WARWICKSHIRE'S MUNICIPAL WASTE MANAGEMENT STRATEGY

Produced by the Warwickshire Waste Partnership

Adopted October 2005 Updated December 2013

FORWARD

What we do with our waste can have an environmental impact for generations. The world is consuming resources at a rate the planet cannot sustain and it is recognised that the mass landfilling of waste contributes significantly to climate change.

Nationally, the government is looking closely at how waste is managed and local authorities, businesses and communities are being asked to play a part in using resources more responsibly.

It is now time to move the story on in Warwickshire, and to see it in the realistic light of the situation we find ourselves in. With the economy struggling and public services facing funding cuts, we need to recognise that waste and recycling are also economic issues.

The fact is that taxpayers will be better off, the economy will benefit, and more people will have jobs if we manage our waste more sustainably. We owe it to our taxpayers to support and encourage this change.

This Waste Strategy Update has been produced jointly by the Warwickshire Waste Partnership. We have consulted key stakeholders and the public as part of the development process and we will continue to do so, as appropriate, throughout its implementation.

You will find within this updated Strategy a continued commitment to sustainable waste management. As partners, we recognise that we must continue to work together in order to achieve the targets we have set ourselves, for reducing residual waste and increasing re-use, recycling and composting.

I would like to thank the public for embracing the changes to their waste services and working with us to begin to manage their waste in a more sustainable manner. We have now set further challenging waste reduction and recycling targets for the next seven years and look forward to working with all stakeholders to meet these targets which will result in both savings to the taxpayer and benefits to our local economy and environment.

Councillor Jeff Clarke Chair, Warwickshire Waste Partnership

EXECUTIVE SUMMARY

This Waste Strategy update provides an updated framework for managing waste in Warwickshire up to 2020.

The Partnership has made great progress since the strategy was originally adopted in 2005 and has even achieved some of the key targets/actions before the original 2020 goal.

As part of the update process the Partnership have renewed support for the following 2005 strategy objectives:

- To reduce the amount of waste generated in Warwickshire
- To develop integrated, sustainable solutions for managing waste in Warwickshire
- To meet and exceed national re-use, recycling and composting targets
- Work in partnership with each other and other stakeholders to produce and implement the Strategy
- Encourage public participation in the implementation and review of the Waste Strategy
- Regularly review and update the Strategy and implementation programme

One of the original objectives 'To meet landfill diversion targets established by the WET Act 2003 (diversion of BMW)' has been removed from the updated strategy, as it is no longer applicable due to changes in legislation. The objective to remove biodegradable (and other) waste from landfill is reflected in the other objectives and targets within this strategy.

The key legislative drivers section contains information on changes and updates to key legislation and policies that have taken place since 2005, such as the revised European waste framework directive and associated national legislation, the waste hierarchy, the WEEE directive and the Localism Act.

Since 2005 Warwickshire has seen an increase in population of over 10% however waste has decreased by around 16% over the same period although most recent trend analysis has shown that waste has again started to increase.

Since 2005 there have been some dramatic improvements in the kerbside collection services provided by the district and borough councils. In particular we will have seen the collection of residual waste change from weekly to fortnightly collections across all five district areas by the end of 2013, a countywide introduction in the collection of food waste in with the garden waste (biowaste), an expansion in kerbside co-mingled dry

recycling and a reduced reliance on bring banks. The household waste recycling centres have also seen changes in terms of infrastructure improvements and a rise in the recycling performance levels from 32.5% in 2005 to 56% in 2012/13.

Overall the countywide recycling performance has increased from 29.90% in 2005/6 to a combined re-use, recycling and composting rate of 52.2% in 2012/13.

The cost of the waste management service has also risen dramatically from a total cost (collection and disposal) of £14m in 2003/4 to around £30m per annum in 2012/13.

However, the results of the most recent composition analysis indicate that much more can be done. The study showed that almost 48% of kerbside collected residual waste and 66% of the residual waste analysed from our HWRCs is recyclable within our current kerbside and HWRC recycling systems.

In order to achieve new requirements laid down by the Waste Framework Directive and move waste up the waste hierarchy the Partnership has set itself two key targets for the remaining strategy period:

- Aim to reduce residual waste produced to a maximum of 311kg per household, per year, by the end of the strategy period (2020)
- Aim to achieve a countywide reuse, recycling and composting targets of 65% by the end of the strategy period (2020)

The updated Strategy will be supported by an implementation plan, which will set out how the Partnership aims to deliver the objectives and targets. The plan will be a 'living' document and will be monitored and updated by the waste partnership officers on a regular basis.

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1 Introduction

1.1 The purpose of the waste strategy

The Waste Strategy provides a framework for managing waste in Warwickshire up until 2020. The Warwickshire Waste Partnership have worked together to produce two documents; a Joint Municipal Waste Management Strategy (JMWMS) and a Waste Minimisation Strategy which were adopted in 2005 and 2007 respectively. These two documents focus on waste prevention, minimisation, recycling and composting, as well as paving the way for projects and contracts that provide an alternative to landfill.

This strategy document updates the original JMWMS and waste minimisation strategies. The focus of this document is to look at; updates to policy and legislation, changes in Warwickshire population levels, improvements to waste services, progress made in moving waste up the waste hierarchy and against the objectives set within the 2005 strategy, updated objectives and provision of new targets and key areas for how these targets will be met.

1.2 The need for the waste strategy

In driving waste up the waste hierarchy, we must ensure that the UK meets its EU obligations and targets on waste management. While good progress has been made over the last decade to reduce the volume of waste sent to landfill and increase recycling, there is more to be done. If progress continues we will see the benefits not only in a healthier natural environment and reduced impacts on climate change, but also in the competitiveness of our businesses through better resource efficiency and innovation, helping to create a new, greener economy.

1.3 What the waste strategy covers

This document details how Warwickshire will handle and treat Local Authority Collected Municipal Waste (LACMW); this includes all waste under the control of local authorities or agents acting on their behalf.

Please note that "Municipal waste" as set out in the EU Landfill Directive now includes both household waste and that from other sources which are similar in nature and composition. This includes a significant proportion of waste generated by businesses which is not collected by Local Authorities.

LACMW includes:

- Waste collected households (domestic waste collection),
- Kerbside collected recyclables,
- Kerbside collected garden waste,
- Recycling bring banks,
- Bulky household items,
- Waste from household waste recycling centres (HWRCs),
- Street sweepings and litter,

- Trade/commercial waste managed by local authorities,
- · Hazardous and clinical household waste
- Fly-tipped waste and
- Waste from educational establishments

The strategy does not cover waste from commercial and industrial sources which are managed by the private sector. Therefore this strategy does not cover future requirements, such as treatment plants or landfill capacity, for waste produced from commercial and industrial sources that is managed by the private sector.

1.4 Waste strategy partners

Warwickshire's waste strategy has been developed jointly by officers and elected members from all six authorities within Warwickshire. In Warwickshire there are five waste collection authorities and one waste disposal authority, which are as follows:

Waste Collection Authorities (WCAs)

- North Warwickshire Borough Council
- Nuneaton and Bedworth Borough Council
- Rugby Borough Council
- Stratford-on-Avon District Council
- Warwick District Council

Waste Disposal Authority (WDA)

Warwickshire County Council

The Government expects local authorities to work together to achieve the following:

- Effective working relationships that will deliver a comprehensive Joint Municipal Waste Management Strategy that includes clear objectives and timescales for action.
- Put in place effective arrangements to reduce waste and maximise recycling and recovery. These should achieve the statutory performance for waste.
- Raise awareness of the costs of dealing with waste and the role that individuals can play in reducing waste.
- Involve local people in decisions on waste and work with community schemes to promote reuse and recycling.
- Form consortia and other arrangements that will gain improved terms with reprocessors and other outlets for recyclable materials.

It is currently a statutory duty for local authorities to produce Joint Municipal Waste Management Strategies although this may be reviewed by Defra in the future.

1.4.1 Warwickshire Waste Partnership

The waste collection and disposal authorities work jointly together as the Warwickshire Waste Partnership. The Warwickshire Waste Partnership consists of Officers and elected Members representing the six Warwickshire authorities. The

group was established in 1998, when it was known as the Warwickshire Waste Forum. It was set-up to forge closer working relationships between the County and District/Borough Councils, particularly with respect to developing a joint Waste Management Strategy.

In 2005, the Warwickshire Waste Forum became the Warwickshire Waste Partnership, with a formal Memorandum of Understanding being adopted to promote closer Partnership Working between the Warwickshire Authorities.

The Partnership is responsible for overseeing the development and implementation of the Strategy.

2 Key legislative drivers

As the environmental impact of waste has increased and become better understood, legislation and guidance has been issued concerning the ways in which waste should be managed. Stricter environmental standards along with taxation and other fiscal measures have led to an increased cost of dealing with waste.

In terms of national waste policy the most important influences have originated from the EU Waste Framework Directive and the EU Landfill Directive. These directives are applied through national legislation. Policy aspects cascade down via the latest Guidance, Reviews and Strategies to the local level.

The focus in this section is on changes and updates to policy and legislation that have taken place since the 2005 version of the Warwickshire Waste Strategy was adopted, although key pre-existing principles and legislation are referenced for completeness.

Key drivers for the change in the management of waste:

- EU Waste Framework Directive
 - Waste Hierarchy
- The Landfill Directive
- WEEE Directive
- The Waste (England and Wales) Regulations
- Government Review of Waste Policy, 2011
- Waste Strategy for England, 2007 and National Waste Management Plan for England
 - Waste Prevention Plan
- Localism Act
- · Reduced public spending
- Waste strategy and the planning process

2.1 European Policy and Legislation

The European Union has become the major source of environmental legislation and guidance in relation to the management of waste.

2.1.1 Framework Directive on Waste (75/442/EEC)

The Waste Framework Directive (WFD) was originally issued in 1975 and is the primary European legislation for the management of waste. A revised version of the Directive was adopted in November 2008 [2008/98/EC]. The WFD provides the legislative framework for the collection, transport, recovery and disposal of waste across Europe, including in the UK.

The Waste Framework Directive defines key concepts such as waste, recycling, recovery and disposal and puts in place the essential requirements for the management of waste.

It also establishes major principles such as:

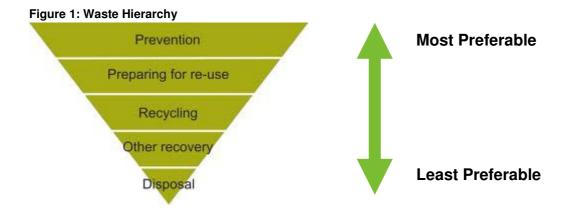
- An obligation to handle waste in a way that does not have a negative impact on the environment or human health;
- A requirement to apply the waste hierarchy as a "priority order" in legislation and policy; and,
- In accordance with the polluter-pays principle, a requirement that the costs of disposing of waste must be borne by the holder of waste, by previous holders or by the producers of the product from which the waste originated.

The key targets within the WFD are:

- The requirement to set up 'separate collections' of waste for at least paper, metal, plastic, and glass by 2015;
- A target to recycle 50% of waste from households by 2020;
- A target to recover 70% of construction and demolition waste by 2020.

2.1.1.1 The Waste Hierarchy

The waste hierarchy sets out five steps for dealing with waste ranked according to environmental impact. A diagram of the Waste Hierarchy is shown in Figure 1:



A definition of each of the stages is provided in Table 1:

Table 1: Waste Hierarchy definitions

Stages	Description
Prevention	Using less material in design and manufacture. Keeping products for longer; re-use. Using less hazardous materials.
Preparing for re-use	Checking, cleaning, repairing, refurbishing, whole items or spare parts
Recycling	Turning waste into a new substance or product. Includes composting if it meets quality protocols.

Stages	Description
Other	Includes anaerobic digestion, incineration with energy recovery, gasification and
recovery	pyrolysis which produce energy (fuels, heat and power) and materials from waste; some backfilling.
Disposal	Landfill and incineration without energy recovery.

Local authorities may consider other factors when making decisions on waste, including social and economic impacts, and technical feasibility. These factors will vary in line with the size of the Authority, the range of materials it handles and its location. The relevance of these factors will have to be considered on a case-by-case basis.

2.1.2 Landfill Directive (1999/31/EC)

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.

