulties 15 years ago. Antur Waunfawr was launched in 1984 with 300 shareholders from the village each having a £1.00 stake. Antur Waunfawr is the largest employer in the community with over 40 people employed, including 20 people with learning difficulties.

**Collection Methods**

**Community Recycling Sites**

Gwynedd Recycling Services believes that the secret of successful local recycling lies in creating a network of recycling sites. Gwynedd County Council has 30 bring sites with capacity for unwanted newspaper, glass (all colours), and aluminium/steel cans. Collection from these sites is made using a 7.5 tonne lorry supplied by the local authority. Bins for each material are supplied and maintained by the subcontractor responsible for each particular recyclable. Private enterprise Hywel Ellis & Son also has its own bins installed on designated local authority bring sites.

**White Goods**

In July 2000, a major new project was launched to reuse white goods. This service runs in conjunction with the furniture scheme and is situated at a new site in Caernarfon.

Gwynedd Recycling Services received £220,000 worth of National Lottery funding for its office paper and Bulky Household Waste projects during the period from July 2000 - July 2002. The scheme includes a confidential paper shredding service and facility for the refurbishment of furniture and white goods.

**Educational and promotional activities**

- Ensuring that children understand the importance of protecting the environment is vitally important. To achieve this Gwynedd Recycling Service offers assistance with recycling education by providing best-practice guidelines and giving talks to clubs and schools in the area.

- The council promotes its recycling services once a year in the local press, and at any point that a project successfully obtains funding through landfill tax credits.
Future

- A pilot kerbside scheme is planned for next year.
- Gwynedd Recycling Services hopes that it will eventually be possible to reuse the collected materials within the local community.
- Glass recycling facilities are to be added at the bring sites.
- Gwynedd Council plans to increase the number of households supplied with composting bins.
- The Welsh Assembly has £12.6 Million to allocate for 2002/03 to help Welsh local authorities meet the UK government’s recycling targets.

Contact

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Summary of other initiatives in Gwynedd County

Home Composting
Gwynedd County Council has distributed 220 litre bins for composting to almost 14,000 households free of charge, largely to households in the more built up areas of the county. This constitutes a participation rate of nearly 30%, although this is thought to be a conservative figure given the tradition of home composting in the rural areas of the region.

Community Composting
Menterfachwen, a local project in village of Cwm-y-glo, funded by landfill tax credits from Hanson's. The project provides a central composting facility in the village; the compost produced is in turn used by villagers and local farms.

Social Benefits
Gwynedd Recycling Service has developed from having only four employees to its present workforce of 18 full and part-time workers. Of these, six of the full-time staff have special needs. A number of students from local colleges and special needs’ schools join the company on work experience programmes.

<table>
<thead>
<tr>
<th>Material Collected</th>
<th>Destination</th>
<th>Costs/Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Paper</td>
<td>UK Waste (Wrexham)</td>
<td>£5180 revenue ‘99-’00</td>
</tr>
<tr>
<td>Paper and magazines</td>
<td>Cheshire Recycling, Wirral Biffa Waste</td>
<td>Subcontractor collects free of charge Gwynedd Recycling Service receives £40/tonne coloured PAMs and £80/tonne for white paper</td>
</tr>
<tr>
<td>Cans</td>
<td>Glich (Bangor) Hyel Ellis &amp; Son</td>
<td>£1710 revenue ‘99-’00 Small local authority subsidy for private firm. Project is primarily dependent on revenue from sale of aluminium and steel.</td>
</tr>
<tr>
<td>Textiles</td>
<td>Salvation Army maintains and collects from bins at local authority bring sites</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>Glass Recycling (UK) Ltd. Sheffield World Care (Wales) Gwynedd Recycling Service</td>
<td>Glass UK is contracted for £2700 p.a. Gwynedd Recycling Service pays for glass collection service</td>
</tr>
<tr>
<td>Furniture</td>
<td>Local re-use</td>
<td>£6575 revenue through resale.</td>
</tr>
</tbody>
</table>
For many of the local authorities and projects highlighted in this report, the UK’s unstable recyclable materials markets have, to a large extent, determined the types of recycling strategies deployed. Markets have not always been able to absorb materials collected and this unpredictability discourages local authorities from investing in recycling. It also makes it more difficult for community groups to attract fair prices for materials - from a reprocessor’s perspective, smaller tonnages are only worth purchasing at very low prices, as there is always the risk that markets can fail at any time.

However, with increasing pressure being brought to bear on the government to improve the UK’s recycling performance, particularly from Europe, various interventions have been made. The effects of these will, over the coming years improve both prices and stability in materials markets, allowing local authorities, the private sector and the community sector to invest safely in increasing their recycling activities.

