

## *Paper (A)*

# **Waste Streams in Wiltshire**

## Joint Municipal Waste Management Strategy

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## 1. Introduction

This document is a supplementary report to the overall Joint Municipal Waste Management Strategy (JMWMS). The main strategy document primarily describes how municipal, including household waste is to be dealt with, but this report covers particular waste streams which require more detailed consideration. These streams are waste within the overall household waste stream, wastes which are not household but are classified as municipal solid waste (MSW) and also wastes that are not municipal waste, but require consideration within the strategy.

## 2. Commercial Waste

For the purpose of this document MSW, is household waste together with any other waste collected by the waste collection authorities (WCAs) or their agents such as waste from parks and gardens, litter and gully waste, some commercial and industrial waste or waste resulting from the clearance of fly tipping.

The WCA must arrange for a collection of commercial waste if requested to do so in accordance with the **Environmental Protection Act 1990** (EPA 1990). However, only a small percentage of commercial waste arisings collected by the WCA each year and thus becomes municipal waste

Under EPA 1990, Wiltshire County Council (WCC) as waste disposal authority (WDA) is required to dispose of waste collected by the waste collection authorities (WCAs) from commercial premises in Wiltshire. This waste amounted to 6% of municipal waste arisings in 2004/05 or approximately 15,047 tonnes. This waste stream originates from commercial and trade activities across Wiltshire - including waste from small to medium enterprises (SMEs) such as offices, shops, and cafes – but not from industrial or agricultural sources. The cost of collecting and disposing of commercial and industrial waste must be borne by the Producer.

The commercial waste stream in Wiltshire will be closely analysed by way of a **Compositional Analysis** (CA). The CA will take place during two seasons in order to take account of seasonal variations in MSW. The first was completed in June 2005 and the second will take place in November-December 2005. The CA should provide accurate data to enable the District Councils to consider the most appropriate management methods when assessing the impact of recycling collections and, the potential for extending recycling rounds, particularly into the rural areas, (ii) and robust information for the contractor so they have a clear understanding of how much variety there is.

**Key Policy 1: *Work with the WWP to maintain and improve the capacity for managing household and commercial waste in Wiltshire by re-use, recycling and recovery***

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It can be assumed at this stage to comprise both biodegradable and non-biodegradable wastes, and also potentially recyclable materials. There are no national or European targets requiring WDAs to recycle commercial waste although Waste Strategy 2000 set aspirational targets to reduce the amount of industrial and commercial waste sent to landfill. In response to this the **Wiltshire Strategic Board** (WiSB) which was set up in 2002 aims to make Wiltshire the most waste efficient county by 2014. It aims to do this by reducing the amount of commercial waste produced per employee of Strategic Board members. This may help reduce the amount of commercial waste produced long term... although no specific targets have been placed on waste producers to recycle or recover their waste.

The WCAs have set up a working party to look at the potential for recycling commercial waste collected by themselves, which if recycled would make a valuable contribution to achieving future recycling targets.

**Key policy 6: Develop closer working practices to address commercial waste streams**

### 2.1 Waste Arising from County Council Activities

Wiltshire County Council's own policy on waste production is that the Council is committed:

- To seek to ensure that waste produced by WCC is minimised and controlled and to pursue sustainable practices in waste contract management (Wiltshire County Council Environmental Policy).

In practical terms, both under the local strategic partnership aims and under its own environmental policy, this means WCC will endeavour to ensure that resources are procured, used and finally disposed of in a sustainable way when carrying out its core business activities.

**Key Policy 7: Work in partnership to optimise the procurement, delivery and success of new services**

To this end, the WCC is committed to implementing recycling and waste reduction systems wherever practicable across all WCC premises. This will include:

- the segregation of waste streams for **recycling** where possible (e.g. paper, aluminium cans, etc)
- the **reuse** of items where appropriate (e.g. reuse of printer ink cartridges, scribble pads made from scrap paper)
- and the implementation of schemes designed to **reduce** the amount of waste produced e.g. printing documents on double sided paper, etc

Such systems are already in place in County Hall and will in future be rolled out to other premises as widely as possible.

