

# Foreword

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We live in a time of change. Dealing with the waste we all produce is soon to change significantly. Devon will need to move away from dependence on landfill towards more sustainable waste treatment technologies. Driven by a higher social awareness and European Legislation, we must have a radical rethink of how we deal with our rubbish in Devon.

This Municipal Waste Management Strategy for Devon sets out the problem and looks to the way forward. We must think of rubbish being a resource from which as much value as possible should be recovered. The recent Don't Let Devon Go to Waste Campaign has shown how you can play your part. Together we can make a difference. The more we reduce, reuse and recycle the fewer waste treatment facilities will be needed.

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## Executive Summary

- S1 This Strategy provides the framework for the management of municipal waste within the administrative area of Devon until 2035. Municipal waste is defined as all waste collected by the Local Authorities including that from households, some commercial and industrial waste, fly tipped waste and beach cleansing, as well as that taken to the County Council Recycling Centres.
- S2 The responsibility for managing municipal waste lies with the District/ Borough/ City Councils as Waste Collection Authorities for waste collection and the County Council as the Waste Disposal Authority for waste disposal. The Unitary Councils of Plymouth City and Torbay are responsible for both waste collection and disposal. The Environment Agency is the regulator responsible for environmental protection and licensing and inspection of waste management facilities.
- S3 This Strategy has been produced by all the Local Authorities in Devon working together including the Unitary Councils of Plymouth City and Torbay, as well as the Environment Agency. It underlines the commitment of all these bodies to work together to achieve the policies and targets set out in this document.
- S4 In 2003/04 409,052 tonnes of municipal waste were produced within Devon. Of this, 376,526 tonnes were classified as household, of which 26.69% was recycled or composted. This is one of the highest recycling and composting combined rates of the Shire counties within the country. However, Devon has been set challenging statutory targets for recycling and composting household waste and is required to achieve a rate of 36% in 2005/06. In order to achieve these targets kerbside collection of recyclables will include all households in accordance with the Household Waste Recycling Act 2003. Similarly the existing network of County Council Recycling Centres will be improved and expanded to ensure that every household has access to a wide range of recycling facilities.
- S5 This Strategy endorses the national waste hierarchy and places reducing the rate of growth of waste at its core. A target of reducing the rate of growth of household waste to 1% by 2009/10 has been set.
- S6 This Strategy endorses the concept of 'Resource Management' whereby emphasis is placed on waste as a resource to be used to develop new products rather than as a by-product to be disposed of.
- S7 This Strategy endorses the policies and targets set out in Waste Strategy 2000 including the recovery targets and diversion of biodegradable municipal waste away from landfill as set out in the Landfill Directive. It also sets a number of its own targets for recycling and composting. A summary of the targets is as follows:-
- To recycle or compost 30% of household waste by 2005/06.
  - To recycle or compost 40% of municipal waste by 2009/10.
  - To recycle or compost 50% of municipal waste by 2014/15.
  - To recycle or compost 60% of municipal waste by 2019/20.
  - To recycle or compost 65% of municipal waste by 2025/26.
  - To recover value from at least 40% of municipal waste by 2005/06, 45% in 2010/11 and 67% in 2015/16.
  - By 2010 to reduce the amount of biodegradable municipal waste landfilled to 75% of that produced in 1995.
  - By 2013 to reduce the amount of biodegradable municipal waste landfilled to 50% of that produced in 1995.
  - By 2020 to reduce the amount of biodegradable municipal waste landfilled to 35% of that produced in 1995.
- The Waste and Emissions Trading Act will, by means of the Landfill Allowance Trading Scheme, ensure that the requirements of the Landfill Directive are met nationally. Devon will be allocated landfill allowances from 2005/06 onwards.
- S8 Both the National and Devon Waste Hierarchies place energy recovery above landfill as the preferred waste management option. Consequently recovery of value from residual waste through some kind of energy recovery processes will form an integral part of waste management within Devon to meet the recovery and diversion targets. The number and size of such facilities will need to ensure that there is no detrimental impact on waste reduction, re-use, recycling and composting tonnages.
- S9 Landfill will continue to play a role for municipal waste management in Devon but in the long term only for those wastes which arise as residues from other treatment processes and those wastes which cannot be managed in any other way.
- S10 A number of European Directives such as the End of Life Vehicles Directive, Waste Electronic and Electrical Equipment Directive and others are still in the process of being finalised and implemented into UK legislation. These and other waste related policies will need to be incorporated into this Strategy as they develop.
- S11 This Strategy will be reviewed at least every five years to incorporate changes in legislation, technology and revision of waste forecasts and assumptions.

