

West Midlands  
**RTAB**  
for Waste

**WASTE PLANNING IN  
THE WEST MIDLANDS**

**SUPPLEMENTARY  
ANNUAL MONITORING STATEMENT  
2004**



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## CONCLUSIONS AND KEY ISSUES

Overall the Region is on track to exceed the municipal waste recovery rate required by 2005, but has some way to go to achieve the required household recycling rate. Indications since 2002/03 are that further progress in household recycling has been made across the region, with positive use being made of DEFRA funding to introduce kerbside recycling schemes.

A small increase in the amount of industrial and commercial waste that was landfilled between 1998/99 and 2000/01 is contrary to the desired trend, which requires a reduction to 3.1 million tonnes by 2005 (85% of the 1998 level). The progressive impact of Landfill Tax and other policy drivers may have impacted positively on this target since 2000/01. It is probable that this target has not been met because the ownership and accountability for this indicator is unclear. However, a key task for the implementation of RSS will be to secure the ownership and commitment of industry, commerce and the construction sector to the policies of the proposed Regional Waste Strategy. There are some pioneering projects in this sector, particularly through the intervention of The National Industrial Symbiosis Programme (NISP), but in terms of the total volume of waste in the sector they are only having a small, albeit significant effect.

Indications are that at least some parts of the construction industry are securing significant reductions in waste. Nevertheless, one very important issue relating to the RSS Urban Renaissance strategy is the need to address the waste management implications of the development of brownfield sites. The Black Country Consortium is conscious of the need to make progress in this area and has initiated discussion and workshops on the subject.

There is capacity in all treatment categories in the region, but spare capacity is marginal. The Future Capacity Requirements Study indicates a possible need for:-

- A 12-fold increase in municipal recycling capacity by 2021 - half of which is to meet metropolitan area needs - with a 60% increase required by 2005 compared with performance in 2002/03.
- A 50% increase in municipal recovery capacity by 2021 mainly to meet shire area needs. Despite existing incinerator capacity, up to an 80% increase in industrial and commercial recycling and treatment capacity by 2005 and a doubling by 2021, of which 40% might be required to meet metropolitan area needs.
- Up to 215 new waste recycling and treatment facilities by 2021.
- Significant additional recycling capacity to make better use of construction and demolition waste, especially in areas targeted for development.
- Whilst non-hazardous disposal capacity is considered to be adequate for the period, further treatment capacity for hazardous waste will be required to change its properties and to facilitate its disposal as non-hazardous waste.

This Study concludes that

*'There are particular challenges ahead with respect to the future management of construction and demolition waste and hazardous waste and further work is recommended on these issues in particular. Further work will also be required to assess the most sustainable options for tackling the need for new waste capacity and to establish the most appropriate geographical pattern of new facilities to serve the region's needs.'*

Waste has been identified as a topic for Phase 2 of the Review of the Regional Spatial Strategy commencing in autumn 2005. A **Scenarios Study** has been commissioned by the RTAB. This will provide an indication of the technical solutions to meeting these requirements that may be considered and taken forward through the review of the Regional Spatial Strategy.

## **1. INTRODUCTION**

### **1.1 The purpose of this report**

1.1.1 This technical report is the first of its kind prepared by the West Midlands Regional Technical Advisory Body for Waste (RTAB) for the West Midlands Regional Assembly, the regional planning body. Its purpose is to supplement the section on waste in the statutory *Regional Spatial Strategy, Annual Monitoring Report, 2004* by providing more detailed information on the characteristics of waste produced in the Region and how the management of this waste is changing. RTAB intends to prepare a similar report annually, progressively expanding its content as a wider range of relevant data becomes available.

### **1.2 RSS and its Review**

1.2.1 The Regional Spatial Strategy, formally Regional Planning Guidance (RPG) 11 includes policies and targets for waste management in the Region based on the draft Regional Waste Strategy (RWS) developed in 1999 and published in November 2001. The RSS also requires the Regional Planning Body, in conjunction with the RTAB, to carry out an early review of these waste policies. Waste policy will form one of the topics in Part 2 of the "Early Review" which is programmed to commence in autumn 2005 and be submitted to the Secretary of State early in 2007. Preparatory work for the review is being taken forward through technical studies of existing waste treatment capacity, future waste management requirements, and the development of scenarios for meeting these requirements. These studies will inform the preparation of a revised RWS, and the review of the RSS.

### **1.3 Policy Drivers**

1.3.1 The key policy drivers that provide the context for the RWS review include the full implementation of the Waste Framework Directive, the Landfill Directive and other emerging European and National legislation that put these into effect.

- The Landfill Directive – notably the end of co-disposal of hazardous and non-hazardous waste in landfills in July 2004, the application of Waste Acceptance Criteria in July 2005, and the targets to reduce landfill by 2010, 2013 and 2020.
- The National Waste Strategy, which establishes targets for increased municipal and household waste recovery and recycling, and reduced landfill of industrial and commercial wastes.
- The Landfill Tax, the rate of which has increased from £7 per tonne at its introduction in 1996 to £15 in 2004, and which is set to rise to £18 in 2005/06 and thereafter by £3 per tonne until it reaches the medium term rate of £35.
- Best Value, which sets household waste recovery targets for 2003 and 2005.
- The Hazardous Waste Regulations, which will increase the amount of waste that is classified and needs to be treated as hazardous and the Waste Acceptance Criteria which will prescribe the form in which it can be managed, or treated and disposed.
- Producer Responsibility legislation, notably the End of Life Vehicles (ELV) and Waste Electrical and Electronic Equipment (WEEE) Regulations.
- The Aggregates Levy and MPG6 which impact on the construction and demolition waste stream.
- Pollution and Prevention Control targets to reduce waste produced by regulated processes.

## 1.4 Waste Data

1.4.1 Although consistent and up to date information on municipal waste is now available for the last 5 or more years, data on other waste streams are less readily available, and are restricted to information collected and published by the Environment Agency (EA) for 1998/99 and 2000/01. These data inadequacies are being addressed through the preparation of a National Waste Data Strategy. The intention is to prepare and implement a 3 year programme which will provide reliable data on arisings, management and infrastructure for all waste streams (except radioactive waste).

1.4.2 The EA's Strategic Waste Management Assessment for the West Midlands (SWMA)<sup>1</sup> provides the latest comprehensive picture of waste produced and managed in the Region for 1998/99. The information on the management of waste handled at licensed facilities and the licensed capacity of management facilities was updated for 2000/01<sup>2</sup>. Unless otherwise stated, the information set out below is drawn from the Agency's data, supplemented by Defra's annual data on municipal waste. The EA is currently updating the SWMA to 2003/04, and this information will be available for use in the 2005 Supplementary Monitoring Statement.

1.4.3 Where possible, information in this Report has been provided for individual Waste Planning Authorities, although it has sometimes been necessary to combine these into 'sub-regions' purely because of the way in which the data are held.

## 1.5 RTAB Commissioned Studies

1.5.1 The licensed capacity of a waste treatment facility may not accurately reflect its capacity. The facility may be licensed for several treatment processes but they are not capable of being operated at the same time or it may reflect the top of a charging band not the actual capacity. The study commissioned by RTAB on the existing capacity of waste management facilities<sup>3</sup> (the *Waste Treatment Capacity Survey*) encountered difficulties in collecting and interpreting such data, but provides a valuable perspective on the capacity available for managing waste in the Region. The results of this study are used in the assessment of existing waste treatment capacity included in section 3.5 of this report.

1.5.2 The recently completed study of future waste management requirements (the *Future Capacity Requirements Study*)<sup>4</sup> makes informed assumptions regarding the implications of these policy drivers, and therefore this monitoring statement draws extensively on the conclusions of this study, particularly in section 5. Comparison with the data and targets in the draft RWS is included where appropriate.

1.5.3 The recently commissioned Scenarios Study focuses particularly on industrial/ commercial and construction/ demolition wastes which together account for almost 85 % of the Region's waste. This Study will form the basis of a revised draft Regional Waste Strategy and position statement prior to the development of Options, which will be issued for public consultation as part of the review of the waste policies in Phase 2 of the Early Review of RSS.

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<sup>1</sup> Environment Agency, 2000

<sup>2</sup> Environment Agency, 2004

<sup>3</sup> Final Report on West Midlands Waste Treatment Capacity Survey, Golder Associates/ MEL for West Midlands Regional Assembly, August 2004

<sup>4</sup> West Midlands Waste Facilities Phase 2 – Future Capacity Requirements, Shropshire County Council for, November 2004

## **2. WASTE MANAGEMENT IN THE WEST MIDLANDS – OVERVIEW**

2.1 Approximately 19 million tonnes of waste was produced in the West Midlands in 2001. Most of this waste is generated by business from development (construction & demolition waste – 45%) and the operation of industrial and commercial businesses (industrial and commercial, including hazardous, wastes – 39%). The remaining waste (about 16%) is municipal. Roughly a third of the waste generated in the Region was recycled, a third was subject to other forms of recovery and treatment (including incineration) and a third was disposed of at landfill sites.

2.2 Most municipal waste was managed within the sub-region of its origin; the main exceptions were significant movements for disposal to landfill from the metropolitan area to Warwickshire and to Staffordshire which together accounted for about 35% of the municipal waste produced in the metropolitan area. There were significant movements of industrial and commercial waste, and special wastes, across inter- and intra-regional boundaries. Most significant were movements from the metropolitan area to Staffordshire and Warwickshire, and from Staffordshire, the metropolitan area and Warwickshire out of the region.

