

## GLOSSARY OF TERMS

**Anaerobic Digestion (AD)** – a waste treatment process which involves macerating (chopping up) the waste in water to produce an organic 'soup' which is then put into large circular vessels called digesters (the same as found in sewage treatment works) without any oxygen. Bugs break down the biodegradable part of the waste to produce methane and a soil improver. The methane is then fed into an engine to produce electricity. This technology could be particularly helpful to Hertfordshire in achieving a reduction in biodegradable waste going to landfill, required by the Landfill Directive.

- **Recycles** - glass, grit, metals, paper and organic waste into soil improver
- **Generates electricity from** - paper, cardboard, kitchen and garden waste - which were not separated by the householder for recycling

**Best Practicable Environmental Option (BPEO)** – the BPEO is the option that provides the most benefits or least damage to the environment as a whole, at acceptable cost, over the longer term as well as the short term. It is the outcome of a “systematic and consultative decision making procedure which emphasises the protection of the environment across land, air and water” (12<sup>th</sup> Report of the Royal Commission on Environmental Pollution, 1988).

**Best Value** – The Local Government Act 1999 places a duty on local authorities to deliver services (including waste collection and waste disposal management) to clear standards – covering both cost and quality – by the most effective, economic and efficient means available.

**Best Value Performance Plan** – an annual document that must be published by each individual local authority to help local people see how their council is serving and representing them.

**Best Value Performance Standards** - Waste Strategy 2000 set national standards for the recycling, composting and recovery of municipal wastes. These standards were made statutory through the Local Government (Best Value) Performance Standards Order 2001.

**Biodegradable waste** – that component of waste that will decompose over time through the action of bacteria, fungi or algae, with or without oxygen. The EU Landfill Directive itself defines biodegradable waste as “any waste that is capable of undergoing anaerobic or aerobic decomposition” [Article 2(1)]. The House of Lords in its report Sustainable Landfill has noted that this definition is inadequate since it omits any reference to time. It therefore recommended that biodegradable waste should be defined in terms of its ability to degrade completely within the aftercare period set out in the Directive “for leaving the site in an environmentally benign state”. That period is now given as 30 years (Common Position, European Environment Council, 23 March 1998).

**Biological Treatment** – the process of extracting energy from organic material or turning it into compost. Examples include anaerobic digestion and windrow composting.

**Bio-mechanical Treatment** – a process that combines biological treatment with the mechanical separation of certain recyclable materials such as ferrous metal.

**Bring Banks and Bring Schemes** – typical examples are bottle, paper, and textile banks, often situated in car parks and lay-bys.

**Bulky Waste** – generally any item which does not fit, or cannot be fitted into a typical domestic dustbin.

**Centralised composting** – large-scale schemes which handle kitchen and garden waste from households and which may also accept suitable waste from parks and gardens. Schemes may rely on aerobic methods or use anaerobic digesters.

**Civic Amenity Sites** – in Hertfordshire these are normally described as Household Waste Sites and are places provided by the County Council, where the public can dispose of their own household waste, free of charge. The waste they receive generally consists of bulky items such as beds, cookers and garden waste as well as materials intended for recycling.

**Clean MRF** – a waste handling facility that only processes ‘clean’ recyclable material, that has been collected separately from the ‘dirty’ elements of the wastestream that are not suitable for recycling, and which are taken elsewhere for disposal or processing. Clean MRFs therefore normally only receive waste from separate household recycling collections or from recycling bring banks.

**Clinical Waste** – more properly known as healthcare waste, it is waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, which may present risks of infection.

**Combined Heat and Power** – a highly fuel-efficient technology which produces electricity and heat from a single facility.

**Commercial Waste** – waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding municipal and industrial waste. The full definition can be found in the Controlled Waste Regulations 1992.

**Composting** – an aerobic (in the presence of air) biological process in which organic wastes, such as garden and kitchen waste are converted into a stable granular material which can be applied to land to improve soil structure and enrich the nutrient content of the soil.

**Composting (in vessel)** – shredded waste is placed inside a container or chamber through which air is forced. This method allows good control of temperature, moisture and aeration leading to rapid composting (sometimes as little as two weeks) although it will then need a period of outdoor maturation.

**Composting (Windrowing)** – shredded waste is placed in elongated heaps, called windrows, normally outdoors. The windrows are turned mechanically to periodically

aerate the composting waste. The process takes at least 16 weeks, at the end of which the compost represents about half the weight of the input material.