### 3. Hazardous Waste from Households

There are hazardous materials present in the household waste stream; this is clearly a matter of concern, although the quantities are generally very small. Such materials include asbestos, gas cylinders, waste oils, car batteries etc. Such materials in Wiltshire are generally collected from HRCs. In 2004/05, 73 tonnes of asbestos were collected, 42 tonnes of gas cylinders, 58 tonnes of waste oils and 228 tonnes of car batteries, as well as other types of wastes including pesticides. In 2004/05, 561 tonnes of hazardous waste was collected from HRCs.

Material	2003/04	2004/05
Asbestos	33	73
Gas bottles	39	42
Oil	58	58
Car batteries	152	228
Tyres	52	160
<b>Total</b>	<b>334</b>	<b>561</b>

EU and UK legislation has dramatically reduced the number of landfill sites that may accept hazardous waste in the UK. In Wiltshire, Purton landfill near Swindon accepts hazardous waste and is one of only a handful in the UK. It is important to note that there is no such thing as household hazardous waste, and that there is no legal definition that identifies household hazardous waste as a separate waste stream. Therefore, if a householder throws out any hazardous items in their general refuse, local authorities are not required to sort or treat such items separately.

#### 3.1 Asbestos

Since 1999 all asbestos has effectively been banned from new products and processes in the UK. Clearly, there are still large quantities of asbestos containing items still in use. There are 2 types of waste asbestos, the material that has been sprayed or used for lagging or insulating and, cement bonded asbestos which is used for roofing sheets on top of garages for example. The transportation of such material must be in line with the **Hazardous Waste Regulations 2005** (the Hazardous Waste (England and Wales) Regulations and the List of Wastes (England) superseded the Special Waste Regulations (1996) in July 2005). Unlike most minerals which turn into dust particles when crushed, asbestos breaks into tiny fibres. It is the inhalation of these fibres especially through occupational exposure that can lead to asbestosis. Wiltshire County Council does make provision for the disposal of asbestos, at 3 HRCs (Purton, Warminster and Salisbury). This is applicable to householders only. Contractors must arrange with a specialised waste contractor for the removal of asbestos. Asbestos is disposed of at Purton Hazardous landfill site, Studley Grange and Pound Bottom in Wiltshire.

### 3.2 Batteries

The proposed 2008 **EU Battery and Accumulators Directive** states that certain batteries should be prohibited in view of the amount of dangerous substances they contain. Some batteries and accumulators are recovered and disposed of in a controlled manner and the Directive states that the collection and recycling of certain batteries and accumulators should take place in order to reduce the unnecessary use of raw materials. The aim of the Directive is to achieve a gradual reduction in household battery waste and to increase recycling. A recent decision by the European Commission to adopt the new Battery Directive will require the collection of all batteries placed on the EU market through producer responsibility. In the UK we tend to use 2 types of batteries, consumer batteries and automotive batteries. In 2004/05, 228 tonnes of car batteries were collected and disposed by Shanleys in Trowbridge and Metal Dealer Ltd Salisbury.

### 3.3 Chemicals

Most household chemicals including weed killers, pesticides and herbicides etc are classified as special waste and are covered by the **Hazardous Waste Directive (2005)**<sup>1</sup>. The Directive lists different categories of hazardous materials which are defined as waste that could potentially increase the hazardous properties of MSW on landfill if incinerated or composted. Such material taken to HRCs in Wiltshire is secured in a container with all the relevant packaging and labels to allow for the identification and appropriate treatment. The County Council arranges for special waste collections from those householders unable to visit HRCs. From April 2004, many pesticides were banned and it is therefore illegal for householders to retain many pesticides.

### 3.4 Paint

Each year more than 300 million litres of decorative paint are sold in the UK for domestic or trade use. Paint contains organic solvents and naturally occurring volatile organic compounds (VOCs). VOCs should be contained due to the reaction which takes place when they come into contact with direct sunlight, producing ground level ozone. Small amounts of paint are deposited at HRCs for recycling. Large quantities of re-useable paint can be donated to community paint schemes such as the **Wiltshire Scrap and Resource Centre or Swindon's Scrap Store**. Paint is then distributed from the scrap stores to those who need paint but cannot afford it.