Packaging

One of the first measures to be used, which is only now beginning to make an impact on markets, is the Producer Responsibility (Packaging Waste) Regulations. The legislation was introduced in 1997 as a result of the EU Packaging Directive.

The regulations make it mandatory for businesses which handle packaging, such as producers of packaging, packers, wholesalers and retailers, to contribute a percentage of the material they handle towards the cost of eventual recovery. In this way, producers take responsibility for the waste they create.

Fulfillment of this obligation is proved via the provision of a Packaging Recovery Note (PRN), issued by accredited reprocessors when a certain amount of material is recycled or incinerated. For example, one tonne of glass is equivalent to one glass PRN.

Producer responsibility is also met via the purchase of PRNs, which can be traded openly. Packaging producers can meet their obligations in a third way by joining a compliance scheme. Companies pay a subscription fee to a scheme, which then takes on legal responsibility for the company’s obligation.

In the first three years of operation, the packaging regulations system did not see a significant increase in the amount of waste recycled. This was because PRN value was attached to materials that were already being recycled, or could be easily recovered from commercial waste. However, the size of each company’s obligation increases every year. This year, the target that has been set will result in a significant shortfall in existing recovery of around 600,000 tonnes. As a result of this 2001 will be the first year that household, or ‘post consumer’ waste recycling will increase as a result of the system. The supplementary PRN value will add to the overall price paid by reprocessors for material and will also result in reprocessors being able to invest with more confidence in increasing reprocessing capacity.

Wrap

Another major step in the right direction has been the formation by the government of the Waste and Resources Action Programme (WRAP) which was first announced in the Waste Strategy 2000. One of WRAP’s priorities is to identify key areas of activity that will develop UK markets for secondary materials.

The intention of WRAP is to facilitate existing markets by identifying the current barriers to stability and removing them. This would mean, for example, encouraging sellers to deliver higher quality recyclate that can be used as alternatives to virgin materials. Similarly, manufacturers must be encouraged to choose recycled materials and develop confidence in the market. Many people working within the industry have argued that national quality standards would go a long way towards achieving this sort of trust. Some have also suggested that a manufacturing tax on virgin raw materials would assist the development of markets.

WRAP will also work with the financial community to promote investment in recycling ventures. At present, due in part to market instability, investors demand a high rate of return from recycling ventures, and many small and not for profit companies experience difficulty accessing start up or expansion capital.

Strategic research and development, both on the collections and reprocessing sides of the industry, will also be carried out. As well as conducting research into collection best practice the program will find new uses and applications for recyclable materials.

This will be particularly applicable for materials where there is an imbalance between the volume collected and the size of the existing markets. Glass is one example of this - the UK imports more green glass, in the form of wine bottles, than it has a use for as a recycled material. However, alternative end-uses for this product can be developed. David Dougherty, founder of the Clean Washington Centre and advisor to WRAP gave a presentation at the Community Recycling Network’s conference last year in which he described 11 alternative end-uses for the material.
**Market development - the current situation**

**Targets**

Other measures are likely to improve the UK’s markets for recycled materials over the next few years. The statutory recycling targets that the government has set for local authorities, together with the rising PRN values, will lead to a huge increase in the amount of materials collected. This increase in supply will lead to a greater amount of investment all round. Reprocessors, for example, will be able to expand, safe in the knowledge that any new reprocessing plants will be running at full capacity.

**Investment and Development**

In December 2000 Michael Meacher, the Minister of the Environment, gave evidence to the House of Commons Select Committee on the Environment, Transport and Regional Affairs as part of their investigation into the practicality of Waste Strategy 2000. He was asked what the government is doing to encourage investment in reprocessing. Mr Meacher assured the committee that the government was looking at ways to encourage development of new reprocessing capacity, including the provision of funding for the development of a second Aylesford Newsprint reprocessing plant.

Increasing reprocessing capacity will also help develop a manufacturing infra-structure for recyclable materials. At present, the lack of facilities in the UK means that companies using recyclate have to locate near processors, or transport materials over long distances. One way in which a recyclate-based manufacturing industry could be developed and strengthened would be via the creation of local, small scale reprocessors and product manufacturers. Creating a more diverse, localised infra-structure will help absorb the ever increasing amount of materials that are being collected, cut transport costs and air pollution, and allow the smaller operations of community groups and rural local authorities to feel the benefit of a strengthened market. Developing such a localised infrastructure will also create jobs in areas where traditional industries are in heavy decline.

