

RSS Partial revision Phase 2:  
Shropshire County Council Response to Section 4(4) Brief:  
Waste Technical Paper

## 1. Introduction

1.1 Shropshire County Council adopted a site specific Waste Local Plan in October 2004. The WLP reflects the guidance in PPS10 which was available in draft form at the time that the Plan was being prepared. The WLP supports a more sustainable approach to the management of waste in Shropshire by providing a policy benchmark against which applications for waste management facilities are measured and by the allocation of 14 specific sites which have been assessed as being suitable, in principle, for new waste management facilities.

## 2. Question 1: What Capacity Does Your Authority Have to Manage Waste?

2.1 A combination of local knowledge and the 2002-03 throughput data supplied by the Environment Agency has been used to complete the assessment in Table 2.1 below:

WPA:		Shropshire County Council			
Type of facility		Annual existing capacity ('000 tonnes)			
		Municipal	Commercial & industrial	Construction & demolition	Hazardous
MRF - material recovery/ recycling facilities <sup>1</sup>		50	97	95	0
composting	windrow	20	11	0	0
	In-vessel	9	2	0	0
incineration	energy from waste <sup>2</sup>	0	0	0	0
	other <sup>3</sup>	0	2	0	0
pyrolysis/ gasification		0	0	0	0
anaerobic digestion		5	0	0	0
any combined mechanical, biological and/or thermal treatment (MBT) <sup>4</sup>		0	0	0	0
other treatment <sup>5</sup>		0	30	0	0
metal recycling sites		0	20	0	0
civic amenity sites		37	0	0	0
transfer stations <sup>6</sup>		120	15	0	0
Long term storage of waste <sup>7</sup>		0	0	0	0

<sup>1</sup> Where the main activity will be the receipt and sorting of waste for recycling and recovery. May include centralised MRFs, community MRFs as well as small scale recycling bring banks.

<sup>2</sup> Where the incineration of waste will generate electricity and/or district heating (combined heat and power (CHP)).

<sup>3</sup> Where there will be no energy utilisation from the incineration of waste.

<sup>4</sup> Where a single facility includes a mix of technologies to treat a single waste stream on one site. Where a single technology is involved use the most specific waste facility type.

<sup>5</sup> Where a more specific waste treatment type does not describe the proposed activity. Examples may include separation technologies, vitrification, autoclaving etc.

<sup>6</sup> Where the main activity will be the bulking up of waste for treatment or disposal elsewhere. May include some sorting, baling, compaction for recycling but where this is the main activity use MRFs.

**3. Question 2: What Capacity Does Your Authority Have to Dispose of Waste Residues?**

3.1 Local knowledge has been used to complete the assessment in Table 3.1 below:

<b>WPA:</b>		<b>Shropshire County Council</b>			
		Estimated landfill void capacity '000 cubic metres			
Status		2006	Additional by		
			2010	2015	2020
Licensed	non-hazardous	1,100	0	0	0
	hazardous	0	0	0	0
	inert only	500	0	0	0
Planning permission	non-hazardous	1,200	0	0	0
	hazardous	0	0	0	0
	inert only	0	0	0	0
Allocation	non-hazardous	0	0	0	0
	hazardous	0	0	0	0
	inert only	0	0	0	0

*Potential Future Capacity*

3.2 Shropshire lacks suitable mineral voids which require restoration through landfilling. Any potentially suitable mineral workings are in areas affected by significant environmental constraints (particularly the Water Framework Directive) or have substantial remaining mineral reserves. The Waste Local Plan was only able to identify potential sites which would require engineering as landraise.

3.3 Analysis in the adopted Waste Local Plan suggests that approximately 40% of the waste generated in Shropshire is derived from Shrewsbury. Whilst the draft Plan identified a potential site to the east of Telford, it was felt to be unacceptable in this context to transport significant quantities of waste for disposal from Shrewsbury to a this site unless no other options were available. A desk top study was therefore undertaken to assess whether site opportunities existed in the central Shropshire area. The study:

- i. identified which of the road corridors leading out of Shrewsbury are most able to accommodate additional heavy vehicle movements within a 12km radius of the town. This distance reflects the need for a central location accessible from the wider county from any direction;
- ii. identified areas which are either directly adjacent to these roads or can be easily accessed from them via a short stretch of minor road which is

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<sup>7</sup> Where the proposal is for medium to long-term storage of waste. Where waste will move to recycling, recovery or disposal in the short-term use Transfer Stations or MRFs.

