

Addingham Zero Waste and Recycling Week March 2024

Home Truths and Myths Busted.
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Before you read on here's a Quick Quiz

- How many water bottles are sold in UK per year
- How many disposable nappies are thrown away each year.
- How many mattresses are discarded each year.
- How many tablet blister packs are disposed of each year.

How Much Waste is produced in the UK each year?

- ▶ UK 220M tonnes in total (includes agricultural and quarry waste)
- ▶ 40M tonnes commercial and industrial (construction, factories offices, shops hotels etc.). 50-92% recycling rate.
- ▶ 26M tonnes waste from households (WfH)
- ▶ UK WfH - 44% recycling overall (Bradford 38%)
- ▶ 17.3M tonnes - waste to energy in 53 facilities (includes commercial and industrial)
- ▶ 14M tonnes to landfill (includes commercial and industrial)
- ▶ 6.5M tonnes bio waste to landfill

General Waste

All Bradford's general (residual waste) goes to the Ferry Bridge Energy from Waste Facility (EFW) to make electricity.

Addingham produces 500 tonnes of general waste per year, enough to power 160 homes for a whole year.

All the ash from the plant is recycled into building products

EFW nationwide provides about 3% of UK power



Recycling

What can be recycled in the Recycling Bin

- ▶ Paper and magazines
- ▶ Cardboard
- ▶ Cans and Aerosols
- ▶ Aluminium Foil
- ▶ Plastic Containers
- ▶ Bottles and Glass
- ▶ Plastic Bottles and Containers
- ▶ Plastic Food Trays
- ▶ Tetra Packs



What Can't go in the recycling bin (if in doubt leave it out)

- ▶ Nappies
- ▶ Dog Poo
- ▶ General waste
- ▶ Garden waste
- ▶ Electrical goods, light bulbs, Batteries.
- ▶ Wood
- ▶ Plastic bags and Clingfilm
- ▶ Pyrex, Mirror glass and sheet glass
- ▶ Contaminated items
- ▶ Polystyrene
- ▶ Ceramics and plastic plant pots

What can you recycle in other places

At the House Waste Recycling Site (eg. Golden Butts Ilkley)

- ▶ Wood
- ▶ Garden waste
- ▶ Electrical Goods, appliances, rubble, larger metal items
- ▶ Textiles
- ▶ Paint
- ▶ Oil
- ▶ Car Batteries

At retailers and suppliers

- ▶ Batteries - most supermarkets
- ▶ Plastic bags - supermarkets
- ▶ Electrical appliances - supplier takeback schemes
- ▶ Mattresses - some retailers
- ▶ Clothing - charity shops and recycling points
- ▶ Reusable items - charity shops

How much do we need to recycle (50% target)
 If 90% of households recycle their waste, they need to
 recycle 60% to achieve an overall rate of 50%.

Recycling and participation Rates	20	30	40	50	60	70	80	90	100
100	20	30	40	50	60	70	80	90	100
90	18	27	36	45	54	63	72	81	90
80	16	24	32	40	48	56	64	72	80
70	14	21	28	35	42	49	56	63	70
60	12	18	24	30	36	42	48	54	60
50	10	15	20	25	30	35	40	45	50
40	8	12	16	20	24	28	32	36	40
30	6	9	12	15	18	21	24	27	30
20	4	6	8	10	12	14	16	18	20

Glass

Recycled by Contractor

- ▶ Glass is sorted and Recycled by the contractor
- ▶ Sorted clear and coloured glass - made into new bottles and containers
- ▶ Mixed glass - used in industry for aggregate and building materials

- ▶ Saves energy compared to making new glass from raw materials
- ▶ Saves raw materials and reduces the need for quarrying



Plastics

All bottles, Containers and Trays

- ▶ Plastic is sorted, cleaned shredded and recycled back into products
- ▶ Remade into new plastic containers and other plastic products.
- ▶ Reworked into fibres for clothing (eg. fleece jackets and quilts)
- ▶ Saves energy
- ▶ Saves raw materials (oil)



