

One Planet – Our Future

Waste Management Strategy for Solihull



2010 - 2020

Foreword

At present we are consuming resources at an unsustainable rate. If everyone in the world lived in the same manner as we do in the UK (e.g. used the same amount of energy, goods and other resources) then we would need three planets to provide these resources. This is clearly not a sustainable position, and here lies the challenge.

The Waste Strategy for England 2007 (the national waste strategy), highlighted this issue and the concept of 'One Planet Living', the aim of consuming resources at a rate that is deliverable over the long term. This is a challenge for us in Solihull as well as the rest of the developed world. We need to ensure that the resources we do consume (through purchasing or our other day to day activities) are managed well. We are adapting to meet this issue, but there remains a major challenge to create a service based around *resources* rather than *wastes*, that is affordable, accessible, protects public health and the environment.

It is important however to recognise how much has already been achieved in our Borough, through both the services implemented by the Council and, more crucially, the willingness of the residents of Solihull to participate in these services. A great deal of resource has been saved through recycling schemes over the last ten years, and the household recycling rate of Solihull has increased from 7% to 40% recycling over this period. This is a major achievement, and whilst over half of our waste remains as residual (wheelie bin) waste, energy is also recovered from this material at the Coventry & Solihull Energy from Waste plant.

Our Council has recently implemented a new recycling system to bring about further performance improvements, anticipated to raise the recycling rate to ~44% by the end of 2010/11 and provide opportunities for residents to recycle more materials through the kerbside box collection.

A challenge for the next ten years is to increase this level of performance to 60% and beyond. We should be aiming to recycle the majority of our waste before the mid-point of this strategy to reduce the burden on the environment and provide secondary resources to help the manufacture of goods.

This Strategy sets out the vision for the service over the next ten years, and includes initiatives to tackle overall waste generation. This is a challenge not only to retailers and producers of goods (for example to reduce excess packaging and generate lower environmental impact products), but also for our purchasing behaviour and consumer activity.

The Council will provide services to reduce waste and support the reuse of unwanted goods and will also play a lead role in providing education and raising awareness of environmental issues including managing resources.

Reducing the amount of materials we consume as part of our daily lives and recycling of materials that do arise as waste is, however, only part of resource management. We also need to consider energy consumption and generation. Solihull has an established track record of recovering energy from its residual waste through the Coventry & Solihull Energy from Waste facility. This plant will continue to provide an effective solution for our residual waste throughout the period of this Strategy and beyond.

As Cabinet Member for the Environment I am committed to developing sustainable ways of working that reinforce the authority's commitment to the National 10:10 agenda and these issues must be considered in the light of carbon emissions. Good resource management, in general, will result in lower carbon emissions. The mounting evidence that reinforce the threat of Climate Change, highlights the importance of reducing carbon emissions. I believe this Strategy sets out the carbon implications of its actions, with the potential for the reduction of thousands of tonnes of carbon dioxide (CO₂) each year through managing our resources more sustainably.



Councillor Hodgson, Portfolio Holder
for the Environment

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Executive Summary

The Solihull Waste Management Strategy (WMS) sets out the aims and intentions for delivery of the waste management service for the Borough. This includes the collection, recycling, treatment and disposal of wastes from households in Solihull, and also to provide support in reducing the amount of waste we generate. The Strategy covers the period 2010 – 2020.

The previous WMS was published in April 2004 and it is appropriate to review the documents in the light of changing legislation, policy and local circumstances. The Council priorities include: building prosperous communities, and; to provide services which are accessible and that will reduce impacts on the environment, in particular on climate change. This Waste Management Strategy aims to address these and other issues.

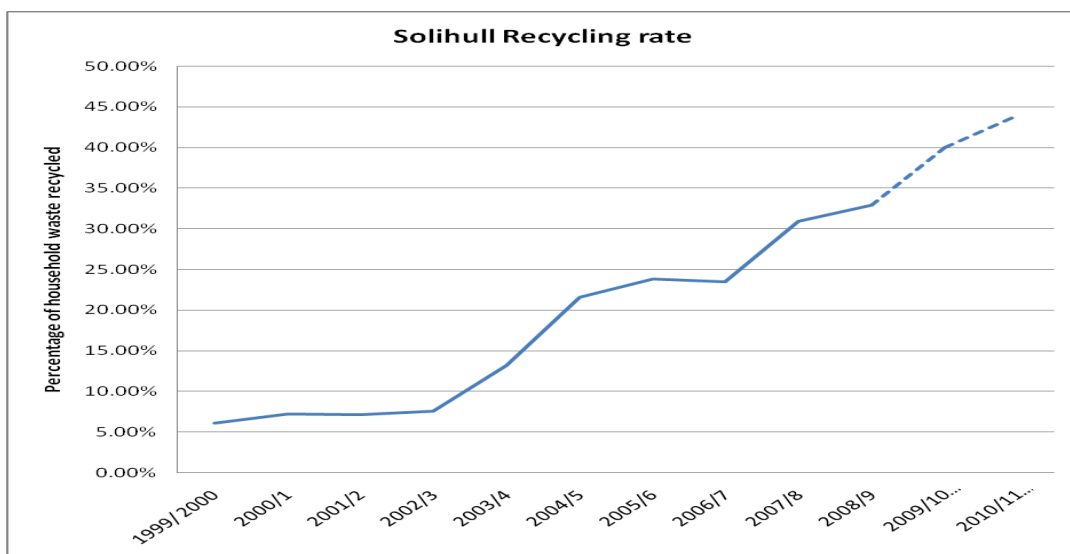
Why do we need a waste management strategy?

The delivery of the waste management service is an area that requires forward planning to ensure that the collection, recycling and disposal services not only meet the latest standards and policies but also meet the aspirations and needs of the residents.

The supply of the different areas of the service (i.e. collection / disposal etc) is normally provided by private sector contractors, and these tend to operate through contracts of between 7 and 25 year duration. We therefore need to carefully consider what we want to service to look like in the medium and long term so that we can procure the services we need. The Waste Management Strategy considers the type of service we would like to deliver, and in consultation with the public and other stakeholders, defines our vision for the service up to 2020.

Where have we come from?

Solihull has substantially improved the environmental performance of the waste management service over the last twelve years as shown in the graph of household waste recycling rates, below. Recycling saves finite (limited) resources and helps reduce damaging carbon emissions that contribute to climate change. Based on the current levels of participation it is estimated that ~44% of Solihull's household waste is now recycled, however there remain further challenges for the service.



Challenges and Solutions

There are many challenges facing the delivery of the waste management service. The recent economic downturn has affected the prices for materials we recycle and has also lowered the overall amount of waste we produce in the Borough (as we buy less items). New legislation protecting the environment is bringing new practices and technologies into waste management services and we need to consider their role in managing Solihull's waste. Key challenges and solutions identified in the WMS are set out below, however it should be noted that this is a ten year strategy and there will be other changes during that period that we cannot predict at this stage. It is for this reason that the Strategy is designed to have some flexibility and there will be a review at the mid-point (2015) of the strategy or where fundamental changes take place.

The challenge to reduce waste

In our Borough we each generate just under half a tonne of household waste, per person, each year. A challenge of the strategy is to tackle the (relatively) high amount of waste generated, by providing improved information and services on how to reduce wastes through waste prevention initiatives or by reusing items to avoid them becoming waste.

An appraisal of waste prevention and reuse options¹, using criteria developed in consultation with our officers, elected members and other stakeholders, concluded that the following measures should be adopted:-

- The current practice of providing subsidised home composting units to householders will be continued and reinvigorated as part of a new promotional campaign (see below), including supporting information and advice on good home composting practice
- A food waste prevention campaign will be launched, aligned with the national 'Love Food, Hate Waste' message and materials. The aim of this campaign being to influence purchasing and cooking behaviours and reduce the environmental impacts of unnecessary food being purchased and food waste requiring disposal. This should be linked to the home composting promotion
- The 'Freecycle' and other similar reuse or 'Swap' networks will be promoted by the Council to raise awareness and participation in these schemes to encourage the reuse of unwanted goods, thereby avoiding disposal
- Dialogue with relevant community groups / charities / sustainable enterprises (collectively known as the 'third sector') will be proactively maintained to ensure opportunities for partnering (for example over funding bids) for further reuse initiatives are fully developed

The challenge to recycle more

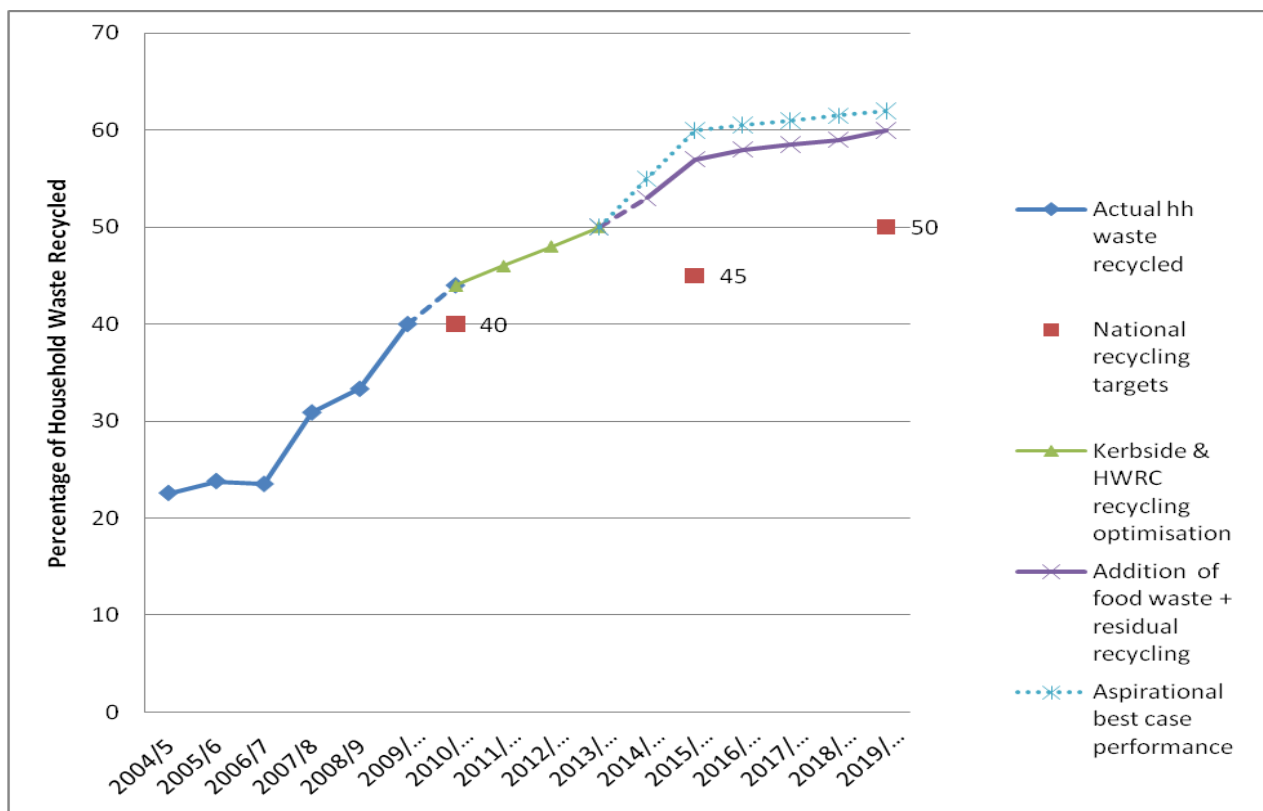
One of the key challenges for this Waste Management Strategy is to deliver a minimum of 60% recycling target of household waste, and to exceed this level where we can. At present rates of participation in the service it is estimated that Solihull recycles around 44% of its household waste. This WMS explores options¹ therefore for moving up to 60% and higher levels of recycling, and concludes that a combination of approaches will be required:-

- To maximise the use of the current kerbside recycling collection system, and review its performance and seek to implement the optimum configuration of kerbside collection service in terms of infrastructure and the greatest range of materials collected

¹ Options Appraisal report supporting the Municipal Waste Management Strategy, available from www.solihull.gov.uk

- To improve the recycling performance of the Household Waste Recycling Centre at Bickenhill
- To review the performance and benefits of the Mini Recycling Centres to ensure that the collection system is efficient and that households not covered by the kerbside collection system can have a comprehensive alternative recycling system available to them
- To introduce on-street recycling (litter bins for recycling) at key locations in the Borough
- To introduce a food waste collection service and explore the potential to partner with other local authorities for food waste treatment
- To seek food waste treatment with strong carbon (climate change) benefits where viable
- An active dialogue should be maintained with both the third sector and the private sector collection contractor as regards exploring markets and opportunities for further materials to be added to the kerbside and / or Mini Recycling Centre services and local markets for recycle
- To gain some recycling (~1%) from the residual waste treatment process as a result of recent changes to anticipated recycling definitions

This strategy aspires to reach a 60% recycling rate for household waste, but acknowledges that this level of recycling will be in part dependent on the market for recycled material and there is significant uncertainty over the regulations and markets, notably towards the latter period of this WMS. The graph below summarises the actual and projected recycling performance in line with the actions in the Waste Management Strategy, and set against national targets.



The challenge of managing the waste left over

The management of residual (or 'wheelie bin') waste from households currently takes place at the Coventry and Solihull Energy from Waste (EfW) plant in Coventry. This facility burns the waste and uses the heat to drive steam turbines for electricity generation. The electricity contributes to national renewable energy targets. This strategy does not seek to identify a technology for residual waste management, the existing EfW facility is projected to continue in operation beyond the life of this Strategy.

The challenge for us all

A key aspect of this WMS is a need to engage with the community (businesses, schools, charities, residents) to seek to manage wastes more sustainably. In broad terms this means to generate less waste and recover as much waste that is generated so we can recycle the materials to conserve our resources and reduce our impact on climate change. The explanation of why there is a need to participate in such waste management services is a key role of the Council. The aim of which is to raise awareness and to stimulate changes in behaviour, leading to an improved management of our resources.

We want to deliver the highest recycling rates we can and this means the Council and its partners providing both accessible and comprehensive services, and residents using the systems provided to their full potential.

The challenge for the Council

Our Council has also identified a need to ensure its own staff and activities adhere to the objectives of this Strategy and will set in place initiatives and targets to reduce Council wastes and seek to recycle wastes where they do arise.

The Council will also implement the range of actions identified in the Waste Management Strategy. An action plan with key activities, roles and responsibilities supports the objectives and targets within this Strategy².

The Vision and Objectives of the Strategy

The vision of the Waste Management Strategy to address these challenges is:-

Our vision is to manage Solihull's municipal waste as a resource that can be utilised for environmental benefit through a service that contributes to a cleaner, greener Borough. To provide a high quality, inclusive service that encourages residents of Solihull to fully engage in the opportunities to reduce, reuse and recycle wastes, to help reduce the carbon footprint of the Borough and to minimise the amount of residual waste left over. To recover energy and materials from the residual waste and minimise disposal to landfill. To work in partnership with other authorities, community groups and the private sector where there are demonstrable benefits in doing so. To deliver an efficient waste management service that represents best value and provides a sustainable and customer focussed operation.

A set of ten objectives supports this Vision, as shown below.

² Action Plan for the Municipal Waste Management Strategy is included at www.solihull.gov.uk

Objective 1	Set in place initiatives to reduce the amount of waste arising in Solihull through prevention and reuse activity and continue to raise awareness to encourage behaviour change and participation in these schemes
Objective 2	Expand the range of materials collected for reuse and recycling across the Borough to ensure all households have the opportunity to make sustainable choices for the management of their wastes
Objective 3	Improve recycling services and engage with the residents of Solihull to fully participate in the recycle collections, with the aim of delivering a minimum target of 60% household waste recycling rate by 2020, but aspiring to deliver this level of performance by 2015 if practicable.
Objective 4	Minimise the need for landfilling of wastes by continuing Solihull's high performance in residual waste treatment beyond the life the existing Energy from Waste plant, with the aim of delivering no more than 15% of household waste to landfill by 2015 and a maximum of 10% by 2020
Objective 5	Seek to recover both energy and materials from residual waste in the most efficient manner, to conserve resources, gain maximum value and contribute to carbon reduction, renewable energy and recycling targets
Objective 6	Continue to support existing partnerships and actively explore new partnering arrangements with organisations that can support the vision and objectives of this Strategy
Objective 7	Use good practice methods in communication, education and enforcement to support the delivery of a cleaner, greener Borough for the benefit of all
Objective 8	Demonstrate continued improvement in reducing the levels of carbon emissions of the municipal waste management service throughout the life of this Strategy, as a measure to tackle climate change
Objective 9	Provide a service that is affordable and demonstrates best value for Solihull through seeking efficiencies wherever practicable, considering other waste streams in addition to municipal waste, managing risks appropriately and delivering a sustained high quality service
Objective 10	Solihull Metropolitan Borough Council to lead by example and improve the environmental performance of its offices, depots and staff activities through more sustainable use of resources and adopting practices that reduce carbon emissions

Introduction

Solihull Metropolitan Borough Council (Solihull Council) has reviewed its Waste Management Strategy (WMS). The previous Strategy was published in April 2004 and it is considered appropriate to review the documents in the light of changing legislation, policy and local circumstances. This updated Waste Management Strategy covers the period 2010 – 2020. It has been informed by a public consultation that took place over a twelve week period in the summer of 2010, with the Strategy amended in the light of the consultation findings and published in December 2010.

