Site Allocations and Management of Development (SAMDev) Plan (Draft Policies) January 2013:

Waste Evidence Statement

1. Introduction

1.1 This paper provides the latest available background information about planning for waste in Shropshire, including:

i. Current waste generation and management;
ii. Cross boundary movements of waste;
iii. Waste management capacity and facilities;
iv. Sources of information about waste;

2. Waste generation and management

2.1 Approximately 1 million tonnes of waste was generated in Shropshire in 2011 (see Table 1). Approximately 49% of this waste is from construction and demolition and a further 35% is generated by commercial and industrial businesses, a further 1% is classed as hazardous. Municipal waste which is collected by local authorities amounts to only about 15% (see Figure 1). Of the waste generated in Shropshire, 49% is managed in the county and a further 43% is managed in neighbouring Telford & Wrekin. 3% is managed in other neighbouring areas, a further 2% is managed in other parts of the West Midlands and the remaining 3% is managed in other parts of England and Wales. Shropshire imports about 12,000 tonnes of waste from neighbouring areas including Telford, Cheshire and Wales, largely for disposal at a single landfill site. Of the total amount of waste whose fate is known, about 42% is recycled or has value recovered from it and the remaining 58% is landfilled.

Figure 1: Waste Generated in Shropshire 2011:

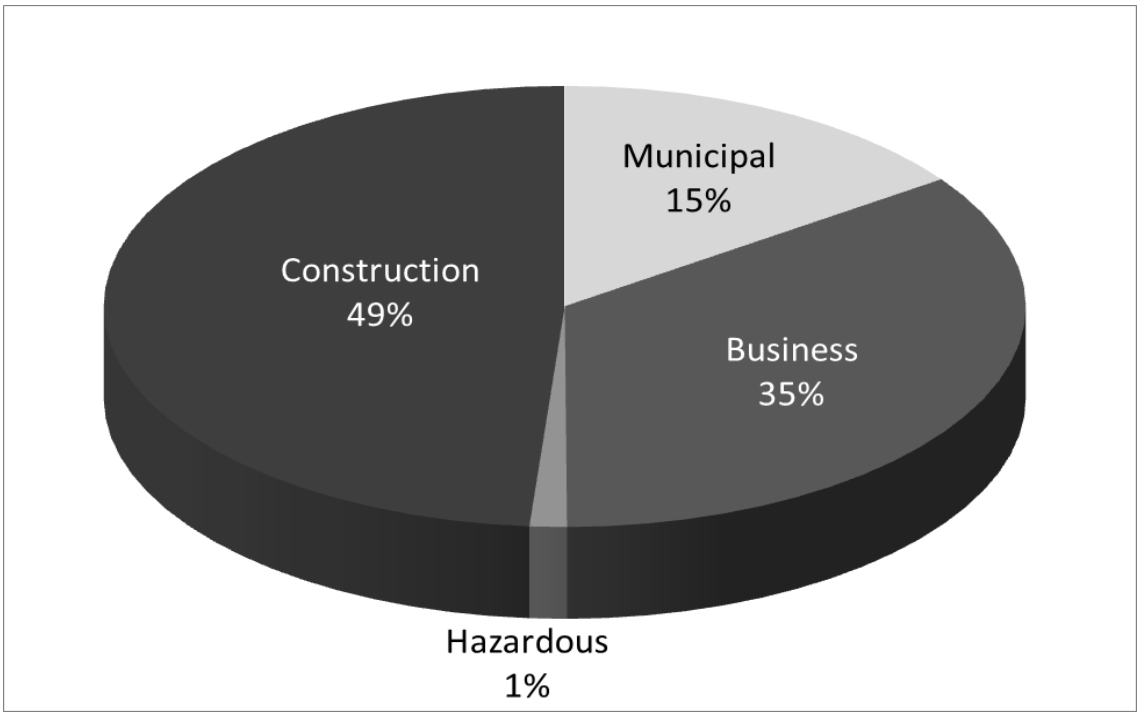


Table 1: Best Available Waste Generation and Management Data

Waste Stream	Quantity Generated (tonnes)	Year	Source	Notes
Municipal	155,000	2011/12	Shropshire Council	Latest available local data
Industrial & Commercial	354,000	2011	Environment Agency	Waste Data Interrogator 2011: HIC less MSW
Hazardous	12,000	2011	Environment Agency	Hazardous waste interrogator 2011
Construction & demolition	497,000	2005	Shropshire Council	Estimate derived from 2010 national data using share of development as an index
Mining and quarrying	Not available		Atkins	National only
Agriculture	Not available	2003	EA	West Midlands only
Low Level Radioactive waste	Not available	2008	DEFRA	National survey generated only a 30% return.
Total	1,018,000			Sum of best available data

Note: Darker text describes best available waste data, grey text describes other available data which is included for information.

