

Air Classifier

A machine used in the Materials Recovery Facility. This machine blows air along a section of the sorting belt, forcing lighter materials such as plastics, liquid paperboard cartons and aluminium to another level in the Materials Recovery Facility, separating them from heavier items.

Alternative Waste Technology (AWT)

Alternative Waste Technology (AWT) involves the use of mechanical separation, biological processing, thermal technology and/or modifications to conventional landfilling and processing to help recover more resources from the waste stream while minimising the impact on the environment. AWT is considered to be more environmentally sustainable than traditional methods of waste burial, and Local Governments employ various forms of AWT to better manage the impacts of waste generation and processing.

Aluminium

Aluminium (Al) is a chemical element and type of metal used to manufacture a variety of items, including food and drink cans or tins, car parts and foil. The main source of Aluminium is extraction from bauxite, which is a naturally occurring ore.

Backfill

Backfilling involves the refilling of an excavated hole with the material dug out of the hole.

Bacteria

Bacteria are a group of single celled organisms. These organisms are microscopic, measuring a few micrometres in length and are categorised into four groups based on their shape. Some bacteria are free-living, harmless and/or beneficial, while some are parasitic or toxic. Bacteria are present in compost heaps and help to breakdown organic waste material.

Bales

A large bundle (usually square) of compressed recyclable materials. Bales are produced at the Materials Recovery Facility after all materials have been sorted into their recyclable group i.e. paper and cardboard. Each bale is bound with plastic stripping or wire to keep them from falling apart. They are then transported to a recycling factory where the material is made into new products.

Bauxite

Bauxite is a naturally occurring ore of aluminum that is mined from the earth for its production. It is the major source of aluminium globally.

Biodegradable

Biodegradable refers to a material that can be broken down by bacteria, fungi or other microorganisms. Generally this is organic matter, including manufactured products based on natural materials, such as paper. This material provides valuable nutrients to microorganisms.

Bulky Waste

A term used to describe a collection of waste that cannot be accepted by regular kerbside waste collection because it is too large.

Buy-back Centres

Buy-back centres are facilities that collect reusable and some recyclable materials. Consumers can drop off their reusable/recyclable items and receive payment.

Cleaner Production

An approach to managing the environmental impacts of business processes and products. It involves applying waste minimisation and prevention practices, such as conservation of raw materials and energy, to reduce risks to human and environmental health.

Closed Loop Recycling

A production process in which waste is collected and recycled to make new products. For instance, collecting and reprocessing used glass jars to manufacture new glass products is a form of closed loop recycling. Reusing materials consumes fewer resources, such as water and energy, and is a more environmentally friendly alternative to producing new products from raw material.

Compost

Compost is organic (food and garden) waste that has been decomposed (broken down) by microorganisms into a fine mulch. This material can be used as a natural fertiliser for the soil. Composting involves making a heap of moistened organic matter for microorganisms to break down. The rate at which these organisms break the material down is subject to varying conditions including the amount of light, water, air and number of organisms present in the heap.

Consumer

A person who purchases goods and services for personal use.

Contamination

Means an unwanted item/s found in the wrong bin or wrong waste disposal system.

Cullet

The term used to describe glass that has been crushed into small pieces in preparation for recycling into new glass bottles and jars.

Decomposition

The breakdown or rotting of organic materials such as leaves, bark, fruit and meat into simpler forms of matter. Decomposition can occur through chemical processes (abiotic decomposition), or through metabolic breakdown by living organisms (biotic decomposition).

Disposable Products

Products designed for single use before being discarded. Examples include disposable nappies, disposable cutlery and cups and disposable cameras. Usually there are alternatives to disposable items such as reusable plastic containers, cloth napkins and rechargeable batteries.

Durable Products

Long lasting products that are designed to withstand wear, pressure or damage. These products allow for repair, wear and tear and help reduce waste if used and repaired correctly. They are a more environmentally sustainable option than disposable products.