What waste is generated in Solihull?

Waste is usually defined by its source, for example waste from domestic properties is termed 'household waste' and that arising from businesses would be 'commercial' or 'industrial' waste. In some instances the nature of the waste may define its handling, an example being 'clinical' waste (in that it arises from a hospital or other source linked to medical / human hygiene waste), which requires special treatment. The following diagram illustrates the main sources of waste in the Borough, including approximate quantities and the parties that manage the waste.

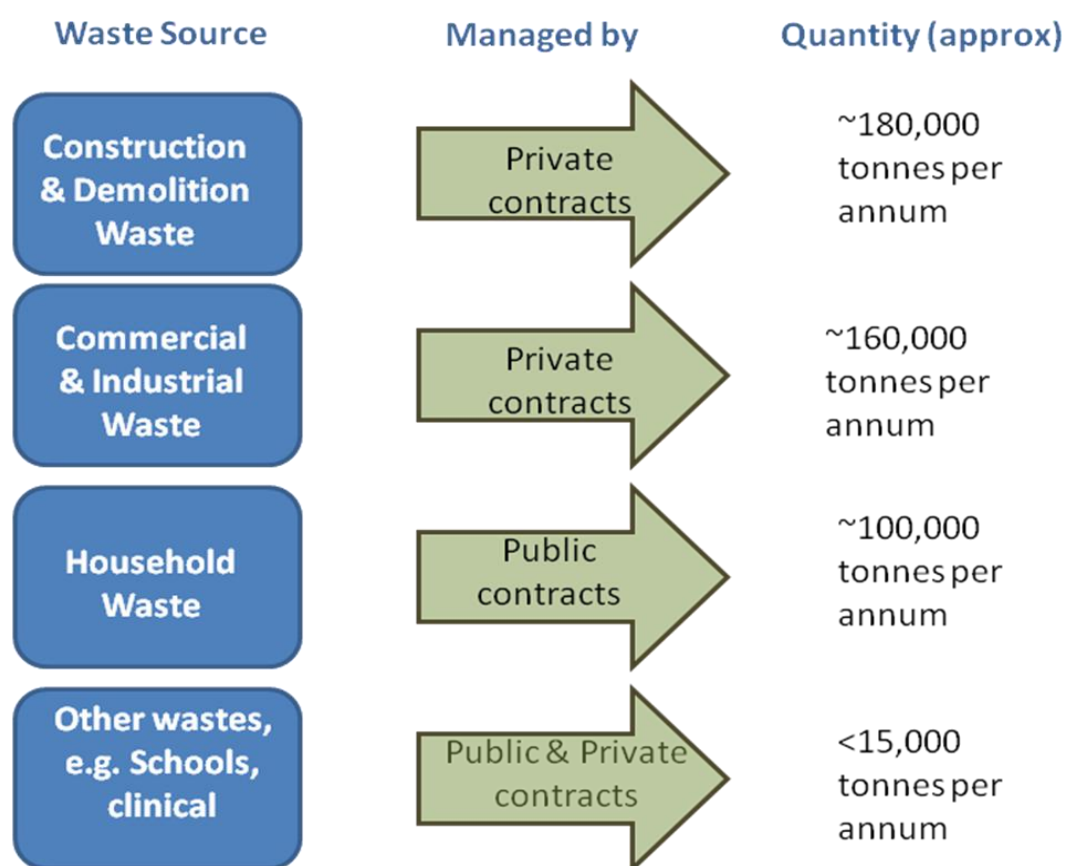


FIGURE 1 WASTE ARISING IN SOLIHULL

It can be seen from Figure 1 that Construction & Demolition wastes and Commercial & Industrial waste comprise the majority of waste in the Borough, and that this is usually managed via individual contracts between the producer (the business) and a private waste contractor. The private waste contractor will collect and may also treat / dispose of the waste. There is more limited influence that the Council has over these waste streams as they are not under its control.

Household waste is the predominant remaining waste stream in the Borough and it is the duty of the Council to collect / manage / dispose of this waste via public sector contracts (e.g. those let by the Council), albeit often using private contractors to deliver the services. Certain other wastes such as clinical and schools wastes may also be collected and managed via Council contracts.

What is the focus of this Strategy?

Local Authorities have duties and responsibilities³ to manage 'Municipal waste' arising in their area. Municipal waste in this context is an umbrella term to describe waste collected by (or on behalf of) Solihull Council. This mostly comprises waste and recycling that arises from households ('household waste'), and also includes other waste streams such as flytipped wastes, litter bin refuse and street sweepings. The management of this waste is the prime focus of the Waste Management Strategy. It is acknowledged however that there can often be complementary infrastructure and services for both municipal and non municipal wastes. It is therefore important that Solihull Council plays its part in supporting the improved waste management of other waste streams in addition to those for which it has a statutory responsibility. A section of this Strategy entitled 'Wider Wastes' considers these issues.

Why do we need a Waste Management Strategy?

We all generate waste that requires dealing with and we cannot continue consuming resources at the rates we currently are. Managing our wastes can be costly in both financial and environmental terms. Increasingly we are trying to reduce the amount of waste generated to reduce these financial and environmental burdens. Wastes are mostly derived from finite (limited) resources. We are also placing more and more emphasis on using the waste that is generated as a *resource* that can be utilised, for example by recycling, composting and recovering energy from the waste. These approaches require investment in new initiatives, collection systems and treatment facilities, which can take a long time to implement and need careful consideration in order to be successfully delivered as part of an integrated service. Furthermore, there is an increasing amount of environmental legislation designed to reduce our impact on the environment and encourage a more sustainable⁴ way of living (see the 'Achieving Sustainable Waste Management' section of this Strategy).

The Waste Management Strategy seeks to provide a structured and coordinated implementation plan for the delivery of the service to respond to each of these challenges.

A Waste Management Strategy provides the vision, objectives, policies and targets to be delivered by the waste management service. These aspects guide the planning, budgeting and delivery of services for the management of our waste over the strategy period.

There are a wide range of functions involved in the delivery of the municipal waste management service including communications and education initiatives on how we can reduce waste, and the availability of services for collection, recycling, treatment and explaining disposal. These

³ Under the Environment Protection Act 1990, as amended

⁴ Sustainable Development is an important principle of UK policy meaning 'meeting our own needs without compromising the ability of future generations to meet their needs'. This principle is directly relevant to waste management in a number of regards including recycling to conserve the planets resources and reducing waste and carbon emissions from waste management to lessen environmental impacts.

elements are described in the following sections of the Strategy. A diagram illustrating how we have structured the development of the Waste Strategy for Solihull is included as Figure 2.

How has the Strategy been developed?

A Waste Management Strategy is a document that requires extensive consultation and consideration prior to finalisation and implementation. An important process that supports this aspect is known as Strategic Environmental Assessment (SEA). An SEA is a statutory requirement for Strategies that can have a significant impact on the environment (e.g. a WMS) and this is explained in legislation⁵. The SEA is a process whereby all objectives, targets and options within the developing Waste Management Strategy are assessed against a set of criteria known as Sustainability Criteria.

This process is explained in detail in the Environmental Report, however in summary it involves defining key environmental, social and economic criteria relevant to Solihull, by considering the general context of the Borough and local, regional and national policy and legislation. These criteria are consulted upon with key bodies (The Environment Agency, English Heritage & Natural England) and form the basis for appraising the vision, objectives, targets and alternative options for delivery of the Waste Management Strategy. This Strategic Environmental Assessment is recorded in the Environmental Report accompanying this WMS.

Additional analysis to support decision making for the Waste Management service is recorded in the Options Appraisal document. The Options Appraisal specifically considers each option for the delivery of the service against decision making criteria agreed at a Solihull Stakeholder Workshop. The Options Appraisal focuses on alternative delivery options and scores them, to enable a judgement to be made as to the priorities for the waste management service over the short, medium and long term. It considers cost and affordability as well as environmental and quality issues.

The detail of this aspect is included in the Options Appraisal report and the findings of the SEA and Options Appraisal process are supporting documents to this Strategy (see Figure 2, overleaf).

⁵ The Environmental Assessment of Programmes & Plans Regs, 2004

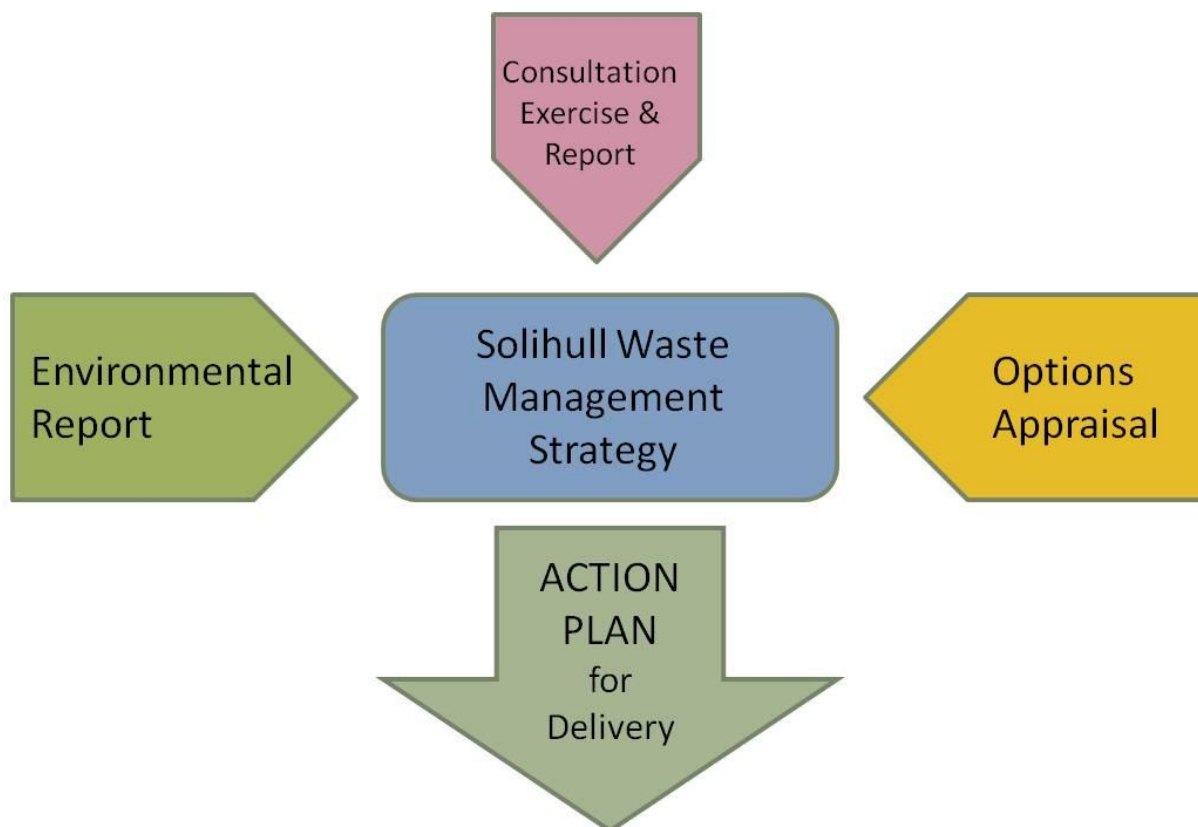


FIGURE 2 DOCUMENTS COMPRISING THE WASTE MANAGEMENT STRATEGY FOR SOLIHULL

An Action Plan identifies the key Council (and other Stakeholder) actions required to deliver the targets and ambitions set out within the WMS, and a separate report summarising the findings of the public consultation is also contained in the suite of Strategy documents.

Waste Services, 2000 - 2010

Where have we come from?

This Strategy sets out the intentions for the Waste Management service for the next ten years, however it is important to understand where the service has come from and how it has developed to date. This enables the context of the service to be understood and also recognises the numerous achievements already delivered in the Borough.

Ten years ago the recycling service primarily comprised of Mini Recycling Centres, such as bottle banks and paper banks, located at strategic sites around Solihull to enable householders to recycle certain materials. It was also supported through some recycling at the Bickenhill Household Waste Recycling Centre. As illustrated by Figure 3, since 2003 the recycling service has undergone a series of improvements to raise the recycling rate from around 7% up to 33%, with the 2009/10 (unaudited) set of data suggested around 40% household waste recycling rate was achieved, and that based on current levels of participation (2010/11) the service is performing at around 44%. This has been delivered predominantly through bringing separate recyclables collections to the household. Initially paper collections were introduced at the kerbside, and this was expanded to include garden waste and glass collections. In 2009 a comprehensive new kerbside recycling collection was introduced using two boxes for tins, glass, paper and card, and a separate bag for plastic bottles. This is described in further detail under 'How is the Waste Management Service delivered now'.

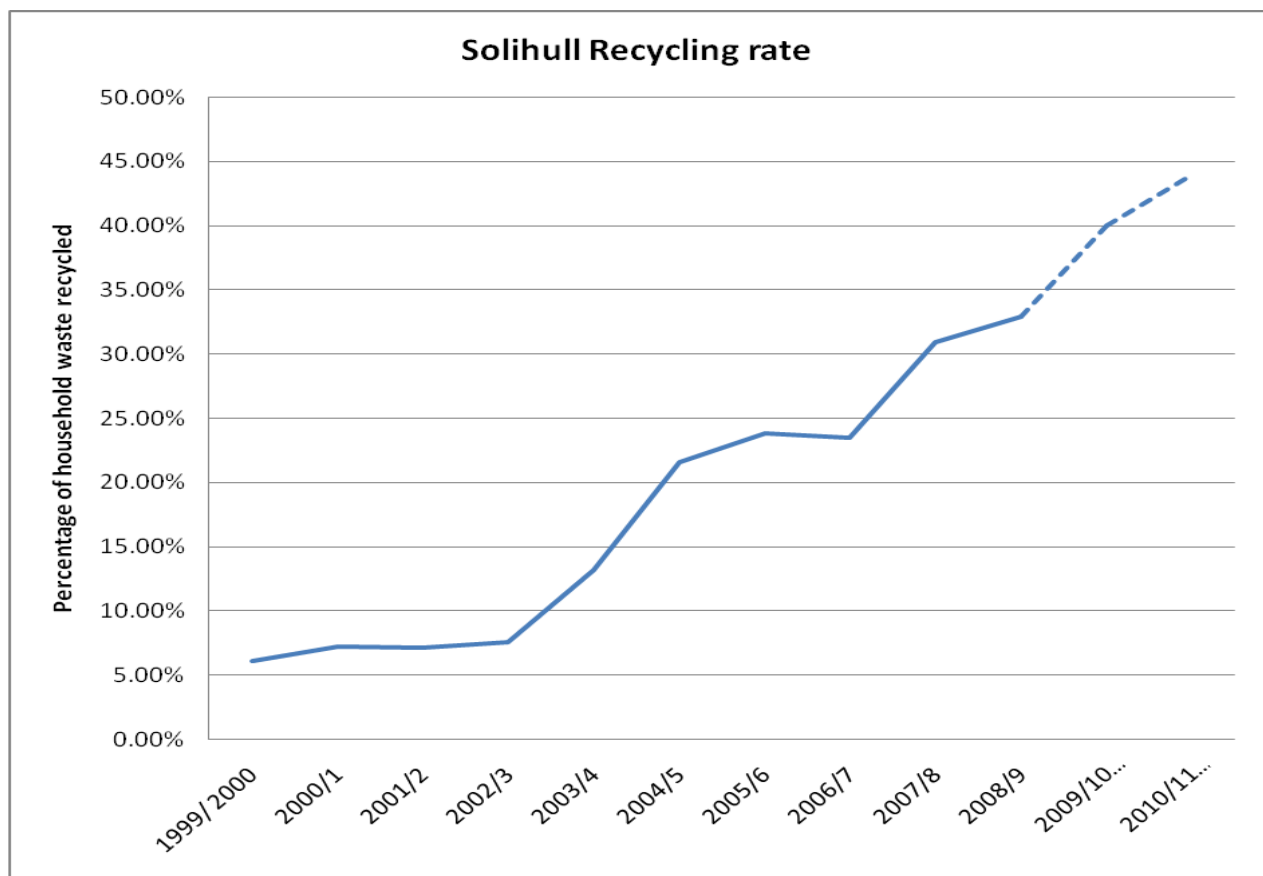


FIGURE 3 RECYCLING PERFORMANCE IN SOLIHULL OVER THE LAST 12 YEARS

Solihull Council has consistently been a high performer in the diversion of waste away from landfill since the development of the Coventry and Solihull Energy from Waste plant in the early 1970's. This plant, situated in Coventry, incinerates the waste and uses the heat generated to drive steam turbines for the recovery of energy. Using this facility (owned by a joint local authority company 'Coventry and Solihull Waste Disposal Company') has meant that landfill space has been conserved and a substantial quantity of energy (in the form of electricity and heat) has been recovered over this period from Solihull's residual municipal waste. This approach has also meant that Solihull has emitted far less greenhouse gas emissions over the last thirty five years than many other equivalent areas, for which landfill (a notable contributor of carbon emissions) was, and is, the most common residual waste management option. Furthermore, since 1997, the Government has introduced a tax on landfill to incentivise alternative treatment, and this increases year on year. Consequently, Solihull also has a very low cost residual waste management service compared to other areas of the Country.