# 1.0 Waste - What's the problem?

## 1.1 Background

1.1.1 In 1996 the document 'A waste management strategy for Devon' was published for consultation. This concentrated on how household waste generated in the whole of Devon should be managed over the next 30 years. Over 1,700 representations were received and although the policies were amended a final strategy for Devon was never published.

1.1.2 Since then Waste Strategy 2000 has been published which sets out the national waste strategy for England and Wales. This incorporates a number of European Directives on waste, in particular the Landfill Directive. Further Directives are currently being developed and these will impact on how waste is managed in Devon in the future.

1.1.3 This strategy concentrates on municipal waste which is produced in the administrative area of Devon. This excludes the areas of Plymouth City and Torbay which are managed by Unitary Authorities. Municipal waste includes:-

- Household waste which includes that collected directly from households including kerbside recyclables, bulky waste collections, clinical waste collections, garden waste collections, drop-off/bring bank collections, waste brought to the County Council Recycling Centres (excluding soil and rubble), schools waste and street cleansing and litter collections
- Other wastes collected by Local Authorities including fly tipped wastes, beach cleansing waste and some commercial and industrial waste, as well as soil and rubble brought to the County Council Recycling Centres.

1.1.4 This document sets out proposals on how the Local Authorities plan to manage municipal waste within the administrative area of Devon to the year 2035. It does not consider in detail where any new waste facilities may be located. This issue is covered by the Waste Local Plan.

1.1.5 The Government have issued guidance on how this strategy should be written and have stated that it will become a statutory requirement for all local authorities to produce them. It has been drawn up by all the Local Authorities including Plymouth City, Torbay and the Environment Agency working in partnership.

## 1.2 Principal purposes of this strategy

The principal purposes of this Strategy will be to act as:-

- A clear indication of how municipal waste will be managed within the administrative area of Devon until 2035.
- A major consideration when preparing the detailed policies in respect of municipal waste in the revision of the County Structure Plan and the Second Deposit Version of the Waste Local Plan.
- Guidance for the District Councils, as waste collection authorities, in updating their Recycling Plans and in the tendering of new waste collection and recycling / composting contracts.
- Guidance for the provision of Recycling Centres throughout the county.
- Guidance for the preparation of waste treatment, recovery and disposal contracts let by the County Council and the Unitary Councils of Plymouth and Torbay as the Waste Disposal Authorities.
- Guidance for the Devon Authorities Waste Reduction and Recycling Committee when considering future recycling and waste minimisation initiatives.

### Waste Strategy Policy Statement 1 (WSPS1)

This Strategy will form the framework for the management of municipal waste within the administrative area of Devon over the period to the year 2035.

## 1.3 Timescale and review

1.3.1 This strategy is intended to cover the years until 2035. Waste management within this country is going through a period of rapid change both in developing waste management technologies and the legislation governing how it is to be managed including achievement of targets. Much greater emphasis is to be placed on recycling and composting with new technologies being developed to divert waste away from landfill. Thus the waste forecasts supporting this strategy will need to be reviewed and updated to incorporate developing trends. Consequently this document will need to be reviewed and revised on a regular basis to take account of all these changes.

- 1.3.2 Many organisations including central government, the Environment Agency and universities are undertaking research into waste management technologies. It may be appropriate for the Local Authorities to sponsor such projects as has been done in the past with the University of Exeter.
- 1.3.3 This strategy sets targets for reducing the amount of waste that is generated, increasing recycling, composting and recovery, and reducing the amount of waste going into landfill. Progress on achieving all of these targets will need to be monitored on a regular basis.

### Waste Strategy Policy Statement 2 (WSPS2)

This Strategy will be reviewed and updated at least every five years to incorporate changes in waste management legislation, best practice policy and guidance, as well as reviewing waste generation forecasts, and monitoring performance against targets. The Action Plan will be reviewed annually.

The Local Authorities and Environment Agency will consider the need to support research projects locally into particular aspects of waste management .

## 1.4 Who is responsible for what?

- 1.4.1 Currently the responsibility for the management of municipal waste within Devon lies with the local District/Borough/City Councils, the County Council, the Unitary Councils of Plymouth and Torbay and the Environment Agency.

