

Final Treatment Solution of Waste

Indicator

The treatment solution for all waste streams generated within the county

Status



The final treatment solution of waste in Worcestershire is good, and is improving.

Overview

Over time, trends in the final destination of waste provide a measure of the effectiveness of the waste management strategies employed in the County. Waste management is a growing concern in Worcestershire, as it is in the rest of the UK. The impact on the environment and finite landfill resources are just two examples of particular issues.

Waste should no longer be thought of as something that is simply disposed of, but a resource from which benefit may be derived.

Performance

Between 2007 and 2008 the total amount of household, commercial and industrial waste managed in Worcestershire increased, by 23 percent, however the amount sent to landfill decreased by 7 percent, with an increase in treatment and transfer.

	2007		2008		2009		Improvement
Landfill	474,561	60%	362,950	53%	270,300	41%	Good
Recovery ¹	106,243	14%	112,360	16%	130,755	20%	Good
Transfer	211,611	27%	214,801	31%	262,463	40%	Good
Total	792,415		690,112		663,519		

Note:

¹ Recovery includes waste managed at treatment and metal recycling facilities

Transfer may include an element of double counting.

Source: Environment Agency Waste Data Interrogator 2007, 2008 and 2009 (WPA Worcestershire, Waste Received by site category).

During 2009/10, in Worcestershire, approximately 119,000 tonnes of household waste was sent to landfill, representing 45.9% of all household waste for that year. Of the remainder, 29% was recycled, 12.7% composted and 12.3% was processed at Energy from Waste (EfW) facilities.

The most recent Environment Agency data for industrial waste is now quite old, dating from 2002/03, but revealed that 54 percent of the 321,000 tonnes generated that year was disposed of on land. More than a third was

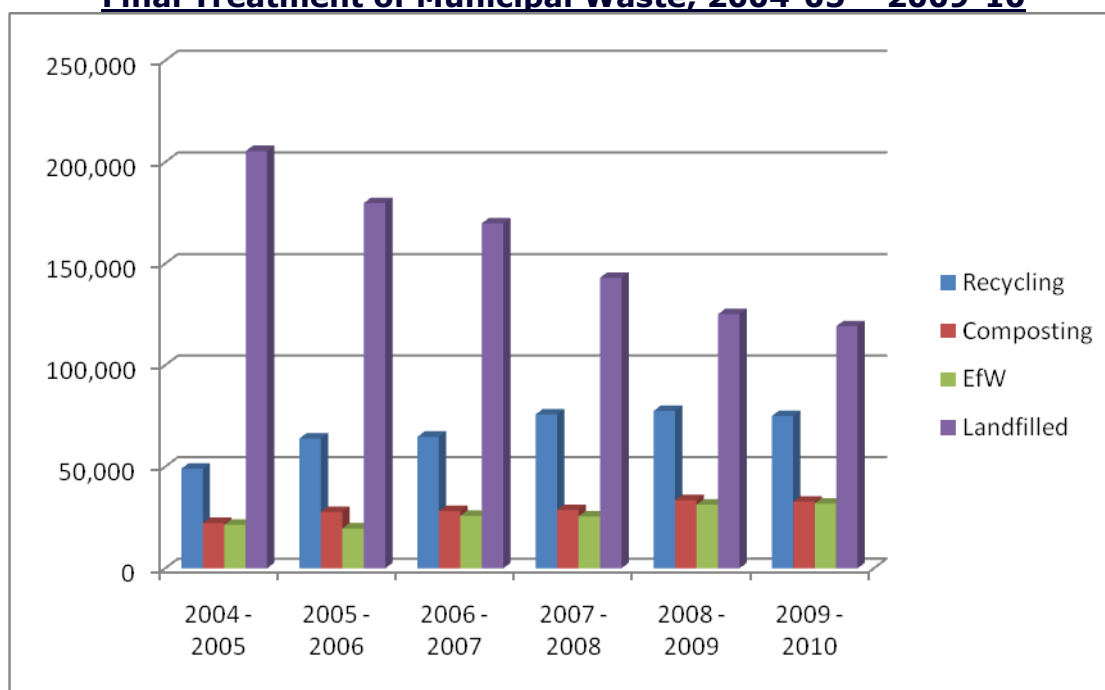
recycled or re-used and approximately 6 percent was sent to treatment/transfer sites. A greater proportion of the 307,000 tonnes of commercial waste was sent to landfill, at 62 percent. Just under a third of the waste was recycled, whilst a further 6 percent was treated/transferred. The more recent Defra *Survey of Commercial and Industrial Waste Arisings 2010* does not include this information.