How is the Solihull Waste Management Service delivered now?

In Autumn 2009, a comprehensive recycling system, targeting all the main recyclable materials, was implemented using boxes and a woven sack, for all households on the kerbside collection.

This kerbside recycling collection entails the provision of two recycling boxes and a woven plastic sack, and adding the following recyclable materials to the paper and glass collection:-

- Cans
- Card
- Plastic Bottles

The collection service involves a vehicle with three compartments, passing households each week and collecting different recyclable materials. In week one: glass is entered in one compartment, cans in another and plastic bottles (collected via the sack) in the third. In the second week: paper is collected in the first compartment, card in the second and plastic bottles in the third. This process of sorting at the kerbside helps retain the quality of materials collected and enhances their value for sale to reprocessors for recycling.



Multi Compartment Vehicle

In parallel with the new recycling collection, the Council have also implemented a kerbside wheeled bin collection for refuse and providing households with a 140 litre black wheeled bin for their residual household waste. This replaces the previous sack collection and is complementary to the new recycling capacity available to the household, encouraging residents to participate in the recycling service. For larger households a 240 litre wheeled bin may be provided and for properties where wheeled bin storage is unavailable, purple sacks are provided as alternative storage for residual waste.

Solihull Council is also driving forward improvements in recycling performance from the Bickenhill Household Waste Recycling Centre (HWRC). Activities and initiatives for the collection of waste from the HWRC are described in more detail in the Recycling & Composting section of this Strategy.

The amount of recycling from Mini Recycling Centres has increased in recent years, as has the range of materials collected. Figure 4 illustrates the performance over the last five years. It is likely that overall tonnages will reduce once the full kerbside collection system is fully implemented, with reductions in the glass, cans and plastic in particular. This assumption is evident in the trends shown in Figure 4, since the expansion of kerbside glass collections in 2008, there is a reduction in glass collected from the mini recycling centres. Where capacity needs from mini recycling centres do fall, there is the opportunity to rationalise the service and / or introduce new materials that are complementary to the kerbside service. Examples of materials not covered by the current kerbside collection are textiles, aluminium foil, tetrapaks (cartons made of both plastic and card) and other plastics (not bottles). This aspect is explained further in the 'Recycling & Composting' section of this Strategy.

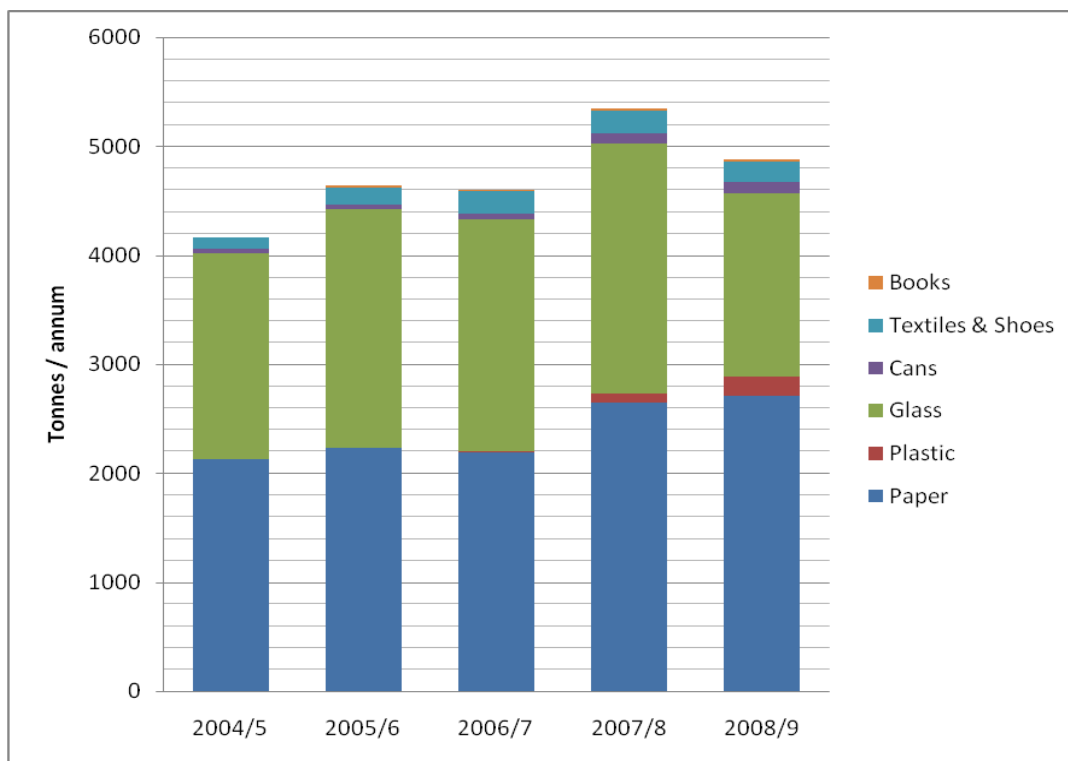


FIGURE 4 AMOUNT OF RECYCLING AND TYPES OF MATERIALS COLLECTED FROM MINI RECYCLING CENTRES

One of the main waste management challenges facing the UK at present is the diversion of municipal waste from landfill. As previously mentioned, landfilling waste is considered the least preferable option on environmental grounds. Solihull has been among the best performers in the Country as regards minimising the amount of waste going to landfill due to residual municipal waste from the Borough being sent to the Coventry & Solihull Energy from Waste plant. This plant is anticipated to remain operational beyond the life of this Strategy. Further information on these aspects of the service is explained in the Waste Treatment & Recovery and Disposal sections.

A summary of household waste management performance including the levels of recycling, energy recovery (via the Energy from Waste plant) and landfill of household waste over the last five years are illustrated in Figure 5.

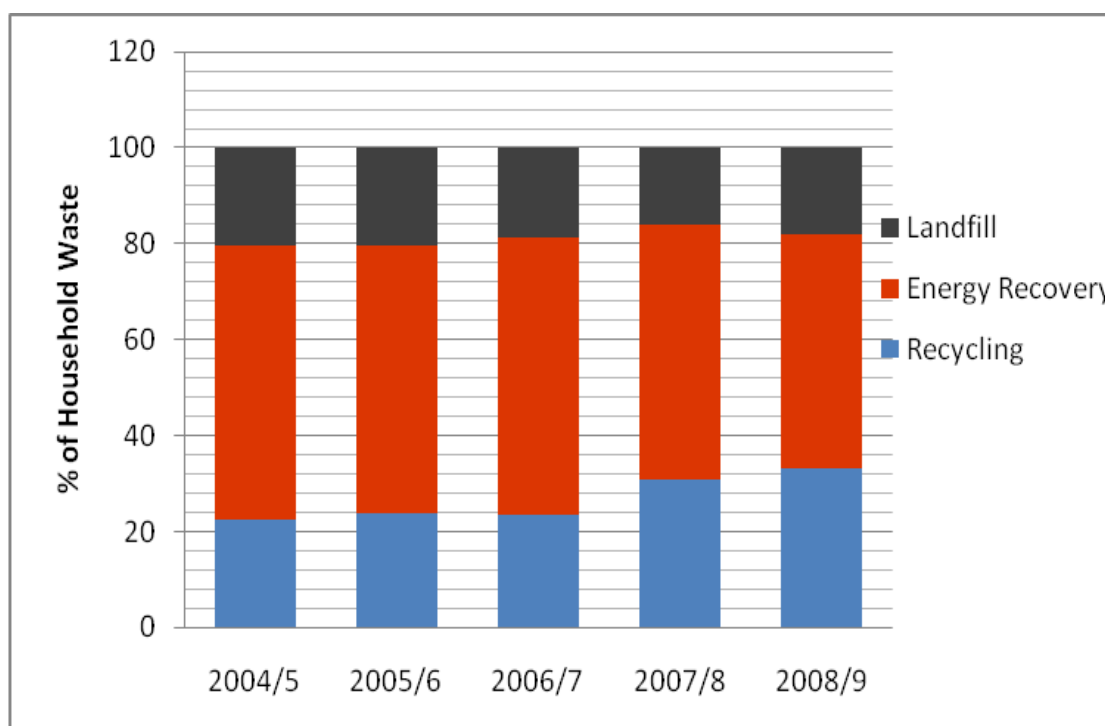


FIGURE 5 HOUSEHOLD WASTE MANAGEMENT PERFORMANCE 2004/5 – 2008/9

The management of municipal waste from Solihull over recent years is characterised by notable improvements in recycling, accompanied by energy recovery of the residual waste, and low (and reducing) levels of landfill. In order to deliver against future challenges and move towards more sustainable waste management practices, these trends need to develop further, and this Strategy seeks to ensure that recycling continues to increase and landfill continues to fall.

The current contracts for the delivery of the municipal waste management service in Solihull are as follows:-

Service	Contractor	Contract End Date
Refuse, Recycling & Garden waste collection	Enterprise	2015, with three potential contract extension at 7 year increments
Refuse Treatment & Disposal	Coventry & Solihull Waste Disposal	2011, ongoing renewals

	Company	
Landfill & Composting	SITA	2011
Household Waste Recycling Centre	Enterprise	2015, with three potential contract extension at 7 year increments
Street Cleansing & Grounds Maintenance	Enterprise	2015, with three potential contract extension at 7 year increments

TABLE 1 SOLIHULL MUNICIPAL WASTE MANAGEMENT RELATED CONTRACTS

What is in your bin?

The varied nature of municipal waste is one of the challenges of managing the waste stream in a manner that is environmentally as well as politically and economically acceptable. Figure 6 illustrates the typical composition of household waste in the Solihull⁶, i.e. what each of us produces as a household.

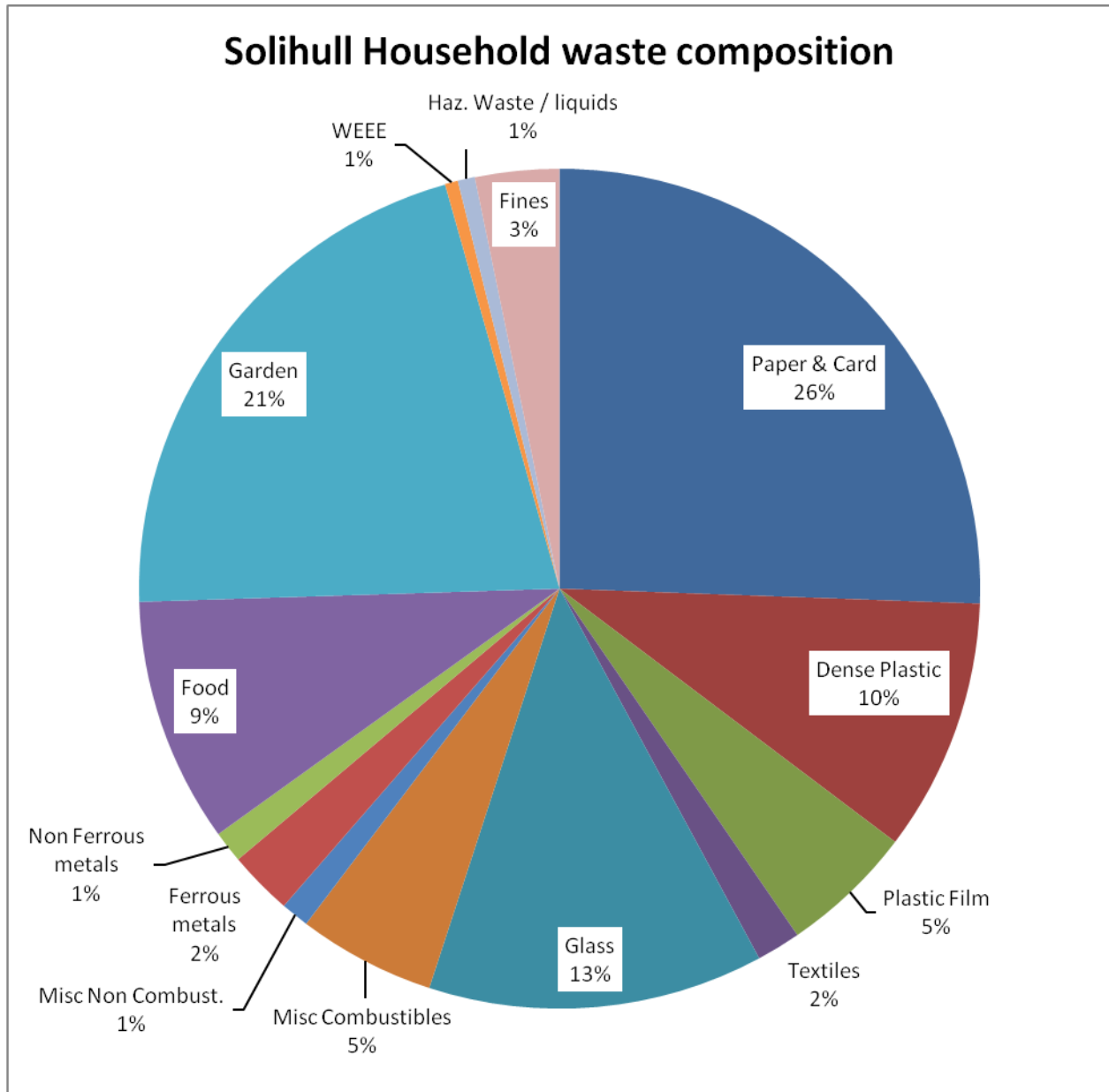


FIGURE 6 HOUSEHOLD WASTE COMPOSITION IN SOLIHULL

The amount of municipal waste collected in Solihull and in England over the past four years is shown in Figure 7.