Metals

Steel, Aluminium

- ▶ Steel and Aluminium can be remelted indefinitely and reused in new products.
- ▶ Remelting Aluminium uses a tenth of the energy compared to smelting it from Bauxite ore.
- ▶ There is worldwide market for recycled metal of all kinds

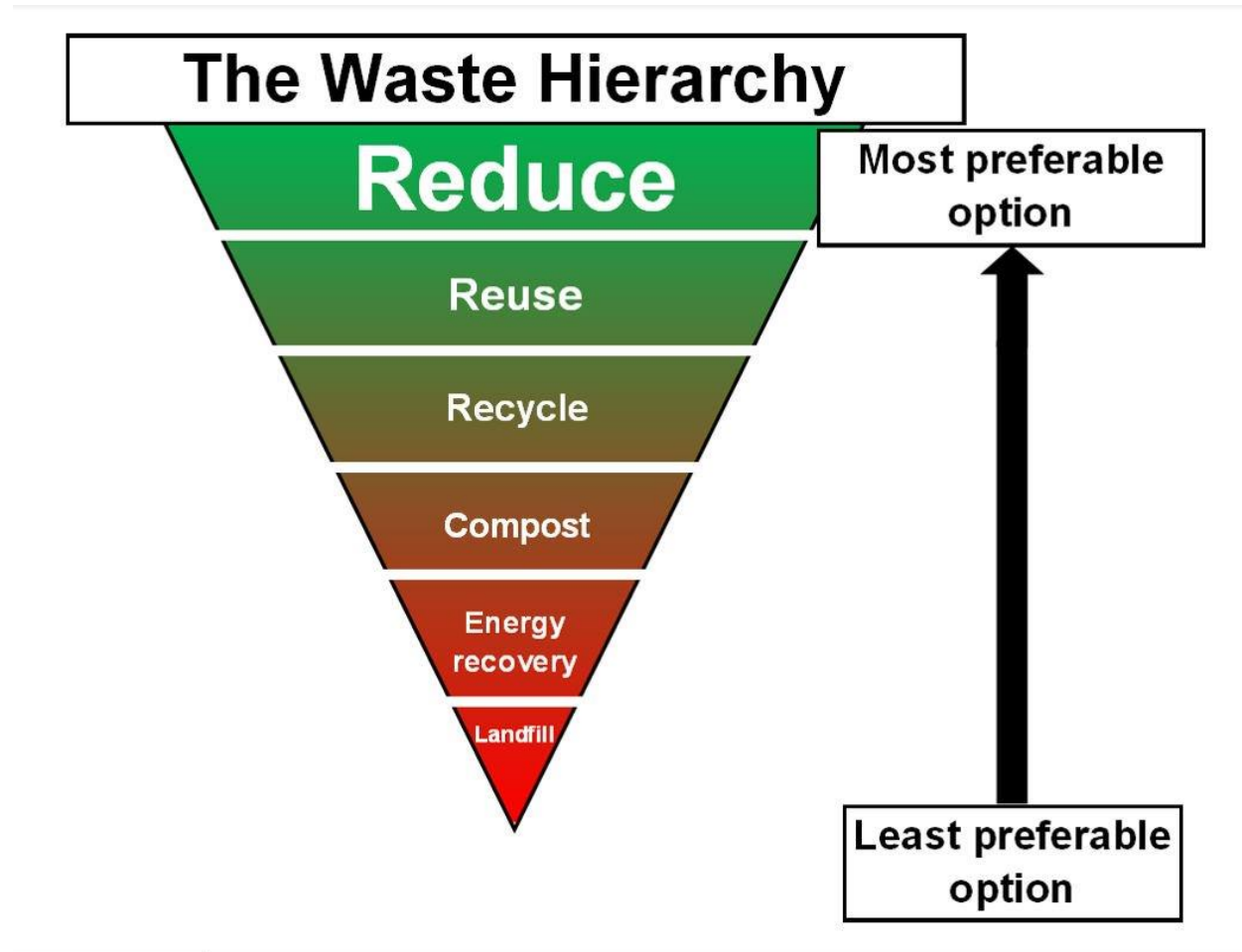


Paper and Cardboard

- ▶ Sorted and graded by the contractor and sold to merchants.
- ▶ Good quality paper, news papers, magazines etc, is recycled to made new paper and magazines
- ▶ Cardboard is recycled to make more cardboard
- ▶ Poor quality material is recycled into products such insulation, eggboxes, bed pans, packing material etc.
- ▶ Eventually unrecyclable paper is used as fuel in paper mills and composted for use as a soil conditioner.
- ▶ Paper fibres can be recycled about 6 times before they are too degraded to be used again.



Waste Hierarchy



REDUCE

- ▶ By Far the best option
- ▶ If you don't need it, don't buy it.
- ▶ All consumption uses energy and resources which can be avoided by not buying in the 1st place.

Reuse

- ▶ Clothes - keep your clothes for longer, sell and buy second hand, give to charity shops etc.
- ▶ Cars - keep your car for a bit longer before buying and new one, buy second hand.
- ▶ Furniture, restore and pass on to others, buy from vintage shops
- ▶ Houses - most of us live in second hand homes, and don't demolish our houses when we are tired of them.
- ▶ Containers and bags - Bags for life and proper shopping bags rather than plastic bags
- ▶ Second hand, buy and sell stuff second hand, save money, energy and resources.

Recycle

Why do we recycle anything?

- ▶ Saves energy /CO2 most recycled products use less energy than new to make.
- ▶ Saves resources, scarce resources are conserved
- ▶ Reduces waste, avoids landfill or incineration
- ▶ Reduces pollution
- ▶ Saves/Makes money
- ▶ Makes us feel better

Why we don't recycle

- ▶ Costs more than the value of the end product - there is no point in recycling something if the cost is more than the value of the end product.