### Waste collection

- 1.4.2 Devon has eight district/borough/city councils. These are:-

East Devon District Council  
Exeter City Council  
Mid Devon District Council  
North Devon District Council  
South Hams District Council  
Teignbridge District Council  
Torrige District Council  
West Devon Borough Council

These act as Waste Collection Authorities (WCAs) in their areas, and their waste responsibilities include:-

- To arrange for the collection of municipal waste in their areas. This includes collection of dustbin waste from the householder as well as bulky household waste collection, clinical waste collection from the householder, clearing fly tipped waste, beach cleansing and street cleaning as well as some collection of commercial waste which may form part of a mixed collection round.
- To carry out recycling schemes and prepare recycling plans. This includes collection of recyclable material directly from the householder

by the provision of kerbside facilities as well as provision of recycling or 'bring' banks or pavilions at numerous locations throughout the county usually at car parks, supermarkets and other public places.

### Waste disposal & waste planning

- 1.4.3 The County Council is the Waste Disposal Authority (WDA) and Waste Planning Authority (WPA) for the above Waste Collection Authorities. Its responsibilities include:-

As WDA

- To arrange for the treatment and disposal of municipal waste.
- To provide sites (Recycling Centres) where members of the public can bring bulky household waste / garden waste for recycling or disposal.
- To promote waste reduction, re-use and recycling of household waste.
- Aftercare and restoration of closed County Council landfill sites to ensure that they cause no harm to the surrounding environment.

As WPA

- To make decisions on waste related planning applications
- To prepare a Waste Local Plan

### Unitary authorities

- 1.4.4 The Unitary Councils of Plymouth City and Torbay cover the responsibilities of both the Waste Collection Authority, the Waste Disposal Authority in their own particular area and the Waste Planning Authority.

### Waste regulation

- 1.4.5 The Environment Agency is the waste regulatory body responsible for environmental protection and its primary functions with regard to waste are:-

- Issuing licences to ensure the safe handling, storage, treatment and disposal of waste.
- Carrying out inspections and enforcement to ensure that correct procedures are followed and that there is no harm caused to the environment.
- Collection and compilation of waste statistics both for municipal and commercial and industrial waste.

### Community sector groups

- 1.4.6 Across Devon there are also a growing number of community groups and not-for-profit organisations who either re-use, recycle or compost household waste which, although on a small scale, are making an important contribution to diverting waste away from landfill.

### 1.4.7 Industry

The collection, processing and disposal of Devon's Waste is carried out by waste industry contractors, local authorities and the community sector.

## 1.5 Working together

1.5.1 As can be seen from section 1.4 there are several authorities involved in the management of waste in Devon. However we have a very good history of working together. This will become even more important if we are to deliver effective environmentally sensitive solutions to the ever more complex and increasing waste problem.

1.5.2 Both Plymouth City Council and Torbay Council as unitary councils are developing their own municipal waste management strategies. This document focuses primarily on the management of municipal waste within the administration boundary of Devon but both Torbay and Plymouth City are partners in the development of this particular document, as it is recognised that all the local authorities need to work together across administrative boundaries.

1.5.3 This document is a commitment from all the local authorities and the Environment Agency to strengthen and develop their joint approach to waste management, and to develop their partnerships with the waste industry and the community sector.

Figure 1 - Management of household waste in 2003/04

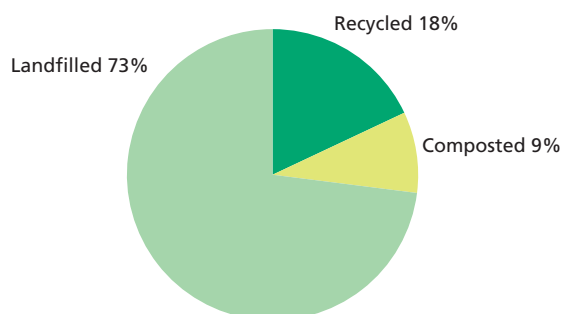


Figure 2 - Generation & recycling of household waste in 2003/04 (tonnes)