There has been a significant decrease in the tonnage of household waste sent to landfill from 221,212 tonnes in 2003/04 to 119,091 in 2009/10. This is a drop of over 46% and is mainly due to increased recycling and composting rates and an increased use of EfW facilities but also reflects a decrease in the amount of household waste generated - a 29,318 (10.2%) tonnage drop from 288,520 tonnes in 2003/04 to 259,202 tonnes in 2009/10.

Financial Year	Recycling	Composting	EfW	Landfilled	Total
2004 - 2005	49,026	22,277	21,442	205,439	298,184
2005 - 2006	63,887	27,752	19,584	179,830	291,053
2006 - 2007	64,762	28,155	25,857	169,898	288,673
2007 - 2008	75,739	28,702	25,513	143,061	273,014
2008 - 2009	77,494	33,503	31,317	125,133	267,447
2009 - 2010*	75,420	32,796	31,895	119,091	259,202

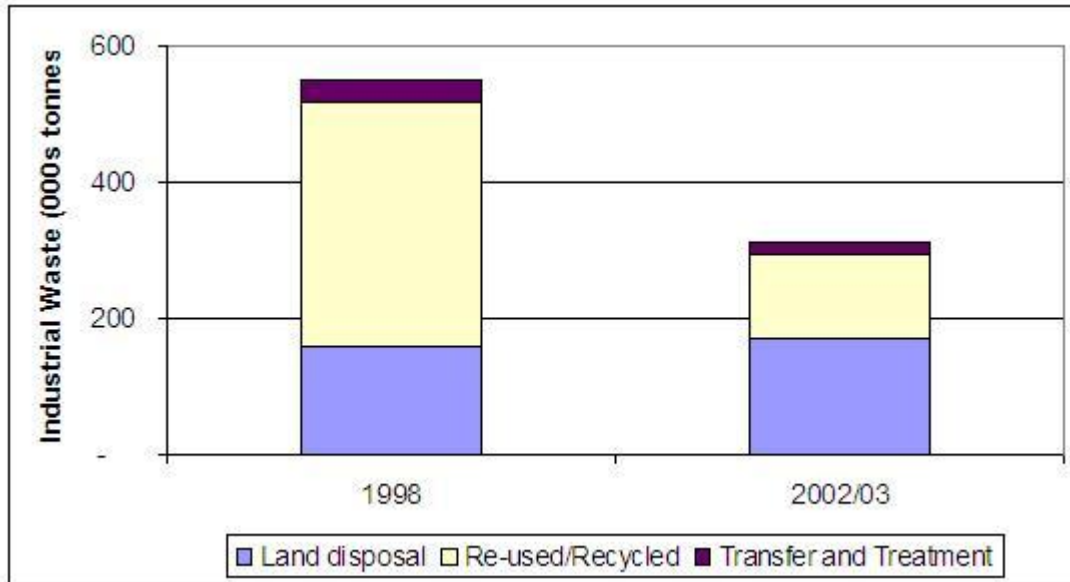
* Figures from WDF. Recycling includes Reuse, Calculated as NI192 - BVPI82b. Landfilled calculated as total Household Waste (NI192) - diversion to Recycling & Reuse, Composting and EfW.