⁶ Data from the SKM Enviros Solihull Household Waste Composition Analysis survey, 2010

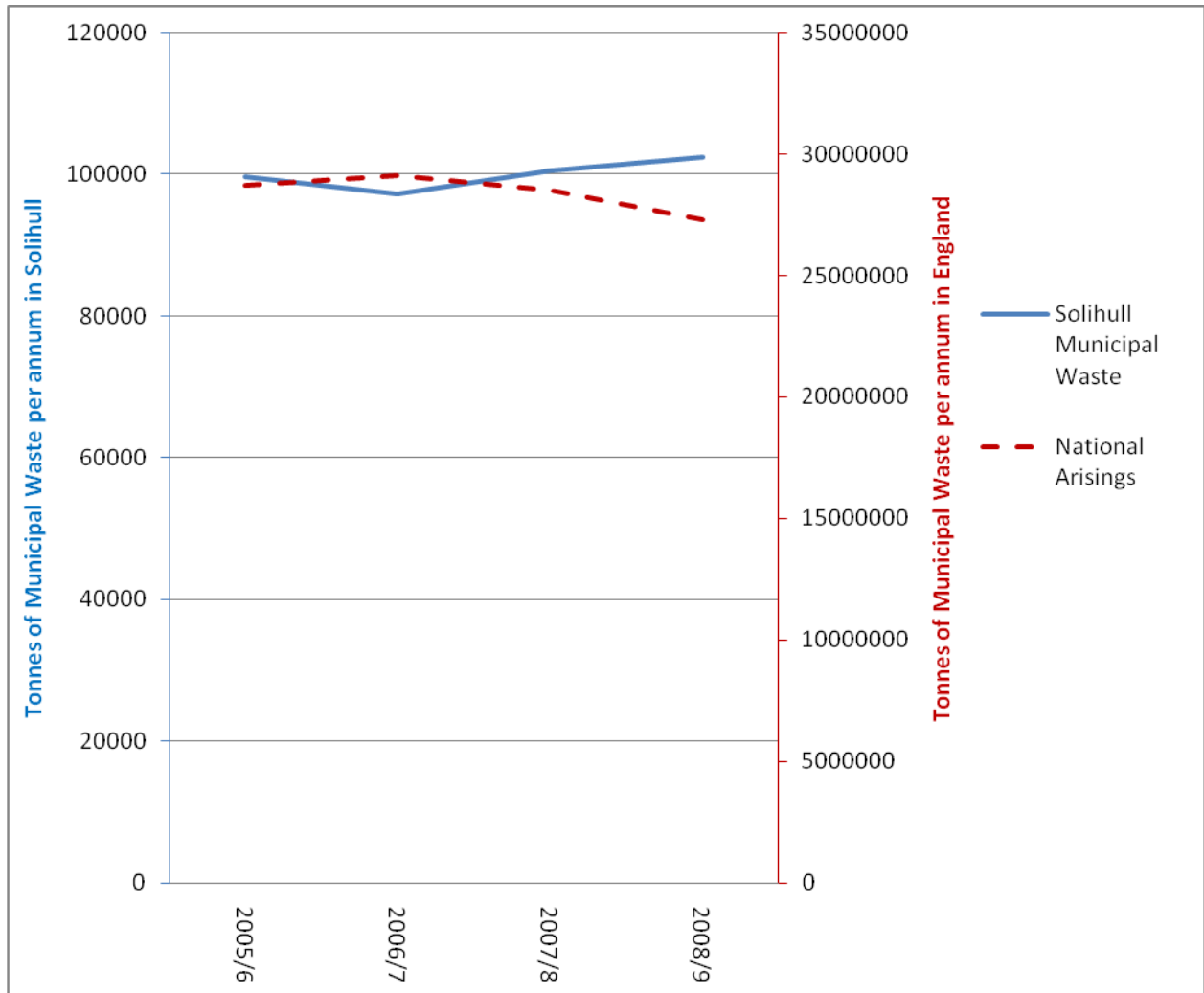


FIGURE 7 MUNICIPAL WASTE ARISING IN SOLIHULL & ENGLAND

The trend in Solihull, as illustrated above has been different from the national waste arisings which have exhibited significant falls over the last two years of available data. A key reason for this is likely to be the expansion of garden waste collections in Solihull since 2006. New garden waste collections often draw new material into the household waste stream that may have otherwise have been composted at home or burned in gardens. The rising amount of municipal waste in Solihull is an issue that this Strategy seeks to address (see Prevention & Reuse section).

Achieving Sustainable Waste Management

The last ten years have seen the service delivered to householders in Solihull change from a collection service of only residual household waste to a service that promotes recycling of a wide range of materials. This has substantially improved the environmental performance of the service. Whilst Government has set the policies and targets for waste and recycling, the service improvements have been driven by the authority in response to the enthusiasm of residents of the Borough.

EU and UK legislation is continuing to drive towards yet higher environmental standards and practices. There is an increasing amount of legislation focussed on the management of our wastes notably to encourage improved use of resources to reduce the amount of waste and its harmfulness.

Some guiding principles and policies that may be considered as drivers for the Sustainable Management of waste over the next ten years are described in this section. These influences have guided the development of the vision, objectives, targets and policies within this Waste Management Strategy.

Waste Strategy for England 2007

The national waste strategy was published in 2007, and this contains most of the key principles listed in this section of the Solihull WMS. The Waste Strategy for England 2007 (also known as WS2007) sets out new national targets for recycling including a target of 40% recycling by 2010, 45% by 2015 and 50% by 2020. This Strategy commits Solihull to meeting a 50% recycling target and extends this ambition further as noted in the Recycling & Composting section.

WS2007 also includes targets for *recovery*, a term meaning recycling / composting and also including energy recovery from wastes and these targets are set at a national level for 53% by 2010, 67% by 2015 and 75% by 2020. Solihull already exceeds its 2020 target in this area.

The Waste Hierarchy

A guiding principle of UK and EU waste management is the waste hierarchy. This is shown in Figure 8.

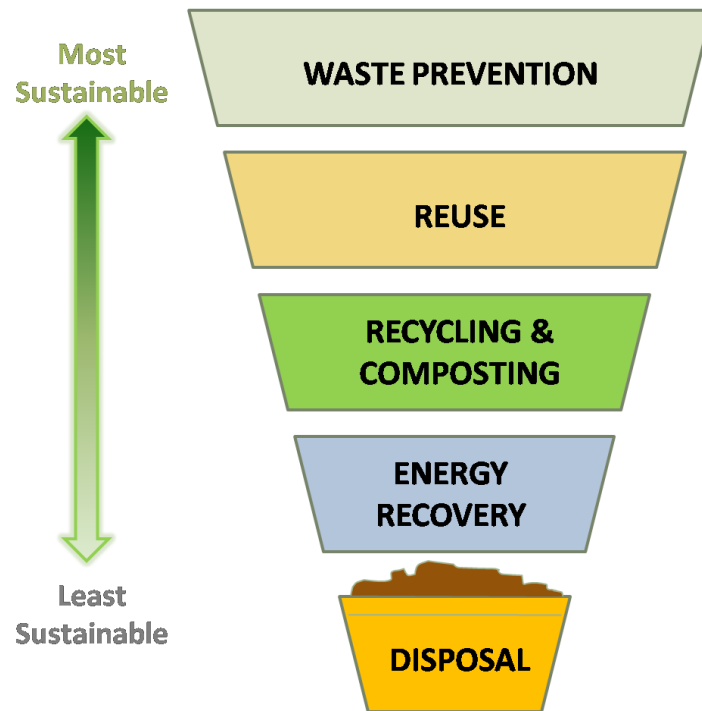


FIGURE 8 THE WASTE HIERARCHY

The waste hierarchy is a guide to the most environmentally acceptable waste management approach set down in order of preference. It is only a general guide and does not always apply for specific waste streams, however it remains a useful tool at a strategic level. The most sustainable waste management option is not to generate waste in the first place (prevention), this is an aspect promoted by WS2007 and legislation⁷ giving powers to local authorities to promote measures to reduce household waste arisings.

After prevention, 'reuse' is considered the next most preferable option, this means reusing a material or item that would otherwise have become waste, for example reusing a carrier bag or refilling a bottle.

If an item is to be discarded, then recycling or composting (depending on the nature of the material) is the next most sustainable approach, and this has been encouraged through the setting of recycling targets at a national level (and locally in the past) by Government. In addition, specific legislation also requires the availability of recycling services to householders. This means that a collection service must be in place for at least two different materials for recycling from each household by the end of 2010⁸.

After recycling and composting services are in place, extraction of energy from waste is preferable to disposal. This is termed Energy Recovery and can be achieved through burning the waste to generate electricity and / or heat recovery (this has taken place at the Coventry & Solihull Energy from Waste plant for over 35 years) or through other thermal or biological techniques discussed in more detail in the Waste Treatment & Recovery section of this Strategy.

⁷ Waste Minimisation Act 1998

⁸ Household Waste Recycling Act 2003

The least preferable option in the waste hierarchy is disposal with no materials or energy recovered. Disposal through landfilling wastes, has been the traditional waste management option for municipal waste in the UK, and remains the most prevalent to date, although this is changing. Solihull has been an exception, and has operated the Coventry & Solihull Energy from Waste plant since the 1970s for the bulk of its municipal waste, yielding a useful return in energy. The Government has been keen to apply a disincentive to the landfill of waste and there has been a tax on landfilling since 1997 (the Landfill Tax) and this increases year on year to drive wastes into more sustainable options higher up the Hierarchy.

Resource Management

A broader environmental theme of the national waste strategy and encompassed in this WMS is a need to manage our resources more sustainably, a concept also known as Sustainable Production & Consumption. Consuming less and recovering more non renewable materials and energy is a central element of Sustainable Consumption and Production, which can also be considered as using resources more wisely and living in a more sustainable manner.

A measure of resource use in our daily lives is to consider the amount of natural resources we consume compared to the global resource of those materials in or on the Earth. If every Country in the world lived in the manner that we in the UK do (i.e. the amount of materials / products / services and energy we utilise in day to day living) we would need three planets to provide our resources. This is clearly not a sustainable position.



To reduce this impact to a sustainable rate of consumption and production is a concept known as ‘One Planet

Living’ and the aim of this is to consume at a rate at which we can all coexist and not deplete the Earth of resources at an unsustainable rate.

Managing Carbon

A fundamental challenge facing the world is the dangerous threat of climate change. Climate change occurs because of changes in the amounts of greenhouse gases⁹ (Carbon Dioxide, Methane, and others) in the atmosphere. The increase of greenhouse gases has been observed through sampling and testing and it is widely accepted that this has contributed to a 0.6°C¹⁰ rise in temperature over the last century. The ten warmest years of the last century were recorded in its last fifteen years.

⁹ Greenhouse gases are usually measured in Carbon Dioxide (CO₂) equivalents, and hence we often talk about managing ‘carbon’, although the actual aspect being discussed may be methane (CH₄) or some other greenhouse gas.

¹⁰ Climate Change & Waste Management: The link, Defra 2007

Waste management has a role to play in mitigating the emissions of carbon (or greenhouse gases) through application of the waste hierarchy. Landfilling of wastes is a major contributor to methane emissions in the atmosphere, and the most significant negative impact from waste management activity. Conversely prevention, reuse, recycling and energy recovery can all have a role in reducing carbon emissions.

Prevention of waste will always be the highest performing in this regard (per tonne of diversion) and the extent to which the other waste management options can contribute to managing carbon emissions will depend on the type of waste and the waste management option being utilised. This can be a difficult area to quantify, however tools are available to assess impacts in this area, known as Life Cycle Assessment (LCA) tools, and in the development of the Solihull Waste Management Strategy we have used the Government recognised LCA tool for this area, known as WRATE.

Solihull Council fully acknowledge the threat of Climate Change and have a Climate Change Strategy (2009) designed to set in place initiatives and policies to reduce carbon emissions. The Waste Management Strategy identifies the carbon implications of its proposed actions and aims for substantial reductions in carbon emitted throughout the period to 2020.

The Landfill Directive

Part of the Government and EU response to managing the contribution of waste management to climate change was to introduce the Directive on the Landfilling of Waste (the 'Landfill Directive') as implemented into UK legislation. This sets targets for reducing the amount of biodegradable municipal waste (BMW) going into landfill, as this is responsible for the damaging methane emissions that form the greatest climate change impact from waste operations. Solihull, because of its limited use of landfill is well in advance of these targets and can potentially benefit from trading Government permits (known as Landfill Allowances) in this area.

Aligning Energy and Waste Management Policies

The management of resources and carbon discussed previously have a link to energy policy and strategy. This link has been well established in terms of waste management operations in Solihull for decades, through the recovery of energy at the Coventry & Solihull Energy from Waste plant. At a national level however there has been an increasing drive to marry waste and energy policy to ensure a cohesive approach is taken for the benefit of the environment. Recent developments with renewable energy incentives¹¹ have focussed on waste operations to help promote new and more efficient energy recovery from waste. The Solihull WMS, as set out in the objectives, considers energy, carbon and waste to be key elements to be managed by this service.

Improving Efficiency in Service Delivery

Over the last four years national Government has been driving a programme of improving efficiency in the delivery of all local services, seeking year on year improvements and establishing support programmes to promote best practice in service delivery. This is a particularly difficult area for waste management services due to the increasing demands and targets on the service meaning higher performance is also required, notably in areas such as

¹¹ Renewable Obligation Order as amended, 2006

recycling. Key mechanisms to improve the efficiency of local services include partnering with other sectors, benefitting from economies of scale, improving logistics and planning and using procurement wisely to benefit from market opportunities. Good practice in this area is adopted in the policies and procurements identified within this strategy and all options are costed to ensure initiatives and services are affordable and deliverable within the timescales identified in the Action Plan.

Regional Self Sufficiency & Proximity Principle

The principle of regional self sufficiency is to manage the waste arising in a region within the same region, therefore reducing travel impacts and establishing the link between waste producers and the infrastructure required to manage that waste. This is also linked to the proximity principle which states that waste should be managed close to its source of origin. Whilst this Strategy does not define the location of sites for waste management infrastructure (that is included in the Local Development Framework Core Strategy) these factors are implicit in the options selected and approach taken for this Strategy, where the management of the whole municipal waste stream is set out through activities led by Solihull Council through the Strategy Action Plan.

Waste Strategy & the Planning Process

The Core Strategy for Solihull is currently under development by the Sustainable Development team. This will consider the amount of waste arising from all waste streams, including municipal waste, and the capacity of waste facilities required. It will take account of the principle that each Waste Planning Authority (WPA) should manage an equivalent tonnage of waste to that arising in its area, whilst recognising the importance of sharing of facilities and movement of waste streams within the sub-region. The Waste Management Strategy has been developed in consultation with the Sustainable Development team to ensure consistency with the emerging Core Strategy. This is also consistent with Government guidance and good practice in this area.

Looking forward to 2020

There are many important considerations for setting the Vision and Objectives of a Waste Management Strategy, this section discussed the national, regional and local drivers and previously the local context of the current waste management service was explained. These aspects set the scene for defining the Vision and Objectives of the Strategy and the approach to delivering services in order to realise these aims.

Vision & Objectives of Waste Management Strategy

The vision of the Waste Management Strategy defines the intended 'direction of travel' for the waste management service. It provides a focus for the Strategy.

Vision

Our vision is to manage Solihull's municipal waste as a resource that can be utilised for environmental benefit through a service that contributes to a cleaner, greener Borough. To provide a high quality, inclusive service that encourages residents of Solihull to fully engage in the opportunities to reduce, reuse and recycle wastes to help reduce the carbon footprint of the Borough and to minimise the amount of residual waste left over.

To recover energy and materials from the residual waste and minimise disposal to landfill. To work in partnership with other authorities, community groups and the private sector where there are demonstrable benefits in doing so. To deliver an efficient waste management service that represents best value and provides a sustainable and customer focussed operation.

Objectives

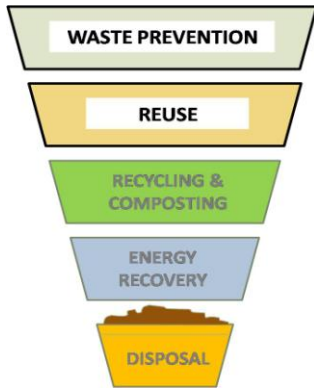
The objectives of the Waste Management Strategy are designed to be more specific commitments and principles to achieve the Vision. The remainder of the WMS contains policies, targets and initiatives to support both the objectives and the vision. There are ten key objectives listed below.

Objective 1	Set in place initiatives to reduce the amount of waste arising in Solihull through prevention and reuse activity and continue to raise awareness to encourage behaviour change and participation in these schemes
Objective 2	Expand the range of materials collected for reuse and recycling across the Borough to ensure all households have the opportunity to make sustainable choices for the management of their wastes
Objective 3	Improve recycling services and engage with the residents of Solihull to fully participate in the recycle collections, with the aim of delivering a minimum target of 60% household waste recycling rate by 2020, but aspiring to deliver this level of performance by 2015 if practicable.
Objective 4	Minimise the need for landfilling of wastes by continuing Solihull's high performance in residual waste treatment beyond the life the existing Energy from Waste plant, with the aim of delivering no more than 15% of household waste to landfill by 2015 and a maximum of 10% by 2020
Objective 5	Seek to recover both energy and materials from residual waste in the most efficient manner, to conserve resources, gain maximum value and contribute to carbon reduction, renewable energy and recycling targets
Objective 6	Continue to support existing partnerships and actively explore new partnering arrangements with organisations that can support the vision and objectives of this Strategy
Objective 7	Use good practice methods in communication, education and enforcement to support the delivery of a cleaner, greener Borough for the benefit of all
Objective 8	Demonstrate continued improvement in reducing the levels of carbon emissions of the municipal waste management service throughout the life of this Strategy, as a measure to tackle climate change

Objective 9	Provide a service that is affordable ¹² and demonstrates best value for Solihull through seeking efficiencies wherever practicable, considering other waste streams in addition to municipal waste, managing risks appropriately and delivering a sustained high quality service
Objective 10	Solihull Metropolitan Borough Council to lead by example and improve the environmental performance of its offices, depots and staff activities through more sustainable use of resources and adopting practices that reduce carbon emissions

The following sections of this document explore each level of the waste hierarchy (Figure 8) and the policies, actions and targets for delivering service improvements in line with the Strategy Vision and Objectives.

¹² In response to recent economic challenges facing the Country it was felt important to make explicit the importance of retaining an affordable service that represents good value to taxpayers in addition to providing environmental benefits.



Prevention & Reuse

Waste Prevention is a concept designed to reduce the amount of waste we generate. This may be achieved through a variety of activities such as registering for 'no junk mail' listings, or changing purchasing behaviour to reduce the amount of waste arising from unwanted packaging or food.