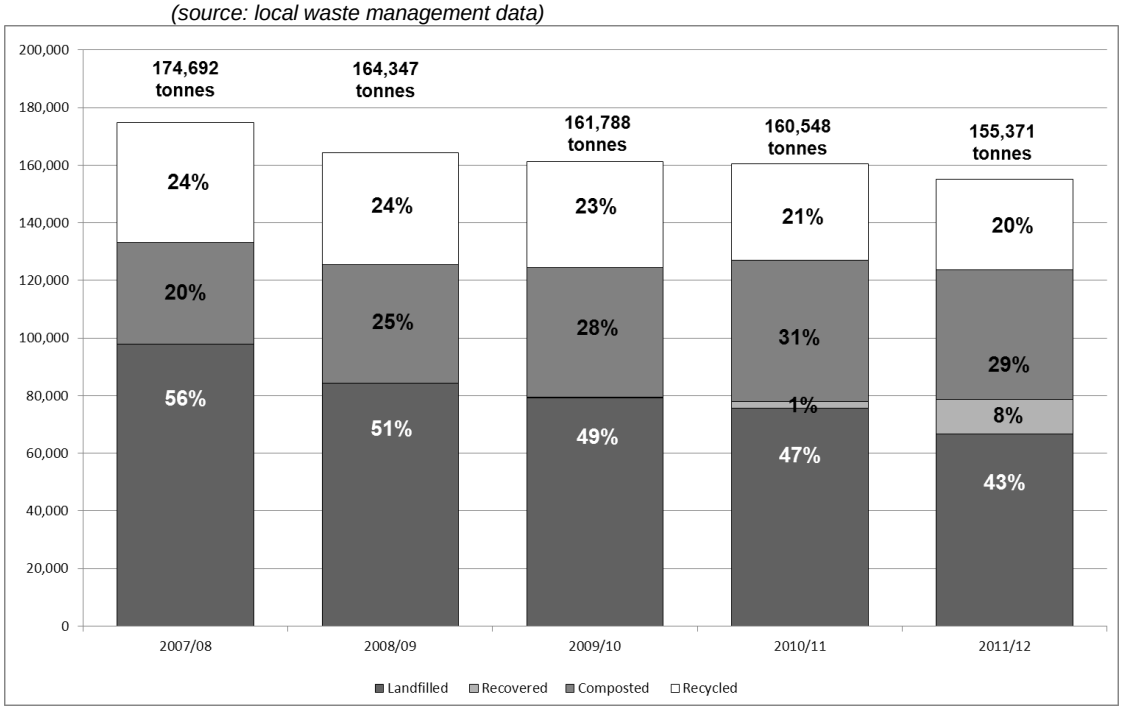
Municipal and Household Waste

2.2 National targets for diverting and recycling / recovering municipal waste require local authorities to recover value from municipal waste: 53% by 2010, 67% by 2015 and 75% by 2020; and to recycle / compost household waste: at least 40% by 2010, 45% by 2015 and 50% by 2020.

2.3 Shropshire produced just over 155,000 tonnes of municipal waste in 2011-12. The overall quantity of municipal waste generated in Shropshire fell significantly (8%) between 2010 and 2011. The quantity of municipal waste generated in 2012 was significantly lower than that generated in 2000.

2.4 Shropshire continues to perform well against national municipal waste recycling and composting and landfill diversion targets. Approximately 49% of municipal waste was recycled and composted in 2011, 8% had value recovered from it and 43% was landfilled. Both the actual amount and proportion of municipal waste that is landfilled have reduced significantly in recent years. Of the municipal waste produced in Shropshire, about 57,000 tonnes or 37% was managed in Shropshire, 67,000 tonnes or 43% was landfilled in neighbouring Telford & Wrekin and 31,000 tonnes or 20% was managed in other neighbouring areas. Shropshire will be able to manage a far higher proportion of its municipal waste locally once the new energy recovery facility in Shrewsbury becomes operational (expected 2015).

Figure 2: Municipal Waste Management Trends 2007-2012
(source: local waste management data)



Commercial and Industrial Waste

2.5 The Regional Spatial Strategy established waste management infrastructure requirements based partly on targets to reduce the proportion of commercial and industrial waste that is sent to landfill to 35% by 2010, 30% by 2015 and 25% by 2020. Whilst these are no longer in force, they informed the local waste management infrastructure targets in the Shropshire Core Strategy (2011) which SAMDev is intended to help deliver.

2.6 Estimates of commercial and industrial waste arising are notoriously inaccurate and detailed recent information about the quantity of waste is limited to the Environment Agency interrogator data from 2011. This suggests that approximately 354,000 tonnes of commercial and industrial waste derived from Shropshire was managed at licensed waste management facilities in 2011. Of this material, 227,000 tonnes (64%) was diverted away from landfill by recycling or recovery processes and 126,000 tonnes (36%) was landfilled. Of the quantity of commercial and industrial waste produced in Shropshire, about 162,000 tonnes or 46% was managed in Shropshire, 176,000 tonnes or 50% was managed in neighbouring Telford & Wrekin and about 15,000 tonnes or 4% was managed in other areas, mostly other neighbours or other parts of the West Midlands.

Hazardous Waste

2.7 Shropshire produced about 12,000 tonnes of hazardous waste in 2011, the vast majority of which was exported for treatment and disposal. Of the hazardous waste exported, about 75% was managed in neighbouring

authorities or in other parts of the West Midlands and 25% was managed in other areas of England. Of the material generated in Shropshire, 10,000 tonnes or 86% was recycled or treated and 14% disposed.

Construction and Demolition Waste

2.8 Estimates of the amount of construction and demolition waste produced in Shropshire vary. Most surveys are only statistically accurate at a regional or national level. A regional model which breaks down 2010 national data using shares of development suggests that approximately 497,000 tonnes of construction and demolition waste was produced in Shropshire in 2010. The fate of this material is not recorded, but Environment Agency data suggests that 355,000 tonnes of construction and demolition waste derived from Shropshire was managed at licensed facilities in 2011. However, this does not include material which is managed at facilities which are exempt from licensing.

2.9 The EU Waste Framework Directive establishes a target of 70% diversion away from landfill by 2020, the Dti Sustainable Construction Review (October 2006) established an objective of zero inert waste to landfill by 2020 and the BIS Strategy for Sustainable Construction (June 2008) established a target of a 50% reduction of construction, demolition and excavation waste to landfill compared to 2008. Of the material managed at licensed facilities in 2011, 60% was managed in Shropshire and a further 37% in neighbouring Telford & Wrekin. Of the material managed at licensed facilities, 78% had value recovered and 22% was deposited at landfill sites, although some of this material may have been used for cover and engineering purposes.