Final Treatment of Municipal Waste, 2004-05 – 2009-10



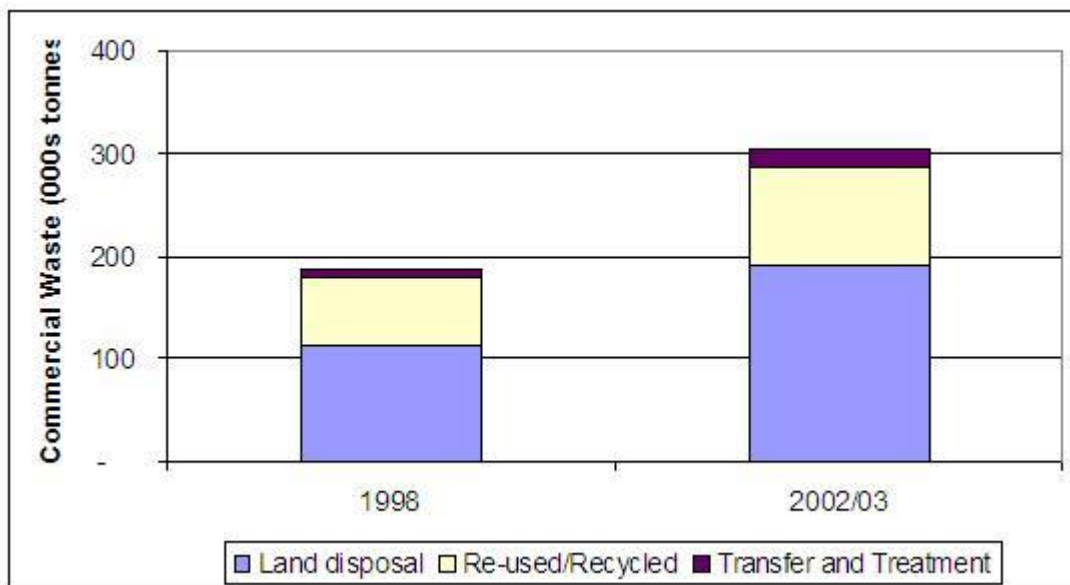
Source: Waste Management Services, Worcestershire County Council, 2011

In terms of industrial waste, whilst the total amount of waste generated dropped significantly from 559,000 tonnes in 1998 to 321,000 tonnes in 2002/03, the amount disposed of on land increased. Compared with the 28.5 percent in 1998, 53.6 percent of industrial waste was disposed of on land in 2002/03. There is no available data for more recent years to determine whether this situation is improving.



Source: Environment Agency, 2003

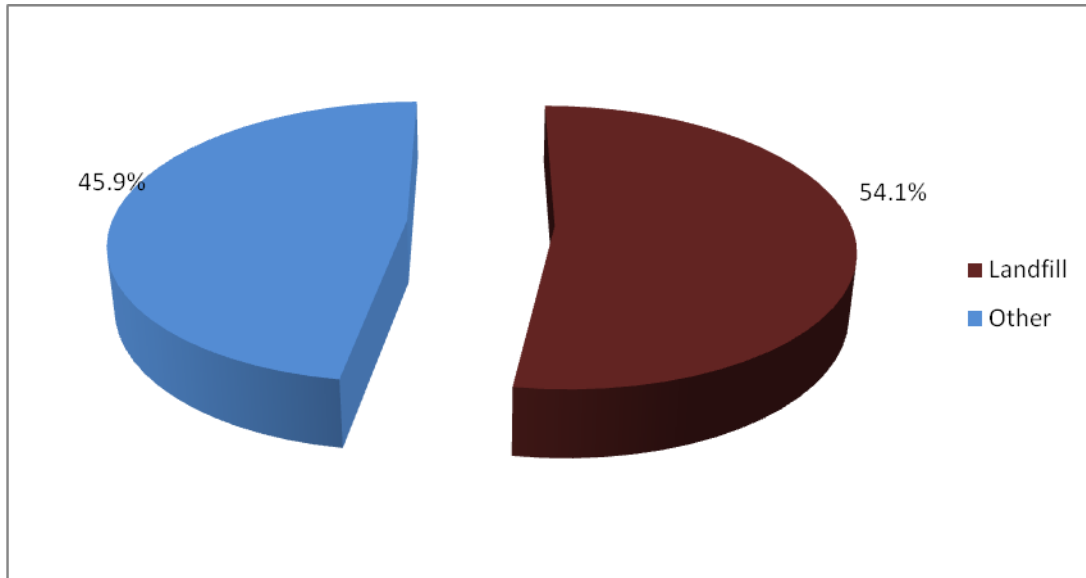
The amount of commercial waste disposed of on land also increased in, although this was due in part to the increase in commercial waste generated. In 2003, 62.2 percent of the 307,000 tonnes of commercial waste was disposed of on land, compared with 44.6 percent of the 251,000 tonnes in 1998. There is no available data for more recent years to determine whether this trend has continued.