Electronic Waste (E-waste)

Discarded electronic devices, cords and/or attachments. Electronic devices can be recycled at special drop off points.

Endangered Species

An endangered species (EN) is a plant or animal species which has been categorised by the International Union for Conservation of Nature (IUCN) as facing a very high risk of extinction in the wild. These species have been threatened with extinction and are classified as the second most severe conservation status for wild populations.

Environment

The living and non-living surroundings of an organism or population. An environment can vary in scale from microscopic to global and can be subdivided into areas such as marine environments, terrestrial environments and atmospheric environments.

Ferrous Metals

Ferrous is a term that indicates the presence of iron. The word is derived from the Latin word *ferrum*, meaning iron. A ferrous metal therefore is a metal containing iron. Typically, they are magnetic and more susceptible to corrosion than non-ferrous metals.

Fossil Fuels

Fossil fuels are fuels formed by natural processes such as anaerobic (no oxygen) decomposition. The process involves the breaking down of organic matter (usually buried dead organisms) over millions of years. During this time the material is pressurised with heat beneath the earth's surface to form substances such as coal, oil and natural gas. Although fossil fuels are continually being formed via natural processes, they are considered to be non-renewable because they take millions of years to form and the substances are being depleted at a faster rate than they can be made.

Fuel

Any substance that produces useful energy when it undergoes a chemical or nuclear reaction. Fuels such as coal, oil, wood and gas provide energy in the form of heat when burned.

Garbage

Garbage is referred to as any material that ends up in the general waste stream for burial at a landfill site. This material can come from all sectors of the community e.g. industrial, business and domestic.

Garden Waste

Organic materials from the garden such as leaves, branches, tree trunks, roots, grass clippings and prunings that are placed in the garden waste bin for disposal.

Global

A term used to describe the whole world; worldwide.

Green Waste

Any organic material that originates from a plant i.e. leaves, branches, tree trunks, roots, grass clippings and prunings, and fruit and vegetables.

Greenhouse Gas

A gas that adds to the greenhouse effect when released into the atmosphere by trapping radiation (heat) from the sun. This is known as the 'greenhouse effect', which ultimately leads to global warming. Methane and carbon dioxide, both common bi-products of industrial processes, are greenhouse gases.

Habitat

The natural home or environment of an animal, plant or other organism. For animals it is a place where they can raise their young, that provides shelter from the weather and predators, and provides food.

Handler

Is a company that performs at least one of the following processes with recyclable material: sorting, baling, shredding or granulating.

Hazardous Waste

Hazardous waste is waste that poses substantial or potential threats to public health or the environment. Hazardous wastes possess at least one of the following four characteristics: ignitability, reactivity, corrosivity or toxicity. Such materials are required to be handled and disposed of in a controlled manner, as they cannot be safely processed in regular waste facilities, such as landfill.

Heavy Metals

A metal of relatively high density, or of high relative atomic weight (for example lead, arsenic, chromium, nickel). Heavy metals are generally very harmful to the environment, particularly where they accumulate in high concentrations in soil, water or tissue.

High Density Polyethylene (HDPE)

A common type of plastic used to make bottles for milk, juice, water, laundry and bathroom products. It is strong, rigid and durable, and it is largely unreactive and resistant to decay. HDPE is recyclable.

Humus

The dark, crumbly organic matter in soils that is formed by the decay of organic material. It improves the fertility and water retention of soil, and is the end result of decomposed compost.

Incineration

Incineration is a waste treatment process that involves burning of waste materials, converting them into heat, flue gas and ash. Incineration reduces the mass and volume of waste, and removes water. It is often used in the processing of hazardous waste, as the ash is relatively inert and is easier to dispose of. However, incineration is contentious because it can produce harmful bi-products that pose a risk to human and environmental health.

Industrial Waste

Is waste in a liquid or solid form that is produced by an industrial activity.

Landfill Site

Also known as a tip or a dump, is an area of land where waste is disposed of by burial.

