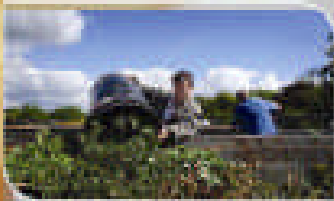
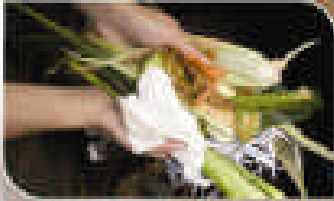


Waste Prevention Plan 2010/15



 **reduce**
for Shropshire

 **recycle**
for Shropshire

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LIST OF ABBREVIATIONS

AWC Alternate Weekly Collections is a system of waste collection used widely in the UK which generally involves general rubbish being collection one week and recyclable / compostable materials being collection on the other.

BMW Biodegradable Municipal Waste refers to the fraction of that waste which will rot and thus produce methane gas if sent to landfill.

BVPI Best Value Performance Indicators are a historic statistical measure of how well Councils are delivering services.

DMA Direct Marketing Association is an industry body for companies involved in sending promotional literature to households in the UK.

EM Effective Micro-organisms refers to home composting systems which add bacteria or yeasts to speed up the rotting process.

EPA Environmental Protection Act 1990 is a key piece of legislation with regards to waste collection services in the UK.

HHW Hazardous Household Waste refers to certain types of waste which may cause harm to human health or the environment.

Kyoto Protocol The Kyoto Protocol was a global international agreement to reduce greenhouse gases.

Landfill Regulations The Landfill Regulations are a set of rules designed to help reduce the environmental impact of land filling waste.

LETS Local Exchange Trading Scheme is a non profit scheme where people can exchange goods and services without using money.

Macerators Macerators are generally sink based systems which shred food waste to allow it to be disposed of down the drain.

MPS Mailing Preference Service is a free service for people to register to 'opt out' of receiving unwanted mail.

MSW Municipal Solid Waste refers to all waste collected by or on behalf of the local Council.

NI National Indicators are the new statistical measures of how well Councils are delivering services.

Packaging Regulations The Packaging Regulations are a set of UK laws derived from the EU Packaging Directive which require packaging producers to help pay for recycling.

PFI Private Finance Initiative is a financial mechanism for local Councils to lease major projects from the private sector.

Residual Waste Residual waste refers to general household rubbish which is left over once as much material as possible has been separated off for recycling and composting.

SCRN Shropshire Community Recycling Network is a group of voluntary sector organisations in the county who get involved in waste management.

SCRL Shropshire Community Recycling Ltd. is a non-profit company limited by guarantee set up to deliver the aspirations of SCRN

SHOFUR Shropshire Furniture Re-use Group is a formal partnership of local charities who are involved in the restoration of furniture.

Smart Shopping Smart shopping refers to a plethora of initiatives which can help encourage people to avoid buying products or services which may give rise to waste.

VES Veolia Environmental Services are a waste management company who are contracted to deliver waste collections in Shropshire

Waste Hierarchy

The waste hierarchy is a framework for helping to understand the best waste management options from an environmental perspective.

WEEE Waste Electrical and Electronic Equipment refers to waste which has electronic parts which should be kept out of landfill.

WESP The Waste Education Support Programme is a project where schools in Shropshire can get free help with reducing their waste.

Foreword

Shropshire faces a big challenge with regard to its waste management. As one of the UK's most sparsely populated areas we have high costs for delivering the collection side of our service. Further, as part of our obligation to reduce landfill we require huge investment in waste treatment technology. As an area we also anticipate significant housing growth which means we are likely to see the quantity of waste we have to deal with each year grow.



Councillor Dave Roberts

In planning for these challenges ahead, the Shropshire Council has secured significant private sector expertise and investment through procuring a long term integrated contract for waste management with Veolia Environmental Services Ltd. This partnership with the private sector strengthens our ability to deliver cost effective, environmentally sustainable solutions.

Shropshire's waste management services and performance have improved considerably in the last few years. It is fantastic that levels of recycling have soared in Shropshire, to some of the highest in the UK, but even recycling has a cost and environmental impact, so it's far better not to produce waste in the first place.

Waste prevention is crucial for SC, because it's the most economic and environmentally sustainable solution for dealing with our rubbish. Our aim is to manage Shropshire's waste according to the waste hierarchy and reduce waste at source. This is in keeping with SC's priorities of keeping council tax low and reducing greenhouse gas emissions.

Over the coming years Shropshire residents are going to see a lot of improvements to waste management services aimed at increasing recycling and reducing the quantity of waste sent to landfill. However this will not detract from our core aim and we will continue to shape our services and raise the awareness of our residents to make sure that waste is reduced at source wherever possible.

This plan outlines our vision and objectives with regard to waste prevention over the next 5 years. We are committed to preventing waste and we plan to work in partnership with local residents and the voluntary sector in particular to achieve this.

Councillor Dave Roberts
Cabinet Member Local Environment and Economy Shropshire Council

Executive Summary

SC manages municipal solid waste (MSW) in Shropshire through a 27 year Private Finance Initiative (PFI) funded contract with Veolia Environmental Services Shropshire Ltd. (VES) which encourages waste prevention. In keeping with the waste hierarchy SC is committed to reducing waste as it is the most cost effective and environmentally sustainable means of managing waste.

In Shropshire, we have some of the highest rates of MSW recycling in the UK. However, at 530 kilograms of waste per resident, we also produce more waste overall than the national average. Although MSW has declined in recent years, Shropshire has to plan for a significant increase in housing which we anticipate will lead to growth in MSW. Despite expecting overall growth in total MSW, we still aim to reduce the amount of household waste produced per household, as measured by kilograms per household (kg/hh).

Furthermore, within our overarching objective of waste prevention, our priorities also include:

- Reduction in hazardous waste, and
- Reduction in quantity of waste sent to landfill

We intend to achieve this through focusing on 3 main waste types:

1. Residual waste
2. Biodegradable waste
3. Hazardous waste

We will deliver on these initiatives through a range of incentives, marketing, education and making operational changes to our current waste services. In addition we will place a strong emphasis on partnership working and seek to deliver activities through the voluntary and community sector wherever practicable.

Over the next 5 years to 2015 our main areas of activity will be focused on

- Food waste prevention
- Home composting
- Community re-use

Through waste prevention measures we aim to reduce the quantity of MSW by around 50 kg/hh. (This will not all be delivered in the first year, but is a final figure for year 5 of this plan, as initiatives are incrementally introduced over the coming years. This will result from the reduction of all waste streams, not only residual waste to landfill).