Source: Environment Agency, 2003

Household Waste

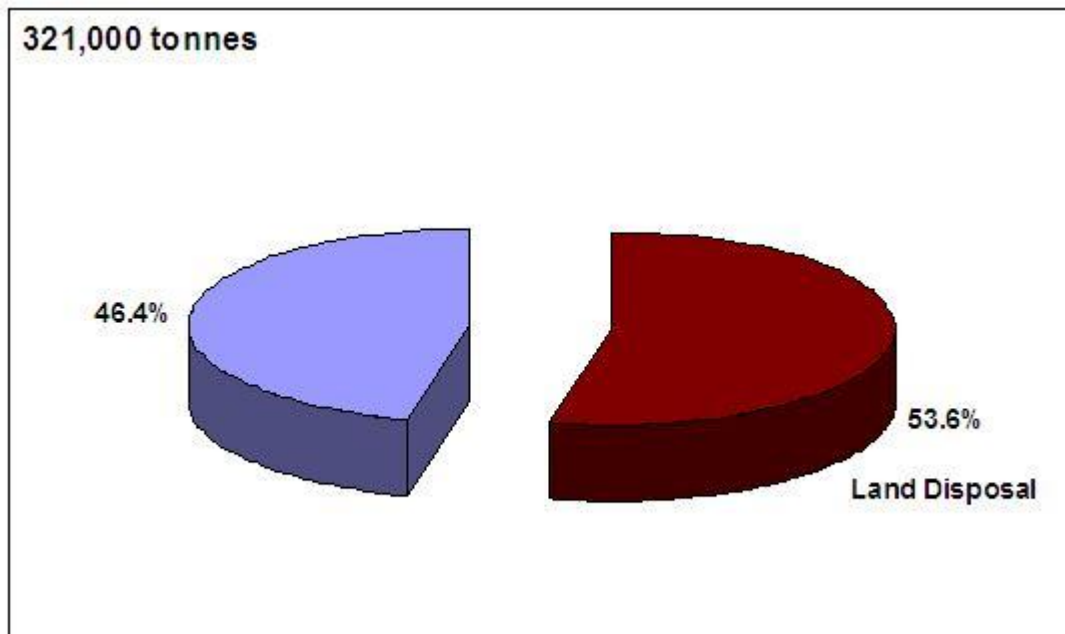
Worcestershire produced 259,202 tonnes of household waste in 2009/10 (source: NI192 data), of which 119,091 tonnes (45.9%) was landfilled (source: WDF calculation NI192 total HHW – total diverted).