The Landfill Allowance Trading Scheme (LATS) introduced fixed allowances for waste disposal authorities (e.g. Warwickshire County Council) for landfilling of biodegradable municipal waste. For each tonne of BMW landfilled without an allowance, the Government could levy a fine of £150.

The Government announced as part of the Review of Waste Policy in England 2011 that it would remove LATS at the end of the 2012/13 scheme year. The Warwickshire Waste Partnership met the final (2012/13) LATS allowance alongside all pre-ceeding annual targets for diverting the required tonnage of BMW from landfill.

The removal of LATS leaves landfill tax as the key driver for diverting waste from landfill. Landfill tax is currently (2013/14) £72 per tonne, and will increase by £8 per tonne to £80 per tonne in 2014/15. The level of landfill tax increase per year beyond 2014/15 has not been confirmed.

2.1.3 Waste Electrical and Electronic Equipment Directive

The Waste Electrical and Electronic Equipment Directive (WEEE Directive) was introduced into UK law in January 2007 by the Waste Electronic and Electrical Equipment Regulations. The WEEE Directive aims to reduce the amount of electrical and electronic equipment being produced and to encourage everyone to reuse, recycle and recover it.

Under the WEEE Directive, the Government has to ensure that the UK has an adequate network of collection facilities for household WEEE. This is to minimise its disposal as unsorted municipal waste. Under the regulations Household Waste Recycling Centre's can be volunteered as Designated Collection Facilities for this waste stream.

2.2 National Requirements

2.2.1 The Waste (England and Wales) Regulations

Revisions to the Waste Framework Directive have been implemented in England and Wales through the Waste Regulations 2011; a revised version of the regulations came into force on 1 October 2012.

The amended Regulations impose a duty on waste collection authorities¹, from 1 January 2015, when making arrangements for the collection of waste paper, metal, plastic and glass, to ensure that those arrangements are by way of separate collection.

These duties apply where separate collection is "necessary" to ensure that waste undergoes recovery operations in accordance with the Directive and to facilitate or improve recovery; and where it is "technically, environmentally and economically practicable".

The duties apply to waste classified as being derived from households and waste that is classified as of commercial or industrial origin.

2.2.2 Government Review of Waste Policy, 2011

The Review of Waste Policy in England 2011 looked at all aspects of waste policy and waste management in England with the aim of ensuring the right steps were being taken to move towards a 'zero waste economy'. The review restates the Government's commitment to ensure that the UK meets its EU obligations as a minimum. In order to meet the EU requirements the UK must produce a National Waste Prevention Plan by 2014 increasing the importance of preventing waste occurring in the first place, as the priority within the Waste Hierarchy.

The key areas of the review for local authorities are:

- The intention to remove the Landfill Allowance Trading Scheme at the end of the 2012/13 scheme year, leaving landfill tax as the key driver for diverting waste from landfill²;
- A commitment to meet the EU revised Waste Framework Directive target to recycle 50% of waste from households by 2020;
- Encouragement for local authorities to make it easier for small and medium size enterprises (SMEs) to recycle, including the introduction of a new Recycling and Waste Services Commitment for businesses;
- A commitment to consult on introducing restrictions on the landfilling of wood waste (with further consultations on textiles and biodegradable waste planned for the future);

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¹ Waste collection authorities are defined under the Environmental Protection Act (1990) and include the District and Borough Council in Warwickshire that are responsible for arranging the waste and recycling collections to households.

² LATS ended at the 2012/13 scheme year

- A consultation with local authorities on the future of Joint Municipal Waste Management Strategies (JMWMS), including the possible removal of the statutory duty to produce JMWMS;
- Encouragement for councils to provide weekly collections of 'smelly' waste;
- Support for rewarding or recognising householders for 'doing the right thing' in relation to waste reduction and recycling;
- Support for anaerobic digestion as a means of dealing with food waste, including the launch of an Anaerobic Digestion Strategy and Action Plan

2.2.3 Waste Strategy for England 2007 & National Waste Management Plan

A National Waste Strategy for England was published in 2007 its main proposals were to:

- Incentivise efforts to reduce, re-use, recycle and recover energy from waste;
- Reform regulation to drive the reduction of waste and diversion from landfill while reducing costs to compliant business and the regulatory agencies;
- Target action on materials, products and sectors with the greatest scope for improving environmental and economic outcomes;
- Stimulate investment in collection, recycling and recovery infrastructure, and markets for recovered materials that will maximise the value of materials and energy recovered; and
- Improve national, regional and local governance, with a clearer performance and institutional framework to deliver better coordinated action and services on the ground.

The Strategy sets out national targets for recycling of household waste including a target of 45% by 2015 and 50% by 2020³. The Warwickshire Waste Partnership has already exceeded the national recycling target of 50% set for 2020.

The Strategy 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.

Defra⁴ is in the process of producing the National Waste Management Plan (NWMP) for England; the plan will replace Waste Strategy 2007 as the "national waste management plan".

The draft plan (published in July 2013) is a compilation of existing waste management information and policies. In particular, it reflects the conclusions of the

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³ The national recycling target of 40% by 2010 was achieved in England.

⁴ Department for Environment, Food and Rural Affairs

Government Review of Waste Policy in 2011 and developments since the Review was published.

2.2.3.1 National Waste Prevention Plan for England

The government intends to publish the first Waste Prevention Programme for England by the end of 2013. This is a requirement of the revised Waste Framework Directive and takes forward a commitment in the Government Review of Waste Policy in England 2011. The Waste Prevention Programme will aim to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste, by reducing overall impacts of resource use and improving the efficiency of such use.

The plan aims to:

- Improve the environment in support of sustainable economic growth;
- Help businesses recognise and act upon potential savings through better resource efficiency and preventing waste, to contribute to a more sustainable economy;
- Help businesses recognise the opportunities for growth through offering new and improved products and services;
- Make it easier for people to find out how to reduce their waste, and how to repair broken items, and reuse items they no longer want;
- Support action by local and central government, businesses and civil society to capitalise on these opportunities.

Consultation on the plan has taken place throughout the summer of 2013.

2.2.4 Localism Act

The Localism Act contains a number of proposals to give local authorities new freedoms and flexibility.

2.2.4.1 General power of competence

Local authorities' powers and responsibilities are defined by this legislation. In simple terms, they cannot do what the law says they cannot. The Localism Act includes a 'general power of competence'. It gives local authorities the legal capacity to do anything that an individual can do that is not specifically prohibited.

The new, general power gives local authorities more freedom to work together with others in new ways to drive down costs. It gives them increased confidence to do creative, innovative things to meet local people's needs.

2.2.4.2 Community right to challenge

The Government thinks that innovation in public services can offer greater value for taxpayers' money and better results for local communities. The Localism Act gives social enterprises and community groups, parish councils and local authority employees the right to express an interest in taking over the running of a local authority service. The local authority must consider and respond to this challenge;

and where it accepts it, run a procurement exercise for the service in which the challenging organisation can bid.

2.2.4.3 Removal of fines and charges for rubbish collection

Central Government is committed both to recycling and to reducing the amount of waste produced in the first place. The Climate Change Act 2008 gave councils the ability to charge families for overfilling their bin and to introduce extra tariffs for taking away household waste. In the Localism Act, the Government has now removed some of these abilities.

2.2.5 Reduced Public Spending

The national Government has been driving a programme of sustained reductions in public spending in order to reduce the budget deficit since 2010. The reductions in public spending have led to organisations looking at new ways of delivering services. Key mechanisms to improve the efficiency of local services have included partnering with other sectors, benefiting from economies of scale, improving logistics and planning and using procurement wisely to benefit from the market.

2.2.6 Waste Strategy and the Planning Process

As the Waste Planning Authority, Warwickshire County Council is required to produce a Waste Development Framework (WDF). The WDF Core Strategy will replace the Warwickshire Waste Local Plan (adopted 1999) as the Development Plan Document for the County. The Core Strategy provides the spatial strategy, vision, objectives and policies for managing waste for a 15 year plan period up to 2027/2028.

The Authority formally submitted its waste plan to the Secretary of State on 19th October 2012. A planning inspector was been appointed to undertake an independent examination into the soundness of Warwickshire's Waste Core Strategy.

The Inspector's report on <u>Warwickshire's Waste Core Strategy</u> has been received and confirms that the Strategy is 'sound'. The Waste Core Strategy was adopted at the Full Council meeting on 9th July 2013.

3 Waste strategy progress since 2005

This Strategy sets out the Partnership's plans for managing waste until 2020, however it is valuable to understand the journey waste management services have taken since the original Strategy was adopted in 2005.

Important sections of municipal waste services include:

- Warwickshire Changes
- Waste Tonnages
- Service delivery changes
- Waste Management Performance
- Warwickshire Waste Composition
- Projection of future waste quantities

3.1 Warwickshire changes

3.1.1 Population Changes

Clearly there is a direct link between the number of people living in Warwickshire and the amount of waste created. In 2012 Warwickshire's population was 546,600⁵ with just under a quarter of a million households. The population of Warwickshire has grown by 10% over the past 7 years and is projected to increase by a further 8% over the period of 2013-2020.

Table 2: Population and household statistics 2012/13

Area	Population	Number of Households
North Warwickshire	62,100	27,030
Nuneaton and Bedworth	125,400	54,670
Rugby	100,500	43,680
Stratford-on-Avon	120,800	54,580
Warwick	137.700	60,570
Warwickshire	546,600	240,530

Source: WDF updated by Districts/Boroughs where figures available.

3.1.2 Economic Changes

The economic climate of an area is an influencing factor for the generation of waste and the economy has changed a great deal since the strategy was adopted in 2005. Gross Value Added (GVA) is a measure of the total economic activity in a region and provides an indication of the health of the region's economy.

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⁵ Based on 2012 population estimates

Table 3: Warwickshire, West Midlands and UK GVA per head since the strategy was adopted in 2005 (figures in brackets show year on year percentage change)

Year	GVA per heard (£) Warwickshire	GVA per head (£) West Midlands	GVA per head (£) UK
2005	17,371 (4.2%)	15,675 (2.4%)	18,542 (3.7%)
2006	18,612 (7.4%)	16,365 (4.4%)	19,542 (5.4%)
2007	19,731 (6.0%)	17,098 (4.3%)	20,539 (5.1%)
2008	19,956 (1.1%)	17,143 (0.3%)	20,911 (1.8%)
2009	19,387 (-2.9%)	16,602 (-3.2%)	20,341 (-2.7%)
2010	20,422 (5.3%)	17,218 (3.7%)	21,023 (3.4%)
2011	20,955 (2.6%)	17,486 (1.6%)	21,368 (1.6%)

Source: Office National Statistics

In Warwickshire we have seen an increase of around 20% over the first six years of the strategy period.

3.2 Waste Tonnages

A breakdown of the municipal waste generated in 2012/13 in Warwickshire is shown in Table 4. The total amount of municipal waste (including material from HWRCs) produced in Warwickshire in 2012/13 was 270,171 tonnes. This compares with approximately 313,000 tonnes produced in 2005/6, which represents a 16% decrease.

Table 4: Total municipal waste tonnages in Warwickshire (2012/13)

Districts/Boroughs	Waste collected (tonnes)			
Total residual waste collected from households	105,832			
Kerbside collected recycling	51,664			
Kerbside collected composting	57,912			
Total Districts/Boroughs 215,408				
Warwickshire CC				
Household waste recycling centres (including inerts)	54,763			
TOTAL Warwickshire CC & Districts/Boroughs 270,171				

The amount of household waste produced in Warwickshire in 2012/13 was 252,286 tonnes compared with 288, 781 tonnes in 2005/6. The tonnages for each district and for the HWRCs are shown in Table 5, along with the kg/head for each district.

Table 5: Household waste tonnages for Warwickshire (2012/13)

Area	Tonnes	KG/Head
North Warwickshire	27,190	437
Nuneaton and Bedworth	46,312	369
Rugby	41,441	412
Stratford-on-Avon	52,434	434
Warwick	48,031	348
HWRCs	36,878	N/A
Total	252,286	N/A

3.3 Service delivery changes

The following section outlines the changes that have taken place with the waste management services provided within Warwickshire and shows the current local authority waste management arrangements.

- Kerbside Collection
- Household Waste Recycling Centres
- Abandoned and End of Life Vehicles
- Flytipped waste
- Waste Disposal
- Existing contracts
- Current waste management costs

3.3.1 Kerbside Collection

3.3.1.1 Residual Waste Service

In 2005 all five of Warwickshire's WCAs provided a weekly collection of residual waste, three WCAs collected residual waste in wheeled bins, whilst the other two collected residual waste in sacks.