1. Introduction

1. SC is responsible for collection and disposal of municipal solid waste (MSW) across the county of Shropshire. We have a statutory duty to ensure this is undertaken in a safe and environmentally sustainable manner. In this regard SC has procured a long-term integrated contract with Veolia Environmental Services, Shropshire Ltd. (VES) to deliver a range of waste services which will maximise recycling, minimise the use of landfill and prioritise a reduction in waste arising (waste prevention).
2. The total amount of MSW in Shropshire in 2008/09 was 161,867 tonnes of which 94%, or 153,817 tonnes comprises household waste. This equates to 1.18 tonnes of household domestic waste per household per annum, which means based on a population of 289,900, on average, every person in Shropshire is producing 530 kg/head/annum of household waste or six times their own body weight every year. The annual cost of managing this waste is over £23 million.
3. Since the peak in 2004/05 we have seen an 8% reduction in the total amount of MSW arising with a 4.2% reduction obtained in 2008/09 compared to the previous financial year

2. Key Facts About Shropshire (* the below figures are in some cases rounded and different figures may be available from different sources)

- Population: 289,900
- Land Area: 3,197 km²
- Dwellings: 130,326
- Average household size 2.24 people
- MSW 2008/09: 161,867 tonnes
- Household waste 2008/09: 153,817 tonnes
- Household waste per head of population per annum 530kg/h/pa
- Household waste per household per annum 1,180kg/hh/pa
- £23,657,061 total expenditure on MSW management 2008/9
- £181.52 per household per annum spent on collection/disposal
- Recycling rate 2008/09: 47.59%

3. Background

4. This Waste Prevention Plan sets out how SC intends to tackle waste prevention over the next 5 years. It is intended to complement the Joint Municipal Waste Strategy for Shropshire, adopted by Shropshire County Council in 2002 and the planned SC Municipal Waste Guidance Note, intended to be produced by 2011.

4. Legislative Background

5. Waste policy in the UK sits within a wider policy and legislative framework agreed with our partners in the European Union. This is necessary because

many of the environmental impacts associated with waste have a European, indeed global dimension.

6. The key driver is the Landfill Directive (1999/31/EC) which is transposed into UK law through the 2002 Landfill Regulations. These set demanding targets to reduce the amount of biodegradable municipal waste (BMW) that is disposed of to landfill. An effective means of meeting these obligations is through waste prevention initiatives. Furthermore, the newly revised Waste Framework Directive which is to be transposed into UK regulations, will include a requirement for all EU Member States 'to establish waste prevention programmes'.
7. Part II of 1990 Environmental Protection Act (EPA) provides local authorities with the statutory power to arrange for the collection and disposal of MSW. This piece of legislation may also be used to develop waste collection services in a way which encourages waste prevention.
8. Supplementary powers to encourage waste prevention are included in the 1998 Waste Minimisation Act, which provides a local authority with the power to do "anything which in its opinion is necessary or expedient for the purpose of minimising the quantities of controlled waste...generated in its area".
9. Finally, the 2008 Climate Change Act creates legally binding targets for reducing carbon emissions which can in part be achieved through waste related activities. It is likely that in the longer term this will create further pressures for local authorities to address the waste prevention agenda.

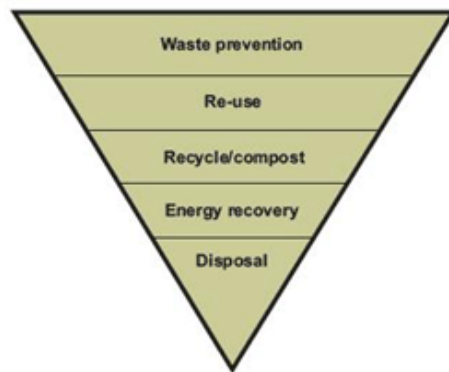
5. Policy Background

10. National policy, as outlined in the Waste Strategy for England 2007 encourages the Council to further prioritise waste prevention. It specifically aims to break the link between economic growth and waste and puts the emphasis on reducing waste which cannot easily be recycled or composted. It also encourages the Council to work closely with the voluntary sector to encourage re-use and waste prevention.
11. National initiatives designed to address waste prevention include the 'Courtauld Commitment' which is a voluntary agreement between Government and the grocery retail sector. The main aims of this are;
 - To design out the growth in packaging waste by 2008.
 - To deliver absolute reductions in packaging waste by 2010.
12. As a result of the Courtauld Commitment we would expect to see reductions in MSW in Shropshire but it is not possible to quantify these reductions in terms of tonnage. It is further complicated by other factors which influence consumer behaviour and packaging trends.
13. SC aims to manage waste in keeping with the widely agreed principle of the waste hierarchy. The waste hierarchy permeates the Joint Municipal

Waste Strategy for Shropshire and is the nationally recognised approach to waste management, forming the basis of Government's approach to waste management as set out in Waste Strategy for England 2007. The waste hierarchy sets out in order, the best practical environmental option for dealing with waste.

Figure 1 – Waste Hierarchy From Waste Strategy For England 2007

The waste hierarchy



14. In keeping with this approach, waste prevention is the most favoured option for waste management in that it is always better to avoid waste in the first place; which is fundamental to our approach and must always be our overarching objective. The further up the waste hierarchy we can deal with waste the better in terms of sustainable energy use (and consequentially Carbon use) and the better from an economic perspective.

15. Preventing waste from being generated by Shropshire households has the potential to:

- reduce costs associated with waste collection and management;
- avoid environmental impacts of materials extraction and use; and
- improve the Councils balance of landfill permits and allowances

16. All of these contribute towards helping to keep Council tax levels down in Shropshire. What is more there is a wider economic benefit too. For every tonne of household waste produced, commercial, industrial and construction businesses produce another six tonnes¹. To this end, reducing MSW can also help manufacturers save waste and thus help make the local and national economy more efficient and competitive.

6. Locality

17. There are a number of key factors which influence MSW production in Shropshire including;

- Demographics
- Economic development and consumer spending

- Material prices (packaging etc)
- Housing market trends
- Government regulations
- Climate (garden growth rates, drinks consumption, moisture content)
- Waste collection regimes
- Behavioural changes

18. Making significant change to the above factors is generally outside the influence of SC, however the nature of waste collection services and subsequent behaviour of residents with regard to waste activities may be influenced through carefully targeted intervention programmes. As such the focus of this plan is geared toward how we can shape our services and how we can promote behavioural change to achieve a reduction in MSW.

7. Demographics

19. Shropshire is a sparsely populated county (only 90.6 persons per km²) with a relatively dispersed population. Historically declining population trends have now been reversed and the population is growing more rapidly than the national average. Within the West Midlands Regional Spatial Strategy the current preferred option for Shropshire is to accommodate an additional 25,700 new homes between 2006 and 2026.