Source: Waste Management Services, Worcestershire County Council, 2011

Industrial Waste

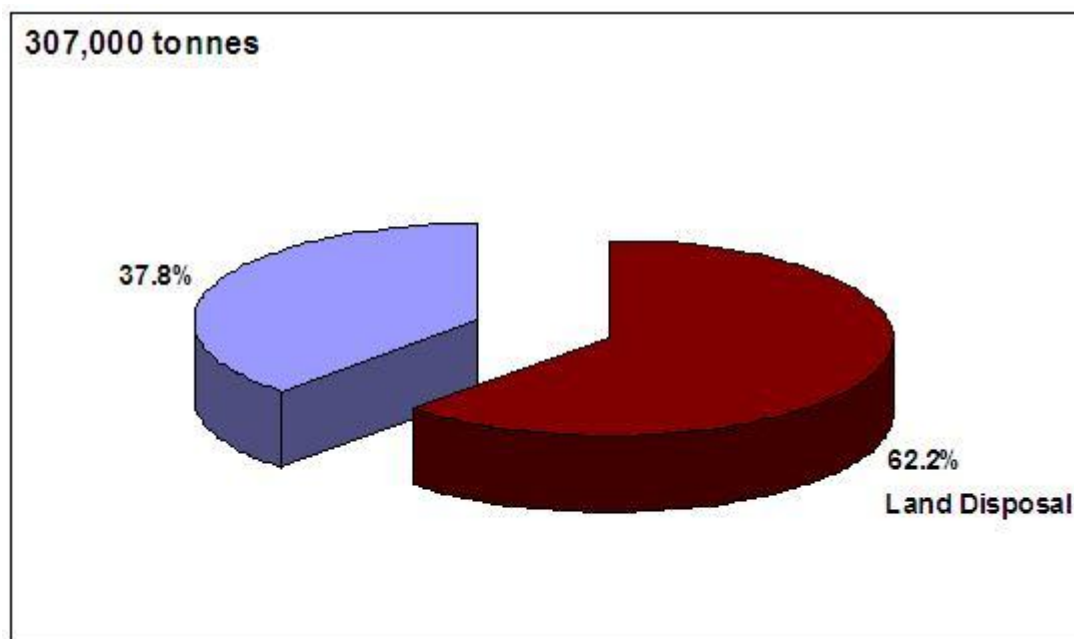
Worcestershire produced 321,000 tonnes of industrial waste in 2002/03, of which 53.6 percent was disposed of on land.



Source: Environment Agency, 2003

Commercial Waste

Worcestershire produced 307,000 tonnes of commercial waste in 2002/03, of which 62.2 percent was disposed of on land. There is no available data for more recent years to determine whether this situation is improving.

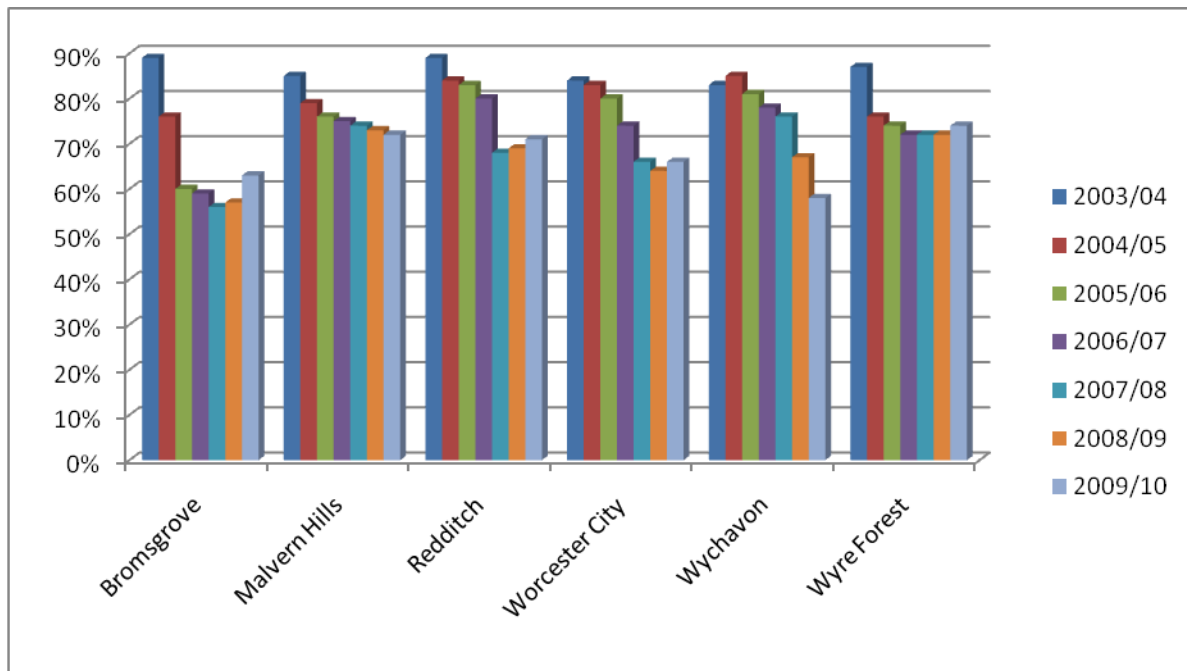


Source: Environment Agency, 2003

Tonnages of household waste sent to landfill are not reported by District Councils. However, it can be assumed that any waste not recycled or composted is sent to landfill or EfW facilities for disposal. During 2009/10 some residual waste from Redditch Borough Council and Bromsgrove District Council was sent to EfW facilities (31,895 tonnes total). All other residual waste was landfilled.