3. Cross boundary movements of waste

3.1 The settlement pattern and distribution of business waste producers in Shropshire means that the county lacks the necessary economies of scale to support more specialised waste management processes. Natural geology and water resources also significantly restrict opportunities for landfill. This means that some waste material, including hazardous wastes and Very Low Level Radioactive Waste (VLLRW) is likely to continue to be exported for management and disposal outside the county. Shrewsbury, in particular, remains heavily dependent on waste management services delivered from facilities in neighbouring local authority areas, particularly Telford & Wrekin.

3.2. However, Shropshire's waste planning strategy (established in the adopted Core Strategy, Policy CS19) actively supports the development of new waste recycling and recovery facilities as a means of stimulating enterprise and to reduce local business waste management costs. The combined capacity of existing permitted sites (see below) and the potential new sites identified in SAMDev (Policy MD4) exceeds that which is required to manage a quantity of waste equivalent to that generated in Shropshire. This approach effectively counterbalances waste exports and helps to support appropriate 'cross boundary' waste flows;

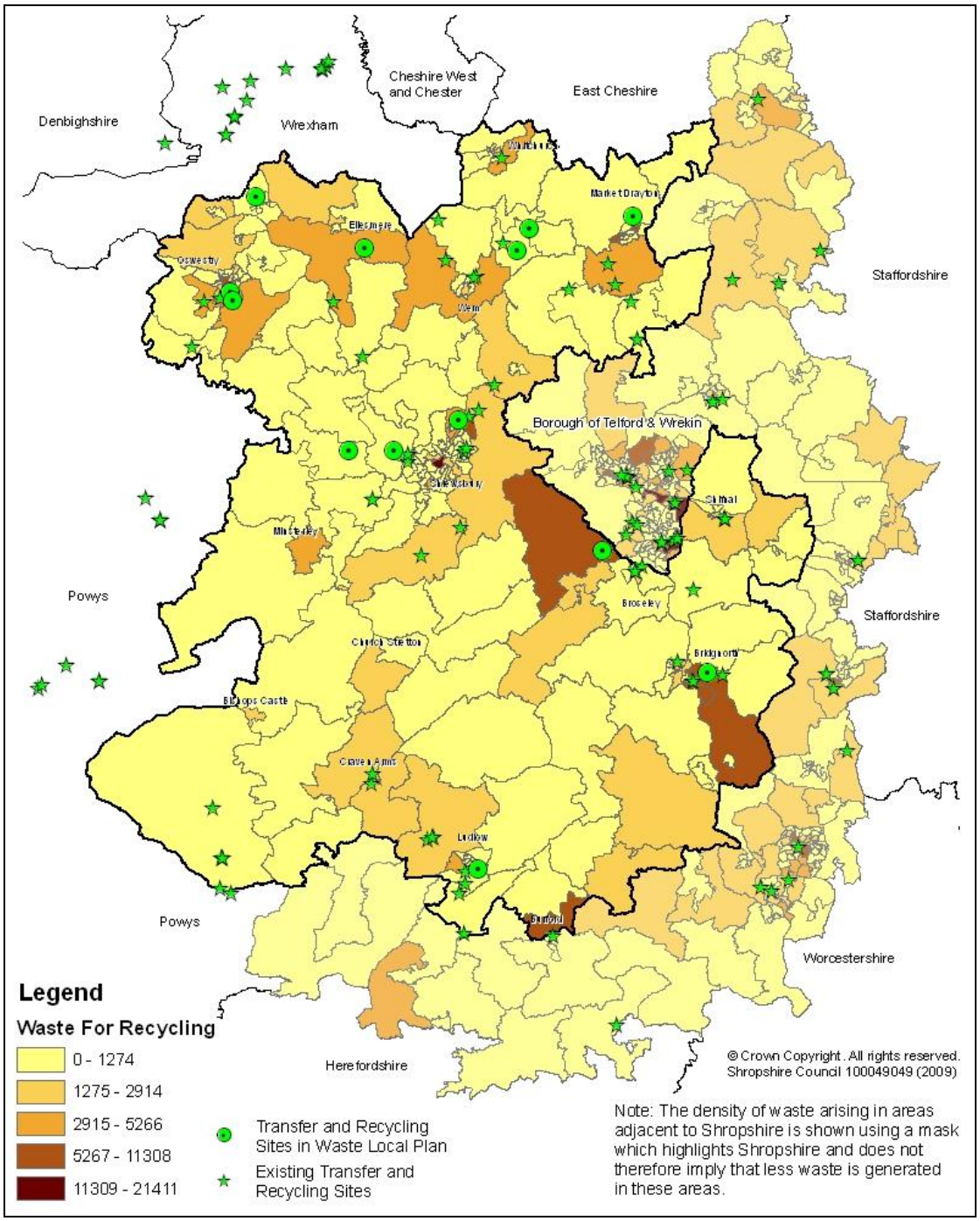
4. Waste management capacity and facilities

4.1 In 2012, there were about 100 consented waste sites in Shropshire which provide about 600,000 tonnes of capacity to manage both locally generated waste and material imported from adjacent areas. Of these sites, about 70% are classed as operational.

Transfer and Recycling Capacity and Sites

4.2 The maps below illustrates data from national waste modelling by ADAS in 2009 which used the structure of the local economy to generate estimates of the quantity and characteristics of waste from households and economic activity which might be generated within standard statistical units (Lower Super Output Areas).