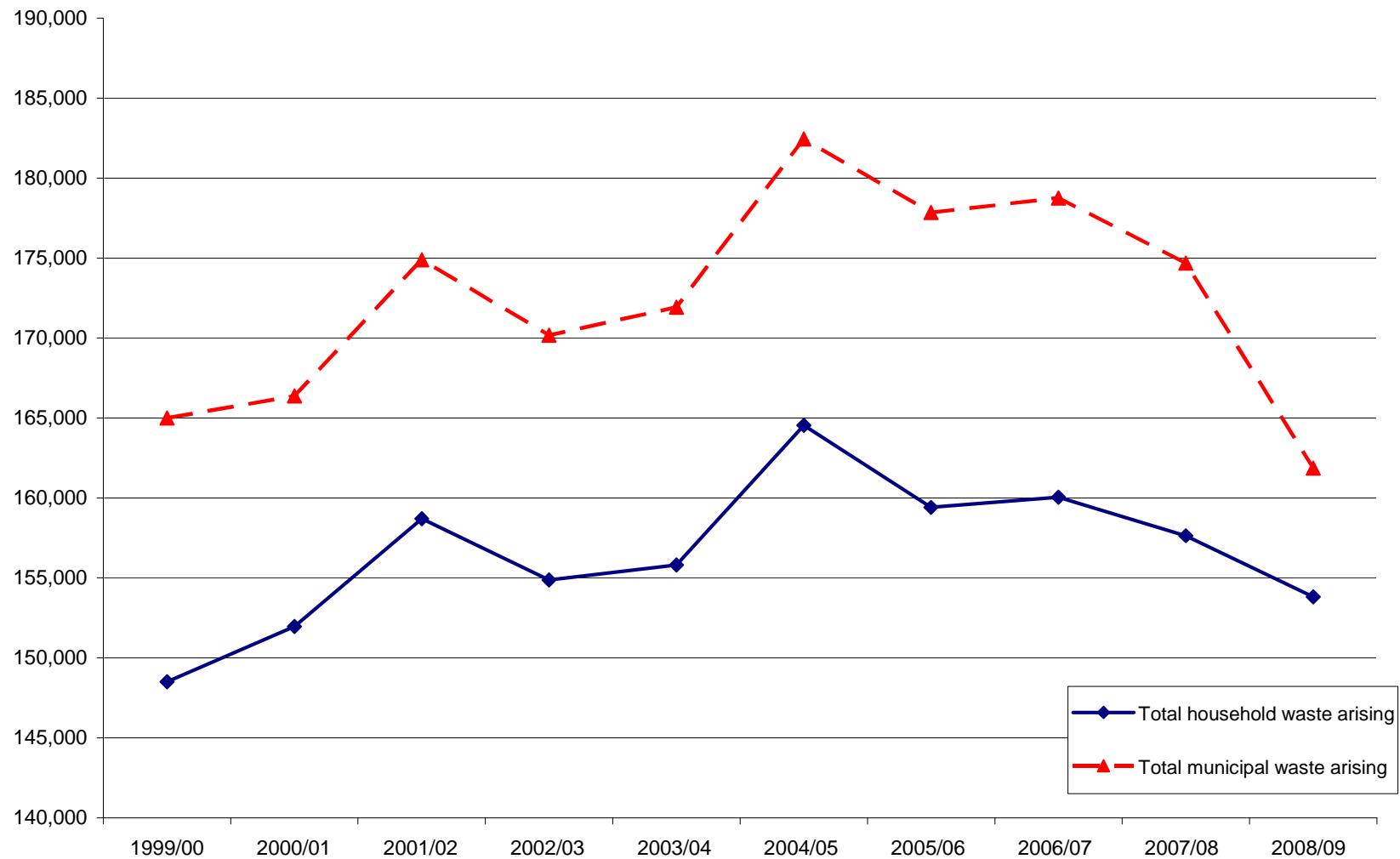
20. The number of households and population of Shropshire is predicted to over the life of the waste PFI contract (from 2008 to 2035). Within Shropshire the town of Shrewsbury has been designated as an official national growth point. Therefore with all other factors remaining the same, it is anticipated that MSW will increase, if only in line with this population growth.

8. Tonnage Data

Table 1 – Shropshire Municipal And Household Waste Tonnage 1999 - 2009

Financial year	1999/00	2000/01	2001/02	2002/03	2003/04
Municipal waste	164,999	166,377	174,892	170,176	171,920
Household waste	148,499	151,965	158,712	154,868	155,811
Financial year	2004/05	2005/06	2006/07	2007/08	2008/09
Municipal waste	182,442	177,853	178,765	174,694	161,867
Household waste	164,544	159,408	160,052	157,639	153,817

Graph 1 – Shropshire Municipal And Household Waste Tonnage 1999 - 2009



9. Historic Trends

21. Detailed data on MSW in Shropshire only exists as far back as 1999/2000. This makes it difficult to draw substantial conclusions on long term waste trends. However we can see even within this data that between 1999/00 and 2005/06, MSW grew by nearly 11%.
22. Analysis suggests that the growth in the quantity of Shropshire's MSW was linked to waste collection regimes¹. The growth in MSW between 2002/03 and 2005/06 corresponds with the time when garden waste collections were widely introduced across Shropshire. Since 2005/06, there has been a decline in the quantity of MSW generated and this is thought to be significantly influenced by the introduction of Alternate Weekly Collections (AWC).
23. It is thought that the decline in MSW brought about through the introduction of AWC has now been fully realised. Therefore it is assumed that the decline will plateau and MSW quantities will more closely follow economic activity. This has been illustrated by the recent recession in that the economy clearly impacts on generation of MSW.
24. The Shropshire data reflects the national average figures,² which, in recent times, have seen growth in MSW halted to now show a real terms reduction. Further waste minimisation campaigns and a variety of operational and policy decisions may have also played a part in this reduction in MSW which has fallen by 12% since its peak and is now even lower than 1999/00 levels.

10. Future Trends

25. Despite recent reductions it is assumed that overall MSW will begin to increase again in the coming years, largely due to population and housing growth. The number of households in Shropshire is planned to increase by 25% over the life of Shropshire's waste contract. Furthermore, it is anticipated that as the economic recovery begins, consumption and waste generation will increase. Modelling suggests that unabated, total MSW could grow over the life of the PFI contract by 38% to 235,144 tonnes per annum by 2033/34. Whether it is recycled or disposed of, this waste has a high financial, socio-economic and environmental cost.

11. Benchmarking

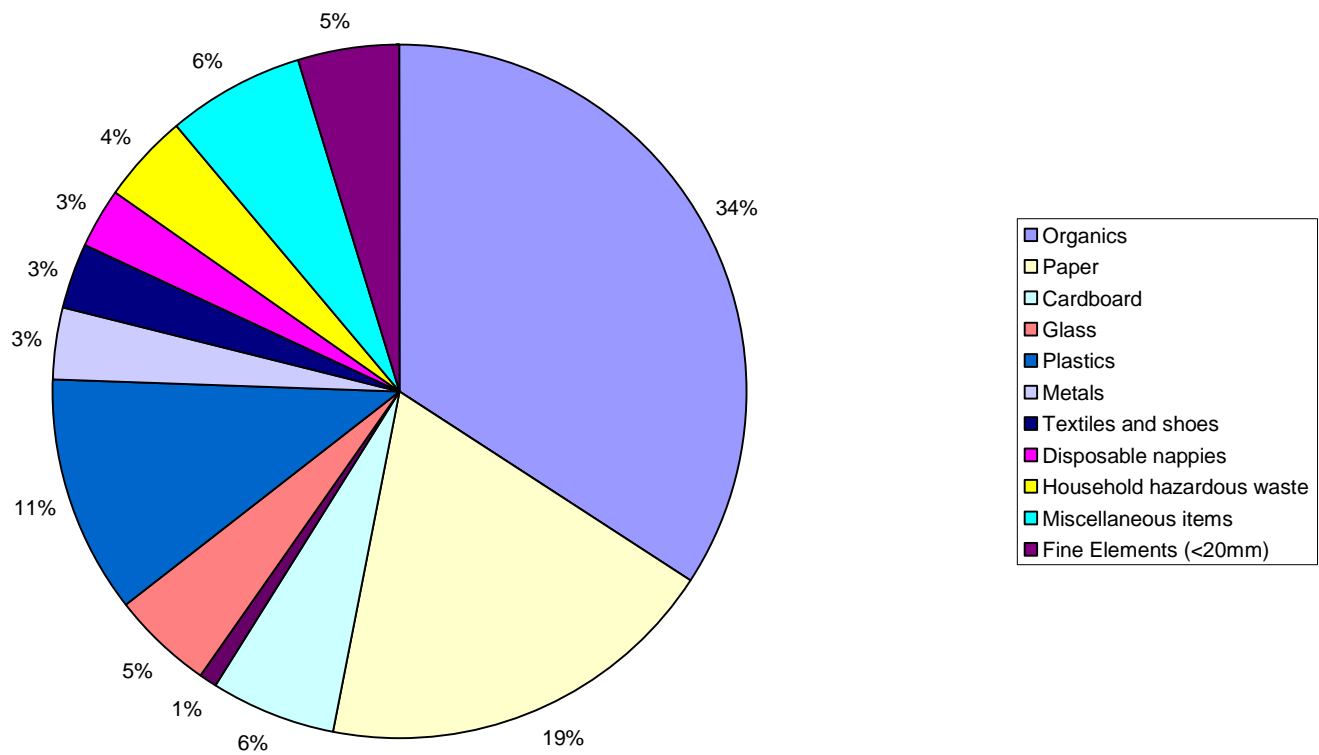
26. In 2006 research was undertaken to compare how Shropshire was performing relative to other counties in England in terms of waste production². The findings from this research were that Shropshire ranked in the bottom quarter (worst performing) nationally for MSW per household. However when the garden waste tonnage was removed from this calculation Shropshire was ranked in the mid quartile, which is within the national average.