In 2013, all five WCAs use wheeled bins to collect residual waste from householders, and 4 of the 5 WCAs collect residual waste fortnightly. The remaining WCA collects residual waste weekly although the Authority plans to introduce a fortnightly collection in autumn 2013.

The collection arrangements for residual waste in each district, the choice of receptacles and the amount of residual waste collected from the households are shown in the Table 5.

Table 5: Residual waste collection arrangements and amount of residual waste collected (2012/13)

District/ Borough	Collection arrangements	Total waste (tonnes)	Residual waste (tonnes)	Residual Waste (KG.Head)
North Warwickshire	Weekly collection (due to switch to fortnightly in Autumn 2013) using 240 litre wheeled bins	27,190	18,017	290
Nuneaton and Bedworth	Fortnightly collection ⁶ using 240 litre wheeled bins	46,312	25,550	203
Rugby	Fortnightly collection using 240 litre wheeled bins	41,441	20,556	204
Stratford-on- Avon	Fortnightly collection using 240 litre wheeled bins.	52,434	20,826	172

⁶ Changed from a weekly collection in Autumn 2012

District/ Borough	Collection arrangements	Total waste (tonnes)	Residual waste (tonnes)	Residual Waste (KG.Head)
Warwick	Fortnightly collection using 180 litre wheeled bins.	48,031	20,883	152
Total	240,530 households	215,408	105,832	

The two main sources of household waste continue to be waste collected from the households and waste taken to household waste recycling centres (HWRCs). In addition to kerbside collected household waste, the WCAs also collect bulky waste, litter waste from municipal parks/gardens, waste from schools, street sweepings and clinical waste. They may also collect trade waste.

3.3.1.2 Kerbside Recycling and Composting Service

Since the adoption of the strategy in 2005 the WCAs have introduced new or extended existing kerbside collection schemes for recyclable materials.

Table 6: Summary of kerbside collection schemes and number of households with the service (2012/13)

	Waste Collection Authority					
Kerbside Collection Scheme	North Warwickshire	Nuneaton & Bedworth	Rugby	Stratford- on-Avon	Warwick	
Multi-material dry recycling (fortnightly) (no. of households)	27,030	54,670	43,480	54,580	51,958**	
Percentage of households dry recycling service	100%	100%	99%	100%	86%	
Biowaste collection (fortnightly) (no. of households)	24,105*	52,239	41,695	54,580	48,084	
Percentage of household with biowaste service	89%	96%	96%	100%	79%	
Total number of household	27,030	54,670	43,680	54,580	60,570	

^{*} Currently collecting green waste only but will switch to fortnightly Biowaste by Autumn 2013

Source: Waste DataFlow

3.3.1.3 Side Waste Policy

Warwickshire authorities continue to have a policy of not taking side-waste (waste placed at the side of the wheeled bin and not inside the bin). They also require that the lid on the wheeled bin is closed. Waste that is placed outside the bin will not be removed for disposal.

3.3.1.4 Bulky Household Waste Collection

Bulky waste falls outside the scope of the regular weekly collection service as these items are generally too bulky or too difficult to be handled by the regular collection. Warwickshire District/Borough Councils collect bulky waste, such as cookers and mattresses, on request from householders. A small charge is made for this collection service.

^{**} Figure relates to red box scheme. Other recycling facilities in place for flats and multiple occupancy premises

The Sub Regional Re-use Forum has been looking at the possibility of re-using items collected as part of this bulky household waste collection service in the longer term. The Partnership will support projects that promote re-use where possible; all projects will be assessed on an individual basis.

3.3.1.5 Clinical Waste

Clinical waste is defined in the Controlled Waste Regulations 2012 and may include swabs, dressings' syringes etc. There are stringent controls in place to ensure that clinical waste is managed safely and is recovered or disposed of without harming the environment or human health.

Where requested, the Warwickshire authorities have a duty to collect clinical waste from households. However, this is not a standard service and will only be provided on request and a reasonable charge can be made by the authorities for providing the service. There is a contract with a specialist contractor for the disposal of clinical waste that is delivered by the WCAs into Princes Drive waste transfer station, where it is sent to thermal treatment for disposal.

Responsibility for the sharps box collection service was transferred to the Warwickshire WCAs by the National Health Service in April 2012. An arrangement is in place with Warwickshire's pharmacies for the collection of sharps boxes from the public.

3.3.1.6 Bring Banks

As kerbside recycling collections have expanded in recent years and are available in all WCA areas, there has been less reliance on bring sites. The range of materials collected in bring banks however, has expanded in some WCAs to include small WEEE and comingled dry recycling. Two WCAs⁷ in Warwickshire have made the decision to remove some or all of their static bring sites from their area, due to a combination of problems including fly tipping problem, high contamination and low usage. Table 12 shows the number of bring recycling sites in each WCA in 2012/13 and the usual range of materials collected.

Nationally, some supermarkets have made the decision to provide a bring bank service and have partnered with private contractors to do this.

Table 12: Bring bank schemes in Warwickshire (From WDF 2013)

	Number	Materials collected				
	of sites	Paper /Card	Glass	Plastic	Metal*	Textiles
North Warwickshire	48	✓	✓	✓	✓	✓
Nuneaton and Bedworth	37	✓	✓		✓	✓
Rugby	29	✓	✓	✓		✓
Stratford-on-Avon	1					✓
Warwick**	24	✓	✓	✓	✓	✓

^{*} Metals include aluminium and steel cans

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Stratford upon Avon District Council and Rugby Borough Council

3.3.1.6 Street Sweeping

The Waste Collection Authorities provide a regular weekly service across the districts/boroughs. In 2005 when the strategy was adopted all street sweepings were sent to landfill for disposal. A processing contract for street sweepings was awarded in 2010 and now all street sweepings are reprocessed at a facility in Wolverhampton.

Table 13: Street sweeping tonnage 2012/13

District/Borough	Tonnage
North Warwickshire	293
Nuneaton and Bedworth	1,207
Rugby	1,579
Stratford-on-Avon	1,937
Warwick	2,906
Total	7,922

3.3.2 Household Waste Recycling Centres

The County Council currently provides nine Household Waste Recycling Centres (HWRCs) throughout Warwickshire. The HWRCs collect a wide range of materials including; dry recyclables such as paper, cardboard, glass, textiles, wood, metals, plastics and Waste Electronic and Electrical Equipment (WEEE), green waste for composting and residual waste. The range and quantity of materials sent for recycling at the HWRCs has increased since the strategy was adopted in 2005. Information on what material streams are collected at which HWRC can be found on the Warwickshire County Council website^{8.} Table 14 shows the amount of material recycled at the HWRCs in 2012/13.

Table 14: Waste tonnage and recycling rates at HWRCs.

HWRC	Total waste (tonnes) 2005/06 Excluding inerts	Total waste (tonnes) 2012/13 Excluding inerts	Total recycled (tonnes) 2005/06	Total recycled (tonnes) 2012/13	Recycling (%) 2005/06	Recycling (%) 2012/13
Grendon ⁹ North Warwickshire	7,223.25	3238.75	3,669.25	1834.68	50.7%	56.6%
Judkins, Nuneaton	13,598.68	7754.70	2877.68	3422.60	21.2%	44.1%
Hunters Lane, Rugby	15,398.57	6453.71	3393.62	3674.40	22.0%	56.9%
Cherry	6455.84	3969.98	3489.27		54.0%	61.2%

⁸ www.warwickshire.gov.uk

⁹ Grendon HWRC closed and was directly replaced by Lower House Farm HWRC in June 2013 – there is therefore no data for the year 2012/13.

HWRC	Total waste (tonnes) 2005/06 Excluding inerts	Total waste (tonnes) 2012/13 Excluding inerts	Total recycled (tonnes) 2005/06	Total recycled (tonnes) 2012/13	Recycling (%) 2005/06	Recycling (%) 2012/13
Orchard, Kenilworth				2428.13		
Princes Drive, Leamington Spa	18,754.48	19,073.04	5870.78	10,576.38	31.3%	55.5%
Stockton ¹⁰	893.92	841.34	254.90	515.05	28.5%	61.2%
Burton Farm, Stratford	7,234.91	5207.17	2846.13	3421.46	39.3%	65.7%
Wellesbourne	1897.77	1245.13	692.61	778.09	36.5%	62.5%
Shipston	2580.60	1907.19	977.93	1158.01	37.9%	60.7%
Total	74,142.57	49,691.01	24,072.17	27,808.79	32.5%	56.0%

Nationally, HWRC recycling performance has increased significantly in recent years as local authorities and contractors have made strenuous efforts to increase recycling rates at their sites. Householders have also played a major part in these efforts by being ever more willing to sort the materials they deliver to HWRCs and deposit them in the correct containers.

The overall HWRCs recycling and composting rate in Warwickshire has increased from 32.5% in 2005 to 56% in 2012/13. The improvement at the sites has occurred for a variety of reasons which are described in the following paragraphs:

3.3.2.1 Operation of Household Waste Recycling Centres (HWRCs)

In 2010 the County Council undertook an internal review of the HWRC service. As a result of the review it was decided:

- To bring the management and operation of a number of Household Waste Recycling Centres 'in-house'. These were Cherry Orchard, Grendon¹¹, Princes Drive, Shipston, Stockton and Wellesbourne
- To reduce the opening hours of all the Household Waste Recycling Centres

One of the key reasons for bringing the HWRCs in-house was to give the County Council a greater level of flexibility and control over the quality of the services, recycling rates, wastes accepted on site, the introduction of new and innovative services, ability to make future cost savings and to work in partnership with other local authorities.

¹¹ New Lower House Farm facility replaced the Grendon site in June 2012

¹⁰ Stockton HWRC is only open three days a week (Saturday, Sunday and Monday

As part of the process to bring the HWRC service in-house, discussions were held with a third sector organisation to secure and develop a network of Reuse Shops, previously run by the contractor operating the HWRCs, for the long-term benefit of the community. The brief was expanded further and investigations began on the potential for extending this benefit by engaging the third sector organisation in the running of an entire HWRC. In early 2012 it was agreed that Warwickshire Community Recycling (a joint charitable enterprise set up by Warwickshire Community and Voluntary Action (CAVA) and the Heart of England Community Foundation) would operate two HWRC sites at Wellesbourne and Stockton, (including the shops on those two sites), and three further re-use shops at the Shipston, Cherry Orchard and new Lower House Farm sites. The County Council has retained overall management of the sites.

3.3.2.2 Site Improvements and redevelopments

The HWRCs have been upgraded and in some cases have been redeveloped in order to meet the needs of the service safely and improve performance. The signage at the sites has been improved by adopting the national 'recycle now' branding. The layout at the sites has been developed to incorporate additional material streams such as WEEE. In addition traffic calming has been implemented where appropriate.

- Hunters Lane HWRC was redeveloped in 2008. As part of the redevelopment
 the site offered improved recycling facilities and a split level design, which is
 a safer layout for members of the public. A re-use shop was also incorporated
 into the new design.
- Lower House Farm HWRC, which opened in June 2013, replaced the Grendon HWRC and has been developed as a joint venture with Staffordshire County Council. It serves both Warwickshire and Staffordshire residents. The site is co-located with a transfer station facility (due to begin operating in December 2013) which will be used for transferring residual waste from two Warwickshire WCAs; North Warwickshire and Nuneaton & Bedworth and two Staffordshire WCAs; Tamworth and Lichfield WCAs, to the Energy from Waste Facility (W2R) opening at Four Ashes in Staffordshire in December 2013.
- A 15 year contract for the design, build and operation of a HWRC in Nuneaton and Bedworth was awarded in April 2012. As part of the rebuild the site will have a purpose built reuse shop on site operated by a third sector organisation.

3.3.2.3 Vehicle restrictions

After the introduction of the Landfill Tax in 1996, there was an increase in the amount of trade waste illegally disposed of at HWRCs. In an attempt to reduce trade waste abuse, Warwickshire introduced vehicle restrictions at the HWRCs.

Warwickshire County Council operates an annual permit and voucher system for households whose only means of transport fall within the vehicle restrictions. Trailers are allowed at all sites but there is a restriction on the accepted size of the trailer. Trailers with a gross laden weight of over 750kg (the size over which the law

requires the trailer to be fitted with a handbrake) are not permitted to enter the sites. Permits are not issued for trailers.