Reuse is a concept describing where goods that we do purchase, are used again, and therefore do not arise as waste (until they reach the end of their usable life). Examples include reusable shopping bags, giving unwanted goods to other parties that would use the items, or refurbishing unwanted goods for resale.

refurbishing unwanted goods for resale.

In Solihull each of us generate, on average, half a tonne of household waste per year (499kg in 2008/9). Figure 9, illustrates waste generation per person relative to the average from Metropolitan Authorities, over the latest four years for which comparable data is available.

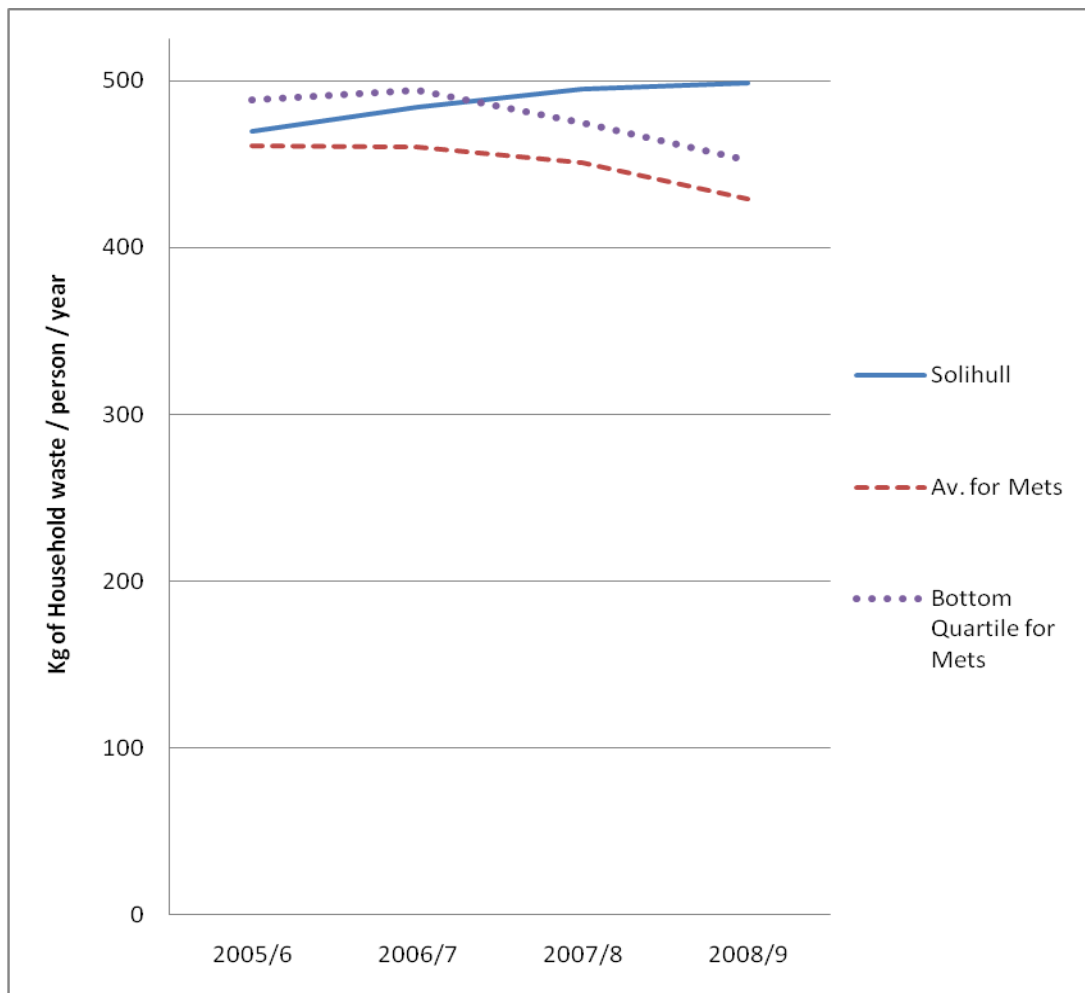


FIGURE 9 KG OF HOUSEHOLD WASTE PER PERSON FOR SOLIHULL & OTHER METROPOLITAN AUTHORITIES

It can be seen that the amount of household waste per person in Solihull has been increasing over this period and that this is out of step with other Metropolitan Authorities which have, in general, been reducing the amount of household waste per person over the same period. The expansion of garden waste collections, as described previously, is likely to have a role in this

waste increase. However the overall high levels of waste relative to other authorities underlines the particular importance for consideration of waste prevention and reuse initiatives for the Borough.

This is consistent with the first objective of this Strategy, to:-

Set in place initiatives to reduce the amount of waste arising in Solihull through prevention and reuse activity and continue to raise awareness to encourage behaviour change and participation in these schemes

A detailed appraisal of Waste Prevention & Reuse Options was undertaken as described in the Options Appraisal report (available from www.solihull.gov.uk). The aim of this appraisal process was to review all the leading waste prevention / reuse options and decide upon a preferred set of solutions for Solihull, and as included in this Waste Management Strategy. The appraisal concluded that the areas of focus for waste prevention and reuse should, in the first instance, concentrate on reducing the amount of organic waste entering the household waste stream. This should be delivered by continuing to actively promote home composting and also through a food waste prevention campaign.

Solihull Council currently provide home composters via a subsidised Government scheme however the amount distributed showed a marked decline in 2008/9 as shown in figure 10.

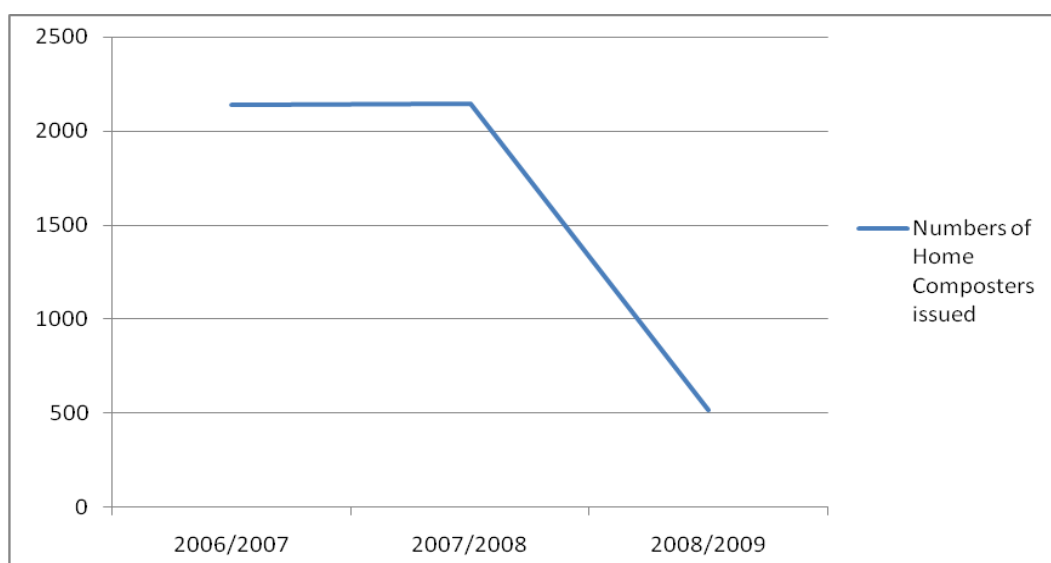


FIGURE 10 NUMBER OF COMPOSTERS DISTRIBUTED IN SOLIHULL, PER ANNUM

Solihull Council will continue to offer subsidised home composters to residents and schools in the Borough and reinvigorate a promotional campaign to increase take up. For every additional 500 households to purchase and use home composters around 630 tonnes of garden waste¹³, vegetable peelings, tea bags etc could be diverted from the waste stream, and in addition this also provides a useful and nutritious compost for the gardener. Solihull Council will also seek to partner with a community group or other third sector organisation to provide support to households on how to make good quality compost and help encourage continued home composting practice.

¹³ Over a ten year period, applying recommended rates in decline of usage

A Government funded body known as the Waste & Resources Action Programme (or WRAP) coordinate and support a national campaign known as 'Love Food, Hate Waste'. This campaign is designed to promote purchasing practices and cooking behaviours that will reduce the amount of food waste arising for disposal. This is even more preferable to home composting as it avoids excess food generation (and waste) arising in the first place. Solihull Council will seek to implement this campaign at a local level in 2011 to help reduce the amount of waste arising for disposal. A successful campaign, based on previous case studies, should prevent around 680 tonnes of food waste arising¹⁴, this will; also save on the wider environmental impacts of food production, processing and transport.

Another initiative that scored highly in the appraisal of waste prevention and reuse options, was the promotion of the Freecycle (or other similar) service. This is an internet based¹⁵ non profit network of individuals who can advertise items that they no longer want for free collection by an individual that may be seeking such an item. It also allows requests for items that are wanted to be placed on the network. There is a Solihull branch of Freecycle that tends to advertise around 1500 – 1800 items per month. Solihull Council will seek to raise the profile of the Solihull Freecycle network through its waste prevention campaign activity and via the Solihull website to facilitate further item reuse through this route. This may be considered a low cost method of furthering the objectives of this Strategy, which also promotes a proactive community based service. The public consultation survey¹⁶ revealed a high level of awareness of this service, but less active participation, this is an area that the Strategy will seek to address.

The Solihull Council website will also be refreshed as regards waste prevention and reuse activity, highlighting links and information on the Mail Preference Service (to reduce Junk Mail), Real Nappies (to reduce the amount of nappy waste) in addition to the key messages and promotions on food waste prevention, home composting and Freecycle. This will enable householders to access different methods of preventing and reusing waste and tips for more sustainable purchasing.

One aspect that should be expanded in the Borough is the reuse of goods through Council facilitated activity. At present bulky waste collections from householders are referred to a community group for refurbishment / reuse if the householder identifies the item as being appropriate for this purpose. In addition, 'bags for life' were issued to residents in 2008/9 to encourage reuse and a reduction in the uptake of 'single use' bags. Further reuse initiatives will be explored in addition for example establishing a collection of reusable goods from the Household Waste Recycling Centre, or facilitating refurbishment by a third sector¹⁷ organisation, however the initial costs at present are considered high for the benefits received¹⁸ and will require careful planning and management.

Additional benefits of reuse and refurbishment schemes include the potential for providing training and skills to the volunteers or paid workforce operating the schemes, and the ability to provide low cost goods back into the areas of society that most need them. In view of the wide ranging potential benefits of reuse schemes, this is an area that Solihull Council will continue to explore through, promotion of existing reuse activity, and establishing and maintaining a dialogue with interested third sector organisations. Where positive projects and partnerships can be established the Council will be proactive in seeking external funding, where needed to support the business case for the establishment of new reuse initiatives for the Borough.

¹⁴ Assuming cooking / purchasing practices are maintained for a period of 5 years on average

¹⁵ <http://www.freecycle.org/group/United%20Kingdom/West%20Midlands/Solihull/info>

¹⁶ As summarised in the WMS Consultation report, SMBC 2010

¹⁷ Third sector is a term encompassing charities, community groups, not for profit or social enterprise groups.

¹⁸ See the Options Appraisal report, www.solihull.gov.uk for further information

Schools Waste Prevention & Reuse Activity

Solihull Council is proactive in engaging with schools and delivers around 20 school visits per year, giving talks that include waste prevention and reuse information. This is supported by the provision of free home composters to schools where the school receives a talk from the Waste & Resources Action Programme. This activity is linked to other waste management activities in schools as explained in the 'Recycling & Composting' and 'Education & Communications' sections of this Strategy.

Waste Prevention Targets

Solihull Council will apply the initiatives explained in this Strategy and as detailed in the supporting Action Plan, and utilise its influence to seek to deliver the following household waste arisings targets (these figures include all the waste generated by the household, including 'wheelie bin' waste, recycling and garden waste put into the kerbside green waste collection):-

- To reduce the amount of household waste generated to 490¹⁹ kg / person / year by 2013
- To reduce the amount of household waste generated to 480 kg / person / year by 2017
- To reduce the amount of household waste generated to 475 kg / person / year by 2020

Attainment of these targets will be a factor of both the initiatives implemented by the Waste Management Strategy and wider influences such as the state of the economy and the move by supermarkets and government / EU policies on waste producers to reduce packaging. A greater general environmental awareness through environmental education in schools and the effect of national campaigns is envisaged to also have a positive impact on achieving these targets.

The delivery of these targets, combined with those on recycling (see Recycling & Composting section) will enable the Borough to exceed national targets contained within Waste Strategy 2007, specifically to reduce the amount of residual waste²⁰ (i.e. that waste left over after recycling and composting activity, or the 'wheelie bin' waste) arising to 225kg / person per year by 2020²¹. It is anticipated that Solihull residents would generate less than 200kg / person of residual waste by 2020.

Waste prevention is an activity that is difficult to measure with accuracy, due to the variety of factors influencing waste arisings and therefore the limited manner in which the Council can influence overall arisings. Solihull Council recognises this challenge, but also is aware of the importance of reducing waste in order to improve environmental performance. This strategy and its action plan therefore assesses the degree of success of the waste prevention & reuse initiatives implemented and if these initiatives are making insufficient progress towards the targets identified above, will develop further appropriate new initiatives to seek to deliver the waste prevention targets.

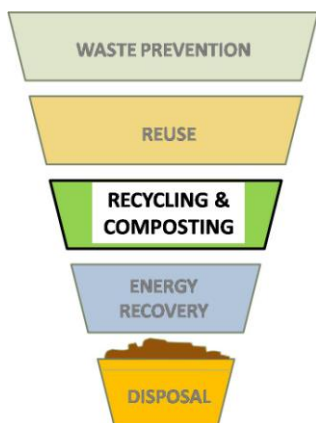
¹⁹ We currently generate around 500kg of household waste per person per year in the Borough

²⁰ The amount of waste left for treatment and disposal after recycling /composting and reuse have taken place, also known as 'refuse' or 'wheelie bin waste'.

²¹ Delivery of this national target in Solihull assumes a 53% recycling rate by 2020 coupled with delivery of the waste prevention targets. This Strategy commits to a minimum of 60% by 2020 and therefore should be well ahead of this target.

Carbon Saving:

By focussing on preventing food waste, improving home composting use and promoting the use of the Freecycle network, around 500 tonnes of CO₂ equivalent will be saved per annum.



Recycling & Composting

Recycling is the process of recovering unwanted materials (such as paper, metals, plastic, glass) and reprocessing them into new materials that may then be made into new products. Using recycled (or secondary) material usually involves much less energy (and saves in carbon emissions) for making new products compared to extracting and using virgin materials.

Composting is the process where organic waste such as garden waste (grass cuttings, hedge trimmings etc) may be collected and processed at a composting plant. The composting process involves degrading the organic waste, in the presence of air, by the natural action of microbes, to produce a humus (known as compost) that may be applied to land. Food waste may also be composted at specialised facilities. An alternative treatment process for organic waste (such as garden or food waste) is known as Anaerobic Digestion and this technology is described under 'Kerbside Food Waste Recycling' later in this section.

In considering recycling activities, it is normal to consider the 'recycling rate' of service. This tends to refer to the amount of waste both composted / digested and recycled, relative to the total amount of waste arising. Hence recycling and composting / digestion are usually addressed together in a waste Strategy, despite being distinct processes in their own right.

Table 2 contains the recycling rate of Solihull Council over the past ten years.

	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10 ²²	2010/11 ²³
Recycling rate	7.1%	7.6%	13.2%	21.6%	23.8%	23.5%	30.9%	32.9%	40%	~44%

TABLE 2 HOUSEHOLD WASTE RECYCLING RATE OF SOLIHULL 2001 - 2010

As shown above Solihull has notably increased its recycling performance in recent years, and has engaged a long term contractor to assist in the development of an improved recycling service and to help deliver the targets within this Strategy.

Kerbside Dry Recycling Improvements

The authority has recently implemented a more comprehensive kerbside recycling scheme with the addition of cans, plastic bottles and card to the paper & glass collections. As described previously, the new 'multi material' scheme is collected via two boxes for dry recyclables and a woven plastic sack (for plastic bottles). This collection service is designed to raise Solihull to a high performing authority considering its size and type, with a recycling rate modelled, using the latest waste composition and performance data to deliver 44% recycling by 2010/11 rising to ~46% if fully optimised²⁴.

²² Unaudited, at present awaiting Government (Defra) confirmation of figures

²³ Estimate based on current levels of participation in the service

²⁴ Optimising a recycling collection usually requires extensive communications activities, this process is explored in the 'Education & Communications' section of this Strategy

The Solihull Sustainable Community Strategy sets out the Vision for the Borough for the next ten years. It contains a commitment to improve performance in relation to climate change emissions and also an indicator (LAA 1/7) for the measurement and reporting of non biodegradable municipal waste recycled. These are both areas that will improve significantly when the new kerbside collection is implemented.