27. Research results from higher performing local authorities suggested several of these authorities adopted different approaches to garden waste collection. Many of these authorities such as Norfolk and Oxfordshire include waste collection authorities that do not offer garden waste collections at all, or offer an “opt in” paid for service.
28. There is clear evidence from this analysis that suggests that the higher than average figure for kg/hh in Shropshire is largely down to the success of free garden waste collections which brings in more MSW. As a result of this benchmarking the Council has already committed to improving its performance on this by limiting the capacity for free collections, charging for excessive amounts of garden waste to be collected and promoting home composting.

12. Waste Composition Analysis

29. The most statistically valid data on household waste composition in Shropshire is based on research undertaken in 2003/04. It is unlikely that composition will have changed radically in recent years though much has been removed from the residual waste stream and separated into other streams for recycling. The data still provides a useful indication of the types of materials contained within household waste in Shropshire.
30. The results show that household waste composition in Shropshire is similar to the national picture. The greatest fraction is organics (kitchen and garden waste) which make up more than a third of all household waste in Shropshire. The next greatest fraction is paper which represents almost a fifth of all household waste in Shropshire. This information is useful in focusing our efforts and improving our performance. It shows that in order to achieve the greatest impact the focus of waste prevention policies and projects for SC must be the organic fraction of wastes such as food and garden waste.
-

Figure 2 – Shropshire’s Waste Composition By Weight 2003 - 2004



13. Aims

31. Waste prevention is generally defined as *'minimising the quantity by weight/volume and hazardousness of waste generated'*.³ The Environment Agency defines waste prevention as *"reduction of waste at source, by understanding and changing processes...also known as process or resource efficiency...includes the substitution of less environmentally harmful materials in the production process."*⁴
32. Our primary aspiration is to bring about a reduction in the total amount of waste in Shropshire as measured by tonnes of MSW. However because we cannot control the population of the County it is difficult to commit to reducing total MSW overall. A more appropriate objective is to reduce the amount of waste per housing unit, as measured by kg/hh, using the Office for National Statistics mid year population estimate and the total amount of MSW arising.
33. Further, within our overarching objective of reducing kg/hh we also aim to:
- Reduce the hazardousness of waste
 - Reduce the carbon content of waste
 - Reduce the quantity of waste sent to landfill
 - Reduce the cost of managing waste

14. Priorities

34. In keeping with the national Waste Strategy for England 2007 our main priority for waste prevention are types of residual waste for which there is limited potential for recovery. Further, the Landfill Regulations and the Kyoto Protocol steer us to prioritise biodegradable waste in particular because of its high global warming potential. In keeping with the waste hierarchy we must also address waste streams even when they can be recycled. As such, our priorities for waste reduction are to particularly focus on a reduction in;
- Residual waste - which cannot be recycled
 - Biodegradable waste - which has high global warming potential.
 - Hazardous household waste - which has especially high disposal costs and potential implications for human health and the environment.

15. Resources

35. Under the terms of the PFI Contract, in Service Development Plan Appendix 12 – Waste Minimisation Protocol; VES must develop and update annually a Waste Minimisation and Education Plan, promoting initiatives aligned to the waste hierarchy. The plan must be approved by the Council and various elements of the payment mechanism incentivise VES to deliver against actions contained within. Waste prevention

therefore is fundamental to the Contract and an accepted priority for both parties.

36. The contract states that the Council and VES shall have initiatives within the plan for which each party is responsible for delivering and funding, and as a minimum, the following amounts of funding shall be provided for this purpose:

- £75,000 per annum from VES (this is a total budget for Shropshire waste communications, of which a percentage will go specifically towards achieving the aims within this plan)
- £25,000 per annum from SC

37. In addition to this the Council invests around £40,000 per annum into the voluntary and community sector via the non-profit company Shropshire Community Recycling Ltd. This helps co-ordinate voluntary sector waste reduction efforts including awarding grants to develop projects in support of this waste prevention plan.

38. This means that around £140,000 per annum (rising with inflation) equivalent to around £1 per household each year will be spent by the Council in Shropshire to stimulate both waste prevention and recycling. Furthermore, we are committed to exploring external funding opportunities to assist with the aims of the plan.

16. Monitoring And Targeting

39. MSW is closely monitored and reported annually to Government. National performance indicators now include NI191; residual household waste per household. Measuring waste quantity for this indicator should stimulate improvement in performance as SC strives to enhance its performance.

40. It is important that the waste PFI contract ensures that waste prevention requirements are addressed as it is in the financial interests of all parties to have less waste to manage. For VES it makes it easier to achieve their recycling targets and for the Council it reduces the cost of waste management. The Council undertakes rigorous monitoring, recording and reporting of waste tonnage and publishes annually, National Indicator performance data.

41. With regard to waste prevention the following parameters are also monitored;

- Number of households registered with the Mail Preference Service
- Number of home composting bins sold through Council schemes
- Number of active members using freecycle.org / freegle.org websites
- Number of grants issued through Shropshire Community Recycling Ltd
- Number of second garden waste bins

- Number of school visits and waste education activity undertaken
- Number of hours of volunteering by Shropshire Master Composters
- Re-use tonnage and re-use credits paid to the voluntary sector
- Advertising value equivalent of press and promotions relating to waste

42. We aim to continually improve performance in the above areas and will target resources accordingly.

17. Waste Prevention Initiatives For Shropshire

43. SC has identified 43 initiatives in this plan and described later that will help to reduce MSW in Shropshire, listed below are five broad categories into which these initiatives fit:

1. Residual Waste Reduction
2. Biodegradable Municipal Waste Reduction
3. Household Hazardous Waste Reduction
4. Community Re-use Initiatives
5. Smart Shopping Initiatives

Category 1: Residual Waste Reduction

18. Commercial Refuse

44. SC has a mechanism in the contract to collect/dispose of commercial waste when required. The Council discharges its statutory obligation in this area but in order to reduce MSW we will not actively seek further commercial wastes.

