

GLOSSARY OF TERMS

Agricultural wastes – Although not defined within Wise About Waste, we have considered this waste stream to be any waste derived from agricultural premises. The waste streams considered include those used by the Environment Agency in their Strategic Waste Management Assessment for Wales.

Anaerobic digestion – a process where biodegradable material is encouraged to break down in the absence of oxygen, in an enclosed vessel. It produces carbon dioxide, methane and solids/liquors known as digestate, which can be used as fertiliser and compost.

BPEO - Best Practicable Environmental Option – a BPEO is the outcome of a systematic and consultative decision-making procedure which emphasises the protection and conservation of the environment across land, air and water. The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term.

Biodegradable – material which is capable of being broken down by plants (including fungi) and animals (including worms and micro-organisms). In municipal solid waste, the property is generally attributed to the following fractions: paper and card, kitchen (food) and garden waste and a proportion of textiles, fines and miscellaneous combustible waste, including disposable nappies.

Biological Treatment – Taken from the Environment Agency Strategic Waste Management Assessment as being any biological process that changes the properties of waste (eg, anaerobic digestion, composting). Biological treatment includes landspreading activities that are licensed (See landspreading).

Central composting – large-scale schemes which handle garden waste and kitchen waste from households and which may also accept suitable waste from parks and gardens.

Civic amenity (CA) site – often used as a generic term for a facility provided by the local authority which receives household waste normally delivered by the public direct to sites. Wastes handled include bulky items such as furniture and “Do it yourself” (DIY) wastes, white goods, garden waste, and general household wastes as well as recyclables. Some CA sites have facilities to receive certain hazardous household wastes, e.g. Lead acid batteries and oil. The term civic amenity site originally referred to facilities established under the Civic Amenities Act 1967, which was repealed and replaced by section 2 of the Refuse Disposal (Amenity) Act 1978, which has since been repealed. The term household waste amenity site (used in Waste Management Paper 4) is a more correct term for facilities provided under the Environmental Protection Act 1990, however ‘civic amenity site’ is still widely used.

Commercial Waste – waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding industrial waste and waste from municipal facilities²⁸.

Composting – the controlled biological decomposition and stabilisation of organic substrates (e.g. garden and kitchen waste), under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat. It results in a final product that has sanitised and stabilised, is high in humic substances and is of such a quality that it can be used as a soil improver, as an ingredient in growing media, or blended to produce other marketable products (that meet recognised industry standards). In the case of vermicomposting these thermophilic temperatures can be foregone at the point the worm were introduced.

Compost plant – a facility for carrying out composting. Large scale schemes may handle kitchen and garden waste collected directly from households and civic amenity sites and may also accept suitable waste from municipal parks and gardens.

Construction and demolition (C&D) waste – arises from 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 – comprises household, commercial, and industrial waste. The main exempted categories comprise of mine, quarry and farm wastes. Radioactive and explosive wastes are controlled by other legislation and procedures.

Energy from waste – includes a number of established and emerging technologies to recover energy from waste. Some of these are direct through ‘mass burn’ incineration (where waste is directly combusted without pre-treatment) whereas others are indirect, where the waste is processed into a fuel before energy is recovered (e.g. conversion into refuse derived fuel, or gasification or pyrolysis). Many wastes are combustible, with relatively high calorific values – this energy can be recovered through (for instance) incineration with electricity generation.

Gasification – the heating of organic materials with air, steam or oxygen to produce gaseous fuels, ash and tar.

Green Waste – organic garden waste such as grass clippings, tree prunings, leaves etc. which can be used as composting feedstocks. Also known as ‘garden waste’ or ‘yard waste’. They can arise from gardens, parks and landscaping activities.

Greenhouse gas – one of a number of gases (including methane and carbon dioxide) that can contribute to climate change via the ‘greenhouse’ effect when their atmospheric concentrations exceed certain levels.

²⁸ For a legal definition see ‘The Controlled Waste Regulations 1992’

Hazardous wastes – the most harmful wastes to people and the environment, and defined according to properties listed in Annex III to Council Directive 91/689/EEC on hazardous waste.

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, from services such as street sweepings, bulky waste collection, litter collection, hazardous household waste collection and separate garden waste collection. Also includes waste from civic amenity sites and source segregated wastes collected for recycling or composting through bring or drop-off schemes, kerbside schemes and at ‘civic amenity sites’.

Household waste recycling centre – see Civic amenity sites

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 (although bottom ash can be recycled).

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

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

Land Recovery – Is defined by the Environment Agency as the application of waste onto land for improvement. Typical examples of this include the spreading of organic wastes for agricultural benefit, use of inert waste for land reclamation or improvement, or the use of inert waste for construction purposes.