Figure 3: Waste for Transfer and Recycling



4.3 Figure 3 shows the pattern of waste which is most suitable for recycling, which is generated across Shropshire and adjacent parts of the West Midlands region. Unfortunately, equivalent data is not yet available for Wales and the North-West region. Darker colours represent the greatest concentrations of waste. The map also shows the location of existing waste transfer and recycling sites, including those in adjacent areas, and sites which have been allocated for these uses in the Shropshire Waste Local Plan.

4.4 This analysis shows that most recyclable waste is being generated in Shrewsbury and the market towns, and in other locations where larger

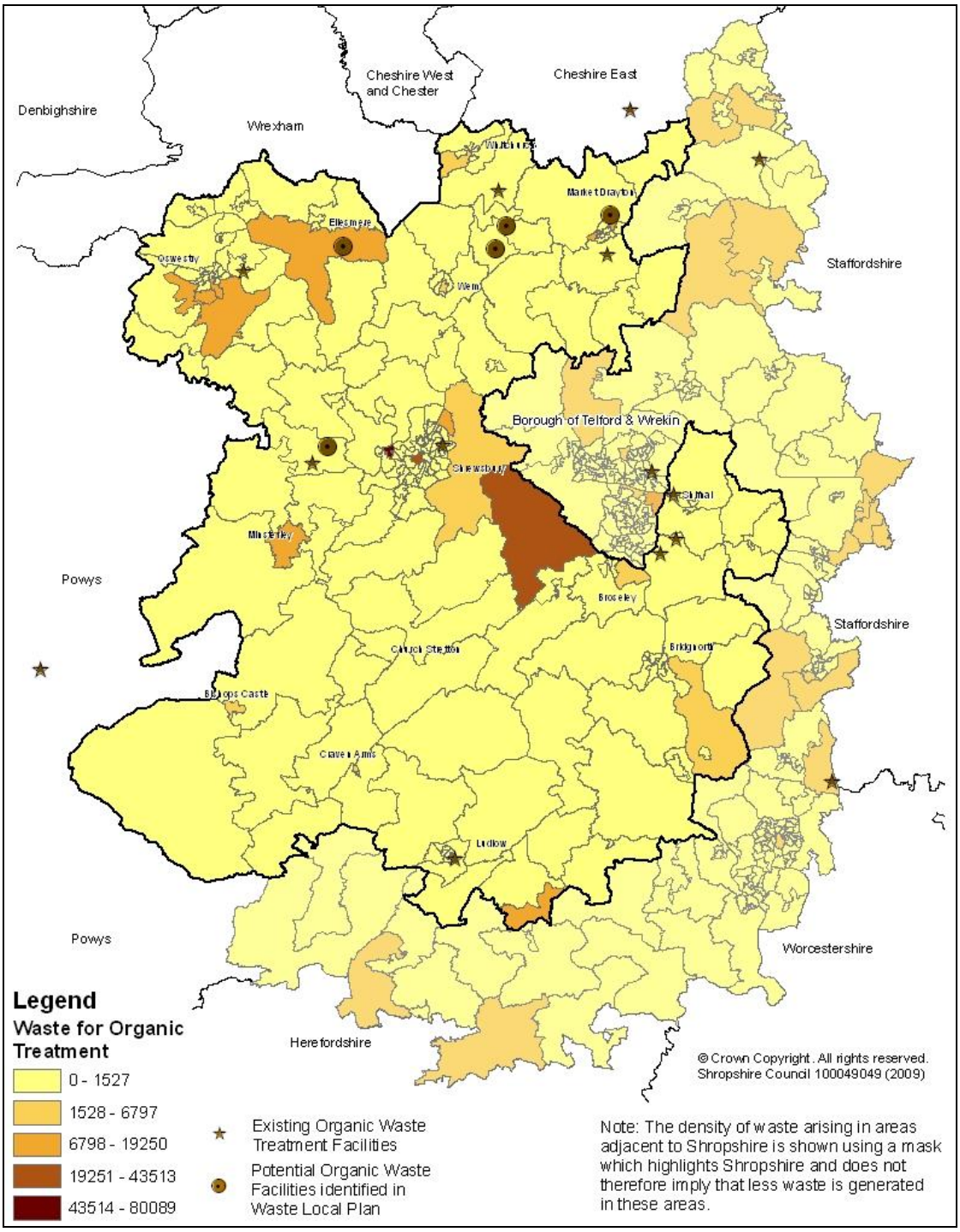
individual or groups of employment land uses are concentrated, such as rural industrial sites. The quantities of waste being generated in Shropshire are generally insufficient to support cost effective recycling businesses at a local level, so most existing capacity is provided in smaller waste transfer facilities where some materials are separated for recycling prior to the waste being transported elsewhere for further treatment or disposal. Generally speaking, the pattern of existing waste transfer and recycling sites coincides well with the pattern of waste generation, although additional provision may be needed in some areas.

Organic Waste Treatment Capacity and Sites

4.5 Figure 4 below shows the pattern of waste which is generated across Shropshire and adjacent parts of the West Midlands region which is most suitable for treatment in organic waste processing facilities. Darker colours again represent the greatest concentrations of waste of this kind. The map also shows the location of existing organic waste treatment facilities and sites which have been allocated for these uses in the Shropshire Waste Local Plan.

4.6 This analysis shows that the pattern of organic waste generation coincides with the centres of population and food processing and manufacture, in particularly the dairy industry in Shropshire. Organic waste processing can draw in waste from a large area and so the pattern of existing waste management sites generally coincides well with the pattern of waste generation, although additional provision may be appropriate near Shrewsbury.