Percentage of Household Waste *not* Recycled/Composted by Local Authority

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Bromsgrove	89%	76%	60%	59%	56%	57%	63%
Malvern Hills	85%	79%	76%	75%	74%	73%	72%
Redditch	89%	84%	83%	80%	68%	69%	71%
Worcester City	84%	83%	80%	74%	66%	64%	66%
Wychavon	83%	85%	81%	78%	76%	67%	58%
Wyre Forest	87%	76%	74%	72%	72%	72%	74%



Source: Waste Management Services, Worcestershire County Council, 2011

The graph shows that in all six of the local authorities there is a significant downward trend in the amount of waste that is not recycled/composted.

Geographical Context

In 2004/05, 69 percent of household waste was landfilled in Worcestershire, compared with 49 percent of waste in the West Midlands. This is despite the fact that Worcestershire performs better than the West Midlands region when it comes to recycling/composting. Regionally, energy from waste is far more significant than in Worcestershire. In 2004/05, 7 percent of the County's household waste was incinerated to provide energy from waste, compared with the regional percentage of 30 percent. Regional figures for more recent years are not yet available.

The *West Midlands Strategic Waste Management Assessment 2000* shows that the 159,000 tonnes (28.4 percent) of industrial waste disposed of on land in Worcestershire was well below the corresponding percentage in the West Midlands region of 41.2 percent. The amount of waste that was re-used was much higher in Worcestershire (29.9 percent compared to only 6.7 percent regionally). The 111,000 tonnes (44.4 percent) of commercial waste disposed of on land in Worcestershire was of a similar proportion to that for the West Midlands region.

According to the most recent Environment Agency data, the 53.6 percent (172,200 tonnes) of industrial waste disposed of on land in Worcestershire was higher than the corresponding percentage in the West Midlands region of 34.3 percent. In addition, since 1998, the proportion of industrial waste disposed of on land has reduced regionally but increased significantly in the County. Unsurprisingly, the proportion of Worcestershire's industrial waste that is recycled or re-used (37.7 percent) is below the regional

figure (50.2 percent). In addition, Worcestershire used just 0.4 percent of its industrial waste for fuel, compared with the regional figure of 3.2 percent.

The situation for commercial waste is similar. Worcestershire disposed of 62.2 percent of its commercial waste on land in 2002/03, compared with the regional figure of 48.3 percent. The county recycled/re-used 31.3 percent of its commercial waste, whilst the regional figure was 40.4 percent. Finally, just 0.3 percent of Worcestershire's commercial waste was used for fuel, compared with 3.3 percent regionally.

Actions

In recent years, less and less household waste has ended up in landfill sites, largely due to the increase in recycling and composting. With the continuing promotional activities of the County Council, on recycling, composting, and prevention, along with the contribution of new waste and recycling facilities, the management of household waste in Worcestershire is under control.

The proportion of industrial and commercial waste being disposed of on land has increased in recent years, although the amount of industrial waste generated has dropped significantly. The most recent data indicates that commercial waste may now be the most significant contributor to landfill (more commercial waste was sent to landfill in 2002/03 than household waste in 2005/06). This may have resulted in part from successful campaigns to improve household recycling. However, it suggests that in order to maximise the impact on landfill waste in the future, more emphasis could be placed on commercial waste.

Further Information

For further general information see DEFRA's [Recycling and Waste](#) pages.

For more information on local authority waste performance visit the [Local Government Performance](#) pages on the Department for Communities and Local Government website.

For more information on Commercial and Industrial Waste see the Environment Agency's [Waste in the West Midlands](#) pages.

For more information on Worcestershire's Waste Management programme, including ways to reduce waste and increase recycling, see the [Let's Waste Less](#) pages.