19. Schedule II Refuse

45. The Controlled Waste Regulations 1992 list a variety of sites in Schedule II which are deemed to produce 'household waste for which a charge can be made'. There are around 200 such sites in Shropshire where the Council collects and disposes of their waste through the household waste service. Although not houses and not paying Council tax they are making a substantial contribution to household waste arising in Shropshire.

46. The majority of sites are large scale producers of waste such as schools, hospitals, nursing homes and prisons. We estimate that at least 2,000 tonnes of additional "household" waste is being collected from these premises, which adds to the overall amount of waste arising in the County. Government is currently reviewing these regulations and we will lobby to have these sites reclassified as non-household waste.

47. In the interim it is possible that through the use of a graded pricing mechanism that we could influence customers to achieve waste prevention objectives. We estimate there is the potential from solely within this

customer base to reduce around 1,000 tonnes per annum which would be equivalent to a reduction in household waste of 8 kg/hh/yr. This alone would amount to a 1% reduction in household waste collected per household.

20. Refuse Bin Restrictions

48. The successful implementation of AWC across Shropshire has achieved huge increases in recycling but also has played a part in reducing total waste by stimulating waste minimisation amongst households. A key part of the success of this has been the operation of a 'lids down, no side waste' policy (in keeping with section 7.8.12 of the contract specification) which we continue to enforce in order to minimise residual waste.
49. At present the standard wheeled bin for residual waste is 240 Litres. Some allowance is made for larger households. We also encourage households to make use of smaller 140 Litre bins (purely on a voluntary basis) and to some extent this may stimulate waste reduction.

21. Household Recycling Centre Restrictions

50. SC provides 6 Household Waste and Recycling Centres (HRC's) across the County for residents. Together these facilities bring in around 32,000 tonnes - a fifth of all household waste arising in Shropshire. To achieve significant reductions in MSW, it is crucial to manage waste from the HRC's and this is done through a permit system which has recently been updated along with bans on certain commercial type vehicles.
51. A highly significant source of waste in the municipal waste stream is construction and demolition waste delivered to the HRC's around the county. This material is not household waste, except for "small quantities of DIY waste" and as such it should not be taken to HRC's. Restrictions on the input of this type of waste could make a significant contribution towards waste prevention.
52. The Council seeks to reduce waste at these sites through a permits system which particularly targets commercial waste abuse at the site. National research suggests that 18% of waste throughput at such sites could be illegally deposited commercial waste⁵ which equates to 5,760 tonnes per annum across Shropshire. Avoiding just a quarter of this tonnage could bring about a reduction in household waste of 1,440 tonnes or 11.05 kg/hh/pa.

Commercial Waste Minimisation

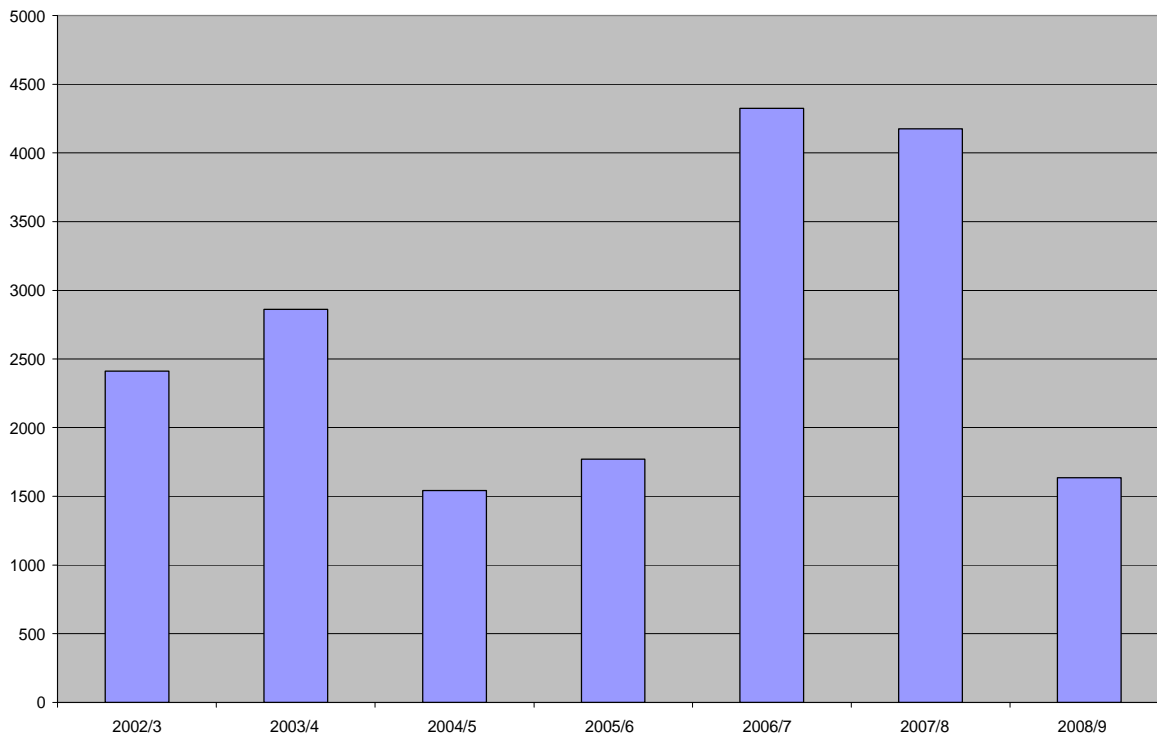
53. SC (in partnership with Telford and Wrekin Council) has successfully developed a commercial waste prevention and recycling project with funding from central Government. The Council is developing a more detailed advisory section on the website to focus on the promotion of business waste minimisation and inform businesses about national schemes such as Envirowise.

Category 2: Biodegradable Municipal Waste Reduction

Home Composting

54. Under the terms of the Contract, VES has a contractual responsibility to arrange promotion and distribution of home composting units. The Council and VES work in partnership to maximise the uptake and encourage residents to compost organic waste at home. Recent research suggests that home composting can reduce household waste by 150 kg/hh/pa⁶. This is the single most significant waste reduction initiative in terms of kilograms per household and as such will continue to be prioritised in terms of resources.
55. From 2006 to 2009 SC has worked with the national 'Recycle Now' home composting scheme. Through this scheme alone over 10,000 home composting units have been distributed to households across the SC area. This has potentially reduced Biodegradable Municipal Waste arising by nearly 1,500 tonnes per annum. The Council, through its contract with VES will continue to deliver promotion and delivery of home composting units to the public over the next 25 years.

Graph 2 - Compost Bin Sales In Shropshire 2002 – 2009



56. The graph shows that significant peaks occurred in sales between 2006 and 2008. This period coincides with the national Recycle Now home composting campaign when WRAP subsidised the bins so they were available at only £10 per unit. The latest scheme for 2009/10 means compost bins are now £19 delivered, and sales have reduced demonstrating the sensitivity of sales to price. There is a very strong business case for home composting; for every 6 units sold around a tonne of MSW is prevented and this has been estimated to save £35 per annum in associated waste collection and treatment costs⁷.

24. Wormeries

57. Through our home composting bin promotions we seek to encourage the uptake of alternative systems such as wormeries, food waste digesters and effective micro-organisms like 'Bokashi'. These alternatives currently constitute only a small fraction of sales but are helpful for addressing barriers to composting. In 2008 and 2009 the Council, in partnership with Shropshire Wildlife Trust delivered the 'Darwin's Worms' project which provided education and free wormeries to schools in Shropshire. This has delivered a reduction in waste at these schools and helped raise awareness.