Leachate

Is any liquid that, in the course of passing through matter, extracts the chemical substances of the material through which it passes. Leachate can be extremely harmful to the environment and in modern landfills is either removed, evaporated in special ponds, or recycled through the landfill.

Leaching

Leaching is the movement of liquid through the soil. Leaching of hazardous wastes can be a problem at waste disposal sites, e.g. oil wastes, paint products and chemicals can seep through (leach) and pollute groundwater.

Litter

Litter refers to rubbish discarded improperly into the environment (i.e. streets, parks, beaches, bushland). Common litter items include packaging materials and cigarette butts.

Low Density Polyethylene (LDPE)

A tough, flexible plastic used in the manufacture of plastic retail bags, garment dry cleaning and grocery bags. LDPE is also used to manufacture some flexible lids and bottles and is widely used in the making of wire and cables. LDPE is less strong, hard and rigid than HDPE, but is more ductile.

Materials Recovery Facility (MRF)

A facility that receives unsorted recyclables from Recycling Collection Services. The MRF separates recyclables into five categories (rigid plastic, glass, aluminum, steel and paper and cardboard) by passing the material through a series of conveyor belts. The MRF attempts to remove contaminants such as coat hangers and nappies, and once separated compresses the recyclable material ready for transport to a reprocessing facility.

Methane

Is a colourless, combustible gas that is commonly used as fuel, and is the product of many natural and industrial processes. In landfill, methane gas is produced when organic materials such as food and garden waste break down. Methane is a potent greenhouse gas, meaning its production or release into the atmosphere is a serious environmental concern.

Microorganisms

Often called microbes, these are living microscopic organisms including bacteria and fungi. Microorganisms are diverse and exist almost everywhere on earth. They aid in the breakdown of organic matter like food and garden waste.

Mulch

Mulch is a protective covering of organic material spread over the soil (e.g. leaves, compost, paper) to help retain moisture, enrich the soil and control weeds.

Municipal Waste

Commonly known as trash or garbage, is waste that is generated by households, industries and commercial operations. It includes putrescible wastes (in the process of rotting) and solid wastes and is usually collected through garbage collection services.

Non-ferrous

Metals which contain little or no iron, e.g. aluminium. They are usually non-magnetic and are more resistant to corrosion than ferrous metals.

Non-renewable

Any substance or resource that cannot be naturally replaced or renewed at a rate equal to its consumption or use, meaning stocks will eventually be depleted. Typically, non-renewable refers to fossil fuels, which take millions of years to form.

Organic

Anything that is or was part of an organism. Organic materials break down or decompose naturally.

Organic Gardening

A system of growing plants using only natural fertilisers.

Packaging

The protective and decorative wrapping that surrounds food items, household products and other consumer goods. It is often designed to be discarded immediately after the product is purchased or consumed.

Paper Recycling

The recycling of waste paper to make new paper and packaging materials. This reduces the demand for wood for paper production, as well as waste volumes.

Pathological Waste

Waste that contains diseased or contaminated blood or body tissue; usually from hospitals, veterinary surgeries and clinics.

Phosphate Free

Phosphate free washing detergents contain sodium citrate instead of sodium polyphosphate. Polyphosphates cause excessive growth of algae in waterways and have been identified as a major cause of 'algal blooms'.

Plantation

Large areas of land dedicated to planting and harvesting of specially selected trees (often pine trees). Trees are chosen for their fast growth and are harvested roughly every twenty-five years. Plantations reduce the need to harvest timber from bushland or forests.

Pollutant

Any substance that enters an environment and has undesirable or negative effects, and/or impacts the usefulness of a resource.

Pollution

The presence of contaminants or 'pollutants' in the environment that alters or affects the environment and its processes, or in some way causes the environment to be spoiled. Can be in the form of chemical pollutants or energy (e.g. noise, heat).