Whilst the new recycling system is likely to increase recycling performance to above the national average in the short term, in order to meet the medium and long term aspirations and targets of this Strategy and the national recycling target (50% recycling by 2020), further initiatives are required.

The Options Appraisal²⁵ considered several different recycling options to deliver higher levels of performance over the period of this strategy. The options were:-

- Optimising the current kerbside collection, through education and information to householders in order to achieve the maximum participation in the scheme
- Adding other materials to the kerbside collection system (textiles, plastic film, other plastics etc)
- Improving the service offered by 'on-street' recycling systems e.g. mini recycling centres and recycling litter bins
- Improving the performance of the Bickenhill Household Waste Recycling Centre (HWRC)
- Adding a kerbside food waste collection for processing at either a specialist composting or anaerobic digestion facility
- Recycling of the extractable components of residual (wheelie bin) waste at a residual treatment facility



The main findings of the Options Appraisal and how it the Council intends to develop recycling services in the light of this analysis is summarised below.

Optimising the Current Kerbside Collection

Getting the most out of the current kerbside recycling collection system is one of the most cost effective options for improving recycling performance. This may be achieved through providing information to residents on how to use the service and the reasons for recycling. The Action Plan includes measures²⁶ to maximise the participation in the kerbside collection system in order to deliver the highest levels of performance.

Adding Other Recyclables to the Kerbside Collection

The Options Appraisal considered the addition of further materials to the dry recycling collection (or as part of an additional recycle collection) in order to improve recycling and wider

²⁵ See the Municipal Waste Management Strategy 'Options Appraisal' report, available from www.solihull.gov.uk

²⁶ Action Plan of the Municipal Waste Management Strategy, available from www.solihull.gov.uk

environmental performance. The additional materials assessed in the evaluation²⁷ were: textiles; plastic film; 'other dense plastics' (not bottles), and; aluminium foil. Adding these materials made a strong performance in the carbon assessment but the relatively low recyclate tonnage for the cost of the service and potential issues over markets for the recyclate made this a lower priority area than most other initiatives identified in this section. Solihull Council does recognise the environmental benefits that can be delivered through expanding the range of materials recycled however, and in order to meet it's challenging recycling targets and it is likely that there will be a need to invest further in collection systems to expand the range of recyclables collected. As such Solihull Council are planning a review the current kerbside collection system and to undertake a feasibility study of additional recyclate collection options following the optimisation of the current systems.

This feasibility study will take place in 2011 and consider three aspects to contribute to the objectives of this strategy:-

1. analyse the options and markets available for the introduction of new materials to the existing collection system
2. change the current mode of the kerbside recycling collection system, or
3. partner for the introduction of an additional kerbside collection (bringing in new materials) where practicable

Mini Recycling Centres / On Street Recycling

The Mini Recycling Centre (MRC) service, as described previously (and illustrated in Figure 5) is likely to have a reduced role in the light of the expanding kerbside collection service, however provision of MRCs can fulfil an important addition to the overall service by providing collection capacity for materials not covered by the collection service (e.g. textiles, tetrapaks, aluminium foil and different types of plastics). Consideration of plastics recycling in particular has a strong carbon benefit and Mini Recycling Centres for this waste stream are located around the Borough, and will be actively promoted as part of the Strategy implementation.

Furthermore, MRCs can be targeted in areas that cannot receive the kerbside collection because of housing type (e.g. flats, multi-occupancy properties). Solihull Council will apply good practice methods²⁸ to provide recycling services to these types of properties in accordance with specialist guidance.



Solihull Council will review the location, usage and coverage of Mini Recycling Centres across the Borough in 2011, with the aim of:-

1. supporting the existing kerbside collection system
2. enhancing the range of recyclables collected

²⁷ Options Appraisal of the Municipal Waste Management Strategy available from www.solihull.gov.uk

²⁸ The Waste & Resources Action Programme (WRAP) have guidance and good practice case studies on estates, high rise and multiple occupancy recycling schemes and communications materials. www.wrap.org.uk

3. increasing service provision to those not on the kerbside collection service
4. gaining efficiencies where the enhanced kerbside recycling service has supplanted the need for MRCs

Solihull Council will also explore the potential for on street recycling bins at strategic sites, in accordance with the Government code and guidance²⁹, consistent with the National Waste Strategy. The Council will, in 2010 -2011, implement and monitor 'on street' recycling bins as in the Borough in response to the appraisal of strategic sites.

Household Waste Recycling Centre

The Options Appraisal considered investment to improve the recycling performance of the Bickenhill Household Waste Recycling Centre (HWRC). In recent years the household waste recycling rate of the Bickenhill HWRC varies in the range of 20 -33%. This is a low level of performance with respect to other Household Waste Recycling Centres in England, however a recent programme of investment in the site has redeveloped the facility and early indications show a recycling performance of 40 – 50%. Good practice levels of recycling from Household Waste Recycling Centres in the UK are ~60% at present.

Figure 11 illustrates tonnages of recycling and disposal from the HWRC over the past five years of audited figures.

The Options Appraisal concluded that improving the recycling performance of the Bickenhill Household Waste Recycling Centre was a preferred option. There were two principal reasons for this:-

1. The low cost of improving the HWRC (relative to introduction of other new recycling systems)
2. The improved carbon performance through recycling is more substantial from the HWRC as the current residual waste from this source is sent to landfill rather than to the Energy from Waste plant, and therefore the relative improved environmental performance from recycling is greater (as the disposal option has a greater negative impact)

In addition, for the authority to meet the challenging 60% household waste recycling targets, it is essential that the HWRC will need to contribute at least a similar level of recycling performance for waste entering the site. Solihull Council within this Strategy has set a minimum recycling target of 60% by 2015 for the Bickenhill HWRC, with an aspirational (stretched) target of 70% by 2020.

²⁹ Defra, 2008.

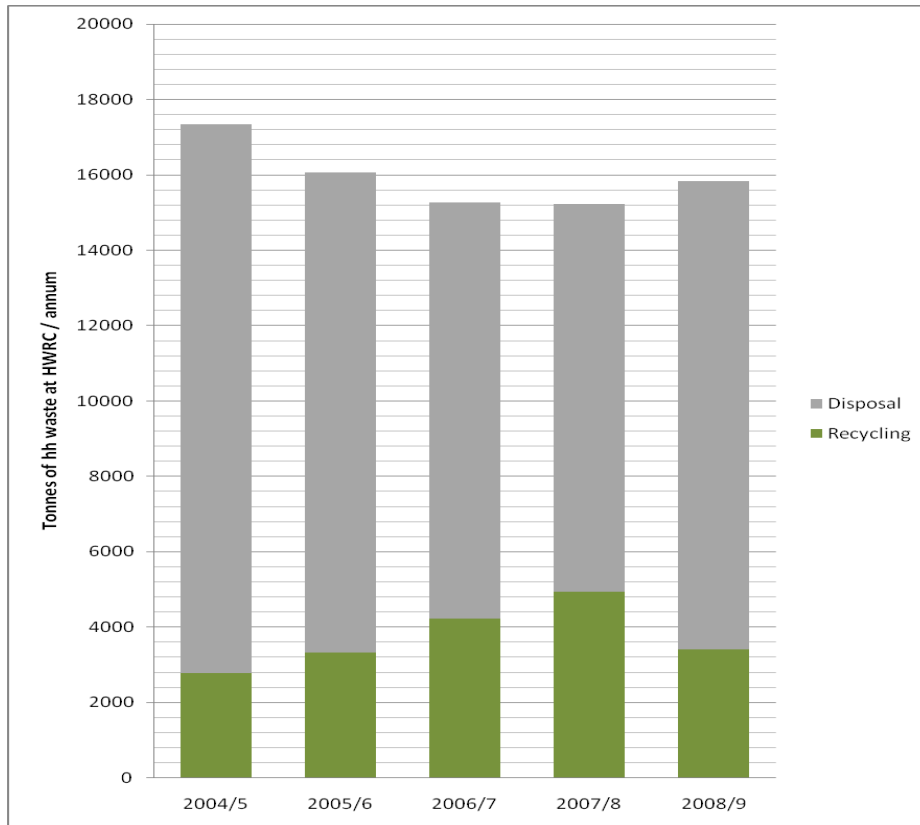


FIGURE 11 BICKENHILL HOUSEHOLD WASTE RECYCLING CENTRE PERFORMANCE

Kerbside Food Waste Recycling

The recycling modelling work undertaken in the Options Appraisal report, demonstrates that in order to deliver over a 50% household waste recycling rate, it is likely that food waste will also need to be separately collected for composting or anaerobic digestion. In the case of food waste treatment, specialist composting facilities are required to process the food waste in a sealed vessel and at required temperatures, to sterilise the waste and prevent access by birds or other animals, thereby avoiding the risk of any health hazard or disease. The output from the process is a compost that can be applied to land and has agricultural value.

The alternative treatment process for food waste is Anaerobic Digestion. This involves the degradation of the food waste in an environment absent of oxygen. The process produces a biogas that may be used as a fuel, and is typically combusted on site to generate electricity via a gas engine for export to the grid, although there is the potential for other uses such as refining the gas and injecting into the gas grid or using as specialist vehicle fuel. The solid output from the process is a digestate (usually in the form of a sludge) that would normally be matured (a process similar to composting) prior to application to land as a beneficial soil enhancer / agricultural application.

The assessment of these options³⁰ concluded that a food waste treatment system using Anaerobic Digestion would be preferable to a composting based system, predominantly on the grounds of an improved carbon performance and also in recognition of the generation of renewable energy.

³⁰ Options Appraisal Report & Environmental Report, available from www.solihull.gov.uk

There are clear economies of scale for food waste treatment services, with typical industry experience showing that a minimum of 20,000 tonnes of food waste would be required to make a dedicated anaerobic digestion plant economically viable. Solihull Council, through a dedicated food waste collection, is likely to deliver 4 - 6,000 tonnes of food waste, and Solihull will therefore seek to partner with other authorities to either procure together or utilise their food waste treatment capacity in order to gain sufficient economies of scale. Third party wastes such as from large food producers or other suitable sources of waste should also be considered in the business case for food waste treatment³¹. Procurement of a food waste collection and treatment service is identified as an action of this Strategy and will, in part, be influenced by the activities of potential partners in the region. For the purposes of projecting recycling performance going forward in the MMWS, it has been assumed that a food waste collection service will come into effect in 2014/15³². This would enable the Borough to keep ahead of national recycling and composting targets as shown in Figure 12.

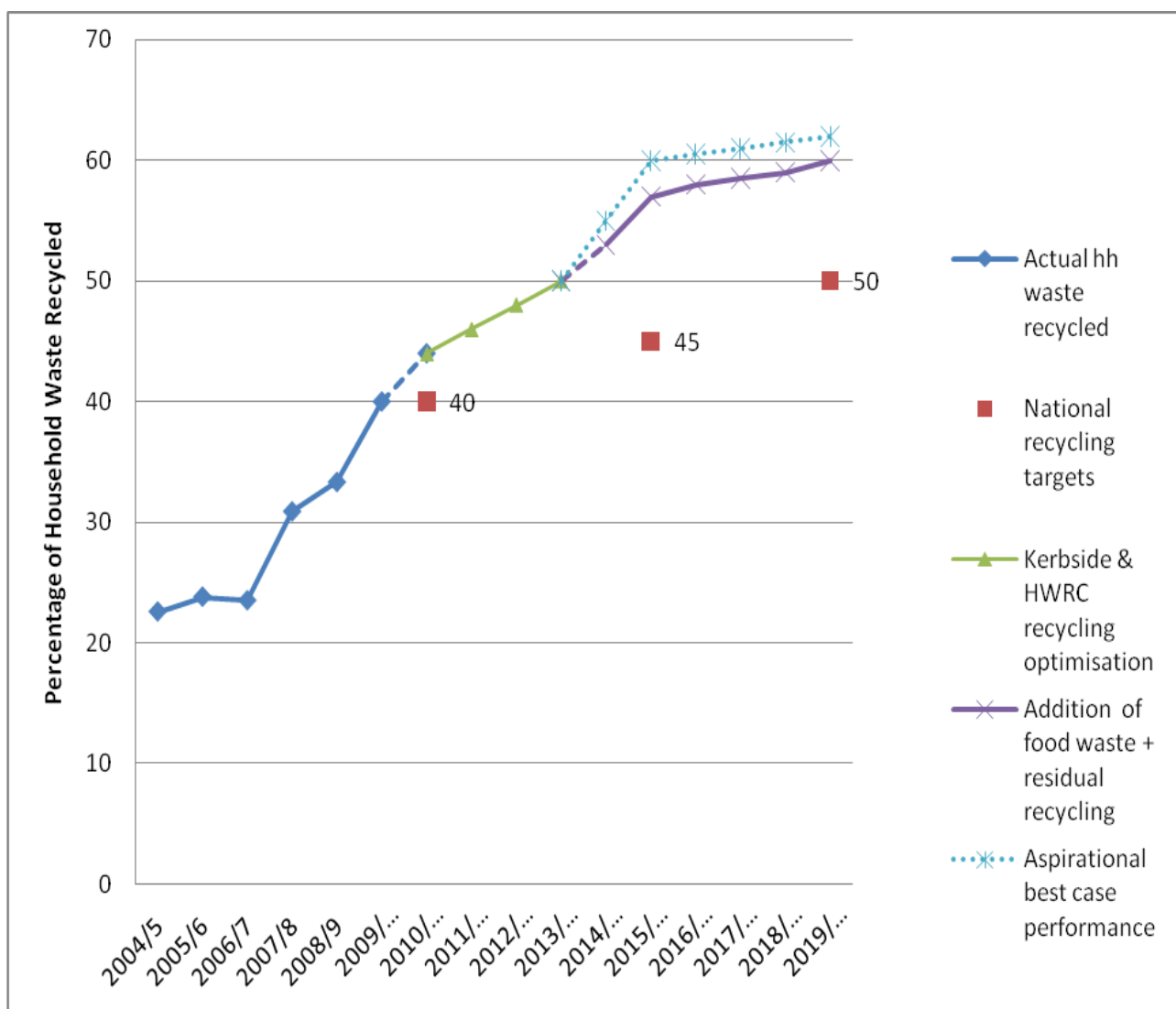


FIGURE 12 ACTUAL RECYCLING & PROJECTED RECYCLING RATES FOR THE WMS PERIOD

³¹ For example the Biffa AD plant has a supply of waste from Sainsbury’s and the Ludlow Biogen AD plant has commercial links with Marks & Spencer

³² It should be noted that the timeline from the commencement of procurement to the construction and then operation of an Anaerobic Digestion / In Vessel Composting facility is usually around 3 years.

Evaluation of the Recycling Collection service

As described previously in this document, there have been several major changes to the recycling collection system, the effects have not been fully realised at the time of writing. The kerbside box / reusable sack recycling collection, supported by the wheeled bin residual waste collection was rolled out across the Borough in the latter half of 2009/10. It is likely that the success of this scheme will only be understood by 2011 when the system is well established. This will also be an opportunity to investigate food waste collection options, the potential for adding further materials to the kerbside collection and to consider the effectiveness of the kerbside box recycling system. It should also be noted that the current contract for the collection of waste and recyclables expires in 2015 (albeit with the option of several extensions), and therefore procurement decisions should be assessed around 2011 to allow any exploration of alternative contractual arrangements to be considered in accordance with the procurement cycle.

Residual Waste Recycling

The Option Appraisal process also considered the potential for recycling elements of residual (wheelie bin) waste via a generic residual waste treatment solution (noting that the actual solution will be subject to a future procurement process after the end of the life of the existing EfW facility - for details see the next section of this Strategy). It is possible to extract metals and glass from residual waste fairly readily using a mechanical system of shredders, magnets and screens ('sieve' type devices). This material would then contribute towards recycling rates, hence consideration in this section of the Strategy. The Options Appraisal found that, by applying a generic technology for residual waste recycling, around 2.5% could be added to the Solihull recycling rate through such a system, however the costs of delivering this recycling was disproportionately high compared to other recycling options, as all the residual waste would need to pass through a mechanised 'pre-treatment' facility in order to deliver this level of recycling. It was considered the least preferable solution in the Options Appraisal, compared to the alternative options explained previously in this section. Due to the ongoing treatment of residual waste in the Coventry & Solihull EfW facility for the life of this Strategy, no further actions are identified for this option. However as a result of changes to the Government interpretation of recycling,³³ within the latest Solihull recycling performance projections (Figure 12) it has been assumed that any residual waste treatment option (including the EfW plant) contributes around 1% to the recycling rate of the Borough.