25. Shropshire Master Composters



58. The Shropshire Master Composters Project was established in 2005/6. The scheme aims to encourage more people to take up home composting but also crucially to prevent what research has shown is a high drop out rate from home composting due to encountered difficulties⁷.

59. So far more than 75 volunteers have graduated from a dedicated composting training course and have gone on to between them contribute to promoting waste prevention in their local communities. As a result the project has delivered 6,700 hours of volunteer time (ca £65,000 worth of labour), and volunteers have attended hundreds of public events and given face to face waste reduction advice to over 34,000 people.

60. It is not possible to quantify the reduction in household waste achieved through educational initiatives, however, it is a key element in creating behavioural change. The Council and VES are committed to continuing and where possible expanding the Master Composter scheme.

26. Charging For Additional Garden Waste Bins

61. It is widely acknowledged that the introduction of garden waste collection services⁸ contributed largely to the historic increase in household waste. Whilst additional garden waste was welcomed in order to achieve tonnage based recycling targets, the collection service has left a legacy of higher than average levels of waste per household, due possibly to Shropshire's rural nature and consequently large garden size. Prior to garden waste collections it is assumed that such waste would have been left on the garden or dealt with in other ways such as burning or home composting.

62. Garden waste is a type of household waste for which a collection charge can be made and many UK Councils provide garden waste collections only on payment of a subscription. SC's policy is to provide one 240 Litre bin per household free of charge and charge a fee of £60 per annum for an additional bin. This policy is designed to strike a balance between diverting garden waste away from landfill whilst still encouraging take up of home composting.

63. Through implementation of this policy there is significant potential to reduce MSW. This approach may be reviewed from time to time as part of reducing MSW and improving the cost effectiveness of the service.

27. Community Composting

64. There is scope for larger scale composting of garden waste on sites such as community centres, farms, and allotments. Historically the Council has supported some small-scale community composting projects. Community composting is subjected to regulation that home composting is not, however, SC is willing to work with community partners and will support community composting on a case by case basis where it is appropriate.

28. Love Food Hate Waste



65. Waste composition analysis has found that kitchen waste accounts for 22.5 % of all MSW arising in Shropshire - 35,468 tonnes per annum. Of this 13.5 % was botanical kitchen waste suitable for home composting and 9% was meat, cooked food and others.

66. National research indicates that it is possible to achieve significant reductions in this figure simply through good housekeeping and improved shopping and cooking skills⁹. SC (in partnership with WRAP and Telford & Wrekin Council) has recently launched a new campaign under the national Love Food, Hate Waste brand.



67. The campaign will invest £160,000 over 2 years in strategic marketing to raise the profile of food waste. This will be followed up by grass-roots educational initiatives to provide the practical skills (cooking, shopping, storage) necessary to reduce food waste. The aim of the campaign is to prevent approximately 1,500 tonnes of food waste being produced which would bring about a reduction of some 15.38 kg/hh/pa.

29. Food Waste Collections

68. Through the contract, VES plan to introduce food waste collections across Shropshire by 2012. The main rationale for this is to boost the composting/recycling rate but it is hoped it may also stimulate waste prevention in the longer term. Although difficult to measure, there is some evidence that food waste is reduced when separate weekly food waste collections are introduced¹⁰.
69. Although the collection method planned for Shropshire may not make food waste as visible as if it were collected separately, it is hoped there may still be a waste reduction effect as householders gain a better understanding of how much food they waste. Consequently, residents may reduce food waste either through more informed purchasing or by home composting. During the introduction of food waste collections we will communicate food waste prevention, reaffirming that prevention is preferable to collection.

30. Macerators

70. Some local authorities have promoted the use of macerators to treat food waste and allow households to dispose of food waste down the sink. In Shropshire we feel this is not appropriate because it is not reducing waste, just shifting the waste into another part of the environment, which is unsustainable. There are serious implications for the sewage system in using this type of equipment and the potential for legal action on SC from Severn Trent Water if this approach was promoted.
71. As such SCs policy is not to encourage the uptake of macerators for food waste but to continue to focus on the Love Food Hate Waste campaign and to promote home composting as the best practicable environmental option for this type of waste.

Category 3: Household Hazardous Waste Reduction

31. Energy Saving Light Bulbs

72. A 'normal', disposable incandescent light bulb weighs about 0.04kg so replacing an incandescent light bulb with an energy saving equivalent should just under a kilogramme of waste over the lifetime of the bulb. Although this seems like a small fraction of the waste stream, across Shropshire there is an estimated 19.2 tonnes of incandescent light bulbs being thrown out for landfill each year.
73. Incandescent light bulbs (although exempted from the Waste Electrical and Electronic Equipment Regulations) contain tungsten filaments which can be hazardous for health and the environment. In the interests of CO₂ abatement, Government has placed a statutory obligation on energy companies to help promote energy saving and begun phasing out the old style bulbs which should result in small reductions in MSW.

32. Refillable Ink Cartridges

74. It is estimated that 0.01% of Shropshire's waste or 15.76 tonnes of all waste is computer printer ink cartridges each year. SC plans to promote the reuse of ink cartridges through its website, roadshows, leaflets, HRC sites and drop off points in council public offices. Through working with partners to promote the uptake of reusable ink cartridges we estimate we could avoid 2 tonnes of waste per annum across Shropshire which would reduce 0.015 kg/hh/pa.

33. Batteries

75. Waste analysis has shown that some 0.21% of Shropshire's household waste or 323 tonnes per annum is batteries. Dry cell batteries can be recycled throughout Shropshire but there are simple ways to prevent battery waste in the first place. The Council seeks to encourage the use of rechargeable batteries and it is estimated that each household with a battery re-charger could save 21 batteries per annum or 0.63 kg of waste per annum¹¹.

76. SC is currently trialing battery recycling collections in the former Shrewsbury & Atcham area. Though this scheme is not a waste prevention initiative in its own right, it is likely that through this and through the implementation of the Waste Batteries and Accumulators Directive (2006/66/EC) we will have to develop further battery recycling projects. The associated awareness campaigns may stimulate a reduction in this type of waste.

34. Waste Electrical And Electronic Equipment (WEEE)

77. The European Directive 2002/96/EC requires that waste electrical and electronic equipment (WEEE), any appliance with a plug and or a battery, should be recycled. All of SC's HRCs are registered as designated collection points for WEEE. Due to consumer habits and technological advances, WEEE is a rapidly growing waste stream¹². Government regulations should ensure that a growing amount of this is recycled in the longer term.

78. Increasingly we are seeing producer responsibility lead to retailers recycling WEEE which has a prevention effect as this material never enters the MSW stream. However, there is also the possibility that through repair and reuse of functional items, we could reduce the amount of WEEE becoming MSW. In keeping with our commitment to the waste hierarchy this is the preferable option for the Council, rather than having to recycle decrepit items. The Council will seek to work with community partners to facilitate the reuse of WEEE.

35. Mobile Phones

79. Due to technological advances and fashion, mobile telephones are a rapidly growing waste stream. SC through our contractor provides recycling options for this type of waste at all HRCs allowing the local children's hospice to receive donations from the recycling of these items. Though not a waste prevention initiative in its own right, this scheme may help to raise awareness of this type of waste.