2.3 In 2000/01, licensed waste management facilities in the Region handled some 15.5 million tonnes of waste, of which 3.4 million tonnes was handled by waste transfer and civic amenity facilities, and 1.8 million tonnes was accepted at metal recycling facilities. The remaining waste was sent for disposal – by incineration (1 million tonnes), treatment (1.1 million tonnes), or landfill (about 8 million tonnes). Not all this waste was produced in the Region. Large quantities of construction and demolition waste were recycled on site as secondary aggregate/ fill, or handled at facilities “exempt” from the need for a Waste Management Licence.

### 3. CAPACITY OF WASTE MANAGEMENT FACILITIES IN THE REGION

#### 3.1 Introduction

3.1.1 The only source of comprehensive information on the capacity of waste management facilities is the EA data on *licensed* capacity for 2000/01. This can be compared with equivalent information for 1998/99 to identify significant trends in the provision of waste management facilities. This of course needs to be qualified by the comments in paragraph 1.5 and the real capacity is somewhat less as described in 3.5 below.

**Table 3.1**  
**West Midlands Region**  
**Licensed Capacity of Waste Management Facilities, 1998/99 and 2000/01**

Type of facility	Year	Type of Capacity				
		Inert	non-inert	Co-disposal	Special	Total
Open gate Landfill (’000 cubic metres)	1998/99	8,178	13,805	55,754	N/A	77,737
	2000/01	11,205	5,529	70,986	N/A	87,720
Restricted User landfill (000’s tonnes)	1998/99	5,332	5,257	0	N/A	10,589
	2000/01	4,916	2,463	2,114	N/A	9,493
Open gate treatment (000’s tonnes)	1998/99	25	317		1,398	1,740
	2000/01	431	2,931	N/A	1,301	4,663
Restricted User treatment (000’s tonnes)	1998/99	0	302	N/A	54	356
	2000/01	0	264	N/A	0	264
Open gate transfer (000’s tonnes)	1998/99	25	317	N/A	1,398	1,740
	2000/01	322	6,124	N/A	801	7,247
Restricted user transfer (000’s tonnes)	1998/99	0	302	N/A	54	356
	2000/01	139	1,621	N/A	133	1,893

Source: Environment Agency

#### 3.2 Landfill

3.2.1 At the end of March 2001 there was about 97 million cubic metres of licensed landfill capacity in the West Midlands - 88 million cubic metres at open-gate sites and 9 million cubic metres at restricted-user sites. This compares with about 89 million cubic metres available in March 1998 in open gate and restricted user sites. Of the total capacity in 2001, 16 million cubic metres was available at sites licensed to accept inert waste only and 81 million cubic metres was available at sites licensed for biodegradable waste.

3.2.2 The EA assesses remaining capacity against past rates of input to provide an indication of remaining life of licensed landfill sites. On this basis, the Agency calculated that at March 2001 open-gate landfill sites in the region had around 8 years of remaining capacity for biodegradable waste (household, industrial and commercial waste).

3.2.3 RTAB carried out a survey of the approximate capacity of sites which have planning permission for landfill, but which are not licensed, in 2000. In total, there was capacity for about 19 million cubic metres of inert, and 57 million cubic metres of other/non-inert, waste in the identified sites. More up to date information is not yet available.

**Table 3.2**  
**West Midlands Region and Waste Planning Authorities**  
**Remaining capacity at open gate landfill facilities, March 2001**  
**'000 cubic metres**

WPA	Type of capacity			Total
	Inert	Non-inert	Co-disposal	
Herefordshire	24	100	0	<b>124</b>
Shropshire	285	584	1,282	<b>2,151</b>
Telford and Wrekin	0	767	4,429	<b>5,196</b>
Staffordshire	9,602	671	13,880	<b>24,153</b>
Stoke on Trent	0	375	2,200	<b>2,575</b>
Warwickshire	705	1,115	20,692	<b>22,512</b>
Worcestershire	589	417	10,243	<b>11,249</b>
Birmingham	0	0	0	<b>0</b>
Coventry	0	1,500	0	<b>1,500</b>
Dudley	0	0	6,275	<b>6,275</b>
Sandwell	0	0	9,260	<b>9,260</b>
Solihull	0	0	500	<b>500</b>
Walsall	0	0	2,225	<b>2,225</b>
Wolverhampton	0	0	0	<b>0</b>
<b>Metropolitan area</b>	0	1,500	18,260	<b>19,760</b>
<b>Shire area</b>	11,205	4,029	52,726	<b>67,960</b>
<b>West Midlands Region</b>	<b>11,205</b>	<b>5,529</b>	<b>70,986</b>	<b>87,720</b>

Source: Environment Agency

3.2.4 Table 3.2 shows the distribution of the additional capacity across the Region. In 2001, capacity was concentrated in the Warwickshire, Staffordshire and Metropolitan areas with much smaller amounts available in the Shropshire and Worcestershire sub-regions. Herefordshire had virtually no capacity for biodegradable waste.

3.2.5 The EA estimates that, in the West Midlands Metropolitan area, where waste input rates are relatively low, existing landfill sites had, in 2001, a life expectancy of more than 12 years. In contrast, the life expectancy of landfill sites in the Warwickshire and Staffordshire sub-regions is around 7 years due to their much higher waste input rates because of the large quantities of waste brought from the metropolitan areas. Landfill sites in the Shropshire sub-region had the lowest life expectancy at about 5 years. These estimates are based on past trends and do not take into account the impact of recent policy drivers as identified elsewhere in this report.

3.2.6 Following the implementation of the Landfill directive in July 2004 sites are now categorised as "inert, non-hazardous and hazardous". Figures are not available on the capacity of inert and non-hazardous sites following the changes but there are currently no landfill sites licensed for hazardous waste in the West Midlands Region, though some capacity is likely to be available in non-inert sites in separate cells for stabilised non-reactive hazardous wastes.

### 3.3 Treatment

3.3.1 The West Midlands had almost 5 million tonnes of licensed waste treatment capacity in 2000/01, as indicated in Table 3.3. 23% of the capacity was available for biological treatment and 77% for physical and chemical treatment. The figures suggest a significant increase in licensed capacity compared with 1998/99, when the total capacity was about 1.7 million tonnes, but this may be more a reflection of differences in the way in which data was collected and recorded between the two years.

3.3.2 Of the total waste treated, 38% was industrial and commercial, 30% was special (hazardous) waste, 28% was inert soils and waste from the construction and demolition industry (inert/C&D waste) and 4% came from households (municipal waste).

**Table 3.3**  
**West Midlands Region and Waste Planning Authorities**  
**Capacity at Open Gate Treatment facilities, 2000/01**  
**000's tonnes per year**

WPA	Inert	Non-inert	Special	Total
Herefordshire	0	0	0	0
Shropshire	25	52	0	77
Telford & Wrekin	0	0	0	0
Staffordshire	0	574	180	754
Stoke on Trent	0	1,828	0	1,828
Warwickshire	0	331	0	331
Worcestershire	0	0	28	28
Birmingham	250	5	196	451
Coventry	0	0	25	25
Dudley	0	5	0	5
Sandwell	0	35	378	413
Solihull	156	0	0	156
Walsall	0	0	414	414
Wolverhampton	0	101	80	181
<b>Metropolitan area</b>	<b>406</b>	<b>146</b>	<b>1,093</b>	<b>1,645</b>
<b>Shire area</b>	<b>25</b>	<b>2,785</b>	<b>208</b>	<b>3,018</b>
<b>West Midlands Region</b>	<b>431</b>	<b>2,931</b>	<b>1,301</b>	<b>4,663</b>

Source: Environment Agency

3.3.3 Over 60% of all treatment, and more than 90% of special waste treatment, took place in the West Midlands Metropolitan sub-region. Half of the biological treatment took place at sewage treatment works in Warwickshire. Staffordshire was the only WPA where composting took place at a licensed facility although there are many composting facilities operating under "exemptions" from the Environment Agency.

### 3.4 Incineration

3.4.1 Table 3.4 shows that the region had around 1.1 million tonnes of authorised incineration capacity in 2000-01. Just under 1 million tonnes of capacity was available for municipal waste, located exclusively in the metropolitan area and Stoke on Trent, was all used to generate electricity which was fed into the national grid. The remainder was for sewage sludge, hazardous waste, clinical waste and tyres (Table 3.5).

**Table 3.4**  
**West Midlands Region**  
**Capacity of incineration facilities in 000s tonnes, 1998/99 and 2000/01**

Year	Type of Capacity							Total	
	Municipal	Sewage sludge		Hazardous			Clinical		Other
		Wet	Dry	SLF	Oil	Other			
1998/99	969	0	50	0	25	24	36	132	1,236
2000/01	990	0	50	0	0	27	27	34	1,128

Source: Environment Agency

**Table 3.5**  
**West Midlands Region and 'sub-regions'**  
**Capacity of incineration facilities in 000s tonnes, 2000/01**

Sub-region	Municipal	Sewage sludge	Hazardous	Clinical	Other	Total
Herefordshire						
Shropshire				14		14
Staffordshire	200	14			34	248
Warwickshire		36				36
Worcestershire				13		13
West Midlands Metropolitan	790		27			817
<b>Total</b>	<b>990</b>	<b>50</b>	<b>27</b>	<b>27</b>	<b>34</b>	<b>1,128</b>

Source: Environment Agency

### 3.5 Existing waste treatment capacity – estimate at 2003

3.5.1 The *Capacity Survey*<sup>5</sup> sought to establish the practical operational maximum capacity of waste treatment facilities in 2003. Whilst the findings of the Survey are subject to qualification largely because of the difficulties experienced in obtaining responses from operators, an estimate of open gate treatment capacity has been arrived at that allows comparison with the EA data on licensed capacity. This suggests a significantly lower practical capacity in the Region in 2003 than the licensed capacity estimated at 2000/01. The Study conclusions are summarised in Table 3.6.