Waste carried in a vehicle that is not entitled to an annual permit or voucher system can be taken to two of the county's HWRCs that offer a trade waste service (Princes Drive and Hunters Lane HWRCs), where a charge is applied for the acceptance of the waste. The rate charged depends on the type and weight of the waste.

The policy has been successful in reducing the amount of trade waste abuse at HWRCs and is reviewed regularly to take into account changes in legislation and vehicle choice and usage.

3.3.2.4 Trans-boundary use of HWRC sites

Although Warwickshire's HWRC's are for the use of Warwickshire residents, some sites are used by residents from outside the County. It is usually sites near to the Warwickshire county boundary that tend to be used from residents from outside the County. Warwickshire County Council has worked with two neighbouring authorities in relation to providing HWRCs.

Table 15: Shared facilities with neighbouring authorities

Authority	Summary
Staffordshire	WCC has worked in partnership with Staffordshire to build a joint HWRC and
	Waste Transfer Station in North Warwickshire to replace Grendon HWRC.
Gloucestershire	Gloucestershire currently contribute towards the operating costs of Shipston HWRC, which is close to the border and is used by some Gloucestershire residents.

3.3.3 Abandoned and End of Life Vehicles

The Refuse Disposal Amenity Act 1978, places a duty on local authorities to remove and dispose of vehicles abandoned on public land within their areas. The Warwickshire Authorities work together and with the local police and fire and rescue service to ensure that abandoned vehicles are removed as quickly as possible from the roadside. Since 2005, when the strategy was introduced, the number of abandoned cars has decreased, as the value of scrap metal has increased.

There are currently two ways vehicles may be removed:

- vehicles abandoned in 'arson hot-spots' or vehicles at risk from arson are removed from the roadside as quickly as possible via the Warwickshire Car Clear scheme.
- b) Vehicles that are not in hot-spots or identified as an arson risk will be removed by a council appointed contractor to a vehicle storage compound. The vehicle is removed after a removal notice is affixed to the vehicle informing the owner that the vehicle is due for removal. The removed vehicle, if in working condition, is stored at the vehicle compound while efforts are made to contact the owner. If this is unsuccessful, the vehicle is sent for disposal/recycling.

3.3.4 Flytipped Waste

Flytipping is the illegal deposit of waste on land contrary to the Environmental Protection Act 1990. The types of waste flytipped range from 'black bag' waste to large deposits of materials such as industrial waste, tyres and construction material. Flytipping is a significant blight on local environments, a source of pollution, a potential danger to public health and a hazard to wildlife. It also undermines legitimate waste businesses when unscrupulous operators undercut those operating within the law. In addition to all this it can cost large amounts of money to remove the waste.

The WCAs and the Environment Agency both have a responsibility in respect of illegally deposited waste. The WCAs deal with most cases of flytipping on public land, whilst the Environment Agency investigates and enforces the larger, more serious and organised illegal waste crimes. The WDA in Warwickshire has to pay for the disposal of any flytipped waste collected by the WCAs.

The reporting system for flytipping is called 'Flycapture' and requires local authorities to record incidents of flytipping on the national database. Table 16 shows the number of incidents nationally since the strategy was adopted in 2005.

Table 16: Flytipping nationally

Year	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
No of							
incidents ¹²	2,508,048	2,640,745	1,272,349	1,164,998	946,906	819,571	744,414

Source: Defra

Reported flytipping incidents have been decreasing in the years for which data is available. This trend could reflect a number of possible factors. Local authorities may have put more effort into enforcement or raising awareness of flytipping issues. The Environment Agency has also worked with authorities to improve reporting quality and has produced guidance to reduce the possibility of double counting in authority returns. As a result some of the reported reduction in incidents will be due to reporting changes by some authorities.

Table 17: Flytipping locally 2011/12

Authority	Number of incidents
North Warwickshire	123
Nuneaton and Bedworth	28
Rugby	40
Stratford-on-Avon	196
Warwick	92
Total	479

Taken from Defra

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¹² Source: https://www.gov.uk/government/statistical-data-sets/env24-fly-tipping-incidents-and-actions-taken-in-england

3.3.4 Disposal

In 2005 landfilling was the main waste disposal route for waste in Warwickshire, although a small amount of waste was delivered to an Energy from Waste facility in Coventry. Waste to landfill has steadily declined from 203,627 tonnes in 2005 to 87,396 tonnes in 2012/13. The amount of municipal waste sent to an Energy from Waste facility has increased from 14,046 tonnes in 2005 to 41,194 tonnes in 2012/13. The current input of waste to specific landfill sites by Warwickshire is provided in Table 18.

Table 18: Warwickshire's Waste input to Landfill (2012/13)

Landfill Facility	Location	Tonnes
Bubbenhall (FCC)	Warwick	45,726
Cotesbach (LaFarge)	Leicestershire	13
Hill and Moor (SWS)	Worcestershire	137
Kingsbury (Biffa)	North Warwickshire	245
Ling Hall (Veolia)	Rugby	17,690
Packington (Sita)	North Warwickshire	23,580
Ufton (Biffa)	Stratford on Avon	22
Total		87,411

Most of the waste collected was transported directly to reprocessing sites. The locations of waste treatment and disposal facilities used by the Warwickshire authorities are shown on a map in Appendix A.

Following a review of possible options in 2007 Warwickshire County Council decided to go into partnership with Staffordshire County Council for disposal of waste from North Warwickshire and Nuneaton. The Energy from Waste facility based at Four Ashes is expected to be operational in December 2013.

In order to ensure that there is an outlet for Warwick, Rugby and Stratford, Warwickshire County Council has investigated a number of possible options for the long term disposal of waste in Warwickshire. The Authority is expected to make a decision regarding residual waste procurement by early 2014.

3.3.5 Existing Contracts

The Warwickshire Authorities have a number of disposal and collection contracts in place to manage waste in Warwickshire. The County Council manages treatment and disposal contracts, as well as contracts to support the operation of the HWRCs. The District/Borough Councils either run the collection services in-house or have separate contracts for the collection of refuse and recyclable materials. For further details of Warwickshire's contracts refer to Appendix B and C.

3.3.6 Trade Waste

Where trade (or commercial) waste is collected by a local authority then this is included within the definition of local authority collected municipal waste, although not included within the definition of household waste. At present a variety of trade waste services are offered by the different authorities in the Partnership.

Expanding trade waste services represents a policy direction change from the 2005 Strategy, largely as a result of the planned removal of the LATS regime (which disincentivised local authority trade waste services) and recent encouragement by Government.

3.3.6.1 Trade waste collections

Trade waste continues to be collected by three of the collection authorities; North Warwickshire Borough Council, Nuneaton and Bedworth Borough Council and Rugby Borough Council. In Stratford and Warwick districts, businesses make their own arrangements with private waste contractors to have their waste removed.

3.3.6.2 Trade waste at HWRCs

During 2012 a review of WCC trade waste services at the HWRCs took place and changes to the pricing scheme were introduced to support businesses and encourage new business to use the two main HWRCs (Princes Drive and Hunters Lane). Following consultation with local businesses, the group may be looking to trial a commercial service for both recycling and disposal at four of the five HWRCs that are currently without a commercial service.

3.3.7 Current Waste Management Costs

In two tier areas such as Warwickshire the cost of waste management is split into two parts: cost for waste collection by the WCAs (including collection and transport of recyclates) and the cost of waste treatment and disposal and the management of HWRC sites by the WDA.

The current cost of services for 2012/13 is shown in Table 19.

Table 19: Cost of services for municipal waste management (2012/13)

Waste Collection Authorities	Total waste service cost
North Warwickshire	£1.5m
Nuneaton & Bedworth	£2.9 m
Rugby	£2.3 m
Stratford-on-Avon	£3.2 m
Warwick	£2.2 m
WCA Total	£12.1 million
Waste Disposal Authority	
Disposal and landfill	£4.4 m*
Landfill Tax	£5.8 m
Combined HWRCs + transfer station	£2.2 m
Composting	£2.7 m
Waste initiative's	£2.3m
Other miscellaneous	680 k
WDA Total	£18.1 million
Total cost (collection and disposal)	£30.2 million

^{*}excludes landfill tax

3.4 Waste Management Performance

The following looks at how levels of reuse, recycling and composting have increased and what changes have taken place in terms of waste sent for final treatment or disposal since 2005. It also looks at results of the composition analysis which analysed the contents of residual and biowaste collection containers.

3.4.1 Re-use, Recycling and Composting

In 2005/06, Warwickshire achieved a combined recycling and composting rate of 29.90% overall, which was well above the national recycling target of 25%.

The recycling and composting performance has been substantially improved and a combined re-use, recycling and composting rate of 52.2% was achieved in 2012/13. Individual performance across the WCAs is shown in table 7. An overview of the historical performance in each district can be found in Appendix D.

Table 7: Summary of Authority Performance (2012/13)

	North Warwickshire	Nuneaton and Bedworth	Rugby	Stratford	Warwick
Recycling rate	14%	23%	25%	27%	26%
Composting rate	20%	22%	26%	33%	31%
Re-use, recycling & composting rate	34%	45%	51%	60%	57%

The re-use, recycling and composting figures achieved for Warwickshire since 2005 is shown in Figure 2, along with the national figure.

Reuse, Composting and Recycling Performance

Reuse, Composting and Recycling Performance

Warwickshire %

National %

Year

In order to improve recycling and composting performance further, the participation of the public is needed. A waste composition survey carried out in 2012/13 has shown which materials can be targeted for campaigns.

3.4.1.1 Dry Recycling tonnages

The amount of dry recyclable material (paper, card, plastic, cans etc.) collected by each of the WCAs has increased significantly since the strategy was adopted in 2005. The WCAs collected over 27,980 tonnes of dry recyclables in 2005/06 and 51,664 tonnes of dry recyclables in 2012/13.

Table 8: Recycled material (tonnes) collected by the WCAs in 2012/13

	Bring schemes	Kerbside dry recyclables	Total
North Warwickshire	292	3,497	3,789
Nuneaton and Bedworth	252	10,372	10,624
Rugby	648	9,623	10,271
Stratford-on-Avon	4	14,302	14,306
Warwick	478	12,196	12,674
Total	1,674	49,990	51,664

The collection arrangements for dry recyclables in each district, the choice of receptacles and the destination in some cases are shown in Table 9.

Table 9: WCAs collection arrangements in 2012/13

	Collection arrangements
North Warwickshire	Weekly collection(due to switch to fortnightly in Autumn 2013) using 240 litre wheeled bins
Nuneaton and Bedworth	Fortnightly collection using 240 litre wheeled bins, taken to a Materials Recovery Facility ¹³ (MRF) in Coventry
Rugby	Fortnightly collection using 240 litre wheeled bins, taken to an MRF in Ettington
Stratford-on-Avon	Fortnightly collection using 240 litre wheeled bins, taken to an MRF in Ettington.
Warwick	Fortnightly collection of materials, sorted at the kerbside using red bags and boxes.

3.4.1.2 Composting

The amount of compostable material collected by each of the WCAs has increased significantly since the strategy was adopted in 2005.

Table 10: Compostable material (tonnes) collected by the WCAs in 2012/13

	Composting
North Warwickshire	5,384
Nuneaton and Bedworth	10,225
Rugby	10,609
Stratford-on-Avon	,17,301
Warwick	14,711

¹³ A facility to recover useful materials using a variety of manual and mechanised separation techniques

At the end of 2012/13 there were 4 WCAs collecting biowaste¹⁴ at the kerbside. Rugby Borough Council, Warwick District Council and Stratford-upon-Avon District Council sent the biowaste in their areas to an in-vessel composting facility¹⁵ in Ufton. Nuneaton and Bedworth Borough Council sent the biowaste in their area to an invessel composting facility in Daventry.

The remaining WCA (North Warwickshire) will commence biowaste collections in Autumn 2013 (as part of a service change to alternate weekly collections) and will send their biowaste to the same in-vessel composting facility used by Nuneaton and Bedworth Borough Council in Daventry.

The green waste from the HWRCs continues to be composted in an open windrow system¹⁶ at various local facilities. In 2012/13 the amount of household green waste composted was 7,936 tonnes.

Table 11 lists the locations of the composting facilities and the amount of material that they processed in 2012/13.