**Key policy 10: Improve communication and working with local community organisations**

<sup>1</sup> On 16 July 2005 the Hazardous Waste (England and Wales) Regulations and the List of Wastes (England) Regulations come into force replacing the Special Waste Regulations. The Special Waste Regulations 1996 transposed the requirements of the European Hazardous Waste Directive (91/689/EEC) which sets out requirements for the controlled management of hazardous (special) waste. The Regulations set out procedures to be followed when disposing of, carrying and receiving hazardous waste.

#### 4. Clinical Waste

The majority of clinical waste is generated and handled through the National Health Service in the UK. However, in recent years there has been an increasing amount of clinical waste generated at household level. In Wiltshire, District Councils have a duty under the Environmental Protection Act (1990) to arrange for the collection and disposal of clinical waste from households. They generally make a reasonable charge for this service.

#### 5. Electrical Equipment

It is estimated that the UK discards just under a million tonnes of waste electrical and electronic equipment (WEEE) each year. This includes large household appliances such as fridges, freezers and washing machines which account for 43% of this total and IT equipment (39%). Currently, each year Wiltshire disposes of approximately 9,600 tonnes of electrical equipment. In 2003, the **Waste Electrical and Electronic Equipment Directive** (WEEE) and its sister directive the **Restriction on the use of Certain Hazardous Substances in Electrical and Electronic Equipment** (the RoHS Directive) came into force. The Directives are intended to reduce the environmental health impact associated with the disposal of these products and conserve resources.

Whilst there are reporting deadlines the overall deadline will not be transposed fully into the UK until 2006.

With the help of the **Wiltshire Wildlife Trust**, **Refurbiz** was set up in 2004 to divert waste electrical goods from landfill, refurbish them, and pass them on at low or no cost to disadvantaged people through the Wiltshire network of furniture recyclers. This process could cut the amount of such goods landfilled by up to 30% by 2007.

Refurbiz will screen the goods, restore those that can be repaired and then pass them on to recycling charity groups who will sell them at low cost to people on means tested benefits. Items that are beyond repair will be stripped down to reusable components, and any components left over will go to scrap dealers for recycling. All HRCs in Wiltshire accept WEEE items.

**Key Policy 9: Recognise the needs, and contributions, that other stakeholders have in developing the strategy**

## 5.1 Refrigeration Equipment

Refrigeration equipment traditionally used CFCs (chlorofluorocarbons), before CFCs were identified as the primary ozone depleting substances (ODS) responsible for destroying the ozone layer. CFCs are no longer used as a refrigerant in new refrigeration equipment. Hydrochlorofluorocarbons (HCFCs) are now used in place of CFCs, which also contain ODSs, but which have a lower ozone depleting potential. In January 2002 the Environmental Protection (Controls on Ozone-Depleting Substances) Regulations came into force. These required the disposal of units containing CFCs, namely fridges and freezers, to be treated only through specialised treatment processes. This is to ensure the proper treatment and disposal of CFCs and HCFCs. Wiltshire has plans in place to manage this waste stream. Fridges and freezers can be taken by householders to any HRC in Wiltshire. The collected appliances are removed and treated by a specialised contractor which treats in line with EU legislation.

## 5.2 Cathode Ray Tubes (CRTs)

6% of the total waste from WEEE can be attributed to glass, and is covered by the WEEE directive. Two or three different types of glass are used in a typical cathode ray tubes (CRT). This glass can be hazardous, and difficult to separate and recycle because of its composition. At present all of Wiltshire's household recycling centres accept CRT.

## 5.3 Polychlorinated biphenyls (PCBs) and Polychlorinated terphenyls (PCTs)

**Polychlorinated biphenyls (PCBs)** and **Polychlorinated terphenyls (PCTs)** were used in electrical and electronic equipment manufactured between the 1950s and 1980s. They were used in items such as fluorescent tubes, spin dryers, microwaves, and street lights. European directive 96/59/EC deals with the disposal of PCBs and PCTs and has led to the identification and removal of all major sources of these chemicals. At present items containing small quantities of PCBs and PCTs are treated along with all other WEEE.