Schools Recycling Activity

Solihull Council is proactive in engaging with schools and delivers around 20 school / college visits per year, giving talks that include recycling and composting information. This is supported by paper recycling collections that have been introduced over the past two years in over 60% of schools in the Borough. Solihull Council intends to add further materials to the schools recycling collections after the new household kerbside recycling collection is fully established and proactively engage with schools to increase the proportion participating in the recycling collections to 80% by 2012 and 95% by 2014. This also links with the wider Government

³³ All residual waste treatment options extract metals for recycling and this counts as recycling performance from either thermal or biological treatment activities, as explained in the Defra interpretation of the revised EC Framework Directive on Waste, 2010

agenda of Eco-schools and seeking to make schools and education consider sustainability issues.

Solihull Council has encouraged competitions for recycling in schools, including a 'Yellow Pages' recycling competition with book vouchers given to the school with the most paper collected per pupil. Furthermore, textile recycling days have taken place in a number of schools, where pupils are encouraged to bring in unwanted textiles for which the schools receive the income from the sale of the textiles, through a service operated by a third party contractor.

These activities are linked to other waste management activities in schools as explained in the 'Prevention & Reuse' and 'Education & Communications' sections of this Strategy.

Recycling & Composting Targets

Solihull Council will seek to deliver the following targets through the actions identified in this WMS:-

- 80% of schools participating in the recycling service by 2012
- 95% of schools participating in the recycling service by 2014
- 60% minimum recycling rate (excluding rubble) for the Household Waste Recycling Centre at Bickenhill by 2015, with a (stretched) aspiration of delivering a 70% recycling rate by 2020
- 60% household waste recycling rate for Solihull by 2020, with a (stretched) aspiration of delivering this rate earlier (by 2015) where practicable

Carbon Saving:

The actions identified in this strategy will save the following amounts of Carbon Dioxide (CO₂) equivalents per annum:-

Optimising the new dry recyclables kerbside collection = 1100 tonnes CO₂

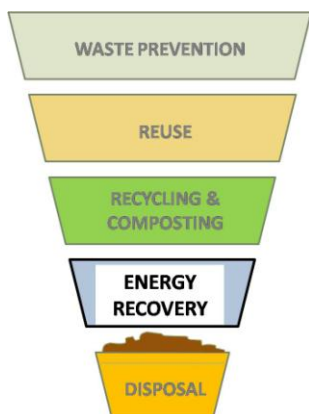
Enhancing HWRC performance = 4055 tonnes CO₂

Adding a Food Waste collection with Anaerobic Digestion = 70 tonnes CO₂

Adding further materials (other plastics, aluminium foil, textiles) to the dry recycling collection = >4,000 tonnes of CO₂ saving

Total saving through the main recycling & composting actions of this Strategy = >9,000 tonnes of CO₂ equivalent per annum

(NB: The carbon figures have changed from the Options Appraisal / Environmental Report data due to a new release of the WRATE software tool, the above figures are modelled using the latest version)



Treatment & Recovery

The current residual waste treatment process for municipal waste from Solihull is the Coventry and Solihull Energy from Waste plant.

Energy from Waste (EfW) is a treatment where waste is combusted at high temperatures and uses the heat generated to drive steam turbines to generate electricity. This is partly 'renewable energy' and counts towards Government green energy targets.

Solihull is currently well positioned with regard to treatment and recovery of municipal waste, as the majority of its residual (or 'wheelie bin') waste is sent to the Coventry and Solihull Energy from Waste plant in Coventry. This plant is operated by the Coventry & Solihull Waste Disposal Company, an 'arms length' local authority company jointly owned by the authorities of Coventry City Council and Solihull Metropolitan Borough Council.

The EfW plant provides good value for money and Solihull currently pays amongst the lowest disposal costs in England through this facility. The Energy from Waste plant is envisaged to continue to operate throughout the life of this Strategy and potentially up to 2040 (with appropriate refurbishments).

Solihull Council is working in partnership with Coventry as regards supply of waste into this facility, and as the residual waste treatment process is not an option for review we have not sought to undertake a detailed options appraisal through this Strategy.

We have however consulted with stakeholders to inform the discussions around selection criteria that may inform any future procurement evaluation process, and undertaken a high level review of all key technology options in terms of their environmental impact. Details of this review are contained in the Environmental Report³⁴.

The consideration of the environmental impacts of the treatment and recovery options highlighted that almost all of the likely options recover some materials (e.g. recycling) and also some energy (e.g. use as fuel / energy feedstock) from the residual waste. There are widely varying carbon performances from different treatment solutions, and it is likely that a more detailed appraisal of options will be required as the EfW plant reaches the end of its life.

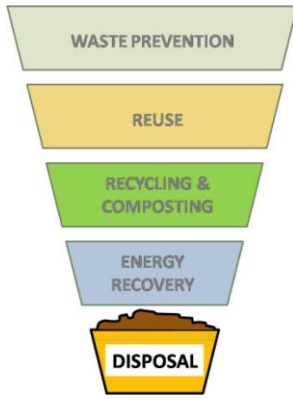
It should be noted that at the time of the draft Solihull Waste Strategy, the Council was seeking to procure a replacement waste treatment facility with PFI funds from Government, however subsequent work has shown that the existing EfW facility is in an appropriate condition to continue treating waste potentially until 2040.



³⁴ Available at www.solihull.gov.uk

Carbon Saving:

The current residual waste treatment option will be maintained for the period of the Solihull Waste Strategy, therefore no additional carbon benefits are identified here. Key carbon benefits will be realised by diverting more waste away from the residual waste stream through recycling, reuse and waste prevention, and the carbon savings are highlighted in these sections of the waste Strategy



Disposal

Disposal is the least preferable option in the waste hierarchy and it usually refers to the practice of landfilling without any energy recovery.

The disposal of waste to Landfill is considered to be the least environmentally acceptable method of managing wastes, and this is borne out by the analysis undertaken as part of the Environmental Report during the development of this Strategy³⁵. At present Solihull is one of the best performing authorities in the UK for avoiding landfill, sending only around 18% of waste to landfill compared to the national figure of 50%³⁶.

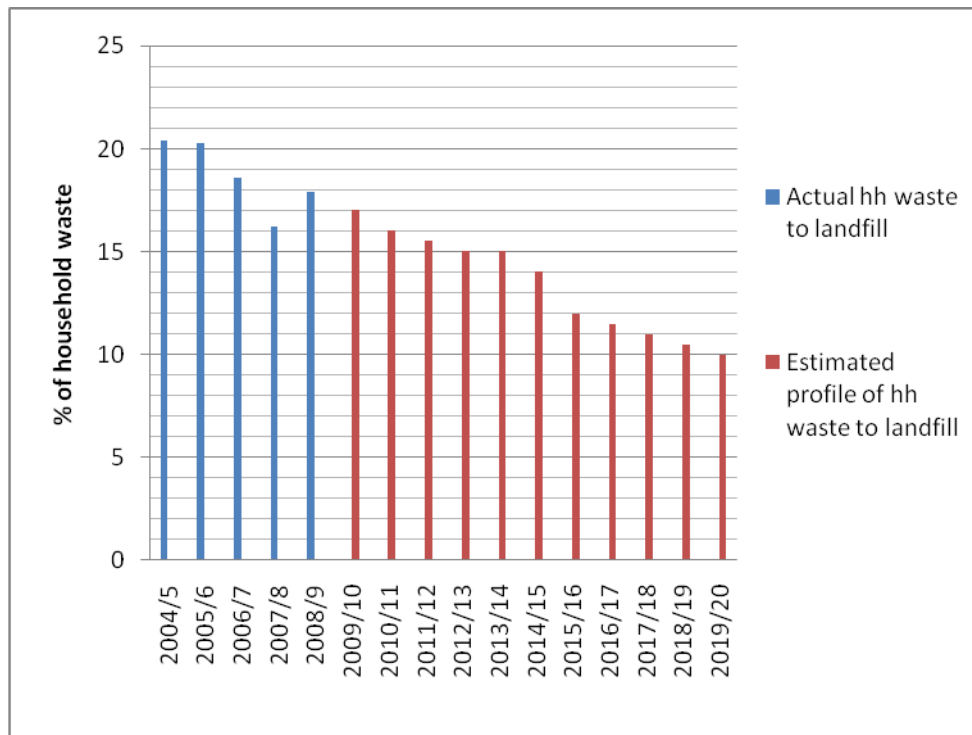


FIGURE 13 ACTUAL AND ESTIMATED PROJECTIONS OF SOLIHULL HOUSEHOLD WASTE TO LANDFILL

It is envisaged that the amount of waste sent to landfill should decrease over time in response to actions within this strategy and refurbishment / improvement to the Coventry and Solihull EfW plant. The improvements to the Household Waste Recycling Centre (see Recycling & Composting section of this Strategy) will reduce the amounts of waste going to landfill from this (the predominant) source..

We consider that a reasonable target for landfill diversion for 2020 is a maximum of 10% landfilling of household waste in the light of the above considerations.

³⁵ The scenario where landfill was the option for all residual municipal waste emitted ~12,000 tonnes of Carbon dioxide equivalent more per annum than the best performing scenario, under the Life Cycle Assessment. This is described in the Environmental Report available from www.solihull.gov.uk

³⁶ Defra Municipal Waste Management Statistics 2008/9

There is another incentive for diversion of waste from landfill in the form of the Landfill Allowance Trading Scheme (LATS), which is a mechanism developed by Government to reduce the amount of biodegradable municipal waste (BMW) going to landfill. This mechanism imposes a reducing amount of landfill permits to each authority, up to 2020. Each permit allows deposit of one tonne of BMW into landfill. If the amount of landfilling exceeds the number of permits then the authority will need to buy further allowances from another authority with excess permits³⁷, provided that there is a demand. Conversely, those authorities that landfill less than their allowance can sell their surplus permits. Solihull is in a strong LATS position and anticipates excess allowances to sell throughout the period to 2020.

Landfill Target

Solihull Council will seek to reduce the use of landfill to a level of 10% of household waste by 2020.

Carbon Saving:

Reducing landfill, particularly of biodegradable materials, will always result in improved carbon performance, the extent to which this improvement equates to tonnes of CO₂ diverted will depend on the residual waste management approach utilised to replace the landfill. The CO₂ savings of this activity have been predominantly identified in the previous sections of this WMS

³⁷ Or risk facing a Government fine of £150 / tonne

Wider Wastes

The consideration of wider wastes, for example wastes from commercial or industrial sources (see Figure 1), in parallel with municipal waste management, can yield economic and environmental benefits. For example, waste treatment and recycling facilities often exhibit economies of scale (i.e. the larger the capacity of the plant, the lower the cost per tonne of waste going through it), and environmental gains can also be made through blending different waste streams to optimise plant performance.

Government policy is also promoting closer synergies with the combined management of different waste streams, and whilst it is only a duty of the local authority to manage *municipal* waste, there are a number of approaches that can be taken to support the management of wider wastes.

Trade Waste

Where commercial waste is collected by or on behalf of a local authority this is usually referred to as 'trade waste' and also falls under the broader definition of Municipal Waste (see Figure 1 and 'Introduction' section). At present Solihull Council can arrange for collection of waste from commercial inquirers through referral to a private contractor to deliver the service but there is no dedicated service provided under contract to Solihull Council. As a consequence, there is limited or no trade waste in the Solihull Council municipal waste stream and therefore no direct influence that the Council can have on the management of waste from this source. This is considered a potential limiting factor in the current service relative to recent Government policy³⁸ and the wider objectives of this WMS. Solihull Council will therefore assess options for developing trade waste services in order to provide sustainable waste management solutions for the commercial premises in the Borough. As a first step the Council will also run a trial trade waste recycling service, in partnership with relevant parties, at an appropriate site (e.g. town centre / industrial estate / retail park) in Solihull to assess the benefits of such systems for the encouragement of separation and recycling of commercial waste. By 2011/12 the Council will seek to implement a 'recycling led' trade waste collection service to provide a high quality sustainable waste management solution for companies in the Borough. Following the establishment / procurement of a trade waste collection service, appropriate recycling targets will be set to provide a focus for achievement and good practice in recycling performance. The aim of delivering a minimum of 50% recycling rate will be the initial focus of the trade waste collection service.

Solihull will adopt the following approaches for trade and other wider waste streams as summarised in table 3.

Approach	Purpose	Action
Point of Contact	Solihull Council to provide a signposting service for producers of non municipal waste to appropriate waste facilities, services and infrastructure for improving management of waste and use of	Solihull Council identify a post with responsibility for responding to queries on wider wastes and assembling materials, references and contacts in this regard. The

³⁸ Commercial & Industrial Waste in England – Statement of Aims and Actions 2009

Approach	Purpose	Action
	resources	post to liaise with and brief other council officers with direct contact with the commercial / industrial sector (e.g. Environmental Health Officers, Trading Standards etc).
Facilitating improvement	Solihull Council will seek to engender improvements in the management of non municipal waste by supporting and promoting developments such as waste exchanges, the work of Government bodies such as NISP / WRAP.	Solihull Council to develop and maintain an area of the Council website with links to tools, toolkits, case studies, sources of information and websites for the sustainable management of non municipal waste. Keep the information up to date with a 6 monthly review of links and add new information where and when appropriate.
Disseminating Good Practice	Solihull Council will participate on Environmental Fora (e.g. CBI, Business Link, WRAP / NISP) and provide presentations on Council activities. Key initiatives will also be reported to the Solihull Partnership.	Solihull Council post, to actively participate in regional / sub-regional business environment fora, and deliver at least two presentations each year to interested groups covering activities on waste prevention, reuse, recycling, treatment and other activities.
Procuring Capacity	Where the Council is seeking to procure municipal waste management infrastructure, to proactively consider the benefits of also accepting third party wastes.	During procurement of future municipal waste infrastructure, the council should consider incorporating third party wastes in the appraisal of options in order to inform the business case for the procurement.
Specifying / Procuring	An evaluation of purchasing and specifications of Solihull Council procurements, to seek to 'buy recycled' and specify recycled content / use of secondary raw materials	The waste management section & the Sustainable Development section of the Council will liaise over procurement

Approach	Purpose	Action
Developing Trade Waste Services	To provide a sustainable waste management collection and recycling service for commercial businesses in the Borough	<p>To review options for a trade waste collection service and develop a business case</p> <p>To develop a trade waste recycling pilot collection at a town centre / retail park / industrial estate or similar location</p> <p>To promote and offer a 'recycling led' trade waste collection service, subject to the findings of the Options Review and Business Case</p> <p>To set challenging recycling targets for the service in 2012, leading to a minimum of 50% recycling rate</p>

TABLE 3 ACTIONS ON WIDER WASTES

Carbon Saving:

The potential carbon saving of facilitating improvements in the management of non municipal waste, will depend on the extent to which initiatives are successful and the particular waste management option utilised. There will be considerable variation in the savings that could be realised, however the potential could be significant (thousands of tonnes of CO₂ equivalent per annum).

Leading from the Front – What is the Council doing?

Solihull Council has identified a need to improve its own environmental performance. It has made this one of the key objectives of this Waste Management Strategy and seeks to develop sustainable waste management practices through its offices, depots and in the delivery of services and those of its strategic partners.