Table 11: Location of composting plants and tonnes processed (2012/13)

Composting Facility	Location	Tonnes processed
Ufton IVC	Stratford-on-Avon	41,886
IVC	Daventry	2,852
Brinklow Quarry	Rugby	9,217
Gaydon	Stratford-on-Avon	3,485
Grendon House Farm	North Warwickshire	10,463
Sibson	Leicestershire	22

1.

¹⁴ Food and green waste

¹⁵ In vessel system is the composting of biodegradable material in an enclosed vessel. In vessel systems have greater control than windrow systems and speed up the initial phases of composting. In-vessel composting systems are compliant with the Animal By-Products Regulations and can therefore process food waste in addition to green garden waste.

¹⁶ Open windrow composting is used for processing garden waste, such as grass cuttings, pruning and leaves in either an open air environment or within large covered areas where the material can break down in the presence of oxygen.

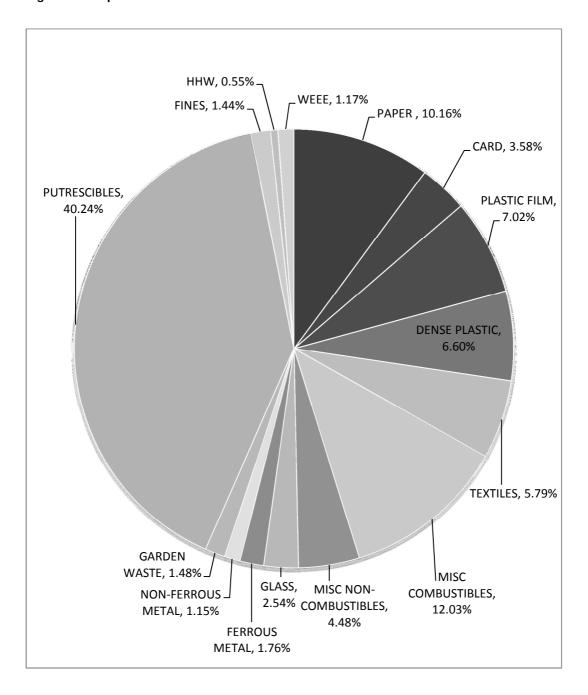
3.5 The Composition of Warwickshire's Waste

The Partnership carried out a waste composition analysis in 2012/13 of kerbside collected residual waste, kerbside collected organic waste and the HWRC residual waste. The results of the composition are shown in Figures 5 to 7.

3.4.1 Kerbside residual waste

Figure 5, below, illustrates the components of the residual waste bin (i.e. what is left in the wheelie bin for disposal).

Figure 5: Composition of kerbside collected residual waste in Warwickshire



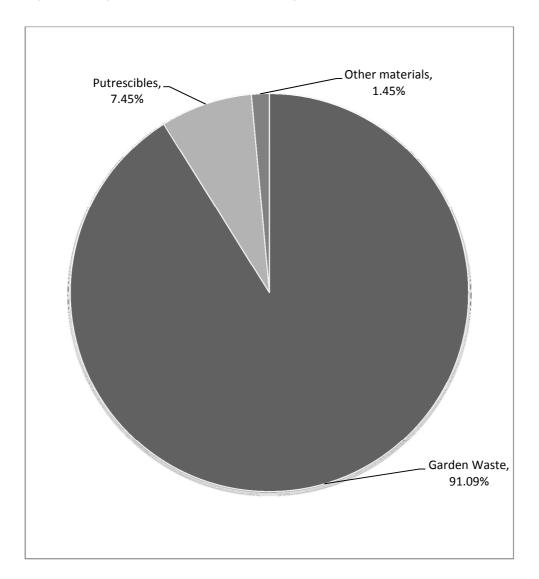
Key points from the kerbside residual composition analysis are:

- Food waste was seen to be the major component of residual waste forming 38.8% of the total – Up to 47% was potentially home compostable (18% of the total residual waste).
- 7.3% of miscellaneous combustibles consisted mainly of disposable nappies
- 47.9% of collected residual waste could have been recycled at the kerbside
- The potentially recyclable waste is largely made up of four material types; food waste 61%, paper 11%, plastic 7% and card/cardboard 6%.
- Residual waste collected from Warwickshire households was 67.5% biodegradable.
- Collected waste had a packaging content of 15.3%; some of this is recyclable across the material types as noted above.

3.4.2 Kerbside organic waste

Figure 6, below, illustrates the contents placed in the garden waste or food and garden waste bins.





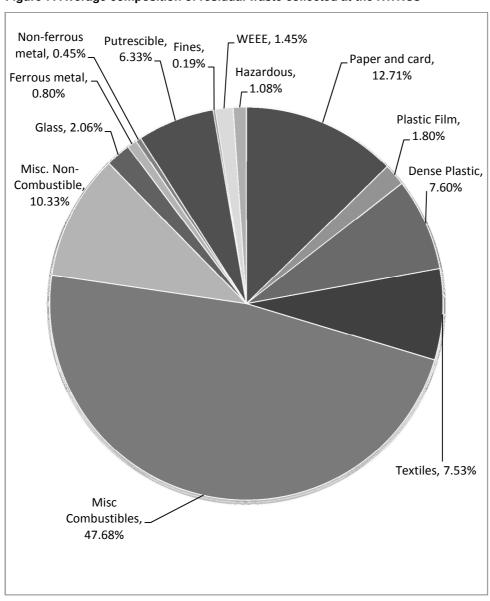
Key points from the kerbside organic composition analysis are:

- 15% of food waste and 98% of garden waste was correctly captured by households where these collections were available. This equated to 12% of all the food waste throughout Warwickshire.
- Properties on the organic collection scheme diverted an average of around 31.9% of their waste through these collections.
- If all food, garden and pet bedding organics available for recycling in all WCAs (including North Warwickshire) was recycled a potential diversion of 55.3% is possible.

3.4.2 HWRC residual waste

The materials in the mixed waste containers at HWRCs are considered here.

Figure 7: Average composition of residual waste collected at the HWRCs¹⁷



¹⁷ Waste from the following 4 HWRCs was analysed – Princes Drive, Grendon, Burton Farm and Hunters Lane

35

Key points from the HWRC residual composition analysis are:

- Across the four HWRCs, bagged household rubbish formed 17% of the material present in the general HWRC waste.
- On average 69% of weekday and 63% of weekend residual waste is potentially recyclable (an average of 66%); of this waste 26% was compatible with kerbside recycling and an additional 40% within HWRC recycling containers.
- Of the recyclables present, 34% are due to recyclable wood and furniture, 16% are due to recyclable paper and card, 16% are due to carpet waste, 13% are due to textiles and shoes, 10% from food and garden waste, and 4.5% from recyclable rubble and plasterboard.

3.6 Projection of future waste quantities

It is notoriously difficult to predict trends in waste levels as it is subject to significant variation and can be influenced by many factors that are difficult to model, such as the weather, however it is necessary to try to provide an indication of future waste levels in order to update the strategy.

In 2005, it was expected that the amount of waste produced in Warwickshire would increase by around 2.4% per annum. However, waste has actually decreased at an average rate of 1% between 2005/06 and 2012/13. It is possible that a significant proportion of this reduction has been caused by the downturn in the worldwide economy; however, a series of waste prevention initiatives may also have contributed, along with improvements implemented at the HWRCs.

For the purpose of calculating data for the Strategy, the growth in waste has been estimated at 0.5% per year as shown below, along with the expected total households. Table 20 shows the projected future levels of municipal waste for Warwickshire. Warwickshire will continue to monitor waste data as part of WasteDataFlow¹⁸.

Table 20: Projected future waste levels

Year	Total Households	Municipal Waste (Tonnes)
2012/13	240,530	270,171
2013/14	242,743	271,522
2014/15	244,976	272,879
2015/16	247,230	274,244
2016/17	249,504	275,615
2017/18	251,800	276,993
2018/19	254,116	278,378
2019/20	256,454	279,770

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¹⁸ WasteDataFlow is the web based system for municipal waste data reporting by UK local authorities to government.

4 Progress towards 2005 strategy objectives and targets

To provide a focus and direction for the Waste Strategy, the Warwickshire authorities agreed the following objectives when the strategy was adopted. In order to update the strategy it is essential to review progress towards each of the objectives.

- To reduce the amount of waste generated in Warwickshire
- To develop integrated, sustainable solutions for managing waste in Warwickshire
- To meet landfill diversion targets established by the WET Act 2003 (diversion of BMW)
- To meet and exceed statutory recycling and composting targets
- Work in partnership with each other and other stakeholders to produce and implement the Strategy
- Encourage public participation in the implementation and review of the Waste Strategy
- Regularly review and update the Strategy and implementation programme

4.1 To reduce the amount of waste generated in Warwickshire

Reducing the amount of waste that we produce in Warwickshire is critical to the development of sustainable waste management practices. The objectives set by the Warwickshire authorities have been successful at helping to reduce waste in Warwickshire and the Partnership achieved its target to reduce the quantity of waste collected per head, to 544kg per inhabitant in 2007/08.

Target/Action	Indicators	Progress
Aim to reduce the quantity of waste collected per head, not exceeding 544kg per inhabitant.	Annual kg of waste produced per person.	Figures for 2005/06 show that the annual kg of waste produced per head was 550kg. In 2012/13 the annual weight of household waste produced per head was 461kg; this is an 83kg improvement on the target we set ourselves.
	Annual kg of residual waste produced per household (NI 191). ¹⁹	In 2012/13 the kg per household of residual waste was 500kgs

¹⁹ The Partnership started monitoring this in 2010

Target/Action	Indicators	Progress
To develop a waste prevention and minimisation strategy	Waste Prevention and minimisation strategy developed by 2006/07.	The Waste Minimisation Strategy was launched in 2007 and included a broad range of promotional campaigns such as home composting (including Master Gardeners), real nappies, junk mail and smart shopping. The partnership has also carried out various activities under the high profile Love Food Hate Waste campaign.
To increase reuse of materials in Warwickshire	Number of reuse shops at Household Waste Recycling Centres (HWRCs).	There are currently 4 large re-use shops operated by charities based at Lower House Farm, Hunters Lane, Princes Drive and Burton Farm. A 5 th charity operated re-use shop will open at Judkins, as part of the site redevelopment. In addition there are 4 smaller charity operated re-use shops sited at Cherry Orchard, Stockton, Shipston and Wellesbourne.
	Number of furniture reuse schemes in Warwickshire	There are a number of charity organisations in the County that accept furniture for re-use in Warwickshire. The organisations are Action 21 and Sue Ryder in Leamington, 2 nd Chance in Nuneaton, Rugby Bareboards and Age UK in Rugby, Shakespeare Hospice in Stratford and Warwickshire Community Recycling who have shops at Shipston, Wellesbourne, Stockton, Wellesbourne and Lower House Farm HWRCs. The Warwickshire re-use forum expanded in 2012 to include Coventry & Solihull and a report was carried out on the potential to develop the furniture re-use market across the region.

4.2 To develop integrated, sustainable solutions for managing waste in Warwickshire

Positive progress has been made against this objective with a reduction in the amount of waste being landfilled and an increase in the amount of material recycled and composted.

Target/Action	Indicators	Progress
To reduce reliance on	Reduction in the overall	In 2005/06 67% (210,323 tonnes)
landfill as a primary means of waste disposal.	tonnages of waste disposed of to landfill.	of municipal waste generated in Warwickshire was disposed of to landfill. In 2012/13 32.8% (88,655 Tonnes) of municipal waste generated was disposed of to landfill.
	Levels of recycling, composting and recovery.	Countywide re-use, recycling and composting rate of 52.3% of municipal waste in 2012/13. Countywide recycling and composting rate of 26% of
		municipal waste in 2005/06. Recovery of energy from residual waste has increased from just 3%
Minimise, so far as is practicably possible, the distance that waste is transported throughout the County.	Monitor distance of journeys.	in 2005/6 to 15.6% in 2012/13. Where possible vehicle journeys have been minimised. The current HWRC contract prices are set per tonne per mile to allow mileages to be monitored, and to provide an incentive to reduce transport distances.
Monitor the development of new waste treatment technologies.	Review development and status of new technologies on a regular basis.	Officers monitored the development of new technologies through the information provided nationally by Defra and the Environment agency. Officers have also carried out a soft market testing exercise with representatives from industry who provided details on new and emerging waste technologies.
Investigate and implement where practicable the use of cleaner fuels when collecting (including general refuse collection) and transporting waste and for use in vehicles used at HWRC.	Number of vehicles operating on alternative fuel sources.	The County investigated using biodiesel for vehicles used at Burton Farm and Hunters Lane, however it was decided not to proceed with this option due to potential operational costs.