**Table 3.6**  
**Capacity at open gate treatment facilities in 2003**  
**tonnes**

Description	Inert/ C&D	Municipal	Industrial & Commercial	Special	Total	
Thermal	general	0	979,400			
	specialist	0	0	28,000	27,200	55,200
	other	0	0	54,000	0	54,000
	Sub total	0	979,400	82,000	27,200	1,088,616
Biological treatment	composting	0	67,600	0	0	67,600
	other	0	0	108,000	606,400	714,400
	Sub total	0	67,600	108,000	606,400	781,961
Physical/chemical	physical	389,000	0	109,800	99,500	598,300
	Physico-chemical	0	0	0	197,200	197,200
	Sub total	389,000	0	109,800	296,700	795,500
<b>Total estimated capacity</b>	<b>389,000</b>	<b>1,047,000</b>	<b>299,800</b>	<b>930,300</b>	<b>2,666,100</b>	

Source: Golder Associates/ MEL

<sup>5</sup> Final Report on West Midlands Waste Treatment Capacity Survey, Golder Associates/ MEL for West Midlands Regional Assembly, August 2004

3.5.2 The key conclusions from the study were that

- There is capacity in all treatment categories in the region.
- Spare capacity is marginal.
- Demand is likely to increase due to new legislative requirements.
- Plans need to be devised for each broad type of treatment – grouping together is not meaningful.
- An annual monitoring survey is necessary as proposed in draft Planning Policy Statement (PPS10)

## 4. CURRENT WASTE MANAGEMENT PERFORMANCE IN THE REGION

### 4.1 RSS Targets

4.1.1 RSS Policy WD1 restates the national targets, which are

- To recover value from at least 40% of municipal waste by 2005, 45% by 2010, and 67% by 2015;
- To recycle or compost at least 25% of household waste by 2005, 30% by 2010, and 33% by 2015;
- To reduce the proportion of industrial and commercial waste which is disposed of to landfill to, at the most, 85% of 1998 levels by 2005.

### 4.2 Municipal/ household waste

4.2.1 The latest available annual Defra survey data for 2002/03 shows that the Region produced some 3 million tonnes of municipal waste in 2002/03, of which household waste comprised 2.7 million tonnes. As Table 4.1 shows, overall in 2002/03, 14% of the region's municipal waste was recycled (compared with almost 20% in the South-East, the highest regional recycling rate in England, and the average for England of 16%). A further 32% of municipal waste was incinerated with energy recovery (by some distance the largest proportion of all the English Regions, and compared with the average for England of 9%) – making a total recovery rate for the Region of 46% - the highest recovery rate of all English Regions. The remaining 54% was landfilled (compared with the England average of 75% – the lowest reliance on landfill of all English Regions).

**Table 4.1**  
**England and West Midlands Region - Municipal waste arisings in 1996/97 to 2002/03**  
 '000 tonnes

Household waste from:	England		West Midlands	
	1996/97	2002/03	1996/97	2002/03
Regular household collection	15,660	16,522	1,674	1,731
Other household sources	950	1,336	85	105
Civic amenity sites	4,257	4,218	487	509
Household recycling	1,682	3,742	127	349
<b>Total household</b>	<b>22,549</b>	<b>25,819</b>	<b>2,373</b>	<b>2,694</b>
Non household sources(excl. recycling)	1,970	2,655	219	253
Non household recycling	68	835	0	79
<b>Total municipal waste</b>	<b>24,588</b>	<b>29,309</b>	<b>2,593</b>	<b>3,026</b>

Source: Defra

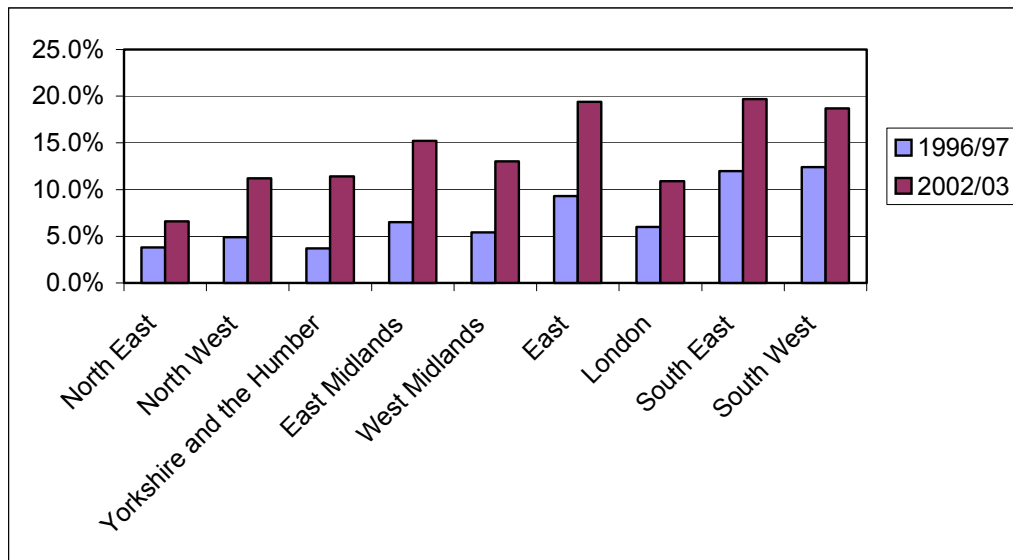
4.2.2 Table 4.2 shows that in comparison with the average for England, the Region has achieved a greater reduction in its reliance on landfill, and a larger increase in recycling/ composting and energy recovery from incineration. Figure 4.1 shows that in 2002/03 the Region had the 5<sup>th</sup> highest household recycling rate in England (compared with 6<sup>th</sup> highest in 1996/97).

**Table 4.2**  
**England and West Midlands Region**  
**Management of municipal waste, 1996/97 and 2002/03**  
 '000 tonnes

	England		West Midlands	
	1996/97	2002/03	1996/97	2002/03
<b>Landfill</b>	20,635	21,969	1,986	1,621
	84%	75%	77%	54%
<b>Incineration with EfW</b>	1,435	2,607	357	975
	6%	9%	14%	32%
<b>Incineration without EfW</b>	619	7	122	0
	2%	0%	5%	0%
<b>RDF manufacture</b>	148	87	0	0
	1%	0%	0%	0%
<b>Recycled/composted</b>	1,751	4,577	127	429
	7%	16%	5%	14%
<b>Other</b>	0	62	0	1
	0%	0%	0%	0%
<b>Total</b>	<b>24,588</b>	<b>29,309</b>	<b>2,593</b>	<b>3,026</b>

EfW – Energy from Waste  
 RDF – Refuse Derived Fuel  
 Source: Defra

**Figure 4.1**  
**Household recycling rates, English regions 1996/97 and 2002/03**



4.2.3 As Table 4.3, Figure 4.2 and Appendix 1 show, recycling and recovery rates vary widely across the Region. The highest municipal waste recycling rates were achieved in the shire areas. The region's *household* recycling rate stood at 13% in 2002/03, the highest rates being in Lichfield (43%), Oswestry (23%) and Staffordshire Moorlands (20%), with particularly significant increases occurring in Lichfield, Oswestry and Wolverhampton where the rates were more than trebled between 1998/9 and 2002/03. Recovery plays a major role in Birmingham, Coventry, Dudley, Solihull and Stoke where the majority of municipal waste is used to generate electricity. The highest reliance on landfill is to be

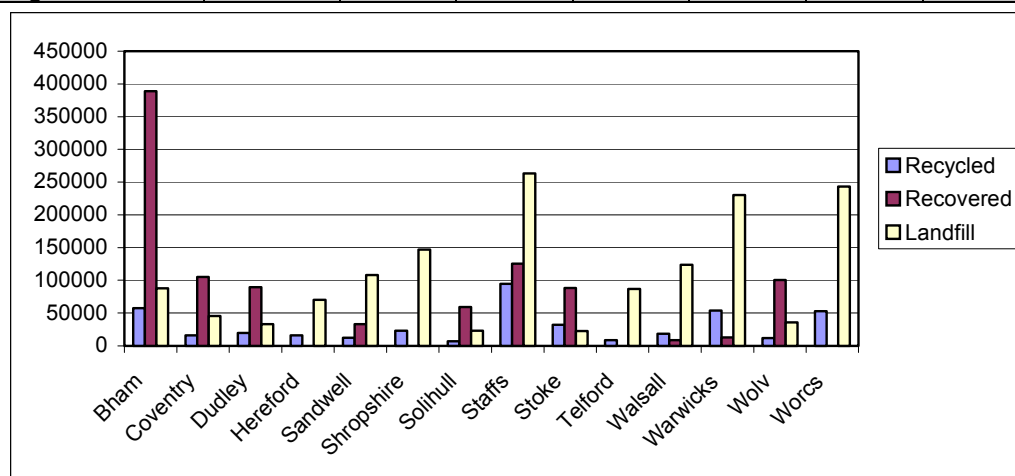
found in Telford & Wrekin (90.8%), Worcestershire (82.1%), Shropshire (86.4%), Walsall (81.9%), Herefordshire (81.3%), Warwickshire (77.6%) and Sandwell (70.5%).