**Local Initiatives**

The proximity principle is already starting to be applied in certain areas of the UK, with initiatives such as ReMaDe (Recyclables Market Development) adopting a radical, hands-on approach towards closing the gaps in the recycling industry. In 1999 environmental consultancy company Enviros started up a chain of ReMaDe projects across the UK, all of which have the common aim of identifying potential markets and uses for locally recovered material. London ReMaDe, for example, is planning to develop three recycling eco-industrial areas within the capital. A partnership of local authorities, private sector companies and community organisations will deliver a programme to stimulate recycling-based markets, secondary industries and jobs. The programme will assist in the re-industrialisation and environmental regeneration of the Thames Gateway region of London.

Elsewhere in the capital, BioRegional Development Group, an independent environmental organisation, has developed an initiative known as Local Paper for London. Funded by the landfill tax credit scheme, the scheme encourages organisations and businesses to recycle their waste office paper to the local paper mill. The loop is closed by the same organisation buying back the paper products produced by these mills.

Office paper, like all recyclable materials, cannot be recycled indefinitely and a supply of virgin fibre is always required to maintain the strength and quality of the pulp. BioRegional is working with the paper industry to develop the technology to provide a source of sustainably produced virgin fibre for addition into the local paper cycle. The MiniMill technology will be capable of producing office paper quality pulp from flax, hemp and waste crop residues.

In Liverpool, the Clean Merseyside Centre aims to expand local markets by working with existing organisations to include recycled materials in their processes, products and services. The centre is managed by Enviros, and is based upon the Clean Washington Centre in the US. The Clean Washington Centre was instrumental in raising recycling rates in Seattle from six per cent in 1989 to 48 per cent in 1998. This achievement was made possible through the stimulation of new markets for recyclate.

**Conclusions**

The conclusion to be drawn from these developments is that the UK market for recycled materials is likely to improve significantly over the next few years. The EU Landfill and Packaging Directives have forced the British government to set targets for recycling and composting. In order to meet these targets, the government will need to provide further funding to develop new markets for recycled materials. It will also be forced to intervene in, and thereby strengthen, existing ones.
1. British people can’t be bothered to separate their waste. How will they ever be made to change their habits?
Actually, recent research of one successful recycling scheme has found that 81 per cent of householders found it easy to separate their waste into three categories. Over 50 per cent of these had not recycled before the scheme was in place. The provision of a comprehensive recycling service combined with a campaign of education and awareness raising has been shown to be the only way to get people to change their habits.

2. Do materials collected separately for recycling end up being landfilled?
If materials are collected properly and are not contaminated with other waste, they will always be recycled. The only two circumstances under which recyclables ever get landfilled are if a batch is too contaminated with other waste, or very occasionally if the market for a particular material is so depressed as to make the cost of recycling it prohibitive.

3. Is it true that there are no markets for reprocessed green glass?
It is true that we’ve imported a lot more green glass in the form of wine bottles than we have a use for in the UK, and so prices have tended to be lower for green than for other glass. However, the recent slump in green glass prices has triggered a lot of work in developing new markets for green glass, including in the aggregates and abrasives industries, and prices should be much more stable in the coming years. A recent sign of things to come has been the development of a new market for green and mixed glass as a raw material in sharp sand manufacture and the road surfacing product Glasphalt. These two related outlets should accommodate a 100,000 tonne increase in green glass recycling capacity in 2001, at a price significantly higher than the container industry has been able to pay for several years.

4. How difficult is it to recycle plastics? Are there too many types?
There are a lot of different types of plastics but this doesn’t prevent plastic from being recycled. The six most common types of plastic can all easily be recycled and have a much higher value than most recyclable materials. At the moment the problem lies with a lack of reprocessing facilities across the UK - all the reprocessors are currently located in the North West. It will be possible to recycle plastics in many more areas when there are reprocessing facilities across the UK, and there are a lot of incentives for the industry to expand.

5. Is it true that recycling paper is more polluting than using virgin material and incinerating our waste?
No. If we always have to replace paper we use with virgin material from North America and Scandinavia, the pollution caused and energy wasted in this transportation and production far out weights the relatively small amount of extra pollution caused in the paper re-manufacturing process. Also, the pollution directly caused by incineration may constitute a greater risk to human health.

6. Is it true that more energy gets wasted through recycling than is saved by it?
In the case of every material that is recycled in the UK, more energy is saved through the recycling of that material than is used in the recycling process. It’s true that because reprocessing facilities are spread across the country, materials often have to be transported long distances before they’re recycled. However, this is nothing compared to the transportation necessary to constantly replenish manufacturing with virgin materials from across the world. As more reprocessing facilities are built, many on a local scale, the benefits of recycling will be even more apparent.

7. Is it true that storing organic waste in the home is unhygienic?
If organic waste material is stored correctly it will break down aerobically and shouldn’t smell or create any other health hazards. However, if organic material is allowed to break down anaerobically (in the absence of oxygen) it can generate an awful smell and produce toxic leachates. These problems can be easily avoided by emptying your kitchen container regularly (daily in summer and every 2-3 days in winter).