4.3 To meet landfill diversion targets established by the WET Act 2003 (diversion of BMW)

Landfill tax has superseded LATs as being the key policy driver diverting biodegradable waste from landfill. The LATs scheme ran until the end of 2012/13 scheme year.

Whilst Warwickshire made good progress towards these targets they are no longer applicable to this strategy due to the change in legislation, however, the ambition to

remove biodegradable (and other) waste from landfill is reflected in the other objectives and targets within this strategy.

Target/Action	Indicators	Progress
Develop landfill allowance trading Strategy by December 2005.	Strategy will be updated regularly in accordance to changes in the market for Landfill Allowances.	An interim Landfill Allowance Trading strategy was approved by Warwickshire County Council's Cabinet in January 2007. The Strategy proposed that surplus allowances were put up for sale using the national landfill allowance trading system. The Authority has always been within its allowances and even sold some in 2010.
Development of treatment/disposal procurement Strategy 2005-2012	Development of treatment facilities and subsequent diversion of BMW from landfill (in tonnes).	In the last year of monitoring (2012/13) Warwickshire landfilled 50,763 tonnes of biodegradable municipal waste which is 24,833 tonnes less than our annual allocated allowance of 75,596 tonnes of BMW for the year.

4.4 To meet and exceed statutory recycling and composting targets

Warwickshire has significantly increased the amount of waste recycled and composted. In 2005/06, the Partnership recycled around 30% of waste. In 2012/13, it achieved its highest ever performance of 52.3%²⁰.

The five waste collection authorities (WCAs) within the Partnership have enhanced the range of recyclable materials offered to residents via kerbside collection schemes. The County Council as the disposal authority has improved the recycling infrastructure at its Household Waste Recycling Centres (HWRC) including major redevelopment of two sites.

Target/Action	Indicators	Progress
To optimise recycling and	Number of households	All suitable properties now have
composting within	served by separate green	access to this service.
Warwickshire.	waste collection service.	
Aim to achieve enhanced,	Recycling and	Countywide household re-use,
countywide recycling	composting rate %	recycling and composting rate of
targets of between 40-45%		52.3% (29.9% in 2005/06).
by 2009/10.		
		The figures, below, show individual
		district recycling figures (excluding
		figures from HWRCs in their area)
		District recycling performance
		North Warwickshire Borough
		Council 34%
		Nuneaton and Bedworth Borough
		Council 45%

 $^{^{\}rm 20}$ The EU recycling target is now 50% for municipal waste by 2020

Target/Action	Indicators	Progress
		Rugby Borough Council 51% Stratford-on-Avon District Council 60% Warwick District Council 57%
Extend home composting	Number of households estimated to be composting at home.	Currently an estimated 26,000 properties in Warwickshire have a home compost bin, this equates to 11% of households. The Partnership have also been supporting the Master Gardeners project – which aims to train people to grow their own food, as it is more likely for people to want to compost if they are gardening. In addition, households growing their own food will reduce the environmental impacts of transport, retail and packaging.
Develop improved HWRC infrastructure, increasing the type of materials that can be collected and subsequently recycled. Aim to reach recycling levels of 60% at all sites.	Performance of individual HWRCs (recycling rate%).	The average recycling rate achieved at HWRCs in Warwickshire in 2005/06 was 32.5%, in 2012/13 the rate was around 56%. The range of materials collected at the site has improved with some sites now collecting hard plastics and carpet for recycling; although the market for these materials is still limited.
Development of a phased improvement plan for HWRCs over the next 5 years.	Number of sites redeveloped	A number of sites have been improved, including complete redevelopment of the HWRC in Rugby (Hunters Lane) and North Warwickshire (Lower House Farm). A complete redevelopment is planned for the site in Nuneaton (Judkins). All site signage has been replaced with the 'recycle now' iconography and many sites have had smaller improvements.
HWRC contracts maximise re-use and recycling, aim to recycle 60% at HWRC's	Recycling targets set for individual contractors. Penalty and bonus system in place.	The majority of the sites are now run in-house.

4.5 Work in partnership with each other and other stakeholders to produce and implement the Strategy.

Although the partnership has chosen not to progress the potential for working together more formally through the Partnership, there has been a number of partnership projects across the county and region.

Target/Action	Indicators	Progress
Increase the potential for working together more formally.	Development of the Warwickshire Waste Partnership.	The Partnership has preferred less formal working arrangements.
	Establishment of formal partnership with Memorandum of understanding.	A memorandum of understanding was been agreed by all members of the Warwickshire Waste Partnership.
Investigate the potential for joint waste contracts.		The feasibility of entering into joint contracts continues to be investigated.
		The County Council has worked with adjoining authorities on joint contracts where appropriate i.e. Residual waste and Street Sweepings, HWRCs.
Examine the benefits of working with other authorities outside Warwickshire.	Membership of the Midlands Recycling Consortium.	The Midlands Recycling Consortium is no longer active. Partners have worked with adjoining authorities to implement aspects of Warwickshire's Joint Municipal Waste Management Strategy.
Investigating the possible benefits of joint purchasing and negotiating.	Performance of Midlands Recycling Consortium (tonnage recycled through the Consortium)	The Midlands Recycling Consortium is no longer active. The Partners have chosen to work together in clusters on appropriate projects such as joint purchasing of caddies etc. The Partnership has also worked with authorities on a sub-regional basis i.e. to implement a Love Food Hate Waste campaign.

One of the strategic goals of the 2005 strategy was to lobby central Government on key waste issues.

The County Council and some of the WCAs in Warwickshire are active members of national organisations including LARAC (Local Authority Recycling Advisory Committee), NAWDO (National Association of Waste Disposal Officers) and CIWM (Chartered Institute of Waste Management). These organisations lobby the Government on key waste issues via submission of consultation responses and dissemination of best practice. The County Council has recently participated in the CIWM workshop on the EU targets and supported the submissions made by LARAC, NAWDO and CIWM on the Waste Management Plan for England and the National Waste Prevention Plan.

Individual consultation responses to key consultations or calls for evidence have also been submitted, examples of individual responses include:

- Consultation on the Controlled Waste Regulations
- Consultation on restrictions on the landfilling of certain wastes
- Consultation on Implementation of the packaging strategy
- Submission of evidence for the Waste Prevention Programme for England

4.6 Encourage public participation in the implementation and review of the Waste Strategy

The Partnership engages with the public across Warwickshire through various methods. Most recently a public survey took place in April/ May 2013 in relation to the updated strategy. The results of the survey have helped to inform the targets and actions up to 2020, as laid out within the following chapters.

Target/Action	Indicators	Progress
Keep the public informed with progress on local and	Provide web-based feedback – updated	The Waste Strategy is on the County Council's website. Surveys
national target	regularly to reflect changes in performance.	relating to the waste services have taken place regularly. The public are kept updated through press releases.

4.7 Regularly review and update the Strategy and implementation programme

The Partnership made a commitment to carry out a review of the document at key intervals. The first review was scheduled for 2008/09; however this was put on hold as the Waste Framework Directive was due to be published around that time. The review was put on hold again as there was speculation that a proposal to remove the legal requirement for councils to produce a waste management strategy, would form part of the Governments waste review. The proposal was put forward, but a decision is yet to be made. In 2012 the Authority made the decision to update the strategy rather than complete a full review.

Target/Action	Indicators	Progress
Review the Strategy every 5 years.	Feedback on changes and upload information to relevant website pages. First review in 2008/09	An update commenced in 2012.
Annual reporting on progress with targets and actions	Progress reported on web	Several annual reports were published on the council website.

5 Updated objectives, targets and indicators

To provide a focus and direction for the next 7 years, the Warwickshire authorities agreed the following updated objectives, targets and indicators for the updated strategy.

- To reduce the amount of waste generated in Warwickshire
- To develop integrated, sustainable solutions for managing waste in Warwickshire
- To meet and exceed national re-use, recycling and composting targets
- Work in partnership with each other and other stakeholders to produce and implement the Strategy
- Encourage public participation in the implementation and review of the Waste Strategy
- Regularly review and update the Strategy and implementation programme

5.1 Updated Objectives, targets and indicators

The Partnership agreed that the majority of the objectives adopted in the 2005 strategy remain relevant and have been successful in driving the Partnership forward; as a result these objectives will remain unchanged.

The objective relating to landfill diversion targets is no longer relevant as the Landfill Allowance Trading Scheme²¹ has been cancelled and therefore the objective and related targets and indicators have been removed. It should be noted, however, that several of the other objectives will reduce waste to landfill through more sustainable practices, reducing waste and increasing re-use, recycling and composting of the waste that does arise.

As a number of the targets have been achieved the Partnership agreed to update targets and indicators to those listed in sections 5.1.1 to 5.1.5.

5.1.1 Waste reduction

Since there is now a legal requirement to apply the waste hierarchy, reducing the amount of waste that we produce in Warwickshire remains critical to the development of sustainable waste management practices.

The targets set under this objective have been achieved across the County and the Partnership agreed these should be revised in order to ensure performance continues to improve.

²¹ LATs see section 2.1.2

REF	OBJECTIVE	TARGETS/ACTIONS	INDICATORS
		Aim to reduce residual waste to 311kg per household, per year, by the end of the strategy period (2020)	Annual kg of residual waste produced per household (NI191)
JMWMS 1	To reduce the amount of waste generated in Warwickshire	Raise awareness of waste reduction and promote behaviour change	Implement and monitor key waste reduction campaigns
		To increase re-use of materials in	Tonnage of reuse in Warwickshire
		Warwickshire	Number of community furniture reuse schemes in Warwickshire

5.1.2 Sustainable waste management

A fundamental challenge facing the world is the threat of climate change. Climate change occurs because of changes in the amounts of greenhouse gases (carbon dioxide, methane and others) in the atmosphere. Waste Management has a role to play in mitigating the emissions of carbon through application of the waste hierarchy. As a result the Partnership agreed to continue to reduce reliance on landfill and monitor new waste technologies; in addition a new target relating to carbon has been added to this section.

Carbon impacts are difficult to measure, however, the Review of Waste Policy in England 2011 aims to target waste streams with high carbon impacts²² and promote measurement and reporting of waste management in carbons terms including the development of a carbon metric tool.

REF	OBJECTIVE	TARGETS/ACTIONS	INDICATORS
		To reduce reliance on landfill as a primary means of waste disposal.	Reduction in the overall tonnages of waste disposed of to landfill.
	To develop integrated, sustainable solutions for managing waste in Warwickshire		Levels of recycling, composting and recovery.
JMWMS 2		Monitor the development of new waste technologies	Review development of new waste technologies on a regular basis.
		Continually seek ways to reduce carbon emissions (including from transport) to lower the impact of the service on climate change as far as technically, environmentally and economically practicable	Carbon metric tool as developed by UK Government

²² Such as food, metal, plastic and textiles

5.1.3 Recycling and composting

The Partnership recognises that waste should be seen as a source of valuable materials, that when managed appropriately can help contribute to a more vibrant and sustainable economy.

The Partnership has set a challenging target of a Countywide recycling and composting target of 65% by the end of the strategy period.

REF	OBJECTIVE	TARGETS/ACTIONS	INDICATORS
		To optimise recycling and composting within Warwickshire.	Types of material that can be recycled by Warwickshire Householders
		Aim to achieve aspirational countywide recycling and composting targets of 65% by the end of the strategy period (2020).	Re-use, recycling and composting rate % (NI192)
JMWMS 3	To meet and exceed national re-use, recycling and composting	Extend home composting	Number of households estimated to be composting at home.
	targets ²³	Provide an effective HWRC service aiming to reach re-use, recycling and composting levels of 74% across all sites by reducing recyclables being put into the residual waste stream	Performance of individual HWRCs (% rate).
		Raise awareness of recycling and composting in Warwickshire and promote behaviour change	Implement and monitor recycling and composting campaigns

5.1.4 Partnership working

The Partnership has a track record of support and co-operation and recognises this method of working is important for the efficient and effective implementation of the Strategy across the County. The new actions and targets included in the table below broaden the opportunities for Partnership working across the region, sub region and with appropriate stakeholders.