**Construction and Demolition Waste** – arises from the construction, repair, maintenance and demolition of buildings and structures. It mostly includes brick, concrete, hardcore, subsoil and topsoil, but it can also contain quantities of timber, metal, plastics and (occasionally) special (hazardous) waste materials.

**Controlled Waste** – comprised of household, industrial, commercial and healthcare waste, which requires a Waste Management Licence for treatment, transfer or disposal. The main exempted categories comprise mine, quarry and farm wastes. Other legislation and procedures control radioactive and explosive wastes.

**Dirty MRF** – a facility that processes mixed municipal waste that has undergone little or no separation or segregation during collection, i.e. the mixed content of a normal household refuse bin, which comprises of the ‘clean’ recyclable waste mixed with the ‘dirty’ waste that is not suitable for recycling.

**Energy from Waste** – the combustion of waste under controlled conditions in which the heat released is recovered to provide hot water and steam (usually) for electricity generation.

**Environment Agency** – established in April 1996, combining the functions of the former local waste regulation authorities, the National Rivers Authority and Her Majesty’s Inspectorate of Pollution. Intended to promote a more integrated approach to waste management and consistency in waste regulation. The Agency also conducts national surveys of waste arisings and waste facilities.

**EU Landfill directive** – adopted by the Member States during 1999, is intended to reduce the environmental effect of the landfilling of waste by introducing uniform standards throughout the European Union. The main objectives are to stimulate recycling and recovery of waste, and to reduce emissions of methane (a powerful greenhouse gas). The Directive requires the UK to reduce the proportion of biodegradable municipal solid waste going to landfill to 35% (by weight) of the 1995 level by 2020. It also introduces the mandatory “pre-treatment” of putrescible waste and a ban on the co-disposal of hazardous and non-hazardous wastes.

**Gasification** – a process where waste is heated in a low-oxygen atmosphere to generate a low heat content gas for burning in an engine or turbine.

**Gate Fee** – the fee, usually quoted in pounds (£) per tonne, for processing waste at a treatment and/or disposal facility.

**Healthcare Waste** – sometimes described as clinical waste, it is waste arising from medical, nursing, dental, veterinary, pharmaceutical or similar practices, which may present risks of infection.

**Home Composting** – compost can be made at home using a traditional compost heap, a purpose-designed container, or a wormery.

**Household Waste** – includes waste from:

- household collection rounds (waste within Schedule 1 of the Controlled Waste Regulations 1992),
- services such as street sweeping, bulky waste collection, hazardous household waste collection, litter collection, household healthcare waste collection and separate garden waste collection (waste within Schedule 2 of the Controlled Waste Regulations 1992),
- Civic Amenity and Household Waste Sites and,
- Separate collections for recycling or composting through bring/drop off schemes, kerbside schemes and at Household Waste Sites (Source: Municipal Waste Management 1995/96, DETR, June 1997).

**Household Waste Sites** – sometimes described as Civic Amenity Sites, these are places provided by the County Council, where the public can dispose of their own household waste, free of charge. The waste they receive generally consists of bulky items such as beds, cookers and garden waste as well as materials intended for recycling.

**Incineration** – more properly known as mass-burn incineration, is the controlled burning of waste, either to reduce its volume or its toxicity. Energy recovery from incineration can be made by utilising the calorific value of paper, plastic, etc to produce heat or power. Current flue-gas emission standards are very high. Ash residues still tend to be disposed of to landfill.

**Industrial Waste** – waste from any factory and from any premises occupied by an industry (excluding mines and quarries). The full definition can be found in the Controlled Waste Regulations 1992.

**Inert Waste** – waste which, when deposited into a waste disposal site, does not undergo any significant physical, chemical or biological transformation and which complies with the criteria set out in Annex III of the EC Directive on the Landfill of Waste.

**Integrated Waste Management** – involves a number of key elements, including: recognising each step in the waste management process as part of a whole; involving all key players in the decision-making process; and utilising a mixture of waste management options within the locally determined sustainable waste management system.

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

**Land Use Planning** – the Town and Country Planning system regulates the development and use of land in the public interest, and has an important role to play in achieving sustainable waste management.

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

**Landfill Tax** – introduced in October 1996, this tax is levied on landfill operators with the explicit environmental objective of reducing the UK's reliance on landfill as a means of disposal. Increased to £12 a tonne from April 2001, the level of the tax will escalate by £1 a tonne until it reaches £15 from April 2004. There are no official indications of future levels beyond that date.

**Landfill Tax Credit Scheme** – where landfill operators can claim up to 90% tax credit against donations they make to Environmental Bodies, who may, in turn, use the money to carry out activities defined in regulations. These include research and education activities to promote re-use and recycling.