Landfill site – is defined in the Council Directive 1999/31/ec on the landfill of waste meaning “...a waste disposal site for the deposit of the waste onto or into land...”. The definition includes sites where the producer of the waste is landfilling at the place of production of the waste and any site established for over a year, where waste is temporarily stored. Landfill sites are often located in disused quarries or mines. In areas where there are limited, or no ready-made voids, the practice of landraising is sometimes carried out, where some or all of the waste is deposited above ground, and the landscape is contoured.

Landfill tax – a tax intended to address the environmental costs of landfilling by encouraging the diversion of waste from landfill.

Life cycle assessment – Life cycle assessment (LCA) is the systematic identification and evaluation of all the environmental benefits and disbenefits that result, both directly and indirectly from a product or function throughout its entire life from extraction of raw materials to its eventual disposal and assimilation into the environment. It can make an

important contribution to assessing the environmental impacts of waste management operations. It can provide part of the input into strategic decision making on the ways in which particular wastes in a given set of circumstances can be most effectively managed, in line with the principles of Best Practicable Environmental Option, the waste hierarchy and the proximity principle.

Metals Recycling – Is a term used within the Environment Agency Strategic Waste Management Assessment to describe a facility that recovers scrap metal from waste for recycling.

Mechanical biological treatment – may be used as pre-treatment to stabilize residual wastes prior to landfilling. A combination of mechanical and biological processes are employed to achieve stabilisation of the wastes. Typical plants generate three material streams; recyclable material comprising mainly ferrous and non-ferrous metals; a bio-stabilised stream suitable for landfill cover and a residual stream that can either be landfilled or converted into a secondary fuel.

Municipal wastes – the Landfill (England and Wales) Regulations 2002 defines it as “...waste from households as well as other waste which, because of its nature or composition, is similar to wastes from households.” In Part Two of Waste Strategy 2000 municipal waste is defined as “...all waste under the control of local authorities or agents acting on their behalf” and this is the definition used in the National Waste Strategy for Wales.

Non-renewable resources – resources that cannot regenerate within human-life time, for example, fossil fuels.

Packaging Wastes – Taken from Wise About Waste and defined as ‘all products made of any materials of any nature to be used for the containment, protection, handling, delivery, and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer.

Physico-chemical treatment – Taken from the Environment Agency Strategic Waste Management Assessment as treating waste by one of a combination of physical (filtration, settlement etc.) and chemical (eg, neutralisation) methods to recover it and/or to produce a less harmful waste for disposal.

Pyrolysis – the heating of organic materials in the absence of air, causing the volatilisation of combustible gases. Also produced is a combustible char, a mixture of oils and liquid effluent.

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.

Renewable Resources – resources that will regenerate within human life scales, for example, trees.

Re-use – using a product again for the same or a different use. Furniture and some electrical goods are often capable of being re-used and many community and voluntary sector groups are actively involved in facilitating re-use of such items. It can be practiced by the commercial sector with the use of products designed to be used a number of times, such as re-useable 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.

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.

Source segregation – involves the segregation at source of waste in to individual materials. In the case of household waste, this source segregated waste would include recyclable and compostable materials collected separately at the kerbside or taken to civic amenity and bring sites.

Special waste – The Special Waste Regulations 1996 (as amended) define special waste as: wastes on the Hazard Waste List displaying hazardous properties; any other controlled wastes displaying defined properties (e.g. irritant) and waste prescription only medicines.

Strategic Waste Management Assessment – produced by the Environment Agency to provide consistent, comprehensive, local information about the amounts and types of wastes produced and how they are managed.

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

Sustainable waste management – requires that waste management should be carried out in a way that does not place undue social, economic, or environmental burdens on either present or future generations and that ensures social equity, effective protection of the environment, the prudent use of natural resources and the maintenance of high and stable economic growth and employment. The aim is to de-couple waste production from economic growth.

SWMO – Sustainable Waste Management Option – the result of a systematic process to identify the most sustainable method of waste management.

Transfer – Taken from the Environment Agency Strategic Waste Management Assessment a waste transfer station is a facility to which waste is delivered for separation or bulking up before being removed for recovery and/or disposal

Technical Advice Note 21 (TAN21) – ‘Planning Policy Wales’ published in November 2001, provides advice on how the land use planning system should contribute to sustainable waste management.

Treatment – physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume and hazardous nature, facilitate its handling or enhance recovery.

Unitary Authority – a local authority which has the responsibilities of waste planning, collection and disposal. All twenty two authorities in Wales are Unitary Authorities.

Unitary Development Plan – sets out land use policy for the area of the unitary or national park authority, including policies for waste developments.

Waste – is defined in Council Directive 75/442/EEC on waste as meaning “...any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard.” Annex I of the Directive lists 16 categories of waste, including ‘agricultural, household, office, commercial and shop discards’. Waste defined by the Directive is referred to as ‘Directive Waste’.

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

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