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- satisfactory or capable of improvement, and does not pass through a settlement;
- iii. identified areas where a minimum site area of 10ha could be achieved with a stand off of at least 300m from residential property;
  - iv. identified impacts on designated areas included in the Environmental Record;
  - v. assessed the location relative to areas of flood risk; and
  - vi. assessed the location relative to major aquifers.
- 3.4 If any of these criteria could not be met then the location was rejected. Of the 40 areas identified after test vi. above, 29 were rejected because they were located on, or immediately adjacent to major aquifers, leaving 11 areas. Of these, 6 were identified as having fewer limitations to development, and of these, two sites on the west side of Shrewsbury were considered to be the best alternatives to the potential site east of Telford.
- 3.5 In order to reflect the sensitivity of issues surrounding the need for new waste disposal capacity, consultants Entec (UK) Ltd were instructed to review the County Council's own study (described above) and to assess potential locations for the disposal of non-hazardous waste in Shropshire. The study by Entec<sup>8</sup> confirmed the Council's methodology and its outcomes. However, following further analysis and consultation, these sites were deleted from the Plan to reflect the fact that they were either unavailable or too small to be developable.
- 3.6 Notwithstanding the conclusions of the studies referred to above, the Planning Inspector's recommendations following the Local Plan Inquiry both removed the preferred site to the east of Telford and confirmed the removal of the two sites near Shrewsbury. As a result, the adopted Waste Local Plan no longer identifies specific Preferred Sites or Areas for non hazardous waste disposal.
- 3.7 Whilst some of the municipal waste generated in Shropshire is landfilled at remaining sites in North Shropshire and Bridgnorth, the county also depends on landfills in Telford & Wrekin and, to a lesser extent, Wrexham for municipal waste disposal. With respect to non-municipal waste, the county is largely dependent on landfills in Telford & Wrekin, and to a lesser extent, Staffordshire. The permitted landfill site at Betton Abbots has not been able to proceed due to land availability and regulatory constraints. The lack of suitable mineral voids and the environmental constraints identified in the studies above suggest that Shropshire will continue to be largely dependent on neighbouring counties, particularly the Borough of Telford & Wrekin, unless regulatory approval can be achieved for an engineered landraising site in an appropriate location.

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<sup>8</sup> Assessment of Potential Locations for the Disposal of Non- Hazardous Waste in Shropshire (Entec 2003)

**4. What Percentage of the Facilities Required to Manage: A) Municipal Waste and B) Commercial And Industrial Waste up to 2020, Should be Apportioned to Shropshire in the Phase Two Revision?**

*Waste Planning Strategy*

4.1 The County Council intends to provide waste processing capacity equivalent to that which is required to manage the waste which is generated in its area, based on the best available information about waste arisings. The land use strategy in the adopted Shropshire Waste Local Plan includes the identification of new sites for waste management facilities which, when combined with existing facilities, will form part of an integrated network that makes adequate provision for waste arising within Shropshire. The expectation is that the 14 Preferred Sites which are identified in the Plan will provide a range and choice of sites for developers to bring forward proposals which will be adequate to handle the types and volumes of waste that will arise in Shropshire during the period to 2014.

4.2 The only types of capacity for which additional provision is unlikely to be made in Shropshire comprise:

- i. Non-hazardous landfill (for the reasons discussed in paragraph 3.6 above);
- ii. Hazardous waste processing and disposal (by virtue of the small quantities of these waste which are generated, the lack of existing processing or disposal sites and the consequent lack of any economies of scale or other impetus for the establishment of new sites).