²³ The Waste Framework Directive target is to recycle or prepare for re-use 50% of household waste by 2020. The Directive also details a requirement to set up separate collection of "at least the following: paper, metal, plastic and glass", from the household waste stream by 2015.

REF	OBJECTIVE	TARGETS/ACTIONS	INDICATORS
JMWMS 4	Work in partnership with each other and other stakeholders to produce and implement the Strategy.	To work Regionally and Sub regionally with appropriate stakeholders to improve value for money and service delivery	Overall savings and/or improved service delivery

The Warwickshire Authorities will aim to lobby Government on key waste issues by responding to relevant consultations.

5.1.5 Public participation

The Partnership recognises that effective engagement with the public is essential to implementing the Strategy and will engage with the public across Warwickshire through various methods for the remaining period of the Strategy.

REF	OBJECTIVE	TARGETS/ACTIONS	INDICATORS
JMWMS 5	Encourage public participation in the implementation and review of the Waste Strategy	Keep the public informed with progress on local and national targets	Provide web-based feedback – updated to reflect changes in performance.

5.1.6 Review and update

The Partnership made a commitment to carry out a review of the Strategy at key intervals linked to the target years of the landfill directive²⁴. In 2012 the Authority made the decision to update the strategy rather than complete a full review, due to the Government reviewing the legal requirement for councils to produce a strategy.

Since the next critical review point was listed as 2020, the Partnership suggests the Strategy is reviewed in the final year of the current strategy period - 2019/20.

REF	OBJECTIVE	TARGETS/ACTIONS	INDICATORS
JMWMS 6	Regularly review and update the Strategy and implementation programme	Review the strategy in the final year of current strategy period – 2019/20'	Feedback on changes and put information on web
		Annual reporting on progress with targets and actions	Progress reported to Partnership and on web

²⁴ (The target years are 2010, 2013, 2020)

6 Delivery of updated targets and objectives

The following sections outline in broad terms how the updated objectives and targets are to be met. The delivery of the objectives will be made via the following main areas:

- Waste Reduction and Re-use
- Recycling and Composting
- Residual waste treatment and disposal

6.1 Waste Reduction and Re-use

The Partnership recognises the need to move waste up the hierarchy and will continue to support initiatives to reduce and re-use household waste in order to meet the updated targets.

- Reduction and Re-use targets
- Areas for focus for waste reduction and re-use
- Monitoring waste reduction and re-use

6.1.1 Reduction and Re-use targets

As listed in Section 5.1 the Partnership has decided to aim to:

- Reduce residual waste to 311 kg per household by the end of the strategy period (2020)
- Raise awareness of waste reduction and promote behaviour change
- Increase re-use of materials in Warwickshire

6.1.1.1 Target setting

The Partnership has set a target to reduce residual waste per household per year.

The process of setting this target commenced at the Warwickshire Waste Partnership Conference in March 2013 when all attendees²⁵ voted on a series of possible targets. The initial reduction target proposed at this time was to reduce

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²⁵ Attendees included Members, key stakeholders, contractors and officers

municipal waste per person. The majority of attendees (49%) voted to reduce municipal waste to 307kg per person.

A public consultation on the Strategy update took place in April/May 2013. As part of the consultation the public were asked whether they supported the 307kg per person put forward by the Partnership. The results showed that overall the public did support the target put forward.

A report was taken to the Warwickshire Waste Partnership in June 2013 providing an overview of progress with the update, including the proposed waste reduction target. The Partnership discussed whether it would be better to have a waste reduction target that would focus Partners on reducing the amount of residual waste. It was felt by the Partnership that this would not be realistic in the proposed time period. The public were asked to come forward if they did not agree with the residual waste reduction target; however no further comments were received.

6.1.2 Areas of focus for waste reduction and re-use

6.1.2.1 Reduction

The Partnership feels that informing residents and communicating the different options available is very important and so intends to implement a range of waste reduction campaigns to meet the updated targets.

At the waste management conference in March 2012, the Partnership suggested the following three schemes to be the focus for promoting waste education in Warwickshire:

- Love Food Hate Waste and smart shopping
- Home Composting and Master Gardeners
- Junk mail

A public consultation on the Strategy update took place in April/May 2013. As part of the consultation the public were asked whether they supported the areas of focus put forward by the Partnership. The results showed that overall the public did support the reduction schemes put forward.

The Partnership will also focus on disposable nappies, as this was a key material found in the residual waste 2012/13 waste analysis.

Details on how each of these schemes could be implemented are provided in the following sections:

²⁶ Disposable nappies made up 7.3% of the total residual waste

Love Food Hate Waste and smart shopping

The Partnership will continue to promote the Love Food Hate Waste campaign in Warwickshire in order to help residents reduce the amount of food they waste. Love Food Hate Waste also runs as a national campaign in association with WRAP²⁷ useful resources available to use include an informative website²⁸ and new application for smart phones.

The basis of the Love Food Hate Waste campaign is designed to promote easy practical tips to help change the way people behave such as adapting purchasing practices by better meal planning, prolonging the life of purchased food by proper storage and adapting cooking behaviours to ensure the correct portions are cooked. It is hoped that by supporting people to make changes and demonstrating how much money they can save they will begin to change their behaviour. It is thought that a successful campaign in Warwickshire should prevent around 12,000 tonnes²⁹ per year of food waste arising over the period of the Strategy.

Home composting and Master Gardeners

The recent 2012/2013 analysis showed that 18% of the total residual waste was potentially home compostable. The Partnership will promote home composting to residents in the county and will make home composting bins available at a subsidised rate. The Partnership will also continue to support the Master Composter scheme. The Master Composter scheme trains local volunteers to provide information and encouragement to residents to successfully use their compost bin and generally help spread the composting message.

The Master Gardener's scheme trains volunteers to support other householders growing their own food, as people who grow their own food are more likely to home compost. The scheme also links with the smart shopping message, as home grown food has no packaging.

Junk Mail

Warwickshire residents will be encouraged to sign up to the mailing preference service through online and press release promotion campaigns. Members of the public will also be able to request 'no junk mail' stickers for their home. When residents request a sticker they will also be provided with instructions on how to use the mailing preference service.

Real nappies

Since the outcome of the composition in 2012/13 showed there were significant quantities of disposable nappies in the residual waste bin it is felt the Partnership

²⁷ Waste Resources Action Programme

²⁸ www.lovefoodhatewaste.com

Based on a food waste reduction of 15kg per person

should encourage residents to use real nappies. Ideas to do this include possible trial packs for residents to borrow or suggesting residents use real nappies when they can i.e. at weekends or in the evening.

6.1.2.2 Re-use

Re-use is an important part of the waste hierarchy, and nationally Warwickshire has been one of the local authorities leading the way. The Partnership feels that with the right support the re-use market will continue to grow in Warwickshire, particularly as the re-use ethos gains support from local communities and the national media.

At the waste management conference held in March 2013 the Partnership suggested the following three schemes should be the focus for promoting and improving re-use in Warwickshire:

- Bulky waste collections furniture collected for a charge by your district or borough council
- Furniture re-use schemes carried out by charities or not for profit organisations
- HWRC re-use shops currently operating at 8³⁰ of the 9 HWRCs in Warwickshire.

A public consultation on the Strategy update took place in April/May 2013. As part of the consultation the public were asked whether they supported the areas of focus put forward by the Partnership. The results showed that overall the public did support the re-use schemes put forward.

Details on how each of these schemes could be implemented are provided in the sections below.

Bulky waste collections and furniture re-use schemes

The Warwickshire Re-use Forum has been operating for several years and has recently expanded to include Coventry and Solihull. The Re-Use Forum is a network of organisations interested in promoting and increasing re-use across the region. Members include Local Authorities, Third Sector Organisations (such as charities and community groups), as well as businesses.

In a report commissioned by the Re-use Forum in 2012/13 it was identified that there is both the supply and demand to increase re-use and recycling of bulky waste and furniture re-use schemes in Coventry, Solihull and Warwickshire, although supply and demand are not necessarily located in the same areas.

Following production of the research report, an implementation plan for the Forum was developed in spring 2013. The aim of the plan is to increase the total amount of

³⁰ A re-use shop will open at the remaining site in Spring 2014

bulky waste re-used and recycled across Coventry, Solihull and Warwickshire within two years. The Partnership will continue to support re-use in Warwickshire as a member of the Warwickshire, Coventry and Solihull Re-use Forum.

HWRC re-use shops

Warwickshire pioneered HWRC re-use shops in 2003 and now has shops at all but one HWRC. A re-use shop will open at the remaining HWRC in spring 2014.

The Partnership will continue to support HWRC re-use shops and will progress initiatives that increase re-use levels where appropriate.

6.1.3 Monitoring waste reduction and re-use

The Partnership will monitor the following reduction and re-use indicators:

- Kilograms of residual waste per household (NI191)
- Implementation/monitoring of key waste reduction campaigns
- Tonnage of re-use in Warwickshire
- Number of community furniture re-use schemes in Warwickshire

If monitoring shows that there is insufficient progress, the Partnership will consider undertaking corrective measures.

As a variety of factors can influence waste production and residents behaviour it can be difficult to measure waste reduction and re-use activities with accuracy. The Partnership recognises the challenge and will seek to implement best practice on waste reduction and re-use where appropriate.

6.2 Recycling and composting

The household recycling and composting performance in Warwickshire has improved from 29.9% in 2005/06 to 52.2% in 2012/13.

The improvements have been achieved through various service changes to kerbside collections implemented across the county, improvements to the HWRC service as well as communication activities.

- Recycling and composting target
- Areas of focus for waste recycling and composting
- Monitoring of recycling and composting

6.2.1 Recycling and composting target

The national target for recycling and composting of household waste is 50% by 2020³¹. As the Partnership has already achieved the national target for household waste, the Partnership has set an ambitious local target as part of the update.

The Partnership is therefore aiming to achieve:

• 65% re-use, recycling and composting of household waste by 2020

A range of campaigns and projects will be required to deliver the Partnership's recycling and composting target the keys areas for focus are outlined in section 7.2

6.2.1.1 Target setting

The Partnership has set a target to increase re-use, recycling and composting of household waste by 2020.

The process of setting this target commenced at the Warwickshire Waste Partnership Conference in March 2013 when all attendees³² voted on a series of possible targets. The top two votes were very close with 36% opting for a re-use, recycling and composting rate of 60-65% and 38% opting for a re-use, recycling and composting rate of 70%.

A public consultation on the Strategy update took place in April/May 2013. As part of the consultation the public were asked whether they supported the 70% re-use, recycling and composting target put forward by the Partnership. The results showed that overall the public did support the target put forward.

A report was taken to the Warwickshire Waste Partnership in June 2013 providing an overview of progress with the update, including the proposed 70% re-use, recycling and composting target. The Partnership discussed the fact that a 70% rate could only be achieved if all recyclable material was removed from the residual waste bin. It was felt by the Partnership that this would not be realistic in the proposed time period. The Partnership felt a 65% target would be more practical for partner authorities. The public were asked to come forward if they did not agree with the 65% target; however no further comments were received.

6.2.2 Areas of focus for recycling and composting

The Partnership feels that informing residents and communicating the different options available is very important and so intends to implement a range of recycling and composting campaigns to meet the updated targets.

³¹ The Waste Framework Directive target is to recycle or prepare for re-use 50% of household waste by 2020. The Directive also details a requirement to set up separate collection of "at least the following: paper, metal, plastic and glass", from the household waste stream by 2015.

³² Attendees included Members, key stakeholders, contractors and officers

The waste composition analysis carried out in 2012/13 showed that 47.9% of collected residual waste could have been recycled at the kerbside using the existing services and infrastructure. An average of 66% of the residual HWRC waste was recyclable; of this waste 26% was compatible with kerbside recycling and an additional 40% within HWRC recycling containers.

The Partnership intends to implement a range of waste recycling and composting campaigns for key materials shown in the 2012/13 waste analysis. Key materials to focus on will be food, metal, plastic and textiles since these will have the most beneficial carbon impact³³ and in some cases make up a significant percentage of the total residual waste³⁴. Other key materials to target are paper, card/cardboard and glass as these also make up a significant percentage of the total residual waste³⁵.