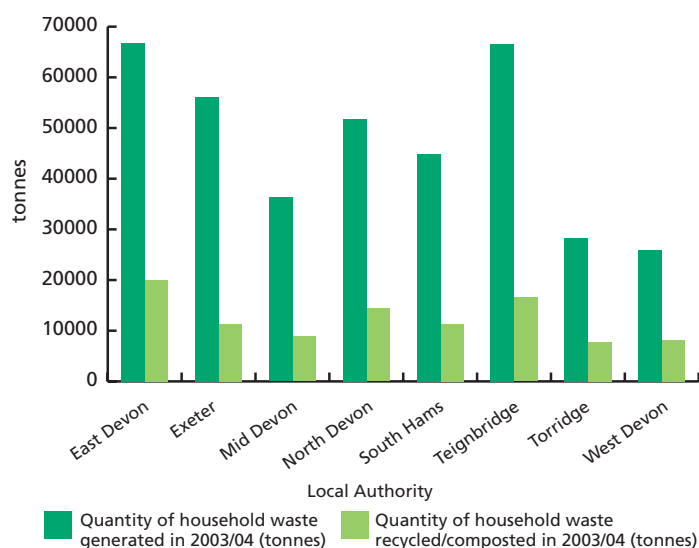


Table 1 - Total household waste generated (collected or taken to County Council Recycling Centres) in 2003/04

| DISTRICT     | Population In 2003 | Quantity of household waste generated in 2003/04 (tonnes) | Quantity recycled / composted In 2003/04 (tonnes) | Quantity recycled / composted in 2003/04 (%) |
|--------------|--------------------|---|---|--|
| East Devon   | 125,525            | 66,804  | 20,074  | 30.05%                                       |
| Exeter       | 111,076            | 56,087  | 11,385  | 23.87%                                       |
| Mid Devon    | 70,657             | 36,296  | 8,874   | 24.45%                                       |
| North Devon  | 88,100             | 51,832  | 14,386  | 27.75%                                       |
| South Hams   | 81,900             | 44,802  | 11,281  | 25.18%                                       |
| Teignbridge  | 122,200            | 66,553  | 16,564  | 24.89%                                       |
| Torrige      | 56,000             | 28,228  | 7,746   | 27.44%                                       |
| West Devon   | 48,900             | 25,923  | 8,199   | 31.63%                                       |
| <b>TOTAL</b> | <b>704,358</b>     | <b>376,526</b>  | <b>100,508</b>                                    | <b>26.69%</b>                                |

## 1.6 Current waste generation

- 1.6.1 In 2003/04 409,052 tonnes of municipal waste were generated in Devon. Of this 376,526 tonnes were classified as household waste of which 26.7% was recycled or composted with the remainder sent to landfill, as illustrated in Figure 1. A breakdown of how household waste was managed on a Waste Collection Authority area level is given in Table 1, and illustrated in Figure 2.
- 1.6.2 Figure 3 illustrates the source of household waste generated in 2003/04. From this it can be seen that 73% was collected by the waste collection authorities (WCAs) with the remaining 27% being taken by members of the public to the County Council Recycling Centres, previously known as Civic Amenity & Recycling Centres (CARCs). Waste recycled at the Recycling Centres accounts for approximately half of the total waste recycled, with the waste collection authorities recycling the other half through a combination of kerbside recycling and recycling banks and that recycled by community and voluntary groups.

Figure 3 - Source of household waste in 2003/04

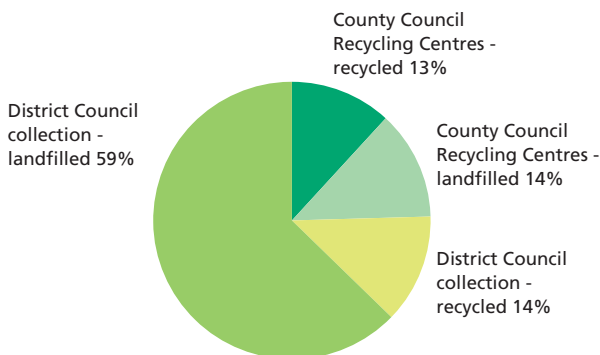
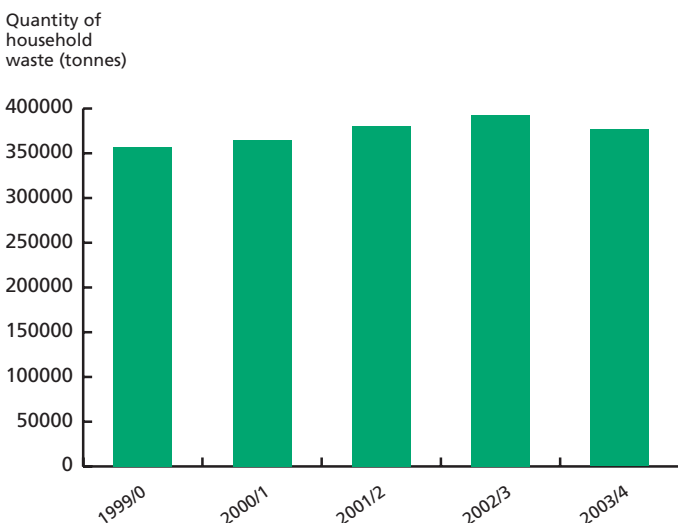