4.2.4 Figures for recycling and composting in 2003/04, released in January 2005, show that people in Lichfield District Council in Staffordshire recycle more waste than anyone else in England, recycling or composting over 46 per cent of their waste. Staffordshire Moorlands is the other West Midlands authority in the top 20 recyclers in England. The biggest increases in recycling since 2002/03 were in North Warwickshire, Staffordshire Moorlands and South Shropshire. All but 8 of the 38 West Midlands authorities achieved or bettered the national rate of improvement of 3 percentage points. Cannock Chase was the only West Midlands authority in the bottom 20 performers in England in 2003/04. The figures show that, overall, England is on target to achieve the target of 17% recycling and composting in 2003/04. In the West Midlands, all but 9 authorities achieved or bettered their statutory target.

Details are provided in Appendix 1.

**Table 4.3 and Figure 4.2**  
**West Midlands Region and Waste Planning Authorities**  
**Municipal Waste Management in 2002/03 (tonnes)**

WPA	Arising	Recycled		Recovered		Landfill	
Herefordshire	86,659	15,981	18.4	205	0.2	70,473	81.3
Shropshire	170,126	23,097	13.6	0	0	147,029	86.4
Telford & Wrekin	95,677	8,843	9.2	0	0	86,834	90.8
Staffordshire	483,801	94,870	19.6	125,646	26	263,285	54.4
Stoke on Trent	142,665	31,995	22.4	88,351	61.9	22,319	15.6
Warwickshire	296,995	53,693	18.1	12,896	4.3	230,407	77.6
Worcestershire	295,899	52,962	17.9	0	0	242,937	82.1
Birmingham	534,185	57,371	10.7	388,833	72.8	87,981	16.5
Coventry	166,556	15,896	9.5	105,097	63.1	45,563	27.4
Dudley	142,644	19,970	14	89,434	62.7	33,240	23.3
Sandwell	153,017	12,237	8	32,904	21.5	107,876	70.5
Solihull	89,103	6,799	7.6	59,298	66.6	23,006	25.8
Walsall	150,814	18,513	12.3	8,745	5.8	123,556	81.9
Wolverhampton	148,670	12,061	8.1	100,811	67.8	35,798	24.1
<b>Metropolitan area</b>	<b>1,384,989</b>	<b>142,847</b>	<b>10.3</b>	<b>785,122</b>	<b>56.7</b>	<b>457,020</b>	<b>33.0</b>
<b>Shire area</b>	<b>1,571,822</b>	<b>281,441</b>	<b>17.9</b>	<b>227,098</b>	<b>14.5</b>	<b>1,063,284</b>	<b>67.6</b>
<b>West Midlands Region</b>	<b>2,956,811</b>	<b>424,287</b>	<b>14.3</b>	<b>1,012,220</b>	<b>34.2</b>	<b>1,520,304</b>	<b>51.4</b>



Source

– WCAs and WDAs

4.2.5 Overall the Region is on track to exceed the municipal waste recovery rate required by 2005, but has some way to go to achieve the required household recycling rate. Indications since 2002/03 are that further progress in household recycling has been made across the region, with positive use being made of DEFRA funding to introduce kerbside recycling schemes.

## Municipal Waste Management – The Stories behind the Statistics

In **November 2004**, the Government announced those projects it would be supporting under the third and final round of the National Waste Minimisation and Recycling Fund. The Region secured funding for several projects:

Shropshire & Gloucestershire:	Expansion of existing dry kerbside and green kerbside recycling schemes, development of HWRCs (£2.5m)
South Staffordshire:	Dry Recycling multi material kerbside (£0.1m)
Wolverhampton:	Dry Recycling multi material kerbside (£1.5m)
Dudley:	Dry Recycling multi material kerbside (£1.5m)
Wyre Forest:	Dry Recycling multi material kerbside (£0.2m)
Stafford:	Green waste kerbside (£0.8m)
Walsall:	Dry Recycling multi material kerbside (£1.5m)
Sandwell:	Green waste kerbside (£1.25m)
East Staffordshire:	Green waste kerbside (£0.4m)
Tamworth:	Dry Recycling multi material kerbside and Green waste kerbside (£0.7m)

In **December 2004**, the Government announced a new three-year targeted Waste Performance and Efficiency Grant of £260m to local authorities (replacing the Waste Performance Reward Grant, previously announced in August 2003) to support new and more efficient ways to deliver waste reduction, and increase recycling and diversion from landfill. The Grant will total £45m in 2005/06, £105m in 2006/07, and £110m in subsequent years. Allocations to West Midlands local authorities for 2005/06 total some £4m, of which £1.8m goes to the metropolitan area, £0.5m to the other unitary authorities, and £1.7m to the 2-tier county areas.

**Birmingham** City Council collected around 29,000 tonnes of waste paper and cardboard in 2003/2004 for recycling, via the "Paper Round" kerbside collections and from waste newspaper banks. The City Council began the kerbside collection of waste paper and cardboard on the south side of City in November 2001, and on the north side of City in November 2002. The kerbside collection scheme currently covers 328,500 of the 409,367 households in Birmingham. Almost 20,000 tonnes of waste paper and cardboard were collected from the kerbside in 2003/2004. The City Council has a contract with Kappa to recycle this waste at their paper recycling plant in Nechells. Kappa also operates and services waste newspaper banks throughout the City, and collected 9,000 tonnes of waste paper from these in 2003/04.

**Dudley** exceeded its recycling target in 2003/04, achieving a rate of 14% compared with the required 10%. This was largely as a result of the introduction of a kerbside dry recyclables collection scheme (100% coverage of the Borough is expected by the end of 2005), and a 3 times per year green waste collection service.

**Herefordshire** Council has granted planning permission for innovative waste treatment schemes for the accelerated composting of organic material at Wharton Court, near Leominster using in-vessel composting of feathers and other waste (2 temporary permissions to enable a prototype plant to be tested); and green waste composting within an enclosed building (1,000 tonnes pa).

**Lichfield** District Council, with a recycling rate of over 46%, is the top performing local authority for recycling in the country. In 2002, following a two-year consultation with residents, the Council started a weekly recycling scheme that is part of the Council's waste collection service. Each week recycling boxes are collected from all 46,000 households' doorsteps, one containing paper and card, the other for glass, cans, plastics and textiles. Black residual waste bins and brown garden waste bins are collected on alternate weeks. The Council is continuing to talk with residents, schools and community groups about how to further improve the scheme and encourage even more people to recycle their waste.

In **Sandwell**, planning permissions have been granted in the last 2 years for two fridge recycling facilities, both in the Cradley area. One, at Cradley Business Park, processes some 400,000 commercial and domestic fridges a year. The metals (mainly aluminium and ferrous) go to the local automotive industry. Plastics are sent to the Netherlands to be processed into horticultural equipment. The operators have applied for permission to allow them to process electrical and electronic equipment. The other, on a nearby industrial estate, expects to handle some 6,000 tonnes of materials pa.

The **Shropshire** Waste Partnership (SWP) was formed in August 2004. SWP is a nationally recognised pioneering Pathfinder Strategic Partnership comprising one Waste Disposal Authority (WDA) and four Waste Collection Authorities (WCAs), working together to provide the best value for money for Shropshire's Council Tax payers. In the County, 3 new municipal waste facilities constructed and operational since 2003, and a Joint PFI tender for integrated waste management (collection and disposal) due to be awarded by SWP in 2006. planning permission has been granted for the DEFRA New Technologies Anaerobic Digestion Demonstrator plant in Ludlow.

**Staffordshire's** network of household waste 'bring' sites has recently been expanded to 13 in total by the addition of a facility at Cheadle; planning permission has been granted for a new site in Stone, negotiations are well-advanced for a site in Tamworth, and plans are being brought forward to relocate the facilities in Lichfield and Newcastle to create greater capacity in more accessible locations.

**Walsall** has now completed the rollout of its new recycling collection scheme to all 101,000 households scheduled to receive a green box to help ensure the borough is cleaner and greener. Ninety-five per cent of borough residents can now recycle paper, glass, cans and much more simply by placing them in their special re-useable 'green box' at the boundary of their property every fortnight. In addition to paper, glass and drinks cans, householders are now able to put all cleaned metal food cans – including pet food - in their boxes, along with milk bottle tops, aerosols, pastry and pie cases and clean foils from takeaway meals. They can also recycle junk mail and catalogues.

**Warwickshire** County Council has redeveloped/ improved one household waste site which was opened in July 2003, and it is hoped to redevelop/ resite a further two over the next 1-2 years. Four open windrow composting plants are now operational in the county.

During 2004, **Wolverhampton** City Council has introduced the first 4 stages of a 7 phase programme to provide a three-bin system to all properties having kerbside access. The phases, each covering some 13,500 properties, were started in April, July, September and October. The final phases will be introduced from 1 April 2005 onwards to provide complete coverage of the City. A final stage targeting the hard-to-reach properties will commence upon completion of the 7-phases. A dry recyclate transfer/bulking station is being established at Crown St. W'ton to facilitate multi-material collections with a centrally located dropping off point to reduce any excessive mileage to discharge points.

In **Worcestershire**, planning permission has been given for a waste treatment and recycling facility. This is the first of two plants required in the County for the delivery of the Joint Municipal Waste strategy of Herefordshire and Worcestershire. It will have the capacity to treat and recycle 100,000 tonnes of municipal solid waste a year. The waste will be treated in high temperature steam under low pressure in an autoclave that would break the waste down into its organic and inorganic parts. It will allow the recovery of sanitised materials comprising metals and mixed plastics (20%) and organic material that would be converted into a fibre (60%). The remainder (20%) will be sanitised waste that will be disposed of at landfill. The fibre could be used for a variety of purposes such as a replacement fuel in coal-fired power stations, in the manufacture of building products and as compost.