**Licensed Site** – a waste disposal or treatment facility which is licensed under the Environment Protection Act for that function.

**Materials Recovery Facility (MRF)** – a specialised building which separates, processes and stores recyclable materials which have been collected either separately or as mixed waste.

**Municipal waste** – is household waste and any other wastes collected or managed by either a Waste Disposal Authority or Waste Collection Authority in pursuance of its duties. It is mainly comprised of 'dustbin' waste and waste received at the Household Waste Sites but also includes street cleansing waste and waste resulting from the clearance of fly-tipped materials

**Proximity principle** – the proximity principle (as applied to wastes) is that they should be treated or disposed of as near to their place of origin as possible so as to minimise the distance that they are moved.

**Putrescible Waste** – solid materials that degrade rapidly such as, waste food and horticultural waste.

**Pyrolysis** – a process where waste is heated to high temperature in the absence of oxygen to produce a secondary fuel product.

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

**Recycling Credits** – are paid by the County Council to the District and Borough Councils under *The Environmental Protection (Waste Recycling Payments) Regulations 1992* as an incentive for them to recycle household waste. They may also be paid to Third Party recyclers, such as non-profit making organisations.

**ReMaDe** – an organisation whose aim is to develop markets for recyclable materials.

**Residual Waste** – is the elements of the wastestream that remains after recyclable or compostable materials have been separated or removed.

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

**Self-sufficiency** – dealing with wastes within the region or country where they arise.

**Separate collection** – kerbside schemes where materials for recycling are collected either by a different vehicle or at a different time to the ordinary household waste collection.

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

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

**Unitary Authority** – a local authority which has the responsibility of being both a Waste Collection Authority and a Waste Disposal Authority.

**Waste** – is the wide-ranging term encompassing most unwanted materials and is defined by the Environmental Protection Act 1990. Waste includes any scrap material, effluent or unwanted surplus substances or article that requires to be disposed of because it is broken, worn out, contaminated or otherwise spoiled. Explosives and radioactive wastes are excluded.

**WasteAware** – Hertfordshire’s waste awareness-raising initiative.

**Waste Arisings** – the amount of waste generated in a given locality over a given period of time.

**Waste Collection Authorities (WCAs)** - The ten district and borough councils of Hertfordshire are the Waste Collection Authorities (WCAs) for their residents. They have a statutory responsibility to provide a waste collection service to householders and, on request, to local businesses. WCAs also collect bulky items of household waste and carry out street cleansing activities.

**Waste Disposal Authority (WDA)** – Hertfordshire County Council is the WDA for Hertfordshire. Amongst other functions, it is legally responsible for the safe disposal of household waste collected by the WCAs, and the provision of the Household Waste Sites (HWSs).

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

**Waste Local Plan** – a statutory framework document for the County that facilitates the provision of sites for the waste management facilities that will be required to meet Hertfordshire’s needs.

**Waste Management Industry** – the businesses (and not-for-profit organisations) involved in the collection, management and disposal of waste.

**Waste Management Licensing** – licences are required by anyone who proposes to deposit, recover or dispose of waste. The licensing system is separate from, but complementary to, the land use planning system. The purpose of a licence and the conditions attached to it is to ensure that the waste operation that it authorises is carried out in a way that protects the environment and human health.

**Waste Minimisation** – ‘Waste minimisation’ is *action to prevent waste being produced*, as opposed to ‘waste reduction’, which refers to methods of treating wastes that have already been produced in order to *minimise the amount of waste requiring final disposal*. Minimising the quantity of waste produced is seen as the most desirable option and should be at the heart of any strategy. Minimising waste saves not only on collection and disposal costs - but also on the cost of raw materials and their use, as well as production costs.

**Waste Modelling** – a process by which an areas waste management needs can be assessed against a range of critical factors such as waste composition and growth.

**Waste Reduction** – achieving as much waste reduction as possible is a priority action. Reduction can be accomplished within a manufacturing process involving the review of production processes to optimise utilisation of raw (and secondary) materials and recirculation processes. It can be cost-effective, both in terms of lower disposal costs, reduced demand for raw materials and energy costs. Householders through actions such as home composting, reusing products and buying goods with reduced packaging, can carry it out

**Waste Resources Action Programme (WRAP)** – is an organisation whose mission is to promote sustainable waste management by working to create stable and efficient markets for recycled materials and products, by removing barriers to waste minimisation, re-use and recycling.

**Waste Transfer Station** – a site to which waste is delivered for sorting prior to transfer to another place for recycling, treatment or disposal.