36. Paint And Varnish

80. Shropshire's HRCs currently receive an estimated 35 tonnes of used paint and varnish per annum. This is inspected on site by a qualified chemist to determine suitable treatment for each item, much goes for specialist disposal, which is a costly process. SC is currently working to investigate the feasibility of developing a community repaint scheme for the Shropshire area.

81. It is estimated that through the establishment of such a scheme in Shropshire we could assist around 100 households or community groups per annum with paint donations and divert around 2.5 tonnes per annum away from landfill which translates to a reduction of 0.02 kg/hh/pa.

37. Asbestos

82. SC limits the amount of asbestos it manages through not providing a separate collection service for this material. Asbestos from households generally only arises through construction and demolition works. We will continue to provide safe disposal outlets for small quantities of household asbestos at our HRCs whilst seeking to reduce the amount of construction waste entering the MSW stream.

Category 4: Smart shopping awareness

38. Smart Shopping

83. Smart shopping refers to a range of activities designed to influence household procurement to be more environmentally sustainable. From the perspective of waste prevention the focus is on influencing buying habits at the supermarket check out. Shropshire Council promotes smart shopping through the Love Food Hate Waste campaign, and through generally encouraging residents to think about packaging when shopping through the website, literature and through face to face advice at roadshows.

39. Home Delivery

84. Shopping online and home delivery may reduce impulse purchasing and reduce waste through the avoidance of excessive purchases such as 'buy one, get one free' offers. The Council helps to promote home delivery by signposting people to local delivery firms. In particular, efforts to promote milk delivery are made because the containers are re-used and participating households can reduce HDPE milk bottle waste by as much as 10 kg/hh/pa¹³.



40. Real Nappies

85. Shropshire's waste composition analysis shows that 4,614 tonnes (3% by weight) of household waste sent for landfill per annum is disposable nappies. This translates to 35.40 kg/hh/pa.

86. This has a huge financial and environmental impact and the Council is trying to reduce this figure by encouraging the uptake of traditional washable 'real nappies'. The Shropshire Real Nappy Network encourages parents to choose this more environmentally sustainable option.

87. The network runs a range of activities designed to encourage and support the use of real nappies in Shropshire. This includes maintaining a dedicated website with advice, a deposit based free trial scheme, organising 'Cappuccino' coffee mornings, as well as road shows and publicity during real nappy week. The Council supports this through marketing and educating people about the benefits of real nappies.

41. Promotion Of Produce Markets

88. One way to particularly reduce the amount of non recyclable plastic packaging entering the MSW stream is to encourage people to make use of organic box schemes, farm shops, farmers markets and ordinary markets which can help to reduce packaging. This also complements the Councils Sustainability Strategy and aspirations to promote small scale local food producers and expand the local economy.

42. Reusable Bags

89. The 'average household' in the UK uses 323 disposable plastic shopping bags each year which translates to 2.26 kg/hh/pa¹⁴. Whilst this seems like a very small quantity of waste individually, the cumulative impact is significant; across Shropshire this translates to 294 tonnes of waste plastic bags per annum.
90. Through supermarket take back schemes it is estimated that around a quarter of carrier bags are recycled. The majority of people say they reuse their plastic bags several times, but ultimately this material still enters the waste stream and the vast majority ends up as landfill. Although there is relatively minor tonnage in plastic bags, the advantage to promoting reduction, reuse and recycling of carrier bags is that it's a quick win, where the majority of people can engage with the issue simply. As such it can be a useful catalyst for broader behavioural change on waste and wider sustainability issues.
91. The Council has recently funded a successful campaign in the south of Shropshire to create a number of 'plastic bag free' towns and villages such as Church Stretton, Ludlow and Cleobury Mortimer. This has proved very popular and we are reviewing this project to see if it could act as an example of best practice which could be introduced to other parts of Shropshire.
92. Across the UK and Shropshire we are seeing the impact of a voluntary initiative between Government and the major retailers, this has already lead to a 40% reduction in the environmental impact of carrier bags as measured by the amount of virgin plastic used.

43. Customer Insight

93. A key part of reducing MSW in Shropshire is achieving behavioural change amongst residents. In order to do this efficiently the Council makes use of customer insight to help target promotions and receive feedback which can help to shape services. One way of doing this is the National Place Survey which asks residents about their satisfaction with waste collection services and disposal facilities. We have also commissioned a variety of research to help to understand our customers better, such as attitudinal surveys and waste composition analysis.

44. Junk Mail

94. The Mail Preference Service (MPS) is a free service which allows households to have their address removed from the mailing lists used by members of the Direct Marketing Association (DMA). The DMA can provide on request an exact breakdown of the number of registrations by post code. This allows us to promote the MPS and monitor its uptake.

Further, we offer stickers to households to help prevent the 54%¹⁵ of junk mail which the MPS cannot stop.

95. We estimate that through an intensive marketing campaign we can persuade another 3,500 households in Shropshire to sign up to the MPS. On average each household signing up should receive about 20 kg less junk mail per year¹⁶, if this target is achieved we could achieve in total a reduction of around 70 tonnes pa. A side effect of the promotion is that it may improve the capture rate for paper recycling by improving the recognition rate for other recyclable paper items.

Table 2 – Shropshire Households In The Mailing Preference Service

Postcode	Total April 2009	Total residential units in this post code centre	Percentage of households signed up
SY1	2,385	11,146	21.4%
SY2	1,873	7,503	25.0%
SY3	4,313	14,190	30.4%
SY4	2,908	9,849	29.5%
SY5	2,071	8,392	24.7%
SY6	952	3,193	29.8%
SY7	1,129	5,000	22.6%
SY8	1,873	8,648	21.7%
SY9	242	1,348	18.0%
SY10	1,273	6,581	19.3%
SY11	1,971	11,558	17.1%
SY12	824	3,286	25.1%
SY13	1,698	8,176	20.8%
SY15	452	2,602	17.4%
WV5	1,088	6,562	16.6%
WV7	619	2,669	23.2%
WV15	640	2,602	24.6%
WV16	1,333	7,640	17.4%
TF8	193	1,169	16.5%
TF9	2,199	10,058	21.9%
TF11	867	4,111	21.1%
TF12	504	2,474	20.4%
TF13	455	1,707	26.7%
DY12	1,108	5,271	21.0%
DY13	601	9,624	6.2%
Total	33,571	155,359	21.6%

96. Table 2 above illustrates that currently around 22% of households in Shropshire are signed up to the MPS. However the range is between 6.2% and 30% which means there is scope to significantly increase sign up to the Mailing Preference Service. The longer term aim however, is to

target specific areas to bring each area up to the level of the best performing post code centre.

45. Lobbying

97. SC is a member of a number of professional bodies which encourage the practice of waste prevention including lobbying Government with the objective of shaping national policy.

46. Regulating Excess Packaging

98. SC Trading Standards has limited powers to regulate excessive packaging under EU Directive 94/62/EC, implemented in the UK through the Packaging (Essential Requirements) Regulations of 1998. In particular Annex II reads: "Packaging shall be so manufactured that the packaging volume and weight be limited to the minimum adequate amount to maintain the necessary level of safety, hygiene and acceptance for the packed product and for the consumer." The Council is committed to continuing to deliver its statutory duties in this area.

47. Planning Policy

99. The Council will produce a supplementary planning guidance document. This will require that new developments across the County facilitate waste minimisation, recycling and waste collection.