Polyethylene Terephthalate (PET)

PET is a clear, tough plastic that has good gas and moisture barrier properties. It is mainly used in the manufacture of PET soft drink bottles, because it is the only plastic that can hold carbonated liquids. Cleaned, recycled PET flakes and pellets are in great demand for spinning fibre for carpet yarns and the making of new PET drink bottles.

Polypropylene (PP)

Polypropylene is a type of plastic that has excellent chemical resistance; it is strong, and has a high melting point. This makes it ideal for holding hot liquids. It is a light plastic that is used to make bottle caps, lids, disposable nappy linings, and large moulded parts for automotive products.

Polystyrene (PS)

Polystyrene is a very lightweight plastic, which is easily moulded and used as protective packaging, containers, lids, cups, bottles and hot food trays.

Polyvinyl Chloride (PVC)

PVC is a type of plastic that has excellent transparency, chemical resistance and long term stability. Some applications include pipe fittings, carpet backing, wire and cable insulation, floor coverings, synthetic leather products, blood bags and medical tubing.

Population

The total number of persons inhabiting a country, town or region.

Product Stewardship

Where industry (manufacturers, distributors and retailers) adopts a duty of care throughout the life cycle of products, assuming responsibility for environmental impacts and for management of waste arising from the product.

Pulp

The soft, mushy material that is produced by crushing wood chips in the first stages of the paper making process.

Putrescible Waste

Waste that has a component of rotting, decomposing organic material, such as domestic garbage, commercial waste, vegetables, supermarket processing, garden clippings and prunings. The decomposition of this material causes offensive smells.

Recyclables

Consumer discards that can be reprocessed into the same or new items.

Recycling

The process of collecting and transforming used products, such as newspaper, cans, cardboard, glass bottles and old tyres, into new products by reprocessing or re-manufacturing them (rather than discarding them as waste or using new materials). It is the fourth step of the waste minimisation hierarchy.

Recycling Rate

The quantity of recycling sent off to various markets as a percentage of the total quantity of material manufactured in a year.

Reduce

The second step of the waste minimisation hierarchy. Reducing means using less material in the first place in order to avoid the generation of waste.

Renewable Resource

A resource that can be renewed or replaced at the same rate or faster than it is consumed. Wind and solar energy are considered renewable resources.

Reprocessing

To process something differently or multiple times; to reuse it.

Resource

Anything that is used to satisfy human needs, usually giving it an economic value. In waste, resources are typically physical materials that have potential to be salvaged, reprocessed and re-sold.

Resource Recovery

Salvaging of valuable resources from waste material. Two examples of resource recovery are recycling discarded materials into new commodities and utilising methane gas from landfills as an energy supply.

Rethink

Rethink is the first (and therefore the most environmentally preferable) step on the waste hierarchy. Rethinking about waste is to consider the waste and environmental implications of a product, and to avoid unnecessary consumption or waste generation. Avoiding single use or disposable products and selecting products with minimal packaging or that are produced with recycled material are responsible choices in line with this philosophy.

Reuse

The third step of the waste minimisation hierarchy. Use as many things as possible more than once so they don't have to be recycled or thrown away, extending the life of a product and using the valuable resource to its highest potential.

Rigid Plastic

Plastic that is structured, hard and provides resistance when squashed, such as strawberry punnets, shampoo bottles and milk bottles.

Sanitary Landfill

A place where solid waste is dumped, compacted into layers and covered with soil. Sanitary landfills are usually lined to reduce soil and water pollution from contaminated seepage – leachate.

Solid Inert Waste

Hard waste and dry organic material that is unreactive and will not decompose. Includes demolition material, concrete, bricks, timber, plastic, glass, metals, bitumen, tyres and household appliances. These materials can be landfilled as solid inert waste, but should be recovered for reuse where possible.

Source Reduction

Also known as waste prevention or pollution prevention, source reduction is the elimination of waste before it is created. This is achieved through the design, manufacture, purchase, use and reuse of products to reduce the volume and toxicity of waste. An example is a reusable shopping bag - although it uses more material than a basic plastic bag, the material used per use is less.