Figure 4 - Growth of household waste produced in Devon



- 1.6.3 Fig 4 shows household waste growth within Devon since 1999. Over the years 1999/00 - 2002/03 the annual average growth was approximately 3%. Whilst the growth in population and households within the county goes some way to explain the trend there has been a worrying growth rate of waste generated per household. In 2002/03 1.2 tonnes per household were generated which equates to 0.55 tonnes per head of population.

However, between 2002/03 and 2003/04 there has been a welcome reduction in the rate of waste growth with household waste arising reduced by 4% over the year and municipal waste growth down to -2%. It is too early to say yet whether this could be the beginning of a downward trend in the waste growth rate. The reduction in arisings can be attributed to the new recycling centre contract, the Don't let Devon go to waste campaign and a gradual change in public attitudes toward more sustainable waste management practices.

- 1.6.4 Developments in the selling of convenience products and garden and house makeovers have contributed to the growth of household waste and the concept of a 'throwaway' society. If this trend is to be permanently reversed more attention will need to be given to reduce the amount of waste that we each generate. Design of products will also need more care to consider the complete life cycle of any product from the use of recycled materials to produce the item right through to how that item may be either re-used or recycled when it comes to the end of its life. Care also needs to be taken with respect to the design of packaging, avoiding the creation of over-packaged goods.

## 1.7 The National Picture

- 1.7.1 Both European and UK policy recognises that there must be a fundamental change in how we manage waste, in particular the need to move towards more sustainable methods of waste management.

### European Directives

- 1.7.2 A number of directives relating to waste have already been drawn up by the European Union and have been implemented in the UK by means of primary legislation. The most significant is the Landfill Directive which is still in the process of being implemented. As well as requiring all waste that is landfilled to be treated in some way, it will restrict the amount of biodegradable municipal waste that can be landfilled by all member states by setting increasing targets for diversion as set out in Table 2. Biodegradable waste is that which will break down by rotting and eventually disappear, although the rotting process causes landfill gas including methane to be generated and a toxic liquid called leachate to be produced. Approximately 60% of municipal waste is currently biodegradable and includes materials

such as vegetable peelings, cardboard, paper and garden waste.

- 1.7.3 Other Directives are also being developed which will impact on the future of the management of municipal waste. These include the Waste Electronic and Electrical Equipment (WEEE) Directive which will require the separate collection and recycling of all electrical equipment; the End of Life Vehicle Directive; the Hazardous Waste Directive and a Batteries Directive.

### The National Waste Strategy 2000

- 1.7.4 In May 2000 the Government published its own strategy entitled 'Waste Strategy 2000'. This sets out a framework for the management of waste in the UK over the next 20 years. The key commitments of the strategy include reducing the amount of waste that is generated; breaking the link between waste production and economic growth; and ensuring that the waste which is produced is put to good use through increased re-use, recycling, composting and recovery of energy. It has set targets for recovery of municipal waste up to 2015 as given in Table 2, where recovery means that the waste must undergo processing such that it is either recycled, composted or some other process such that it can be used as a resource such as a fuel for energy recovery.
- 1.7.5 Waste Strategy 2000 sets out a waste hierarchy for managing waste within the UK. It gives top priority to reduction followed by re-use, recovery including recycling, composting and energy recovery with disposal to landfill being the final option for consideration.