8. I live in a block of flats with a very small kitchen. How am I supposed to find the space for all the different recycling containers?
This is a difficult problem. However, there are a number of recycling bins on the market which fit easily into any size kitchen and make storing recyclables much easier. Any local authority wishing to start a recycling scheme in high-rise accommodation should be aware of these problems. It would be advisable for authorities to consult with residents and perform tests on different kitchen systems before implementing such a scheme. Also, Ikea produce an excellent set of stackable containers for small kitchens.

9. I know disposable nappies are bad for the environment, but I don’t have time to wash reusable ones. Is there another alternative?
There are some convenient alternatives, including nappy laundry services (which can also work out cheaper than using disposables), but even these systems aren’t compatible with
**Frequently asked questions**

many of the busy lifestyles that we lead today. Improvements in disposable nappy design and plans to introduce nappy recycling will mean that along with the growth in reusables, the environmental impact of nappies should diminish.

10. I have tried to compost at home, but it never works and it smells awful. What am I doing wrong?
There are lots of things that could be going wrong, the most likely of which could be causing all or part of your compost to decompose anaerobically. Your local recycling officer (based at the local authority), Allotment Association member or Community Composting Network representative will be able to give you specific guidance.

11. Can you compost meat and cooked food?
Meat and cooked food, whilst bio-degradable, compost much more slowly than garden and uncooked kitchen waste. For this reason, it’s inadvisable to compost meat and cooked food together with these materials. In some areas of the UK collection services for all kinds of kitchen waste are being piloted, and in these cases, special centralised composting vessels are used. These schemes allow meat and cooked food to be composted alongside garden and uncooked kitchen waste. An example is ORRTEC’s Vertical Composting Unit (VCU), currently on trial in Sheffield, which can compost up to 1,500 tonnes of mixed organic waste per annum, and has a footprint the size of a Transit van.

12. Is it true that only a proportion of waste can be recycled or composted and that we will always need landfill and incineration?
At present, up to 80 per cent of household waste is theoretically recyclable, and rates of 50 - 60 per cent recycling are already being achieved in some UK districts. The 20 per cent of products which aren’t currently recyclable (some plastics, sanitary products, household batteries etc) should with time be re-designed to allow them to be recycled. Although it is likely that we will need some degree of landfill for the foreseeable future, there is no reason why building incinerators should be necessary to dispose of this small percentage of surplus waste.

13. Why don’t we re-fill bottles and other packaging anymore?
Re-use should be prioritised over recycling - it makes more sense and saves more energy to re-use packaging rather than recycle it. However, as the manufacturing industry has become increasingly centralised over the years, it has become more profitable for manufacturers to use available production space to manufacture more product, rather than to wash and re-fill packaging. This centralisation has led to greater transport distances between the manufacture of a product and its retail, and has encouraged the use of lighter weight packaging materials such as plastics. However, there are a growing number of small local manufacturers and retailers collecting and re-filling packaging and showing that re-use is still economically viable.

14. Is it possible to recycle computers and other electronic goods?
There are many small businesses and community organisations across the country which specialise in recycling computers and electronic goods. Some of them provide refurbished equipment to schools, charities and developing countries. The European Waste Electronic and Electrical Equipment (WEEE) directive will make it an obligation of manufacturers that they contribute towards the cost of setting up of new electronic equipment recycling facilities. This will further increase the availability of local services.

15. Is it true that recycling only creates dirty, smelly, dangerous and low-paid work?
Recycling has the capacity to create thousands of well-paid jobs for those who would previously have worked in traditional industries which are now in decline. Where the most up to date systems are used, collection and sorting jobs are safe, relatively clean and hardly smell at all. Society is increasingly accepting its responsibility to the environment and recycling offers a unique new career path for those interested in minimising human impact on the environment. A recent study by Waste Watch stated that “meeting the 30% [recycling target] by 2010 could potentially create 45,000 jobs”.

16. I think recycling is a good thing, but it costs so much. Why should we spend more on recycling when schools and hospitals still need to be improved?
The true cost of not recycling, including the increased cost of goods made from virgin materials and the increasing cost of landfilling waste, is making recycling an ever more cost effective method of dealing with waste. This trend is only likely to continue. Recycling also offers the added benefits of job creation and environmental improvement.

17. I can't be bothered to recycle. Why should I?
For far too long humanity has failed to grasp the scale of its impact on the earth. As well as being an easy way for people to do their bit, recycling and the reduction of dependency on virgin materials will make a real difference. For most of us, the small extra effort needed to make recycling work isn’t too much to ask. As recycling increasingly enters the mainstream those few who still can’t be bothered will be seen as ignorant and anti-social.