*Phase 2 Capacity Study: Future Waste Capacity Requirements in the West Midlands*

4.3 During 2004, Shropshire County Council prepared projections, on behalf of WMRA, which examined the anticipated waste arisings in each Waste Planning Authority area across the region as a result of known legislative change. This study set out indicative requirements for all controlled waste streams. The projections are based on a range of explicit assumptions, spelt out for each waste stream in each chapter. With respect to Shropshire, the study identifies (in Annex 6) a need for the following capacity and facilities during the period 2001 – 2021:

**Table 4.1: Number of Additional Recycling & Recovery Facilities Required 2005 and 2020 ('000 tonnes)**

Future Requirement by Type of Capacity	Existing Capacity	Additional Capacity Required by 2005	Equivalent No. Facilities	Additional Capacity Required by 2021	Equivalent No. Facilities
Municipal Recycling	0	14	1	45	2
Municipal Recovery (Recycling)	0	30	1	68	3
Industrial & Commercial Recycling & Recovery	40	174	7	192	8

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Future Requirement by Type of Capacity	Existing Capacity	Additional Capacity Required by 2005	Equivalent No. Facilities	Additional Capacity Required by 2021	Equivalent No. Facilities
Construction & Demolition Recycling	48	306	3	252	3
Hazardous Recycling & Recovery	0	2	0	3	0
<b>TOTAL</b>	<b>88</b>	<b>526</b>	<b>12</b>	<b>560</b>	<b>16</b>

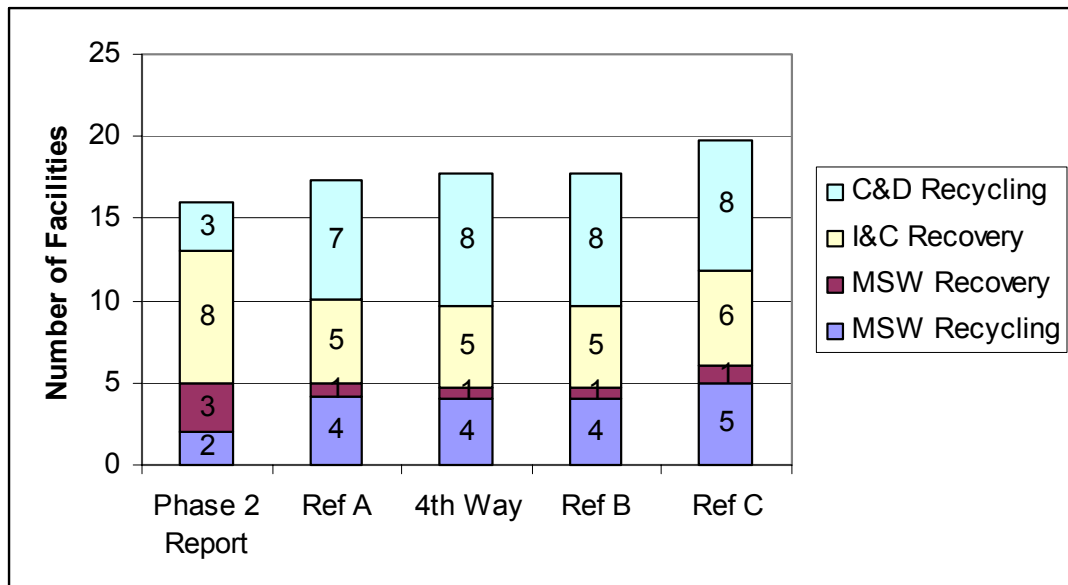
**Table 4.2: Indicative Future Landfill Capacity Required 2001 – 2021 ('000 tonnes)**

Future Landfill Disposal Requirement by Type of Capacity	Existing Capacity 2001	Capacity required by 2005	Capacity required by 2010	Capacity required by 2015	Capacity required by 2021
Non-Hazardous	1,866	1,631	2,967	4,126	5,179
Hazardous	0	18	44	66	88