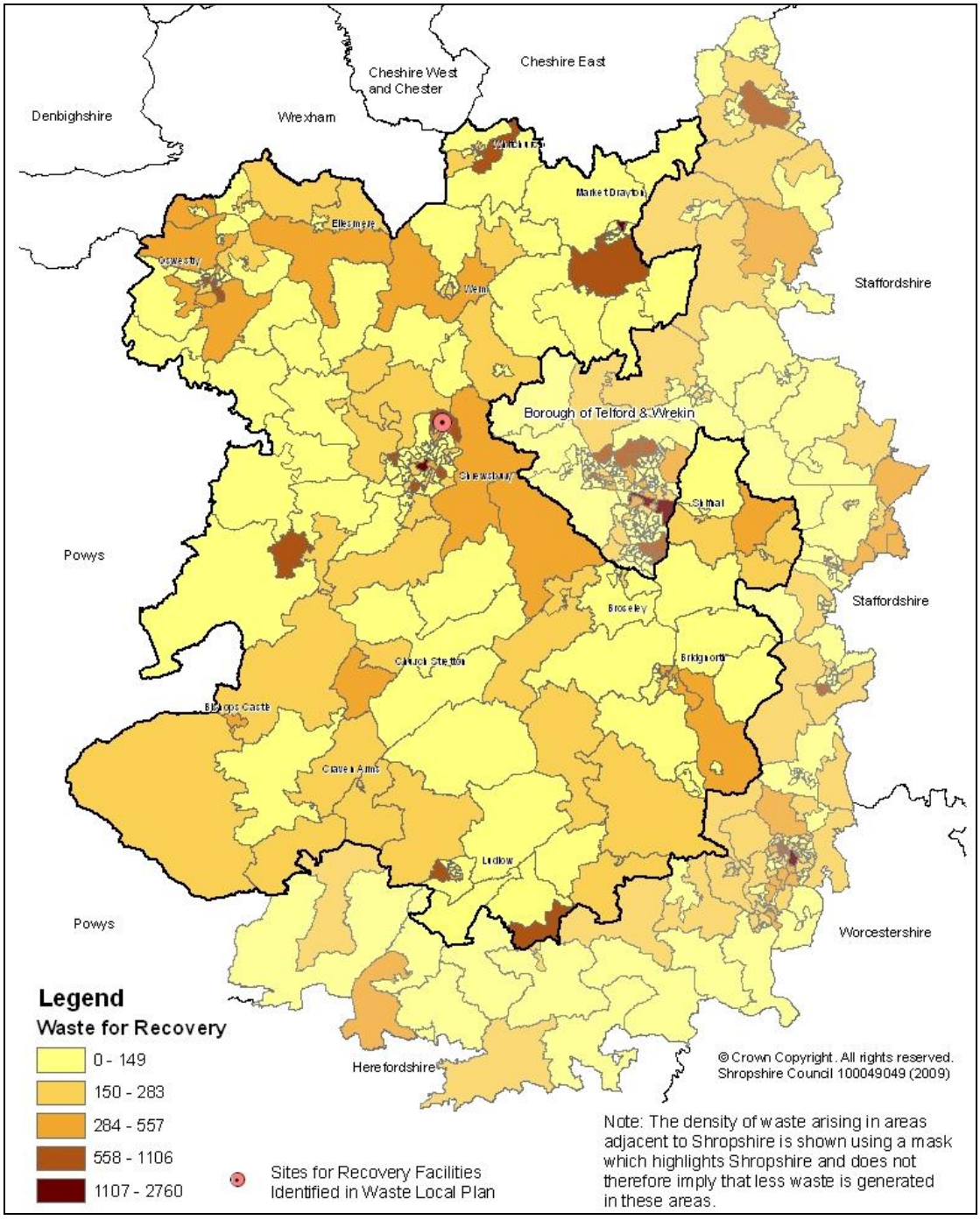
Figure 4: Waste for Organic Treatment



Waste Recovery Capacity and Sites

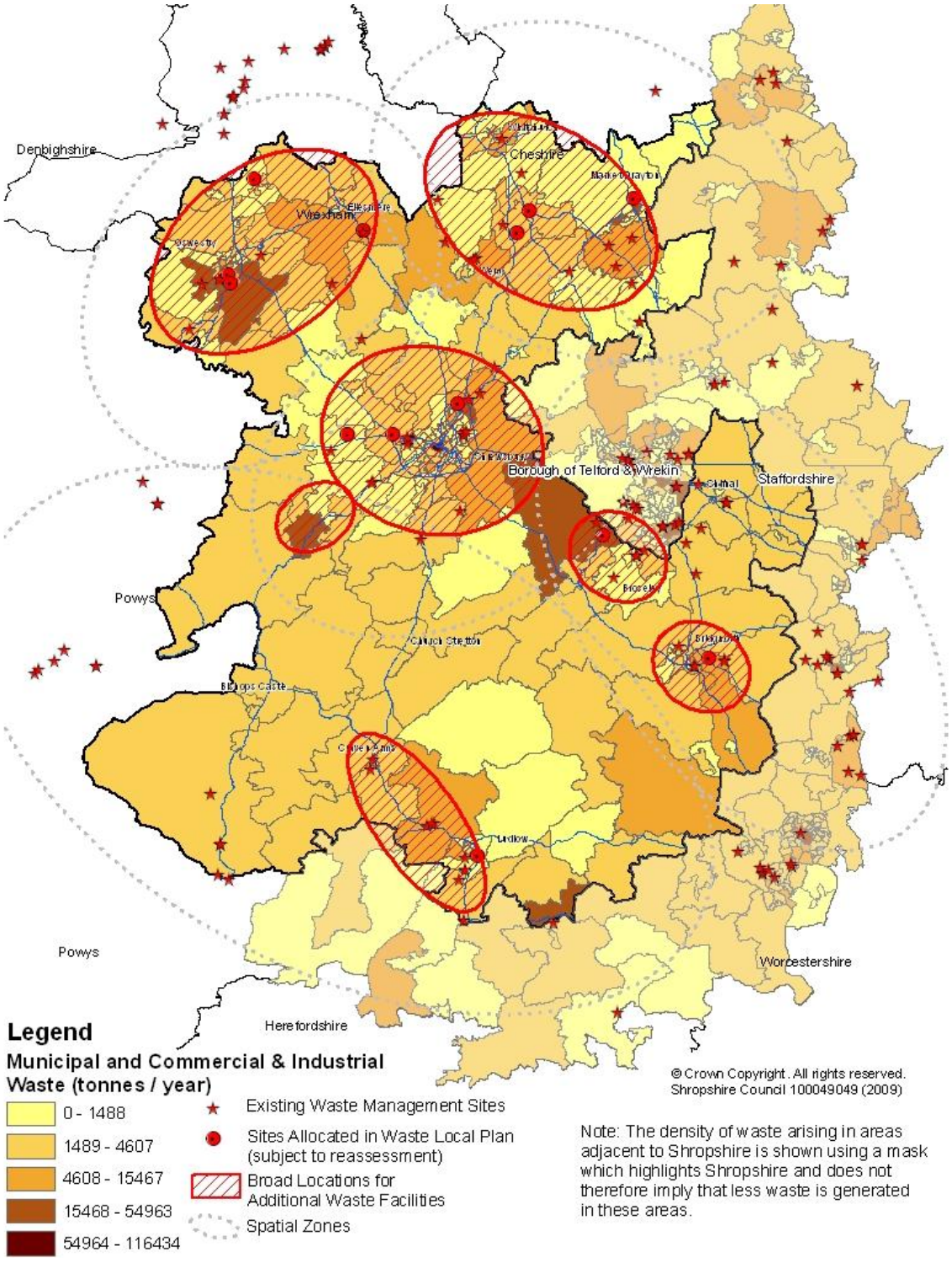
4.7 Figure 5 below shows the pattern of waste which is generated across Shropshire and adjacent parts of the West Midlands region which is most suitable for recovery, including energy recovery. Darker colours again represent the greatest concentrations of waste of this kind. The map also shows the location of the Battlefield waste site which has planning consent for an energy recovery facility.

Figure 5: Waste for Recovery



4.8 This analysis shows that the generation of this type of waste coincides with the centres of population and economic activity in Shropshire. Waste recovery facilities are generally of a sub-regional or regional scale and can draw in waste from a wide area. The allocation of land which is capable of providing waste management facilities of this scale in sub-regional centres such as Shrewsbury is consistent with national policy guidance.

Figure 6: Broad Locations



4.9 The analysis of the spatial pattern of waste requiring different types of facilities against the location of existing and allocated facilities suggests that additional waste facilities will be required in accessible locations close to the main urban areas. Shrewsbury, in particular, remains heavily dependent on waste management services delivered from facilities in neighbouring local authority areas, particularly Telford & Wrekin. The Core Strategy (Policy CS19, Figure 9) therefore identifies broad locations within which sites could be identified as

part of SAMDev (see Figure 6 above). Outside these broad locations, Shropshire Council will support applications for smaller scale waste facilities capable of meeting local needs in locations which are consistent with the principles and site identification criteria set out in national and regional policy.

Landfill Capacity

4.10 The availability of landfill void in Shropshire is declining and the combination of economies of scale and environmental constraints which derive from European policy on groundwater means that the potential for new landfill is very limited. Only one landfill site accepting mixed (non-hazardous) waste remains operational near Ellesmere. The most recent assessment of landfill capacity in the West Midlands reveals that less waste is being landfilled and that existing capacity is expected to last until at least 2019, though alternative economic and diversion assumptions could extend this to as late as 2027/28. Application of the waste hierarchy requires that new landfill sites should not be considered unless specific local circumstances apply.

Planning proposals during 2011/12

4.11 The former Regional Spatial Strategy established a baseline for the existing treatment capacity in the West Midlands and identified future requirements to 2025 for Waste Planning Authorities to take into account in their Plans. Shropshire's current performance against this useful benchmark is illustrated in Figures 7 and 8 below:

Figure 7: Municipal Waste Recovery & Recycling Performance 2008-2012

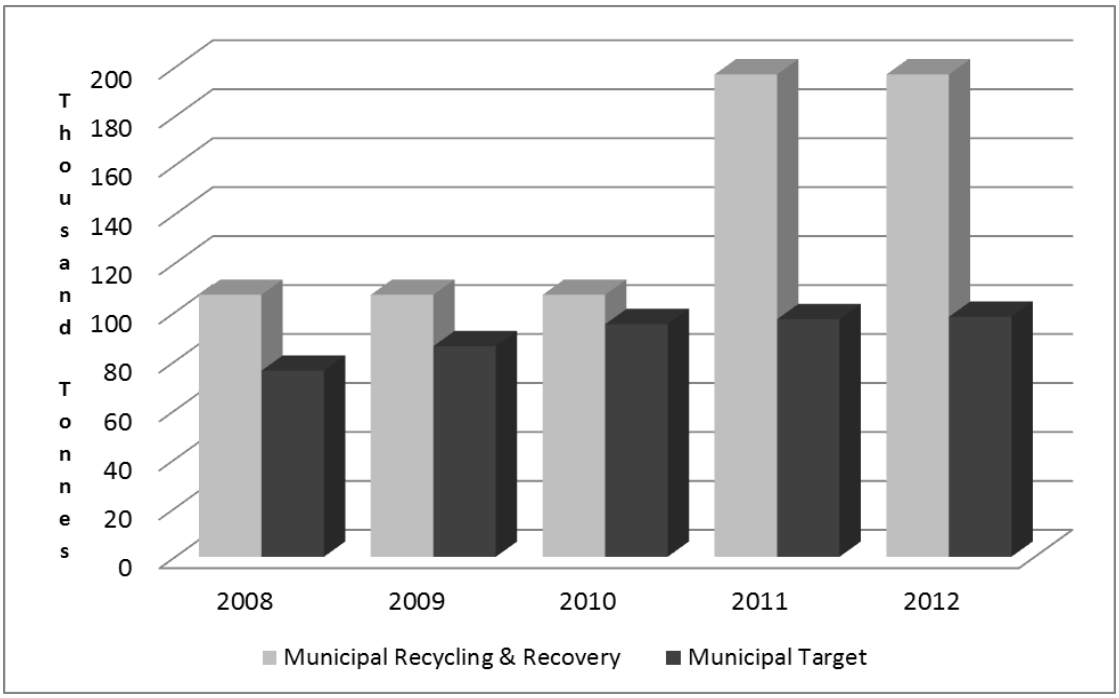


Figure 8: Commercial Waste Recovery & Recycling Performance 2008-2012

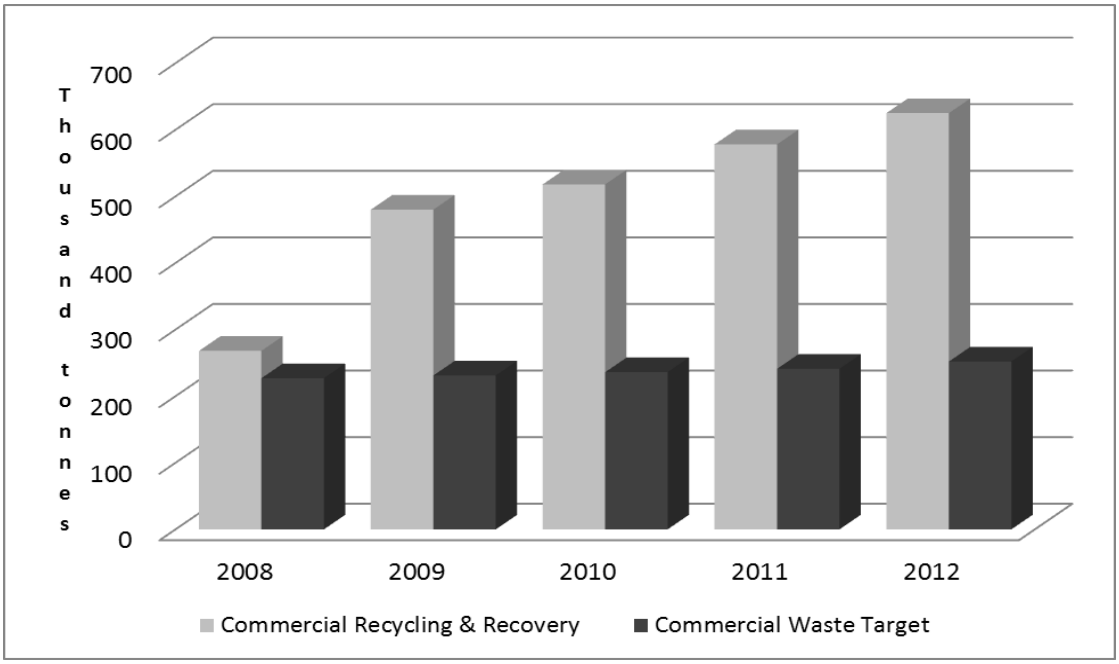


Table 2: Waste Management Capacity 2011-2012

Waste Stream	Existing Capacity[1] 2011	Additional Capacity Permitted 2011-12	Available Capacity 2011-12	Target 2011-12[4]
	(i)	(ii)	(i+ii)	
Municipal Recycling & Recovery[2]	197	0	197	98
Commercial Recycling & Recovery[3]	578	47	625	252

1. AMR data
2. Includes local estimate of available composting capacity
3. Includes construction, demolition and inert wastes
4. Based on RSS modelling

4.12 The new facilities which have been permitted during 2011-2012 will deliver 47,000 tonnes of additional annual waste management capacity for commercial waste recycling and recovery (see Table 2). The wider trend is that, during the period 2007-2012, applications for 49 new waste management facilities have resulted in 46 approvals, equivalent to about 100,000 tonnes of additional municipal waste management capacity and 419,000 tonnes of additional business waste management capacity. This represents an approval rate of 94% and has brought the total number of consented waste facilities in Shropshire to over 100, with a potential capacity of about 600,000 tonnes. The available capacity to treat both municipal and business wastes therefore significantly exceeds benchmark levels.

4.13 A further ten sites, amounting to up to 73 hectares of land, have been identified in the draft SAMDev Plan (Policy MD4) as suitable for general industrial or business use, including waste management operations, recycling and environmental industries. These sites are in accessible locations close to the main urban areas, broadly consistent with the 'Broad Locations' identified in the Core Strategy (Policy CS19).