## 5.4 Fluorescent Lighting Tubes

Approximately 85 million fluorescent tubes are sold annually in the UK, and 85% of these are disposed of to landfill. As tubes contain mercury they have huge potential to pollute. In 2005, there are no EC directives on this waste stream. However in the UK, companies dealing with this waste require a waste management licence, although tubes can be disposed of to landfill with other household or commercial wastes. Because of the polluting nature of this waste, Wiltshire uses a specialist contractor to dispose of this waste collected at HRCs (The Lamp Recycling Company 2005).

**Key Policy 5: *Facilitate the potential development of facilities for the treatment of residual waste from household and commercial streams***

## 6. Packaging

Packaging accounts for 7% by weight of waste sent to landfill. Packaging can be defined as any product made of any material which is used for containment, protection handling, delivery and presentation of goods. Packaging can be divided into 3 groups; primary, secondary and transit or tertiary. In 1994 the **EC Directive on Packaging and Packaging Waste** was adopted. This was transposed into the UK through the **Producer Responsibility Obligations (Packaging Waste) Regulations 1997 (PRO)**. PRO places an obligation on producers, wholesalers and retailers for the recovery and recycling of packaging waste. The obligation should be carried out by the company itself or through a compliance scheme which would undertake the obligations on behalf of its members. To date the regulations have only applied to businesses within a certain threshold however, as packaging targets increase, it is likely that post consumer packaging wastes will be targeted and recovered.

Wiltshire collects post-consumer packaging waste (cardboard) for recycling and recovery, through its kerbside collections and at HRCs.

## 7. Furniture

Unwanted furniture is a bulky waste stream. Many items of unwanted furniture may be suitable for refurbishment or re-use, although soft furnishings are subject to fire regulations.

The following recycling charities in Wiltshire take used furniture items if of good quality:

- Calne and North Wiltshire Genesis
- Chippenham and North Wiltshire Waste Not Want Not
- Devizes and Kennet Furniture Recycling
- Salisbury and South Wiltshire Burnbake Trust
- Swindon Top Drawer
- Trowbridge and West Wiltshire Group 5

There is great demand for such items. However the charities are only able to supply approximately 5% of goods to those in need each year.

**Key Policy 10: Improve communication and working with local community organisations**

## 8. Abandoned Vehicles/End of Life Vehicles (ELVs)

In 2000 approximately 1.8 million ELVs were scrapped in the UK against 350,000 which were abandoned on the highways and private land. In 2003, 3,300 vehicles were reported abandoned in Wiltshire and just fewer than 15,000 were removed and destroyed. This equated to £60,000 in costs for the County in 2003. The **End of Life Vehicles Directive** which regulates end of life vehicles came into force in 2004.

The Directive states that 80% of each vehicle should be recycled by 2006, rising to 85% in 2015. In addition to this, it requires producers to pay all or a significant part of the costs of ELV take back. It is anticipated that the ELV directive will encourage both design for recycling and a greater use for recycled material in the manufacture of vehicles.

Waste collection authorities (WCAs) have a legal responsibility under the Refuse Disposal Act<sup>2</sup> (1978) to deal with vehicles that are abandoned on the highway. However, it is the Waste Disposal Authority (WDA) who has responsibility for the treatment and disposal of vehicles. In Wiltshire, the WCA pays for the initial treatment and disposal and then claim this money back from the WDA. When vehicles go for disposal they are de polluted and recycled in accordance with the Directive. The WCAs deals with approximately 15 dismantlers in and around Wiltshire which depollute and recycle.

## 9. Litter and Road Sweepings

Under the Environmental Protection Act 1990, WCAs are required to keep the highways clear of debris at all times in accordance with the Code of Practice for Litter and Refuse. The act effectively requires Councils to regularly sweep all roads within their area unless the Highway is designated as a motorway or trunk road. If this is the case, it is the responsibility of the Highways Agency. Litter and road sweepings are classed as household waste under the **Controlled Waste Regulations 1992**. In 2004/05, a total of 1,981 tonnes of road sweepings went to landfill whilst 2,176 tonnes were composted.