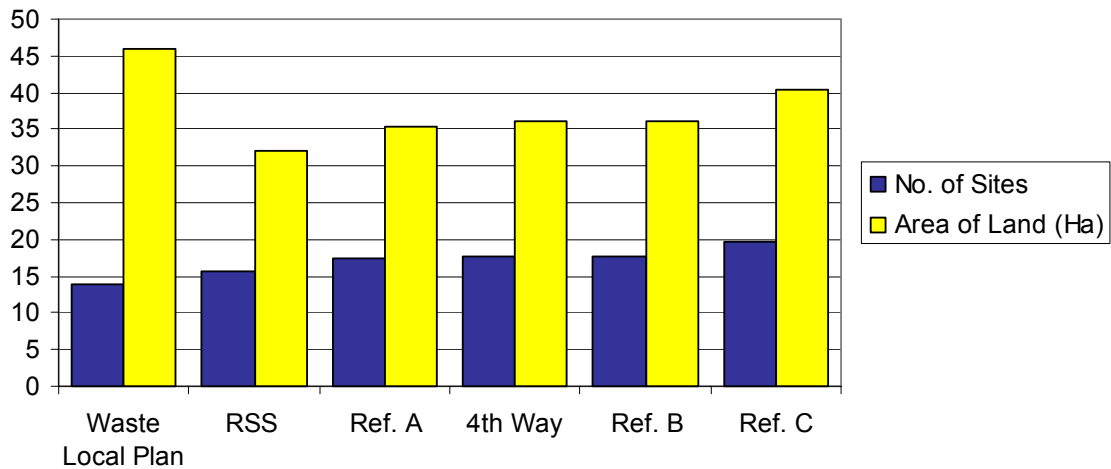
*Impact of Revised Household Growth Rates*

4.4 Shropshire County Council has analysed in detail, the implications of the various potential household growth rates included in the brief and subsequent correspondence (Reference points A - C) for the need for additional waste management facilities during the period until 2026. This analysis has also included an assessment of the waste additional waste facilities which would be required to accompany the Council's preferred growth option for Shropshire (the 'Fourth Way' – see response to housing questions in the Section 4(4) brief). The outcome of this analysis on the number of sites and the area of land required is illustrated in Figures 4.1 and 4.2 below:

**Figure 4.1: Impact of Household Growth Rate Scenarios on the Need for Additional Waste Management Facilities**



**Figure 4.2: Impact of Household Growth Rate Scenarios on the Need for Additional Waste Facilities and Land Allocations by 2025/26**



4.5 Whilst the adopted Waste Local Plan identifies only 14 sites, some of these sites are large enough to provide for more than one facility. The Waste Local Plan therefore provides a large enough area of land to provide for even the highest growth options. However, given that 18 sites would be needed to accompany the County Council's preferred '4<sup>th</sup> Way', a larger number of smaller sites is likely to be required and additional sites will therefore need to be identified as part of the preparation of the Council's proposed Waste & Resources Development Plan Document DPD starting in 2008. In addition, whilst some of the WLP allocations are being taken up, there remains a need to protect the availability of suitable employment land for waste management facilities. The County Council is therefore working with Local Planning Authorities to promote the allocation of an additional proportion of employment land to provide for waste facilities. The contribution to regional capacity requirements which Shropshire is able to offer is summarised in Table 4.3 below:

**Table 4.3: Anticipated Provision of Waste Management Capacity in Shropshire 2005 - 2026 ('000 tonnes)**

WPA	Shropshire County Council			
	Type of provision	Annual average tonnes to be managed ('000 tonnes)		
		2005-2010	2010-2015	2015-2026
Municipal	Recycling/ composting*	72-118	118-130	130-143
	Recovery*	0	0-22	22-37
Industrial/ Commercial	Recycling & recovery	214-220	220-226	226-232
Hazardous	Recycling & recovery	0	0	0
Non- Hazardous	Landfill	100	0	0
Hazardous	Landfill	0	0	0

\* The capacity figures shown are based on the County Council's preferred rate of household growth (4<sup>th</sup> Way). The provision of municipal recycling and recovery capacity in Shropshire will reflect the performance required by the proposed PFI contract for waste management services which includes targets for recycling and composting which are higher than the equivalent national targets which form the basis of the Phase 2 Capacity Report. This is intended to reduce to the greatest extent possible, reliance on landfill and non recycling recovery measures.