Figure 5 - The national waste hierarchy

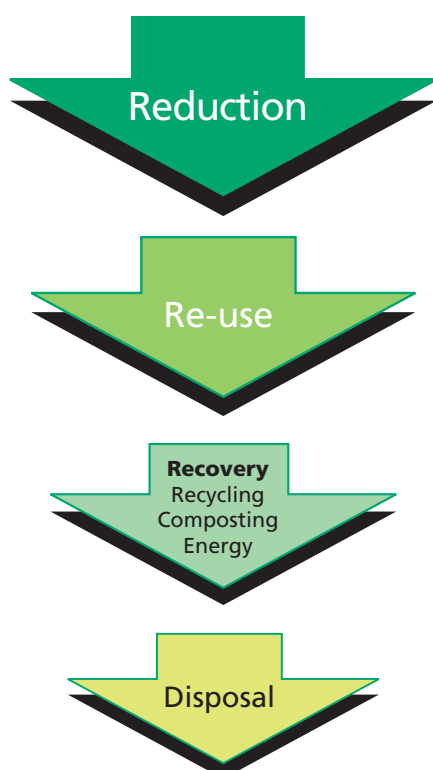


Table 2 - Targets set under the Landfill Directive & Waste Strategy 2000

|      | Landfill Directive targets for reduction of biodegradable waste to landfill | National waste strategy targets (non-statutory) |                                      |
|------|---|---|--------------------------------------|
|      |   | Recycling & Composting                          | Recovery inc. Recycling & Composting |
| 2005 |   | 25%   | 40%                                  |
| 2010 | 75%   | 30%   | 45%                                  |
| 2013 | 50%   |   |                                      |
| 2015 |   | 33%   | 67%                                  |
| 2020 | 35%   |   |                                      |

Landfill Directive Targets:- in 2010 the UK can only landfill 75% of the biodegradable municipal waste that it produced in 1995; in 2013 this reduces to 50% and in 2020 to 35% (assuming a four year derogation).

### The Regional Strategy

- 1.7.6 The Regional Strategy for the South West of England was published in October 2004. The scope of the Regional Strategy includes commercial and industrial waste, however, with respect to municipal waste, Devon's strategy will aim to reflect the regional policies.

The Strategy aims to ensure that by the year 2020 over 45% of waste is recycled and reused and less than 20% of waste produced in the region will be landfilled. Its vision is that 'The South West' will become a minimum waste region by 2030, with householders and businesses maximising opportunities for reducing, reusing and recycling waste.

A study carried out for the region suggested that 500-600 new facilities of all types will need to be in place by the year 2020. These will be facilities for composting, sorting recyclables, for mechanical, biological or thermal treatment and for landfill. There will also be the need for recycling processing facilities. It is estimated that the cost of waste management in the region will increase from £500 million at present to £950 - £1200 million.

Key Policies include:

- All WDAs in partnership with WCAs, education services and schools should have initiatives in place to promote waste minimisation and recycling in schools.
- Local awareness campaigns should be in place and authorities should make commitments to ensure their long term funding.
- The environmental technology sector will be supported to develop new technologies and to develop new ways of using existing technologies.
- By 2020 a minimum of 45% of MSW will be segregated at source for recycling or composting and value should be recovered from the residual waste by mechanical, biological or thermal treatment having regard to the waste hierarchy. Waste development plans should make provision for sufficient facilities.

- Design of new housing layouts should make provision for kerbside collection or community facilities for the collection of recyclables and compostable waste. New dwellings should incorporate segregated storage for recyclables.
- The provision of community based collection schemes should be encouraged.
- Waste should be managed close to its place of production. In larger urban areas new facilities should be located at or in close proximity to the area. A sequential approach should be adopted to identify sites a) within the boundaries of the urban area, b) within 10m (16km) of the boundary or c) beyond 10 miles. This policy does not apply to reprocessing facilities. In rural and smaller urban areas emphasis should be on providing a network of local facilities concentrated at or close to centres of population and strategically located facilities accessible within a sufficient catchment area.

### Best Value

- 1.7.7 In order to significantly improve recycling within the UK, the Government has set mandatory targets for each local authority to recycle or compost household waste. The Devon authorities must achieve those targets given in Table 3, giving an overall recycling/composting rate of 30% for Devon (excluding Plymouth & Torbay). Pooling of targets may be considered if the Government continues to offer this opportunity.
- 1.7.8 Government have suggested that failure to meet the Best Value statutory recycling targets may lead to the authorities being fined, or management of the service being taken away from them, although the budgetary obligations would remain with the local authority.