4.2.6 The EU Landfill targets require the Region overall to progressively reduce the amount of biodegradable municipal waste that is landfilled from a calculated 1.18 million tonnes at the base date of 1995, to 1.16 million tonnes by 2010, 0.78 million tonnes by 2013, and 0.54 million tonnes by 2020. Region-wide, in 2001/02 the estimated total of biodegradable municipal waste that was landfilled was 1.18 million tonnes; by 2002/03 (based on figures provided by the Waste Disposal Authorities) this had reduced to an estimated 1.04 million tonnes. This is the result of a large reduction in Birmingham, and smaller reductions in most other WDAs, with slight increases in Coventry, Dudley and Wolverhampton. Compared with the aggregated allocation for 2005/06 of 1.18 million tonnes, the Region was therefore meeting the target by 2002/03, though Coventry, Telford and Wrekin and Wolverhampton were landfilling more than their 2005/6 targets. Table 4.4.

**Table 4.4**  
**West Midlands Region and Waste Planning Authorities**  
**Biodegradable Municipal Waste Management (BMW) Targets and Performance in 2001/02**  
**('000 tonnes)**

Authority	Base Year	BMW landfilled 2001/02	BMW landfilled 2002/03	2005/06 Allocation	Target 2010 (BMW)	Target 2013 (BMW)	Target 2020 (BMW)
Herefordshire	60,467	60,166	47,013	58,229	38,091	25,371	17,753
Shropshire	110,780	110,229	100,609	106,471	67,695	45,090	31,551
Telford and Wrekin	61,905	61,597	59,562	59,476	37,617	25,056	17,532
Staffordshire	192,564	191,606	182,406	191,824	185,166	123,334	86,301
Stoke-on-Trent	19,490	19,393	15,744	22,859	53,181	35,422	24,786
Warwickshire	167,799	166,964	159,208	162,419	114,001	75,933	53,132
Worcestershire	181,250	180,348	166,504	175,044	119,184	79,385	55,548
Birmingham	134,815	134,144	60,614	142,340	210,071	139,922	97,908
Coventry	13,349	13,283	31,408	19,162	71,480	47,611	33,315
Dudley	20,261	20,160	22,225	23,401	51,661	34,410	24,078
Sandwell	83,998	83,580	74,033	81,351	57,532	38,321	26,814
Solihull	28,037	27,897	15,986	29,207	39,741	26,470	18,522
Walsall	88,276	87,836	82,112	85,095	56,469	37,612	26,318
Wolverhampton	16,987	16,902	24,058	21,503	62,149	41,395	28,966
<b>Metropolitan area</b>	<b>385,723</b>	<b>383,802</b>	<b>310,436</b>	<b>402,059</b>	<b>549,103</b>	<b>365,741</b>	<b>255,921</b>
<b>Shire area</b>	<b>794,255</b>	<b>790,303</b>	<b>731,046</b>	<b>776,322</b>	<b>614,935</b>	<b>409,591</b>	<b>286,603</b>
<b>West Midlands Region</b>	<b>1,179,978</b>	<b>1,174,105</b>	<b>1,041,482</b>	<b>1,178,381</b>	<b>1,164,038</b>	<b>775,332</b>	<b>542,524</b>

Source: LATS *provisional* allocations and West Midlands local authorities

### 4.3 Industrial and Commercial Waste

4.3.1 Waste arising from the activities of industry and commerce accounts for about 39% of the region's waste. In 1998/99 across the Region as a whole, some 42% of industrial and commercial waste was disposed of to landfill, 30% was recycled, 8% was treated and 5% was incinerated. The pattern of waste management across the region varied widely, influenced by the availability of local facilities. In 2000/01, just over 7 million tonnes of industrial and commercial waste was managed in the Region, of which some 3.47 million tonnes was disposed of to landfill (Table 4.5). In 1998/99 some 3.4 million tonnes was landfilled. This small increase between 1998/99 and 2000/01 is contrary to the desired trend, which requires a reduction to 3.1 million tonnes by 2005. The progressive impact of Landfill Tax and other policy drivers may have impacted positively on this target since 2000/01, and the Environment Agency's updated Strategic Waste Management Assessment to 2003/04 will provide a more up to date basis for assessment next year. The ownership and accountability for this indicator is unclear, however, and a key task for the implementation of RPG is to secure the ownership and commitment of industry, commerce and the construction sector to the policies of the Regional Waste Strategy.

4.3.2 The Shire areas, mainly Staffordshire and Warwickshire, received over three-quarters of the landfilled waste. Some 80% of the treatment was metal recycling and vehicle dismantling, which was mainly concentrated in the metropolitan area.

**Table 4.5**  
**West Midlands Region and Waste Planning Authorities**  
**Industrial and Commercial Waste Management, 2000/01**  
 '000 tonnes

WPA	Facility type				Total:
	Landfill	Lagoon/ Borehole	Treatment	Transfer	
Herefordshire	0	0	10	81	91
Shropshire	220	91	34	36	381
Telford & Wrekin	277	0	43	20	340
Staffordshire	854	0	106	140	1,100
Stoke on Trent	26	0	77	57	160
Warwickshire	1,101	0	171	23	1,295
Worcestershire	252	0	85	103	440
Birmingham	81	0	602	261	944
Coventry	0	0	75	67	142
Dudley	138	0	182	138	458
Sandwell	192	0	569	209	970
Solihull	0	0	0	1	1
Walsall	328	0	188	28	544
Wolverhampton	0	0	79	79	158
<b>Metropolitan area</b>	739	0	1,695	783	3,217
<b>Shire area</b>	2,730	91	526	460	3,807
<b>West Midlands Region</b>	3,469	91	2,221	1,243	7,024

Source: Environment Agency

### **The National Industrial Symbiosis Programme – West Midlands**

*This is a cross-sector, business-led initiative that focuses on bringing business together to match needs and resources. The identified viable synergies are delivered through action-orientated projects that help to reduce costs and deliver environmental gains.*

*The Programme is a key project of the UK Business Council for Sustainable Development. Projects are running in the West Midlands (funded by Biffaward and AWM), Yorkshire and Scotland, and funding has been secured through the DTI BREW initiative to roll out the Programme to other regions next year. In the West Midlands,*

- over 300 businesses have been involved - membership is free of charge;
- over 100 people have been trained;
- more than 50,000 tonnes of material has been diverted from landfill;
- over 250 jobs have been created/ safeguarded;
- 8 new businesses have been created; and
- more than 100 projects are active.

*Projects include the production of bio-diesel from waste cooking oil and tallow, eco-bricks from potteries waste, use of raw materials from various sources by the cement industry, reprocessing of waste batteries, extraction of precious metals from road sweepings, and the production of collagen from eggshell waste.*

## **4.4 Construction and demolition waste**

4.4.1 In 2001/02 the total estimated construction and demolition (C&D) waste arising in the Region was 8.6 million tonnes, of which half was recycled, 46% was used on exempt sites for engineering and land restoration purposes, and just 5% was landfilled. By 2003, the quantity of C&D waste produced in the Region had reduced by 6% to 8.13 million tonnes, the proportion recycled increased from 50% to 61% (the highest performance for any region in England), and the quantity of material used at exempt sites halved (to the lowest level of any region other than London) – see Table 4.6<sup>6</sup>. Indications are that at least some parts of the construction industry are securing significant reductions in waste. One major construction company in the Region has reduced the waste from their building sites going to landfill from 80% to 10% in the last 6 months, and their waste costs are less than they were 7 years ago.

**Table 4.6**

**West Midlands Region:**

**Estimate of the re-use, recycling and disposal of hard C&D and excavation waste in 2001 and 2003**

**'000 tonnes**

	<b>2001</b>	<b>2003</b>
Recycled aggregate and soil	4,277	4,937
Landfill engineering/ restoration	1,042	542
Back-filling quarry voids	1,097	1,142
Used at exempt sites	1,808	779
Deposited at landfills	400	731
<b>Total</b>	<b>8,624</b>	<b>8,130</b>

Source: ODPM/ Capital Symonds Ltd

<sup>6</sup> There are a number of problems associated with the recording and collection of information on construction and demolition waste. The information set out here is taken from the national survey carried out on behalf of the ODPM by Symonds. Whilst this is the best available, the data do not enable an accurate picture to be obtained at WPA level.

## 4.5 Hazardous waste

4.5.1 According to the EA's SWaT database, in 2003 the West Midlands produced about 665,000 tonnes of hazardous waste, and some 708,000 tonnes of hazardous waste was deposited in the Region (about 4% of the waste produced in the Region). Table 4.7 shows that half the waste is from two waste streams; 35% is accounted for by construction and demolition wastes and asbestos (most of which was accounted for by a single large contaminated site clearance at Coventry), and a further 14% by oil and oil/ water mixtures. Data on the movement of hazardous wastes between regions shows that the West Midlands received wastes from all regions, though mainly from the East Midlands, North-West, South-East, South-West and Wales. Similarly, waste is exported to all regions, the largest quantities being exported to East Midlands, North-West and Yorkshire and Humberside. The impact of the Landfill Directive which brought to an end the end of co-disposal of hazardous waste and the absence of any landfill sites in the region authorised to take hazardous waste is expected to have a major impact on the quantities of waste which are categorised as hazardous.