- 5. Question 4: Following Answers to the Above, Please Advise Whether the Calculations in Apportioning Waste to Your Waste Planning Authorities is Based on:**
- i. Taking Responsibility for Managing a Tonnage of Waste Equivalent to all the Municipal and Commercial & Industrial Waste Arising Within Your area; or,**
  - ii. A Proportion of that Tonnage?**

5.1 See paragraph 4.1 above.

5.2 The information pack supplied by the RTAB to help inform responses to the waste questions raises a number of supplementary issues which are to be addressed as part of the response to questions 3 and 4. These supplementary issues are addressed below:

*A. What are your views on the implications of a shift in thinking towards a resource-efficiency approach to strategic waste management, and the targets that would need to be set to reflect this new philosophy?*

The County wholeheartedly supports a resource efficiency approach which is reflected in our draft LDF and Core Strategy which is entitled: 'Sustainable Resource Management in Shropshire'. The move to a resource economy will involve moving away from the management of waste as an 'end of pipe' solution to provide opportunities for greater resource efficiency through the minimisation and direct re-use of process by-products. Such an approach is likely to require greater integration of resource recovery infrastructure with other employment uses and the County Council is already working with partners to foster such an approach in Shropshire.

*B. To what extent can and should each WPA be 'self-sufficient' in terms of the indicative requirements?*

Each WPA should plan to provide processing capacity at least equivalent to the quantity of waste generated in its area. Absolute self-sufficiency will not occur as a result of commercial decisions made by the market concerning the type, scale and location of waste facilities. However, providing local waste management capacity is a valuable contribution to meeting the service infrastructure needs of other local businesses and a resource management approach provides significant potential for economic growth and innovation by capitalising on the strengths of local economies.

*C. Should those areas with little or no capacity for residual waste make more provision for waste treatment facilities to compensate?*

Yes – this is the approach which has been adopted in Shropshire, where a close structural relationship exists with Telford & Wrekin. The County Council has deliberately taken a pro-active approach to the management of municipal

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waste (through the forthcoming PFI waste contract), and the provision of sites for business waste processing, in order to reduce to the greatest possible extent, the burden placed on adjacent local authorities through the need for landfill disposal.

*D. What wastes could be managed within your area, and which are best managed sub-regionally or regionally?*

As indicated in paragraphs 4.1 and 4.2 above, provision for the processing of municipal, commercial and industrial and C&D wastes will be made in Shropshire, whilst sub-regional or regional provision will be required for non-hazardous waste disposal and hazardous waste processing and disposal.

*E. Do you agree that requirements for waste management should be explicitly taken into account when assessing the need for employment land, and what issues arise from this?*

Yes – this is the approach currently being promoted with the Local Planning Authorities in Shropshire, where on average, an additional 15% of the employment land requirement for the period 2001-2026 will be needed to provide land for waste facilities (based on the growth assumptions in the County Council's preferred 4<sup>th</sup> Way). Several issues arise from such an approach, including:

- The need to provide for other perceived 'low end' employment uses;
- How to assess the availability and suitability of existing vacant premises for waste management uses;
- The impact of making additional employment land available on the market value of such land;
- The fact that LPA's are unable to allocate land for waste management uses specifically.

*F. What is the scope for co-management of wastes across sectors, and what would be the implications for provision in the Region generally and your area in particular?*

There is potential for co-management of MCI (municipal, commercial & industrial) wastes, but this is limited by issues of commercial risk on the part of municipal contractors and by the short term availability of 'surplus' municipal capacity in the context of continuing growth in the municipal waste stream. It seems unlikely that municipal facilities will ever provide more than a small proportion of the capacity required to manage business waste.

## **6. Conclusions**

- 6.1 Shropshire has adopted a pro-active, resource management approach to waste planning which assumes that it will provide for waste infrastructure with capacity to process municipal and business waste equivalent to that which is generated in the county. However, in the case of landfill and hazardous waste facilities, Shropshire is likely to continue to be reliant on neighbouring areas.

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- 6.2 The adopted Shropshire Waste Local Plan (WLP) provides a large enough area of land to manage the municipal and business waste generated by even the highest growth options, a larger number of smaller sites is likely to be required and additional sites will therefore need to be identified as part of the preparation of the proposed Waste & Resources Development Plan Document DPD from 2008.
- 6.3 There is an urgent need for LPA's to consider waste issues and integrate new facilities with other development and the County Council has started to address this by working with district council colleagues to develop draft supplementary guidance on the management of waste which is generated by new development.