Category 5: Community Re-use Initiatives

48. Shropshire Community Recycling Network

100. The voluntary and community sector in Shropshire plays a pivotal role in waste prevention. Recently Shropshire's furniture schemes have taken over the running of some direct waste collection services. Their work is crucial to enabling the re-use of hundreds of tonnes of items each year through a variety of projects. SC invests £40,000 per annum in this sector through Shropshire Community Recycling Ltd. a not for profit company established to co-ordinate and support voluntary waste management initiatives in the county.

49. Furniture Re-use

101. SC is committed to ensuring the maximisation of re-use of bulky household items. One way the Council aims to achieve this is through supporting the work of local furniture re-use schemes through the Shropshire Furniture Re-use Group (SHOFUR). VES, in undertaking its contract for SC has

sub let Bulky Waste Collection to SHOFUR providing them with around £50,000pa of income. This ensures these schemes get “first pick” on items which can be re-used, thus minimising disposal.

50. Landfill Tax Avoidance Credits (Recycling Credits)



102. Where not-for-profit groups in the County divert waste from landfill, the Council pays a tonnage based credit which reflects the avoided cost of landfill tax. This system was introduced as part of the Environmental Protection Act 1990. The scheme aims to increase recycling and reduce the amount of waste sent to landfill by encouraging charities and not for profit organisations to collect or receive materials from Shropshire residents that would otherwise go to landfill.
103. A review of the schedule of payments for reuse and recycling credits will be initiated in 2010, to ensure the system meets requirements with regard to waste prevention objectives.

51. Shropshire Local Exchange Trading Scheme (LETS)

104. Shropshire Local Exchange Trading Scheme (LETS) encourages people to exchange goods and services within communities without monetising the transaction; a consequential impact is that this may reduce consumerism. In order to further promote this scheme, the project will develop a new website with external grant funding. SC will encourage people to make use of this scheme through links on its website and support with promotions.

52. Freecycle And Freegle

105. Freecycle.org is a not for profit community website designed to help reduce waste by allowing individuals to arrange to donate and receive unwanted items. Across Shropshire over 13,000 members are actively using freecycle.org. There are local groups in Bridgnorth, Shrewsbury, Oswestry, Ludlow, Market Drayton, and Presteigne. Increasingly these

groups are now moving over to the UK based Freegle.org website which works in the same way.

Table 3 – Number Of Members In Local Freecycle And Freegle Groups

Area / Date	12.12.07	30.03.08	04.08.08	20.02.09	15.05.09	08.08.09
Shrewsbury	2765	3,277	3,930	4,398	4,822	5,033
Telford	2995	3,455	3,701	4,195	4,546	4,799
Ludlow	689	997	1,667	2,071	2,332	2,539
Oswestry	709	893	1,304	1,610	1,725	1,854
Bridgnorth	796	896	1,046	1,313	1,482	1,601
Market Drayton Whitchurch	502	577	625	818	959	1,045
Bishops Castle & Presteigne	-	-	450	587	658	699
Shropshire wide	8,456	10,095	12,723	14,992	16,524	17,570

106. Academic research suggests that active Freecycle users re-use 38.42 kg per member per annum¹⁷. If we assume that Shropshire members are in keeping with this average amount, this means there is already about 500 tonnes per annum of re-use going on through this network, helping to reduce MSW by 3.84kg/hh/pa.

107. Through targeted promotional campaigns and a link on our website we feel it would be possible to increase the number of people using Freecycle by 50% over the next 5 years. This would result in 6,500 new members of Freecycle, which should result in an additional 192 tonnes of reuse. This would lead to an additional reduction in MSW across Shropshire of 1.47 kg/hh/pa.

53. Scrappies

108. Shropshire Children's Scrapstore, Recycling and Resource Centre (Scrappies) is a local charity which collects material for arts based environmental education initiatives. Though the overall reduction in MSW is small with this project, it plays an important role in improving awareness of waste issues. The Council supports the project through grants and by promoting the project through our website, schools, call centre and printed literature.

54. Swap Shops

109. A recent project to emerge from the voluntary sector is the idea of swap shops. In Shropshire this project has been led by local faith groups and supported by VES and furniture schemes. SC aims to undertake more detailed monitoring and evaluation, review the success of these events and assist with their expansion if they are proven to reduce MSW.

55. Library Services

110. The Council's library services support waste prevention by reducing excessive consumption of books, CD's and DVD's. Further projects locally such as the toy library, also assist this. We will explore the potential for joint promotions to encourage the use of these services.

56. Re-use At Household Recycling Centres

111. Within the HRCs there is potential for more re-use of durable items. Already there is a totting contract let each year to facilitate salvage of valuable items. The sites also operate a policy of "first call" for the furniture schemes to salvage re-usable household items. It is not possible to quantify the tonnage diverted from landfill through these initiatives but it is assumed to be relatively small. We will work in partnership to explore potential opportunities for increased re-use from the HRCs.

57. Repair

112. It is not possible to quantify how much MSW consists of items which are capable of being repaired but clearly it is an area where we could make a difference. SC plans to collate information on refurbishment and repair and make this available to the public to encourage the repair of items to reduce disposal.

58. Charity Shops

113. SC encourages the use of charity shops and plans to work closely with them on future initiatives to help maximise re-use of textiles and household items. We have been in discussions with the Association of Charity Shops about running joint promotional campaigns.

59. Bishop's Castle Zero Waste Project

114. SC has recently been awarded funding to move the community of Bishop's Castle 'towards zero waste' working with residents, the Wasteless Society and other community groups in the area, we aim to reduce waste quantities generated and create an exemplar for waste prevention. Over the coming years we plan to introduce a number of initiatives and create a "Zero Waste Place" and promote this as a project that other communities can adopt.

60. Work With Schools

115. SC operates a Waste Education Support Programme for schools which involves raising awareness and practical support on waste issues. This project focuses on waste prevention, for example we supply free compost bins for schools and the aim is to help future generations develop waste reduction habits.

61. Planned Waste Prevention Initiatives For Shropshire Council

Table 4 – Planned Initiatives And Estimated Waste Reduction

Initiative	Estimated waste reduction (tonnes)	kg/hh/pa
Reduced schedule 2 refuse collections	1,000	8.00
Reduced trade waste abuse at HRCs	1,440	11.05
Sale of discount home compost bins (1,333)	200	1.54
Charging for additional garden waste bins	750	5.77
Love Food Hate Waste awareness	1,500	11.51
Hazardous household waste awareness	5	0.04
Smart shopping awareness	200	1.53
Mailing Preference Service	70	0.53
Community re-use schemes	550	4.22
Courtauld commitment on packaging	1,000	8.00
Total	6,715	52.19

62. Summary

116. The actions outlined within this plan will form the basis of SCs approach to reducing Shropshire's household waste during the next five years. The Council is committed to delivering on a target of reducing household waste by 50kg per household per annum in total when the actions are combined by the end of 2015. Waste management is an ever evolving field and there is much to be optimistic about as new technologies and new attitudes to resource use develop. This plan will be reviewed from time to time to ensure actions to deliver waste reduction are kept up to date.

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END

Waste Prevention Plan 2010 / 2015

Waste Management Unit
Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire
SY2 6ND

T: 01743 255989

E: james.thompson@shropshire.gov.uk

W: www.recycleforshropshire.com

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