5. Sources of information about waste

Table 4: Approval of additional waste management capacity

Study	Key Messages
1. Shropshire Municipal Waste Management Strategy 2000 – 2020 (Shropshire Councils 2003);	Sets out the objectives and proposals for waste collection, treatment and disposal that will apply across the county and the options for meeting performance standards and targets.
2. Waste Data Overview (DEFRA June 2011)	Gives an overview of the generation and management of waste in the UK.
3. Assessment of Potential	Assessed potential locations for the disposal of non-

Study	Key Messages
Locations for the Disposal of Non- Hazardous Waste in Shropshire, (Entec UK Limited for Shropshire County Council, March 2003);	hazardous waste in Shropshire by evaluating and updating the methodology developed by Shropshire County Council for the Waste Local Plan and by assessing in more detail, potential areas identified through the application of this methodology.
4. West Midlands Waste Facilities: Future Capacity Requirements (Shropshire CC for WMRA November 2004);	i. Assesses the implications of the implementation of known policy instruments and targets (drivers) in terms of the need for additional waste management capacity during the period until 2021; ii. Estimates the additional capacity that needs to be made to recover and dispose of waste in the West Midlands as a consequence of these drivers; iii. Apportions additional capacity requirements by strategic planning authority (WPA).
5. Regional Waste Scenarios Study (July 2005) Part 1, Enviros for WMRA	Identifies scenarios for the future management of commercial and industrial (C&I) and construction and demolition (C&D) waste within the region.
6. Waste Residues Report (June 2006), Enviros for WMRA	Regional Waste Scenarios Study (above) identified a number of physical, biological and thermal treatment facilities which will each generate different quantities of waste residues. These waste residues also require waste management provision and this study provides information on the potential volume, characteristics and disposal options for waste residues arising from the different waste management technologies.
7. A Study into Future Landfill Capacity in the West Midlands (May 2007), Scott Wilson for WMRA	Developed and applied a methodology for surveying existing and planned waste landfill capacity, which suggests that, based on the input assumptions covering waste generation and landfill diversion rates remaining valid, then at worst-case, landfill capacity will last until 2015/16, and at best case, until 2022/23.
8. Waste Treatment Facilities and Capacity Survey: West Midlands Region (May 2007), SLR for WMRA	Surveyed and quantified current recycling and treatment capacity throughout the region and identified treatment gaps (or surpluses) for each area and the region as a whole.
9. West Midlands RSS Phase 2 Revision Preferred Option – Waste Background Paper (December 2007), WMRA	Amplifies the RSS Phase 2 Revision and Identifies ten priority issues for waste management in the region;
10. Study into Commercial and Industrial Waste Arisings (ADAS for East of England Regional Assembly April 2009);	Extrapolates data from the NW region to develop estimates of C&I waste arisings in each of the English regions for the period until 2031, on the basis of the economic profile by sector for each Region.

Study	Key Messages
11. Improving Business Waste Recycling Services in Shropshire and Telford & Wrekin: Quantum ST for Shropshire County Council and Telford & Wrekin Council (2008)	Examined demand for, and current provision of business waste recycling services and made recommendations about the establishment of demonstrator projects to highlight potential improvements.
12. Shropshire Core Strategy: Waste Technical Paper (Shropshire Council February 2010)	Provides background information about planning for waste in Shropshire, including: i. Current waste generation and management; ii. Cross boundary movements of waste; iii. Waste management capacity and facilities; iv. Sources of information about waste;
13. Waste – A Future Resource for Business: Developing the evidence base for a targeted market intervention strategy in the West Midlands (SLR for Advantage West Midlands, March 2008);	Assessed the impact of regulatory drivers and changes in taxation on the management of business waste in the region. Identifies key priorities for business waste and potential interventions to address these.
14. West Midlands Landfill Capacity Study, 2009 Update (Scott Wilson June 2009);	Updates the Landfill Capacity Study completed by Scott Wilson in 2007 in light of: i. Changes in legislative requirements and national waste strategy; ii. Changes in the overall economic climate within both the region and the wider UK; and iii. Increases in the rate of landfill and aggregate taxes paid by operators. Study concludes that: i. Total landfill capacity for the region has reduced by around 13% since the first capacity study was completed in 2007; ii. Mineral operators are changing their approach to restoration and new void created at these sites will most likely not be used as landfill in the longer term; iii. Allowing for changes in the economic climate, current landfill capacity will be consumed by around 2019/2020. Consideration of the need to release additional void space should begin around 2014/15; iv. Modelling using alternative growth and diversion strategies indicates that the life of existing landfill capacity could be extended until 2027/28; v. The study provides a strong basis for the adoption of a policy of 'net self-sufficiency' whereby the region will provide for

Study	Key Messages
	management in-region of an amount of waste equivalent to that which is exported to other regions for landfill disposal;
15. The Regional Approach to Landfill Diversion Infrastructure (DTZ & SLR for Advantage West Midlands, July 2009)	i. Defines the regional approach to landfill diversion infrastructure and describes the methodology used to draw up this approach. ii. Describes the tools available to the public and private sectors to undertake analysis of potential locations for waste infrastructure; iii. Identifies a shortlist of priority locations for the development of waste infrastructure in the West Midlands region.

6. Waste Conclusions

6.1 The rate of planning applications in the previous five years illustrates the level of continued interest in waste management development and reflects the market's response to increases in the cost of managing waste and the local authorities' need to respond to the requirements of national policy. A large number of new waste management facilities have been permitted in Shropshire in the last few years, including a number of the sites which were allocated by the Waste Local Plan. This outcome also reflects the supportive policy approach which is set out in the Waste Local Plan which is maintained and developed in the waste planning strategy in the Shropshire Core Strategy.

6.2 The capacity of existing permitted sites significantly exceeds the benchmark established regarding the capacity required to manage a quantity of waste equivalent to that generated in Shropshire. However, additional waste management capacity is still required in accessible locations close to the main urban areas to help improve local access to waste recycling services, foster business enterprise and to maintain and improve balance waste exports and 'cross boundary' waste flows.