**Table 4.7**  
**West Midlands Region**  
**Hazardous waste produced and deposited, 2003**  
**tonnes**

Hazardous waste, 2003	Produced	Deposited
Mining and Minerals	127	51
Agricultural and Food Production	225	761
Wood and Paper Production	485	1,347
Leather and Textile Production	12	32
Petrol, Gas and Coal Refining/Treatment	162	3,715
Inorganic Chemical Processes	20,290	26,535
Organic Chemical Processes	25,535	21,883
MFSU Paints, Varnish, Adhesive and Inks	17,905	15,659
Photographic Industry	544	3,338
Thermal Process Waste (inorganic)	23,852	23,565
Metal Treatment and Coating Processes	29,677	39,927
Shaping/Treatment of Metals and Plastics	32,419	44,733
Oil and Oil/Water Mixtures	94,950	162,329
Solvents	2,313	1,590
Packaging, Cloths, Filter Materials	10,998	12,888
Not Otherwise Specified	45,574	39,548
C&D Waste and Asbestos	263,728	230,648
Healthcare	804	1,151
Waste/Water Treatment and Water Industry	56,497	40,793
Municipal and Similar Commercial Wastes	4,671	774
Unclassified	33,767	36,437
<b>Total</b>	<b>664,535</b>	<b>707,703</b>

Source: Environment Agency

**Table 4.7a**  
**West Midlands Region and Waste Planning Authorities**  
**Hazardous Waste Management, 2002**  
 '000 tonnes

Facility Type	Incineration		Landfill	Recycling/ reuse	Transfer	Treatment	Total
	with recovery	without recovery					
Herefordshire	0	1	0	0	0	0	<b>1</b>
Shropshire/ Telford & Wrekin	0	0	17,274	2	1,096	1,539	<b>19,911</b>
Staffordshire/ Stoke on Trent	0	0	23,780	5,263	34,780	7,994	<b>71,817</b>
Warwickshire	0	0	81,960	0	1,509	10,407	<b>93,876</b>
Worcestershire	310	0	5,263	133	12,129	41,326	<b>59,161</b>
<b>Metropolitan area</b>	<b>122</b>	<b>117</b>	<b>78,158</b>	<b>95,925</b>	<b>38,133</b>	<b>134,065</b>	<b>346,520</b>
<b>Shire area</b>	<b>310</b>	<b>1</b>	<b>128,277</b>	<b>5,398</b>	<b>49,514</b>	<b>61,266</b>	<b>244,766</b>
<b>West Midlands Region</b>	<b>432</b>	<b>118</b>	<b>206,435</b>	<b>101,323</b>	<b>87,647</b>	<b>195,331</b>	<b>591,286</b>
%	0.1	0.0	34.9	17.1	14.8	33.0	<b>100.0</b>

Source: Environment Agency

## 5. EXISTING WASTE MANAGEMENT CAPACITY COMPARED WITH FUTURE REQUIREMENTS

### 5.1 Overview

5.1.1 Policy WD2 in RSS<sup>7</sup> sets out the indicative requirement for additional municipal waste management facilities and landfill capacity for all waste streams, by sub-region over the period to 2021. In total, it indicates a requirement for an annual throughput capacity of some 3.7 million tonnes to recycle and recover value from municipal waste, and a cumulative landfill capacity requirement between 1998/99 and 2020/21 of 39 million tonnes of municipal waste, 75 million tonnes of industrial and commercial waste, and 29 million tonnes of construction and demolition waste.

5.1.2 The Future Capacity Requirements Study<sup>8</sup> has addressed the need for waste management capacity for each waste stream and each WPA, in the short (to 2005), medium (to 2010) and long (to 2015 and 2020) terms. The indicative requirements are based on a number of explicit assumptions, and are summarised in Tables 5.1 and 5.2.

**Table 5.1**  
**Indicative Capacity Required to Manage Waste in the West Midlands Region by Type of Capacity 2001- 2021**  
**'000 tonnes**

Future Requirement by Type of Capacity	Existing Capacity 2001	Capacity required by				RPG11 Table 4 (1998/99 – 2020/21)
		2005	2010	2015	2020	
<b>Recycling &amp; Recovery</b>						
Municipal Recycling	109	750	1,070	1,205	1,248	1,734
Municipal Recovery	990	1,207	1,119	1,433	1,450	1,940
Industrial & Commercial Recycling & Recovery	2,286	4,255	4,360	4,482	4,607	-
Construction & Demolition Recycling	336	6,101	5,967	6,020	6,020	-
Construction & Demolition Engineering Uses	11,205	14,633	24,532	33,069	41,605	-
Hazardous Recycling & Recovery	466	411	474	477	477	-
<b>Disposal</b>						
Non-Hazardous	76,515	22,348	41,981	59,559	76,194	142,725
Hazardous	0	1,420	2,921	4,241	5,561	

Source: Environment Agency SWMA update; Future Capacity Requirements Study, 2004 Table 6.2; RPG11 Table 4

5.1.3 The Future Capacity Requirements Study provides a detailed indication of these requirements by Waste Planning Authority area.

<sup>7</sup> Table 4, page 92

<sup>8</sup> Shropshire County Council for RTAB, October 2004.

**Table 5.2**  
**Additional Waste Management Facilities Required to Manage Waste in the West Midlands Region by Type of Capacity 2001- 2021**  
**'000 tonnes**

Waste Planning Authority	Municipal Recycling Facilities	Municipal Recovery Capacity	Municipal Recovery Capacity	I&C Recycling & Recovery	C&D Recycling	C&D Engineering & Voids	Hazwaste Recycling & Recovery	Non-Hazardous Landfill	Hazardous Landfill
	25 ktpa	25 ktpa	250 ktpa	25 ktpa	100 ktpa	Cum Void	25 ktpa	Cum Void	Cum Void
Herefordshire	2	2	0	1	2	2,351	0	-12,870	0
Shropshire	2	3	0	8	3	2,899	0	-16,628	88
Telford & Wrekin	2	2	0	9	2	3,541	0	1,513	309
Staffordshire & Stoke on Trent	9	3	0	23	9	1,034	0	16,588	1,298
Warwickshire	4	5	1	10	5	4,336	1	1,114	1,717
Worcestershire	5	5	1	6	4	4,029	2	1,003	86
Birmingham	9	-1	0	12	13	17,082	-1	11,355	426
Coventry	3	-6	-1	11	3	3,832	0	1,923	46
Dudley	2	0	0	7	4	4,390	0	-2,492	904
Sandwell	2	3	0	-8	4	5,928	-3	3,683	591
Solihull	1	2	0	5	1	1,978	0	-8,928	0
Walsall	3	3	0	1	3	3,085	2	-1,843	84
Wolverhampton	2	-1	0	8	4	3,708	-1	5,261	12
Metropolitan area	23	0	0	37	33	40,003	-3	8,959	2,063
Shire area	23	19	2	56	24	18,190	3	-9,280	3,498
West Midlands Region	46	19	2	93	57	58,193	0	-321	5,561
RPG Table 5	30@ 50kt pa	22@ 50kt pa	3-4@ 300kt pa						

NB: Negative values indicate a surplus

Source: *Future Capacity Requirements Study, 2004 Table 6.3; RPG11 Table 5*

## 5.2 Municipal Waste

5.2.1 Annual data returns indicate that the rate of growth of household waste in the Region is reducing, perhaps partly in response to greater awareness of the need for waste minimisation. The *Future Capacity Study* therefore assumes a progressive reduction in the rate of increase until 2007, and thereafter that growth will be in proportion to the change in the number of households in each WPA.

5.2.2 Further assuming that short term Best Value and longer term national targets for recycling/ composting and recovery are achieved, the *Future Capacity Study* identifies the throughput capacity required in the short, medium and long term for recycling/ composting and recovery of municipal waste, and the cumulative landfill capacity requirement.

5.2.3 On this basis, it is estimated that the Region will generate a cumulative total of 64 mt of municipal waste over the 20 year period 2001-2021, of which about 47% would be generated within the metropolitan area. By 2020, an annual throughput capacity of 1.25 million tonnes to recycle, and 1.45 million tonnes capacity to recover value, could be required across the Region. About half the requirement for additional recycling capacity would be generated by the metropolitan area, whereas all the additional recovery capacity would be required to meet the needs of the shire and unitary areas. A cumulative requirement of landfill for about 25 million tonnes of municipal waste from 2000 to 2020 is identified, about two-thirds of which would be generated by the shire and unitary areas. These estimates are lower than those in the RWS, largely because of the revised

assumptions on the annual growth of municipal waste arisings. Authorities with high proportions of recovery (EfW) will need to increase recycling to meet targets, and may be able to enter into trading agreements with others who need to increase their recovery levels

### **5.3 Industrial and Commercial Waste**

5.3.1 There are no trend data available to assess the changes in industrial and commercial waste arisings within the Region. The *Future Capacity Study* assumes that the key policy drivers identified above will prompt a progressive reduction in waste arising of 0.5% pa from the base date of 1998 until 2005, and 1% pa from the implementation of the landfill regulations in July 2005 until 2010.

5.3.2 On this basis, it is estimated that the Region may generate over 132 mt of industrial and commercial waste between 2001 and 2021, just over half being estimated to arise from within the shire/ unitary areas. Additional capacity to recycle and treat or recover value from 2.3 million tonnes may be required by 2020 (about 60% of which would be to meet the needs of the shire/ unitary areas), and capacity to landfill some 44 million tonnes may be needed between 2000 and 2020 (55% to meet shire/ unitary area needs).

### **5.4 Construction and demolition waste**

5.4.1 Changes in licensing regulations and the introduction of the Landfill Tax have had a significant impact on this waste stream, leading to increased recycling/ reuse, but there are problems in quantifying trends in the amount of waste that is being produced. Reliable information below regional level is particularly difficult to obtain.