**Table 3 - Statutory targets set under Best Value for recycling & composting household waste**

| Local Authority      | RECYCLING & COMPOSTING OF HOUSEHOLD WASTE |                             |
|----------------------|---|-----------------------------|
|                      | 2003/04 (actual)                          | 2005/06 (statutory targets) |
| Devon County         | 26.69%                                    | 30%                         |
| East Devon District  | 16.21%                                    | 27%                         |
| Exeter City          | 17.30%                                    | 30%                         |
| Mid Devon District   | 16.75%                                    | 30%                         |
| North Devon District | 18.11%                                    | 30%                         |
| South Hams           | 20.80%                                    | 30%                         |
| Teignbridge District | 18.98%                                    | 30%                         |
| Torrige District     | 22.67%                                    | 30%                         |
| West Devon District  | 27.10%                                    | 30%                         |
| Plymouth City        | awaited                                   | 24%                         |
| Torbay               | 20.69%                                    | 30%                         |

- 1.7.9 Under the Government's Best Value initiative, all services provided by local authorities must be shown to be meeting local needs and giving value for money, whilst also demonstrating continuous improvement. Services are examined by auditors who undertake Best Value Inspections using the 4Cs - these being Comparison with that offered by other authorities, Consultation with the service users, Competition in terms of value for money and Challenging whether the services can be provided more effectively. Corporate Performance Assessment (CPA) measures the effectiveness and efficiency of all local authority services. Up to date information on Best Value and CPAs can be found at [www.bvpi.gov.uk](http://www.bvpi.gov.uk).

- 1.7.10 Similarly each authority has to make annual returns on a set of Best Value Performance Indicators. Details of the reported 2003/04 indicators for each authority are given in Appendix 1.

## 1.8 Future waste growth

- 1.8.1 The typical recent average trend of 3% growth in waste produced in Devon is unsustainable. At this growth rate the amount of waste generated would double within 24 years.
- 1.8.2 The Centre for Energy and the Environment at the University of Exeter has carried out research to forecast changes in the quantity and nature of the municipal waste stream over the Strategy period. Attempting to forecast the amount of waste likely to be generated in Devon is a difficult and complex issue with past trends not considered to be representative of future waste growth.
- 1.8.3 Growth rates from now until 2035 have been predicted and are given below in Table 4. They are based on the recent waste growth trend, excluding 2003/04, but assume that this is not sustainable. Hence the rate per annum falls in increments to 1% per annum by 2010 and then remains stable at this rate thereafter. These growth rates include the projected growth in number of households, with the 1% waste growth rate from 2010 being solely attributable to growth in number of households. The estimated growth rates will be reviewed regularly.

**Table 4 - Predicted Municipal waste growth rates**

| Financial year     | Waste growth rate |
|--------------------|-------------------|
| 2003/04 to 2004/05 | 2.6%              |
| 2004/05 to 2005/06 | 2.3%              |
| 2005/06 to 2006/07 | 2%                |
| 2006/07 to 2007/08 | 1.6%              |
| 2007/08 to 2008/09 | 1.3%              |
| 2008/09 to 2009/10 | 1%                |
| 2010 onwards       | 1%                |

Table 5 - Forecasts for municipal solid waste generation (tonnes)

| LOCAL AUTHORITY<br>AREA | YEAR                |                |                |                |                |                |
|-------------------------|---------------------|----------------|----------------|----------------|----------------|----------------|
|                         | 2003/04<br>(ACTUAL) | 2009/10        | 2012/13        | 2019/20        | 2025/26        | 2035/36        |
| East Devon              | 70,280              | 78,200         | 80,600         | 86,400         | 91,700         | 101,300        |
| Exeter City             | 63,673              | 70,800         | 73,000         | 78,300         | 83,100         | 91,800         |
| Mid Devon               | 40,627              | 45,200         | 46,600         | 49,900         | 53,000         | 58,600         |
| North Devon             | 59,903              | 66,600         | 68,700         | 73,600         | 78,200         | 86,300         |
| South Hams              | 49,868              | 55,500         | 57,200         | 61,300         | 65,100         | 71,900         |
| Teignbridge             | 68,621              | 76,400         | 78,700         | 84,400         | 89,500         | 98,900         |
| Torridge                | 29,172              | 32,500         | 33,400         | 35,900         | 38,100         | 42,000         |
| West Devon              | 26,908              | 29,900         | 30,800         | 33,100         | 35,100         | 38,800         |
| <b>TOTAL</b>            | <b>409,052</b>      | <b>455,200</b> | <b>469,000</b> | <b>502,900</b> | <b>533,800</b> | <b>589,600</b> |

1.8.4 Using the above assumptions, forecasts for municipal waste generation by WCA area are given in Table 5.