## 10. Fly Tipping

It is illegal to deposit waste on any land unless a **Waste Management Licence** authorising the deposit is enforced and the deposit is in accordance with the licence. Where waste has been illegally deposited on land and the identity of the fly tipper is unknown, the landowner becomes responsible for the legal disposal of that waste. It is normal under these circumstances that the relevant WCA instructs their contractor to remove the fly tipped waste. Ultimately the WDA, Wiltshire County Council is responsible for the disposal of the waste.

In addition to the above the **Clean Neighbourhoods and Environment Act** which was introduced in June 2005 provides local authorities with greater powers to deal with fly tipped waste including:

- Increased penalties associated with fly tipping as well as extending provisions on clear up to the landowner in the absence of the occupier.
- gives local authorities and the Environment Agency the power to issue fixed penalty notices (and, in the case of local authorities, to keep the receipts from such penalties) for waste left out on the streets (local authority only)
- introduces a more effective system for stop, search and seizure of vehicles used in illegal waste disposal; and enabling courts to require forfeiture of such vehicles

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<sup>2</sup> The Refuse Disposal Act is intended to reduce the environmental health impact associated with the disposal of these products and conserve resources

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- introduces a new provision covering the waste duty of care and the registration of waste carriers
- repeals the divestment provisions for waste disposal functions to provide greater flexibility for local authorities to deliver waste management services in the most sustainable way

### 11. Gully Waste

Gully waste is the material cleared from highway gullies and often contains liquid. Since July 2003 liquid waste has been banned from landfill sites under the provision of the EU landfill directive. Gully wastes now need to be de-watered before going to landfill. The de-watering is undertaken at various depots within Wiltshire and the solid matter is sent to landfill for disposal.

### 12. Tyres

Under the EU Landfill Directive, the disposal of whole tyres to landfill was banned in July 2003 and the disposal of shredded tyres is banned from landfill in July 2006. Some landfills are still able to take whole tyres if they apply for an extension under the PPC approval (a process which could take until 2007). In the UK, approximately 400,000 tonnes of tyres are generated each year. Of this amount 28% are landfilled, 18% granulated for other applications, 15% used for re-tread, 16% for energy recovery, 7% for the use in landfill engineering and 2% exported to other destinations. Most of the tyres collected in Wiltshire are deposited at one of our 10 HRCs. Tyres which are collected from HRCs or those fly tipped are managed in accordance with the law. In 2004/05 160 tonnes of tyres were collected in Wiltshire. These tyres were collected by Waste Tyre Solutions Ltd who shred and reuse them for safety surfacing on children's playgrounds, and water defence systems etc.

### 13. Engine Oils

EU Directive 75/439/EEC requires member states to collect, treat and store **waste oils** with the discharge of waste oils to water and drainage systems being prohibited. The Directive gives the highest priority to the regeneration of waste oils where possible followed by combustion and lastly, destruction or controlled storage or tipping. However, from 2006 the Waste Incineration Directive (WID) will prevent recovered lubricant oil being burned. This will reduce demand for the replacement fuel supplied by the waste oil industry. The Government estimates that approximately 12,000 tonnes of waste lubricating oil are being improperly disposed of by DIY mechanics each year. All of Wiltshire's HRCs provide facilities for the collection of waste oil. In 2004/05, 58 tonnes of waste oil was collected from Wiltshire's HRCs.

### 14. Aerosol Cans and Pressurised Containers

Pressurised containers remain the property of the supplier, and should always be returned to the distributor. Where the supplier and distributor cannot be traced, such wastes can be taken to HRCs. Pressurised containers taken to HRCs in Wiltshire are collected by Flogas, Calor gas and BOC.

**15. Wood**

The UK consumes approximately 47 million tonnes of wood –excluding recycled wood and waste paper each year. However, the annual recycling level of the raw material is just 800,000 tonnes. In Wiltshire wood is a significant component of the residual waste stream particularly from HRCs. There are containers available for wood at all of the HRCs in Wiltshire. In order to treat this wood, an industrial shredder has been purchased by Hills Minerals and Waste Limited. Wood is transported to Chapel farm in Swindon where it is chipped and sent for reuse and used for medium density fibreboard (MDF). A percentage of this material will be used for landfill engineering works at Hills sites.

***Key Policy 5: Facilitate the potential development of facilities for the treatment of residual waste from household and commercial streams***