5.4.2 The latest available information (ODPM Survey, 2004) indicates that the Region produced about 8.13 million tonnes of construction and demolition waste in 2003 (compared with 8.6 mt in 2001), and analyses the way in which the waste was managed in the Region. The *Future Capacity Study* (in the absence of any alternative) assumes that the quantity of waste and pattern of management will remain constant at 2001 levels until 2021.

5.4.3 On this basis, it is estimated that the Region could generate about 172 mt of construction and demolition waste between 2001 and 2021. By 2020, capacity to recycle some 6 million tonnes is indicated, of which 3.5 mt would be generated by the metropolitan area. A cumulative requirement for void capacity in exempt sites, for engineering purposes or for disposal, of some 58 million tonnes of construction and demolition waste between 2000 and 2020 is indicated. The implementation of the Urban Renaissance strategy in the RSS may change significantly the quantities of construction and demolition wastes which arise, but work on quantifying the quantity and nature of the material is at an early stage.

### **5.5 Hazardous waste**

5.5.1 Relatively detailed information on special (hazardous) wastes has been available since 1996, though implementation of the Hazardous Waste Regulations in 2005 will lead to a reclassification of some additional wastes as hazardous.

5.5.2 The Future Capacity Requirements Study assumes that, after an initial increase in the amounts of Hazardous waste as a result of the implementation of these

Regulations, there will be a progressive reduction in response to minimisation initiatives driven by the end of co-disposal under the Landfill Directive.

5.5.3 In considering the future need for treatment capacity by WPA across the Region, the Future Capacity Requirements Study recognises that the pattern of movements of these wastes is complex and reflects the existing locations of specialist treatment facilities. It assumes that imports of waste into those WPAs with such facilities will increase, but that exports for disposal will continue.

5.5.4 Approximately 0.53 million tonnes of hazardous waste was produced in the region in 2001, rising to 0.54 million tonnes in 2002. The region is a net importer of hazardous waste, reflecting the availability of treatment capacity in some areas, and taking into account the balance of imports and exports it is estimated that 0.59 million tonnes of hazardous waste was managed in the region in 2002.

5.5.5 The Future Capacity Requirements Study estimates that some 12 million tonnes of hazardous waste might be generated in the Region over the period 2001 – 2021. It recognises the difficulties in generalising about existing waste capacity and future needs for managing hazardous wastes, but notes that the Existing Capacity Study indicates that some spare waste treatment capacity may be available at existing sites. It concludes that, on the basis of the quantities of waste handled at licensed hazardous waste recycling and treatment facilities in 2001, existing capacity may be adequate to manage the future quantities of waste likely to be generated. It acknowledges, however, that the implications for waste management of the emphasis on brownfield development, with the consequential need to deal with contaminated soils, are as yet unclear and need to be considered further.

## **5.6 Overall conclusions**

5.6.1 Whilst non-hazardous disposal capacity is considered to be adequate for the period, the Future Capacity Requirements Study indicates a possible need for

- A 12-fold increase in municipal recycling capacity by 2021 - half of which is to meet metropolitan area needs – with a 60% increase required by 2005 compared with performance in 2002/03.
- Despite existing incinerator capacity, a 50% increase in municipal recovery capacity by 2021, mainly to meet shire area needs. Up to an 80% increase in industrial and commercial recycling & treatment capacity by 2005 and a doubling by 2021, of which 40% might be required to meet metropolitan area needs.
- A maximum of 176 new waste recycling and treatment facilities by 2005, and 215 by 2021.
- Significant additional recycling capacity to make better use of construction and demolition waste, especially in areas targeted for development.
- Further treatment capacity for hazardous waste to facilitate disposal as non-hazardous waste.

5.6.2 The Study concludes that

*‘There are particular challenges ahead with respect to the future management of construction and demolition waste and hazardous waste and further work is recommended on these issues in particular. Further work will also be required to assess the most sustainable options for tackling the need for new waste capacity and to establish the most appropriate geographical pattern of new facilities to serve the region’s need.*

5.6.3 A ‘Scenarios’ study has been commissioned by the WMRA, to address these issues further

## APPENDIX

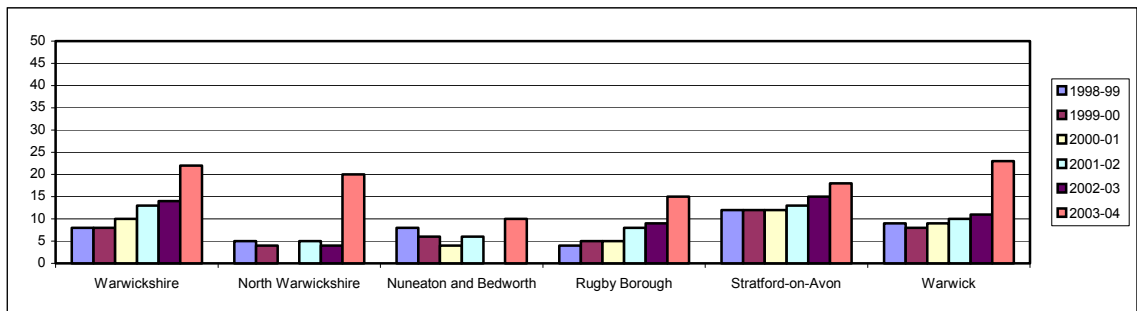
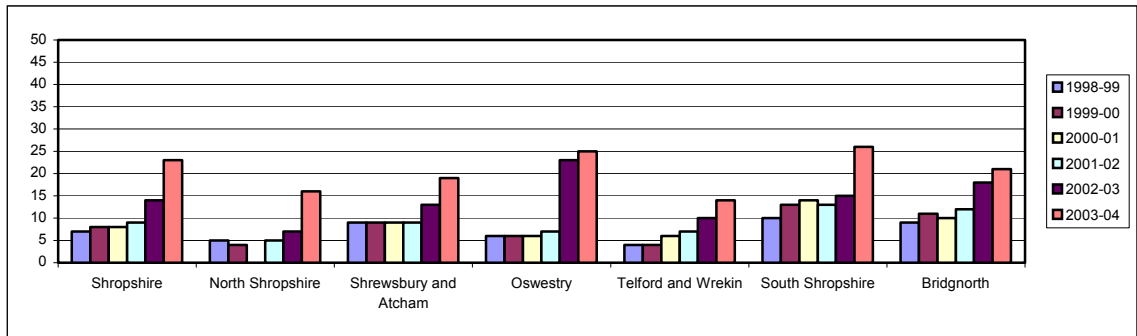
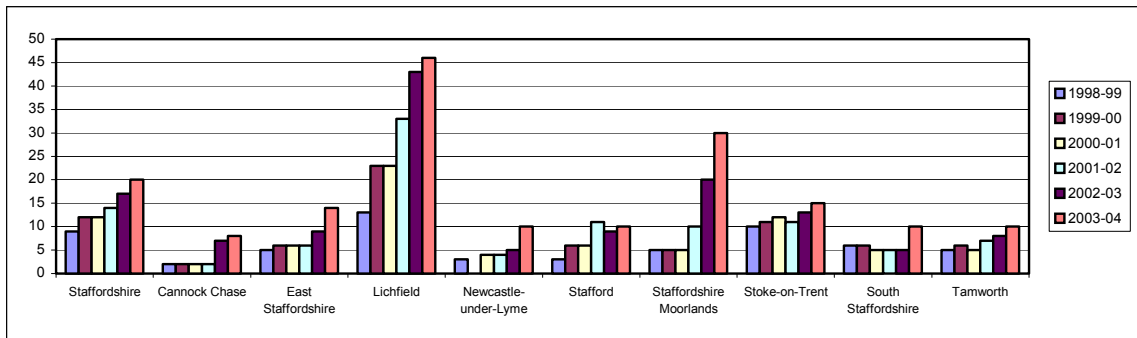
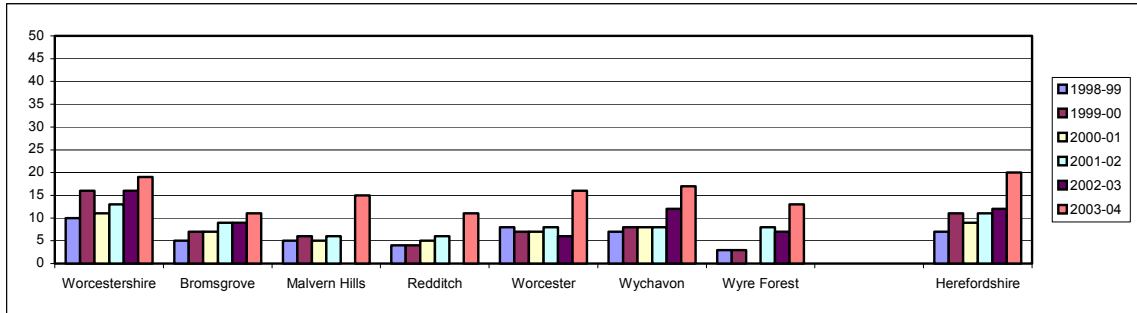
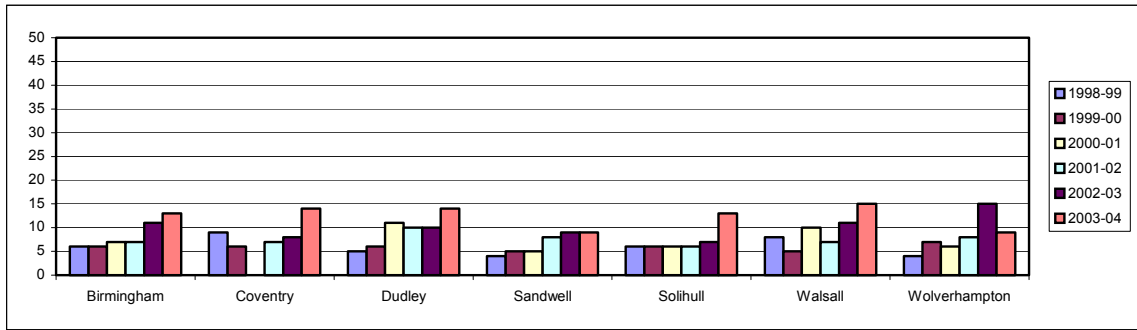
### 1. Local Authority Household Recycling Rates, 1998-2004