The Partnership will also aim to raise awareness of recycling and composting generally - for example within schools or voluntary organisations and at times when large quantities may be produced; such as during holiday periods.

6.2.2.1 Kerbside

At the waste management conference in March 2013, the Partnership agreed the following three areas to be the focus for promoting kerbside waste education in Warwickshire:

- Promotion of environmental and economic benefits
- More information about services how, when, what
- Smaller replacement residual waste bins

A public consultation on the Strategy update took place in April/May 2013. As part of the consultation the public were asked whether they supported the areas of focus put forward by the Partnership.

The results showed that overall the public did support the areas of focus for kerbside recycling and composting put forward.

The Partnership is also proposing to review the roll out of kerbside recycling and composting services to areas that have access to a service - such as flats.

Based on life cycle assessment results (Waste Review 2011)

Food (18%), Metal (1.8%), Plastic (13.6%), Textiles (3.3%)

³⁵ Paper (4.9%), Card/Cardboard (2.9%), Glass (2%)

Details on how each of these schemes could be implemented are provided in the following sections.

Promotion of environmental and economic benefits and more information about services

Getting the most out of the current kerbside recycling systems is a cost effective option for improving recycling performance. The Partnership will look at a range of measures to improve the performance of current recycling and composting schemes, including considering possible barriers and use of targeted communication messages.

WRAP³⁶ has carried out research into the types of messages which work best for each segment of the population. For example:

- 'Complete recyclers' and 'broadly competent recyclers' (who make up 30% of the population nationally) will be engaged by messages that outline the cost of recycling, the cost of waste disposal and landfill tax or via feedback on recycling rates and thank you messages.
- 'Unreliable recyclers' and 'recyclers who are trying their best' (who make up 43% of the population nationally) will be engaged by messages that dispel recycling myths such as what can/cannot be accepted or highlighting what happens to recycling once it is collected.

Smaller replacement residual waste bins

At the waste conference in March 2013 the Partnership agreed to a longer term policy of replacing the larger residual waste bins (240 litre) with smaller (180 litre) bins, such as those used by Warwick District. Use of the smaller residual waste bins will encourage the use of recycling services since the capacity to put recyclable waste into the residual waste bin will be reduced.

6.2.2.2 HWRC

The Partnership also agreed the following four areas to be the focus for promoting HWRC waste education in Warwickshire:

- Promotion of environmental and economic benefits
- Replace van permits with voucher system for managing vehicle restriction policy
- Strict policies/ enforcement on what can go into the residual waste
 open bag policy
- More materials collected

³⁶ WRAP (Waste Resources Action Programme)

A public consultation on the Strategy update took place in April/May 2013. As part of the consultation the public were asked whether they supported the areas of focus put forward by the Partnership. The results showed that overall the public did support the areas of focus for HWRC recycling and composting put forward.

Details on how each of these schemes could be implemented are provided in the following sections.

Promotion of environmental and economic benefits

It is vital for residents to know where sites are located, opening times, what wastes can be recycled and whether there are any restrictions (particularly if changes have been made to the network). It is also important to promote other messages such as the cost of recycling, the cost of waste disposal and landfill tax, feedback on recycling rates, thank you messages, myths busting on what can/cannot be accepted, as well as highlighting what happens to recycling once it is collected. The Partnership will aim to raise the profile of HWRC recycling and composting in Warwickshire.

Replacing van permits with voucher system for managing the vehicle restriction policy

The disposal of large proportions of waste at all of Warwickshires HWRCs is managed by the vehicle restriction policy. Warwickshire County Council operates an annual permit and voucher system for households whose only means of transport fall within the vehicle restrictions. The permit and voucher system will be reviewed and updated if appropriate.

Strict policies/ enforcements on what can go into the residual waste - open bag policy

The 2012/13 waste analysis caried out showed that a large proportion of the waste being disposed of at the HWRCs is bagged household waste. This material formed 12.6% of the residual waste at the weekends and 21.3% during the week.

At many of the high performing HWRCs, site staff manage the disposal of the residual waste including segregating waste brought to the sites in black bags. The partnership will look at introducing an open bag policy to ensure that all recyclable waste is put into the correct containers on site.

Materials found in the residual waste to target include:

- Food
- Garden waste
- Paper
- Card/cardboard
- Textiles
- Plastics

In order to help people use the recycling containers a trial will be carried out using a meet and greet operative on site to help people locate the right containers.

More materials collected

The recycling of new material types will become increasingly common, as new outlets are developed and new recyclers enter the market. The Partnership will continue to monitor the markets and will explore the potential incorporation of additional materials into existing services, as they become viable.

For example mattresses and carpet make up a significant element of the non-recyclable waste collected at some HWRCs, if these materials can be diverted to recycling markets, the environment will benefit and waste management costs may fall.

6.2.3 Monitoring recycling and composting

The Partnership will monitor the following recycling and composting indicators:

- Types of material that can be recycled by Warwickshire householders
- Re-use, recycling and composting rate (NI192) ³⁷
- Number of households estimated to be composting at home
- Performance of individual HWRCs (re-use, recycling and composting rate)
- Implementation/monitoring of key recycling and composting campaigns

If monitoring shows that there is insufficient progress, the Partnership will consider undertaking corrective measures.

6.3 Residual Waste Treatment and Disposal

Since the Warwickshire Strategy was adopted in 2005, the amount of residual waste has decreased from 217,674 tonnes per annum in 2005/06 to 119,980 tonnes per annum in 2012/13.

The decrease could be due to:

- Waste Prevention activities
- Increased household recycling, composting and re-use
- A decrease in waste arisings due to a down-turn in the economy

³⁷ The Partnership report their recycling and composting performance through the national WasteDataFlow system. The Partnership will continue to monitor performance against the former National Indicator 192 (percentage of household waste sent for re-use, recycling or composting) using data submitted to the WasteDataFlow system.

There has also been a decrease in the proportion of residual waste sent to landfill for disposal. In 2005/06, 210,323 tonnes of municipal waste generated in Warwickshire was disposed of to landfill (67%) and in 2012/13, 87,412 tonnes of municipal waste was disposed of to landfill (33%).

- Residual waste treatment and disposal capacity
- Monitoring residual waste treatment and disposal

6.3.1 Residual waste treatment and disposal capacity

Warwickshire County Council decided to go into partnership with Staffordshire County Council for disposal of waste from North Warwickshire and Nuneaton in 2007. The project, known as W2R, will see an energy from waste facility built at Four Ashes in Staffordshire, the facility is expected to start operation in December 2013. Warwickshire is currently forecasting the facility will process 40,000 tonnes of Warwickshire's residual waste per annum, although this will be reviewed every five years.

In March 2008, Warwickshire County Council (WCC), Coventry City Council and Solihull Metropolitan Borough Council submitted a bid for PFI credits to develop a sub-regional waste treatment solution (Project Transform). The facility would have treated the waste from Warwick, Rugby and Stratford in Warwickshire and all of the waste from Coventry and Solihull. The project was approved by Defra and was forecast to take three years, with financial close estimated to be March 2012. In June 2010, following political changes in the administration of Coventry and Solihull Councils; a decision was made by these Authorities to withdraw from the Project.

With the loss of Project Transform, the County Council decided to review its position in relation to residual waste for Warwick, Rugby and Stratford.

Whilst Warwickshire's review was being carried out, the Government announced the removal of LATS at the end of the 2012/13 scheme year. The removal of LATS left landfill tax as the key financial driver for diverting waste from landfill.

The review found that there is sufficient capacity within the County Council's current contracts to meet the requirements for residual waste treatment and disposal, utilising a combination of Energy from Waste and landfill capacity up to 2018.

The County Council will continue to investigate the best solution for Warwickshire's residual waste; any new waste contract(s) for Warwickshire will support the diversion of waste from landfill, thereby avoiding the rising cost of landfill tax, would seek the best combination of value and flexibility, and not be restricted to any particular waste disposal technology.

6.3.2 Monitoring residual waste treatment and disposal

The Partnership will monitor the following indicators in relation to residual waste treatment and disposal:

- Annual Kilograms of residual waste per household ³⁸
- Reduction in the overall tonnage of waste disposal to landfill

In addition the Partnership will monitor the development of new technologies so waste is continually moved up the waste hierarchy where technically, environmentally and economically practicable.

If monitoring shows that there is insufficient progress in the above indicators, then the Partnership will consider undertaking corrective measures.

³⁸ The Partnership will continue to monitor performance against the former National Indicator 191 (KG of residual waste per household) using data submitted to the WasteDataFlow system.

7 Overview of Implementation Plan

The updated Strategy will be supported by an implementation plan, which sets out how the Partnership aims to achieve the objectives.

The document will be developed by the Partnership and will provide detail on the activities to be carried out in order to move the Strategy forward.

The plan will be a 'living' document and will be monitored and updated on an ongoing basis. Where monitoring identifies that insufficient progress is being made in a particular area, then additional activities / corrective measures may be introduced.

The plan will contain the following:

- Time-bound actions and targets to achieving the strategic objectives
- Details of who will be responsible for each action
- Details of the monitoring and revision procedures

Outlined below are the key strategic areas that will inform the development of the accompanying Plan:

7.1 Key strategic areas

- Implement and monitor a range of waste reduction campaigns to raise awareness and promote behaviour change (love food hate waste, smart shopping, home composting and master gardeners, junk mail, real nappies)
- Implement measures to improve re-use through the HWRC re-use shops and bulky waste collections
- Work with partners (re-use forum, third sector organisations, etc.) to increase re-use in Warwickshire
- Commence review and implementation of measures to improve kerbside recycling and composting performance; such as roll out of services to flats and provision of smaller replacement residual waste bins
- Commence review and implementation of measures to improve HWRC recycling and composting performance; such as review of van permit scheme, meet and greet trial and open bag policy

- Implementation of various communication activities (providing information on current services and promoting behaviour change) to improve performance of current recycling and composting schemes
- Raise awareness of recycling and composting across Warwickshire by providing information on the environmental and economic benefits to the public and key stakeholders (volunteer groups, third sector organisations, schools etc.)
- Review of waste technologies on a regular basis to optimise recycling and composting opportunities for Warwickshire residents
- Introduce measuring and monitoring of the carbon impact of Warwickshire's waste management (using Government guidance/carbon metric tool)
- Continue to investigate the best solution for Warwickshire's residual waste, ensuring any new residual waste contracts support the diversion of waste from landfill
- Promote and support implementation of commercial services for recycling and composting of business waste (particularly SMEs) at the HWRCs
- Consider opportunities for increased partnership working within Warwickshire and across the region to support the efficient delivery of services and savings
- The Warwickshire Authorities will lobby Government on key waste issues by responding to relevant consultations either individually, through relevant organisations or as a Partnership

8 Working in Partnership

8.1 Working together

The Partnership has a good track record of co-operation, and the partner authorities will continue to work together to provide residents with high-quality, efficient services. This updated Strategy will provide a foundation for continued joint working.

To deliver this Strategy, it is recognised that effective engagement with key stakeholders and the public is essential. Partner authorities have and will continue to work together on communications campaigns in order to deliver strong, coherent messages to key stakeholders and the public.

The role of education will also play an important role in ensuring successful delivery of the strategy objectives by helping to ensure that residents are aware of the services available to them, and by changing behaviour to promote waste reduction, re-use and increased recycling. This will take place as part of communications campaigns, but also through direct engagement (where appropriate) with community groups, volunteers and schools.

The Partnership will lobby Government through submission of responses to key consultations and calls for evidence. The Warwickshire Authorities may submit responses individually, through relevant organisations such as LARAC (Local Authority Recycling Advisory Committee), NAWDO (National Association of Waste Disposal Officers) or CIWM (Chartered Institute of Waste Management) or as a Partnership.

8.2 External partnerships

Partnership working between different groups and sectors is becoming increasingly important.

The Partnership will continue to explore opportunities to work with others, including 'third party' and community groups, wherever practical, efficient and within the public interest. There are already several successful examples of where this has worked previously, such as the Master Composters scheme which promotes home composting, and partnerships with Third Sector Organisations to operate the re-use shops at the HWRCs.

We will also continue to build links with other partnerships and local authorities, in order that information and examples of best practice can be shared, and joint working opportunities can be explored.

8.3 Monitoring

The Partnership will continue to work together and will meet regularly at both a Member and Officer Level to monitor progress. Information on overall savings and/or improved service delivery will be reported to the Partnership.