Source Separation

Any method that separates recyclables from waste at the point at which they are generated rather than where they are dumped. Kerbside collection and drop off centres are examples of source separation, as the materials are separated prior to disposal.

Stewardship

The responsible management of the natural environment, through conservation and sustainable practices, in order to maintain access to resources into the future. It is driven both by an ethical responsibility to protect natural resources, but also by the recognition that human-well being, economic prosperity and environmental health are interconnected.

Sustainability

Refers to continued development or growth without depleting or deteriorating the resources upon which it depends. Typically, sustainability is used in relation to management of environmental resources.

Synthetic

Materials made by chemical processes that do not occur naturally (e.g. plastic).

Technology

The application of human knowledge and skills to solve a wide array of problems and satisfy many needs and wants. Technology has enabled people to extract natural resources and transform them into useful products.

Tip

A facility where garbage is disposed. Rubbish is compacted by heavy vehicles and piled until the area is full. Layers of soil are typically added to the surface to prevent litter and odour problems. Also known as a landfill.

Trade Waste

Trade waste is liquid waste that is discharged by industrial operations into sewers (if approved by the water authority) or approved waste receiving facilities.

Transfer Station

A site to which solid wastes or recyclables are brought by small collection or private vehicles. From transfer stations materials are transferred to larger trucks to be hauled to a disposal site or resource recovery facility.

Trommel

A piece of machinery used at Materials Recovery Facilities to separate paper from other products. The trommel is a large cylinder with an inner cylinder with holes in it. As the trommel rotates, the heavier items fall through the holes leaving the paper to continue along on a conveyor belt system.

Toxic Waste

Waste material that can cause death or injury to living organisms, and poses a contamination risk to the natural environment.

Virgin Material

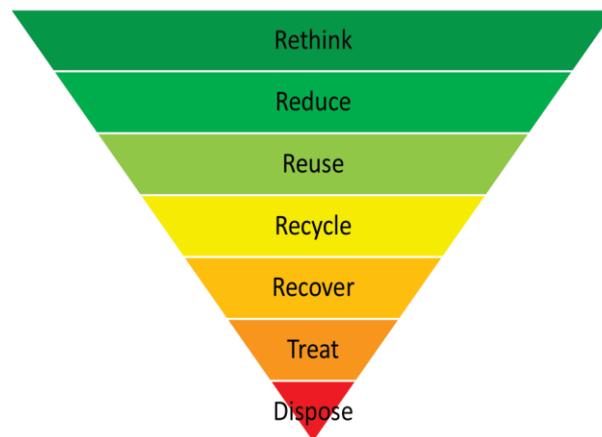
Any material used for industrial processing that has been retrieved from its natural environment and that has not been utilised for a prior purpose. Oil is the virgin material for plastic; wood pulp is the virgin material for paper; bauxite is the virgin material for aluminium.

Waste

Any item that has no further potential use and must be disposed of (i.e. garbage).

Waste Hierarchy

A guideline of waste management options, classified by their desirability. It is typically presented as an inverted triangle, with the most desirable method of waste management shown at the top and the least desirable shown at the bottom. The highest priority is to avoid and reduce the creation of waste, and where this isn't possible, to maximize resource efficiency by reusing, recycling and recovering. The least desirable outcome, disposal of waste, is at the bottom of the hierarchy.



Waste Management Facility

Is the collective name for facilities that deal with waste. These include transfer stations, landfill sites and recycling facilities.

Waste Minimisation

The process of reducing the amount of waste by rethinking, reducing, reusing and recycling.

Waste Reduction

The prevention of waste at the source of generation by re-designing products and packaging, and by changing patterns of production and consumption.

Waste Stream

Waste going into a particular facility, such as a landfill site or recycling facility (e.g. recycling stream or garbage stream).