#### % of household waste recycled

(\*figures in brackets indicate the statutory target for 2003/04)

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04*
Birmingham	6	6	7	7	11	13(10)
Coventry	9	6	na	7	8	14(12)
Dudley	5	6	11	10	10	14(10)
Sandwell	4	5	5	8	9	9(10)
Solihull	6	6	6	6	7	13(10)
Walsall	8	5	10	7	11	15(16)
Wolverhampton	4	7	6	8	15	9(10)
Worcestershire	10	16	11	13	16	19(20)
Bromsgrove	5	7	7	9	9	11(10)
Malvern Hills	5	6	5	6	na	15(10)
Redditch	4	4	5	6	na	11(10)
Worcester	8	7	7	8	6	16(16)
Wychavon	7	8	8	8	12	17(14)
Wyre Forest	3	3	na	8	7	13(10)
Staffordshire	9	12	12	14	17	20(18)
Cannock Chase	2	2	2	2	7	8(10)
East Staffordshire	5	6	6	6	9	14(10)
Lichfield	13	23	23	33	43	46(26)
Newcastle-under-Lyme	3	na	4	4	5	10(10)
Stafford	3	6	6	11	9	10(10)
Staffordshire Moorlands	5	5	5	10	20	30(10)
Stoke-on-Trent	10	11	12	11	13	15(18)
South Staffordshire	6	6	5	5	5	10(12)
Tamworth	5	6	5	7	8	10(10)
Herefordshire	7	11	9	11	12	20(14)
Shropshire	7	8	8	9	14	23(14)
North Shropshire	5	4	na	5	7	16(10)
Shrewsbury and Atcham	9	9	9	9	13	19(18)
Oswestry	6	6	6	7	23	25(12)
Telford and Wrekin	4	4	6	7	10	14(10)
South Shropshire	10	13	14	13	15	26(20)
Bridgnorth	9	11	10	12	18	21(18)
Warwickshire	8	8	10	13	14	22(16)
North Warwickshire	5	4	na	5	4	20(10)
Nuneaton and Bedworth	8	6	4	6	na	10(16)
Rugby Borough	4	5	5	8	9	15(10)
Stratford-on-Avon	12	12	12	13	15	18(24)
Warwick	9	8	9	10	11	23(18)

## Local Authority Household Recycling Rates, 1998-2004 (%)



Source: Defra annual returns

## 2. Progress on waste plans in the region

### (a) Waste Local Plans/ Local Development Documents

The following table indicates the latest known position regarding progress in preparing/ reviewing waste plans across the Region. No detailed assessment of the content of these plans against the monitoring requirements of RPG11 has been made to date because progress on plans in preparation since the publication of RPG11 is limited.

Formal Title of Plan (Incl. end date)	Plan Type*	Date Adopted	Latest known position on Plan
The BIRMINGHAM Plan (2001)	UDP	July 1993	Proposed Modifications published on 8 <sup>th</sup> April 2005. Adoption expected Autumn 2005. The modifications contain significant changes to waste policies. The LDS does not include any specific waste plans or strategies, but the Places for the Future SPD (due to commence July 2005) will address a range of sustainability issues relating to new development, including waste.
The COVENTRY Development Plan (2011)	UDP	2001	Plan adopted 9 <sup>th</sup> December 2001.
DUDLEY Unitary Development Plan (2001)	UDP	Nov 1993	Public Local Inquiry ended 12 June 2003. Inspector's report received Jan 2004. Modifications Mid 2004. Adoption of UDP expected mid 2005.
SANDWELL Unitary Development Plan (2011)	UDP	2004	The Sandwell UDP was adopted on 27 April 2004.
SOLIHULL Unitary Development Plan (2001)	UDP	April 1997	Review: Revised Deposit June 2003. Public Inquiry May-September 2004. Inspector's Report to be received April-September 2005.
WALSALL Unitary Development Plan (2011)	UDP	March 2005	Adopted 7 <sup>th</sup> March 2005. Part 1 policies saved until 2008, pending preparation of Core Strategy. Waste Management DPD to be prepared, timing dependent on Black Country RSS Review.
WOLVERHAMPTON Unitary Development Plan (2001)	UDP	Sept 1993	Public Inquiry 30 Nov 2004. Adoption expected mid- to late-2005.
HEREFORDSHIRE Unitary Development Plan.	SP	June 1993	Following Local Government reorganisation in 1998, the existing structure plan, four local plans and the minerals local plan will be replaced by the UDP. First Deposit Oct - Dec 2002. Revised Deposit 13 May – 24 June 2004. Public Inquiry expected February 2005.
SHROPSHIRE WASTE Local Plan (2002-2014)	WLP		Adopted in October 2004 and will be 'saved' as part of the approved LDS until October 2010.

TELFORD & WREKIN WASTE Local Plan	WLP		Likely to be dealt with under new LDF arrangements later in 2004.
STAFFORDSHIRE & STOKE-ON-TRENT Structure Plan 1996 to 2011	SP	May 2001	Plan adopted May 2001.
STAFFORDSHIRE & STOKE-ON-TRENT WASTE Local Plan (1998 to 2011)	WLP	Feb 2003	Adopted 10 Feb 2003. Minerals and Waste Development Scheme submitted, detailing saved policies and identifying what development documents are to be produced as part of the Minerals and Waste Development Framework (MWDF).
STOKE-ON-TRENT Local Plan (2001)	LP	Sept 1993	First Deposit 2002. Core Strategy and Waste Plan are in preparation, and will replace the Draft City Local Plan, Minerals and Waste Local Plans in due course.
WARWICKSHIRE WASTE Local Plan (2005)	WLP	August 1999	WLP to be 'saved' until September 2007. Work has commenced on the Waste Core Strategy with an estimated date of adoption of October 2007. The Core Strategy will contain a vision, objectives and strategy for waste development and provide the framework for waste development control.
WORCESTERSHIRE	LDF		Waste Core Strategy and policies in preparation, and programmed for adoption and publication at the end of 2007. It will establish the planning strategy for sustainable waste management in Worcestershire, enabling the adequate provision of facilities in appropriate locations and include criteria based policies to establish a framework for the assessment of planning applications for waste management facilities.

## (b) Municipal Waste Management Strategies

Geographical/ administrative area covered	Name of Plan	Status
Birmingham Metropolitan Area	'Zero Waste Achievement Strategy' (Municipal Waste Management Strategy 2004) (2004–2020)	Existing Waste Management Strategy published January 2000, covering period up to 2020. Revised Municipal Waste Management Strategy in preparation – initial draft published for consultation December 2004.
Coventry		
Solihull Metropolitan Borough	Solihull MBC Municipal Waste Management Strategy (2004- 2029)	Draft published 2004. Consultation ended 31 March 2005. To be finalised Summer 2005.
The Black Country	The Black Country Study	To be completed and developed as a revision to the RSS. Emerging proposals to be included in the Local Development Frameworks of the four Black Country Planning Authorities and implemented as soon as possible. Launch Event - 22 February 2005 - Consultation on choices for Spatial Options - May to July 2005 - Consultation on the Preferred Spatial Option - December 2005 - January 2006. The Environment Study covers a wide range of issues including waste and recycling.
Dudley		Awaiting outcome of joint work at Black Country level.
Sandwell	Municipal Waste Management Strategy	Finalised, January 2005.
Walsall	Municipal Waste Management Strategy	Published February 2004.
Wolverhampton	Municipal Waste Management Strategy	At draft stage prior to public consultation and discussion with prospective partners tendering for the delivery of waste management services. The partnership will be responsible for the delivery of a wide range of waste management services not just the refuse etc. collection service.
Herefordshire and Worcestershire	'Managing Waste for a Brighter Future' The Joint Municipal Waste Management Strategy for Herefordshire and Worcestershire (2004 – 2034)	Approved November 2004 (Review at least every 3 years)
Shropshire	Shropshire Municipal Waste Management Strategy (SMWMS) (2000-2020)	Produced in 2002 by Shropshire Joint Waste Management Advisory Committee. Currently being reviewed and updated to reflect any revised Best Value, LPSA and Landfill Directive targets.
Telford & the Wrekin	Waste Strategy 2005-2021	Consultation draft published (deadline for comments, 14 <sup>th</sup> February 2005).
Staffordshire including Stoke on Trent	'2020 Vision: Zero Waste to Landfill: An Integrated Municipal Waste Management' Strategy for Staffordshire and Stoke on Trent.	A Draft Strategy produced by the partners of the Staffordshire Joint Waste Management Board.
Warwickshire	Joint Municipal Waste Management Strategy	Consultation on first draft complete. Consultancy support through Defra's Waste Implementation Programme to finalise the strategy. Final draft expected by end of May 2005, final version by the end of July 2005.