The Solihull Council Climate Change Strategy (2009) also supports this approach and states as its strategic objectives, to:-

1. Reduce the Council's carbon, waste and water footprint
2. Understand the impact climate change may have on Council buildings, land and services and identify how they can be adapted to ensure future delivery of service
3. Lead the community in tackling climate change through direct influence, communication and engagement

Actions by Solihull Council have been placed as a central focus of this Strategy. The Council has demonstrated its commitment to sustainable procurement in construction projects, but needs to develop its in-house activities in order to fulfil the objectives of reducing its waste, carbon and water footprint. As regards carbon impacts the Council has announced it will report against the National Indicator No. 185, which is reporting the CO₂ reduction from local authority operations. Through this WMS Solihull commits to undertake the following:-

Approach	Purpose	Action
Measuring Current Performance	Conducting a waste audit of the main Council offices / premises to establish a baseline of waste arisings and obtain / use appropriate data to estimate waste composition	Solihull Council ³⁹ to identify a post with responsibility for in-house waste management and the resource to undertake the in-house audit in the year 2010/11.
Facilitating improvement	<p>Solihull Council will partner with the collection contractor to identify separate recycling collections from the council premises, and establish in-house collection systems.</p> <p>Solihull Council post responsible for developing the in-house initiatives to work with communications team and Sustainable Development department of the Council to prepare good office practice communications materials to seek to reduce, reuse and recycle where practicable.</p> <p>Solihull Council to adopt Sustainable</p>	<p>Solihull Council to lead discussions with collection contractor, procure in-house containers and develop in-house communications materials for sustainable waste management, including prevention, reuse and use of the recycling collection systems during 2010/11, with a view to implementing the systems in 2011/12 across all key sites.</p> <p>Solihull Council post to work</p>

³⁹ The Sustainable Development team and Waste Management team are the key resources for advancing these actions

Approach	Purpose	Action
	Procurement principles and practice for in-house procurement.	with in-house procurement team as regards adopting the IDEA / LGA guidance on Sustainable Procurement. To request the environmental credentials of suppliers and other strategic partners with the Council to encourage and incentivise improved environmental performance from SMBC stakeholders.
Setting Targets, Monitoring and Evaluation	<p>Annually audit waste arisings and recycling performance. An initial target of 25% recycling of Council waste should be considered as an initial challenging target, with an aim of delivering this level of performance within three years of implementing the collection system. Beyond attainment of this target further recycling targets should be implemented with the ultimate aim of reaching 60% recycling by 2020.</p> <p>An initial target of zero growth in the waste arisings of the Council within two years of the baseline audit, and further targets around reduction of arisings (or reduction in growth if appropriate) at 0.5% per annum thereafter.</p>	<p>Solihull Council post, to manage and facilitate the waste audit and publicise progress in terms of waste targets on an annual basis, reported in June of each year based on the previous financial year performance.</p> <p>Standard metrics should be applied to derive the carbon benefits of the improved waste management practice.</p> <p>The Head of Waste Management should be responsible for setting future 'in-house' recycling targets and facilitating delivery of those targets, including waste growth targets in liaison with the Sustainable Development team and the Council waste post responsible for developing internal waste management improvements.</p>

TABLE 4 COUNCIL ACTIONS TO IMPROVE INTERNAL SUSTAINABLE WASTE MANAGEMENT

Education & Communications

The success of this strategy will depend on engaging residents with information and encouraging participation in new initiatives and practices to help improve the management of our wastes. This will involve the Council providing services that are inclusive, accessible, easy to use and supported by clear communications that explain the 'why' as well as the 'how' to use the services. The former aspect will include the link to climate change and carbon benefits of improved waste management. Where these carbon benefits can be quantified they should be displayed and publicised alongside other (tonnage based) information on the services.

The appraisal of options that has informed the strategy included two key actions for which communications are a central element:-

1. Optimisation of the current kerbside recyclables collection (see the Recycling & Composting section)
2. Launching a Solihull 'Love Food, Hate Waste' Campaign of food waste prevention, combined with promotion and use of home composters (see Waste Prevention & Reuse section)

The communications aspects required for the different initiatives is likely to utilise various techniques as explained below, however key aims of the campaigns are likely to include:-

- Informing the public about how to recycle smartly
- Securing the public's help in recognising what can be recycled and to encourage separation of recyclable materials
- Acceptance that Mini Recycling Centres and the Household Waste Recycling Centre are important supporting elements of the service
- Explaining the benefits of recycling and the potential for action, including the concepts of Act Local: Think Global
- Winning over those less likely to recycle

The new kerbside recycling collection is supported by a communications activity resourced by a dedicated post. This WMS identifies that a cost effective method of increasing recycling to beyond 40% is to build upon this initial communications activity with supporting communications activity to enhance the performance of the system. This is likely to involve face to face support to householders that are not fully participating in the new scheme, in order to explain the benefits of the service and maximise the amount of recycling that is collected through the system. This will again require resource from the waste management budget, supported by expertise from the Communications department of the Council, to establish a strategy for engaging with householders. Such an initiative could take place potentially through partnerships with the third sector (e.g. community groups and the use of volunteers – 'Recycling Champions'). The collection operatives will also provide an important contact point for residents and therefore relevant campaigns should be developed in conjunction with the service provider (Enterprise Ltd) to ensure an effective and cohesive message is conveyed through the service.

It is recommended that the communications activity should be planned during 2010/11 (the first full year of the new collection system) and implemented in 2011/12. During the planning stage, intelligence should be gathered on the strengths and weaknesses of the recycling collection system in terms of system performance. This will help identify the areas of focus for the



communications activity, for example it may be appropriate to provide further information to householders on which materials should be recycled and which should not be (e.g. clear guidance on which plastics can / cannot be placed into the recycling sacks). Or alternatively if some recyclable materials are not being captured or if contamination of recycling loads is found to be a problem, alternative messages can be devised. Different issues will require different approaches, messages and resources in terms of the communications activity. In addition the review of the effectiveness of the current system is likely to link to any service improvements that may be made in order to overcome barriers to participation as highlighted in the Recycling & Composting section of this Strategy.

The campaign to tackle food wastes can be developed from experience in other areas where similar campaigns have been conducted (e.g. Kent Waste Partnership, Sandwell MBC, City of York Council & Cumbria County Council). There is considerable support available from the Waste & Resources Action Programme (WRAP) for the 'Love Food, Hate Waste' campaign and there may also be funding from WRAP for communications activities. The campaign will also be linked to home composting promotion and the two aspects supported by communications methods identified through a dedicated strategy. Examples of successful methods employed in other areas to raise awareness of these issues include:-

- Roadshows to promote the messages within the campaign
- Links with local and celebrity chefs to promote recipes for use of left overs
- Competitions and links with local radio stations to promote the message
- Dedicated website for Solihull residents with news on the campaign, materials and useful links⁴⁰

In addition the implementation of a food waste collection system in the medium term will require dedicated communications activity and a wider public engagement campaign.

Education & Schools Activity

Solihull Council is proactive in engaging with pupils at on recycling and resource management topics and deliver ~20 school visits per annum with presentations on such issues. This is an important element of engaging with the community and educating a new generation on environmental awareness, personal responsibility and that small individual actions can lead to collective environmental benefit.

The current programme of engaging with schools and taking the role as a community leader in the management of municipal waste should be maintained for the duration of this Strategy with a target of at least 25 school visits per year to be delivered by Council staff. The presentations should deal with the available services both in school (as explained in previous sections of this Strategy) and in the wider community, and should also make the link with climate change, energy and resource management. Street cleansing issues such as littering will also continue to be addressed including reference to enforcement issues as necessary.

⁴⁰ This can be provided via WRAP

Where will the Strategy take us?

This Waste Management Strategy is founded on the principles of developing a more sustainable waste management service. This means reducing the impacts on the environment and implementing changes that maintain an efficient and accessible service for householders. The important driver of moving waste up the hierarchy, away from disposal and to more beneficial use of resources is a central theme of this strategy. Figure 14 illustrates where this strategy takes us, from a 2008/9 baseline, to the final year of the WMS, in the context of the waste hierarchy.

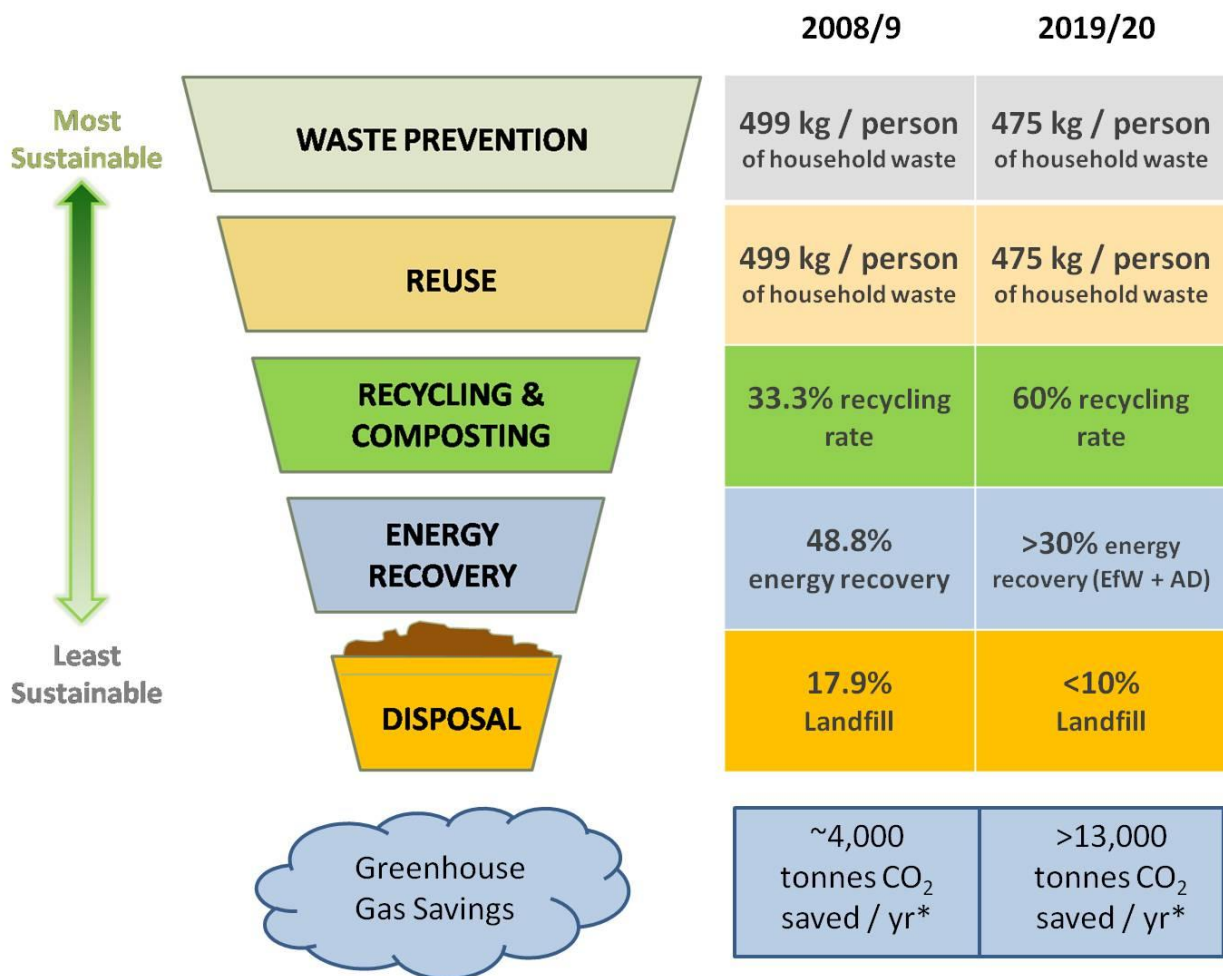


FIGURE 14 CURRENT & PROJECTED PERFORMANCE AGAINST THE WASTE HIERARCHY

* Carbon Dioxide equivalents, expressed as savings because the municipal waste management saves more carbon (predominantly through recycling and energy recovery) than it emits through collection and disposal

Monitoring & Review of the Strategy

The Waste Management Strategy will be reviewed every 5 years or where a substantial change in legislation, policy or other circumstance warrants a review outside of that timescale. The next scheduled review of the Strategy will therefore be in 2015. The Strategy is supported by an Action Plan which includes short, medium and long term actions and identifies responsibilities to support the delivery of the Strategy. The Action Plan is also available at www.solihull.gov.uk. Interim and long term targets form a major component of the Strategy and these will be monitored and reported annually to determine overall performance against key strategy areas. The Environmental Report also includes key sustainability indicators for assessing the performance of the Strategy.

Glossary of Terms & Abbreviations

Anaerobic Digestion (AD) – degrading organic wastes in a sealed vessel in the absence of oxygen to derive a combustible biogas and leave a solid and / or liquid digestate, that may, under certain limitations, be applied to land.

Best Value – places a duty on local authorities to deliver services (including waste collection and waste disposal management) to clear standards – covering both cost and quality – by the most effective, economic and efficient means available

Carbon Dioxide (CO₂) – the most common ‘greenhouse gas’ – a contributor to climate change. The impact on climate change of a process is usually measured as Carbon Dioxide equivalents, in order to provide a common unit of measurement

Civic Amenity site – see Household Waste Recycling Centre

Commercial waste – waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding municipal and industrial waste

Community sector – including charities, campaign organisations and not-for-profit companies

Composting – an aerobic, biological process in which organic wastes, such as garden and kitchen waste are degraded to form a compost that may usually be beneficially applied to land

DEFRA – Department for the Environment, Food and Rural Affairs

EU Directive – a European Community legal instruction, which is binding on all Member States, but must be implemented through the legislation of national governments within a prescribed timescale

Energy from waste (EfW) – a term including a variety of technologies, although most energy recovery is through incineration with electricity generation taking place via the heat generated by the combustion (using a steam circuit)

Garden waste – Vegetation and plant matter from household gardens, local authority parks and gardens and commercial landscaped gardens

Green waste – see also Garden waste

Home composting – compost can be made at home using a traditional compost heap, a purpose designed container, or a wormery

Household waste – this includes waste from household collection rounds, waste from services such as street sweepings, bulky waste collection, litter collection, hazardous household waste collection and separate garden waste collection, waste from civic amenity sites and wastes separately collected for recycling or composting through bring or drop-off schemes, kerbside schemes and at civic amenity sites

Household Waste Recycling Centre (HWRC) – also known as a ‘Civic Amenity site’ under regulations. A site at which householders can deposit household waste free of charge, usually combined with recycling facilities.

Industrial waste – waste from any factory and from any premises occupied by an industry (excluding mines and quarries)

Kerbside collection – any regular collection of recyclables from premises, including collections from commercial or industrial premises as well as from households. Excludes collection services delivered on demand

Landfill Allowance Trading Scheme (LATS) - a mechanism developed by Government to reduce the amount of biodegradable municipal waste (BMW) going to landfill. This mechanism imposes a reducing amount of landfill permits to each local authority, up to 2020. These permits are tradable and each allow deposit of one tonne of BMW into landfill. There are penalties for failing to satisfy obligations.

Landfill sites – are areas of land in which waste is deposited. Landfill sites are often located in disused quarries or mines. In areas where there are limited, or no ready-made voids, the practice of landraising is sometimes carried out, where some or all of the waste is deposited above ground, and the landscape is contoured

Metropolitan Authority – a classification of some, predominantly urban, local authorities

Mini Recycling Centre (MRC) – A localised collection point for deposit of recyclates, e.g. glass, paper and cans. These are usually in the form of one or more banks for each material.

Municipal waste – this includes household waste and any other wastes collected by a Waste Collection Authority, or its agents, such as municipal parks and gardens waste, beach cleansing waste, commercial or industrial waste collected by the Council, and waste resulting from the clearance of fly-tipped materials

On-Street Recycling – Provision of ‘litter bin’ style recycling receptacles for the types of materials occurring in urban retail or commuter type environments.

Prevention – Changing living practices or behaviours to avoid the generation of waste that would have otherwise occurred (e.g. using Real Nappies as opposed to disposables or registering to avoid receiving Junk Mail).

Producer responsibility – is about producers and others involved in the distribution and sale of goods taking greater responsibility for those goods at the end of the product’s life

Recovery – a term that means where energy or material value is derived from waste, for example through recovering energy by combusting waste and generating electricity from the heat.

Recycling – involves the reprocessing of wastes, either into the same product or a different one. Many non-hazardous industrial wastes such as paper, glass, cardboard, plastics and scrap metals can be recycled. Hazardous wastes, such as solvents can also be recycled by specialist companies, or by in-house equipment

Reuse – can be practised by the commercial sector with the use of products designed to be used a number of times, such as reusable packaging. Householders can purchase products that use refillable containers, or re-use plastic bags. The processes contribute to sustainable development and can save raw materials, energy and transport costs

Strategic Environmental Assessment (SEA) – The process by which programmes and plans are appraised as to their impact on the environment, in the context of guiding policy and legislation, and with mitigations proposed for any impacts.

Sustainable development – development which is sustainable is that which can meet the needs of the present without compromising the ability of future generations to meet their own needs

Sustainable waste management – means using material resources efficiently, to cut down on the amount of waste we produce. And where waste is generated, dealing with it in a way that actively contributes to the economic, social and environmental goals of sustainable development

Treatment – involves the chemical or biological processing of certain types of waste for the purposes of rendering them harmless, reducing volumes before landfilling, or recycling certain wastes

Unitary Authority – a local authority which has the responsibilities of both Waste Collection and Waste Disposal Authorities

Waste – is the wide ranging term encompassing most unwanted materials and is defined by the Environmental Protection Act 1990. Waste includes any scrap material, effluent or unwanted surplus substance or article for which the owner intends to discard

Waste arisings – the amount of waste generated in a locality over a given period of time

Waste Hierarchy – suggests that: the most effective environmental solution may often be to avoid waste generation – *prevention*; where further prevention is not practicable, products and materials can sometimes be used again, either for the same or a different purpose – *reuse*; failing that, value should be recovered from waste, through *recycling, composting or energy recovery from waste*; only if none of the above offer an appropriate solution should waste be *disposed of*

Waste Management Strategy (WMS) – The document setting out the vision, objectives, targets, policies and actions for the management of municipal waste arising in a local authority area.

Waste streams – Waste generated from different sources