- ▶ No market- if no-one wants to, or can use the end product recycling is pointless.
- ▶ New product is better and/or cheaper - quality and safety standards can be a barrier to using recycled materials in some products. Low cost of manufacture from new may make recycled products uncompetitive eg. garden furniture made from wood or metal or new plastic is often cheaper than that made from recycled plastic.
- ▶ Hazardous/environmental impact - eg. there is no significant recycling of asbestos, it nearly all goes to landfill for safety and environmental reasons.
- ▶ Disposal is cheaper/easier
- ▶ Technically too difficult - product design needs to be improved - many products are still made with too many components that are difficult to separate and recycle.
- ▶ Contamination - eg. Paper is easily made unrecyclable by contamination from grease, food waste etc.

Recycle to Make most impact - we need to concentrate efforts on recycling that makes most difference to most waste, some examples of potential ineffective recycling.

- ▶ Cling Film ? - up to three layers of LDPE or PVC - difficult to recycle
 - ▶ 1.2 Billion meters sold in UK each year - 3% of UK plastic waste ~ 75,000 tonnes
 - ▶ Not a significant proportion to UK waste - if you are concerned about it, don't buy it rather than worry about recycling it.
- ▶ Chewing gum ?
 - ▶ 374 Billion Pieces per year (560,000 tonnes Worldwide)
 - ▶ Did you know its made of Approx 20% plastic Polyvinyl Acetate (synthetic rubber)
 - ▶ £56M annual UK clean-up bill - the problem is litter and impact on the street environment rather than the need to recycle its plastic content.
- ▶ Medical Blister Pack packs ?
 - ▶ Worldwide 100,000 tonnes (about 6250 tonnes in UK)
 - ▶ Over 4 billion packs in UK (mainly a PVC/aluminium bonded sandwich)
 - ▶ Does not cause a litter issue and is a very small proportion of UK waste.
 - ▶ Most effect would be achieved by redesign of the packs to be 100% aluminium recyclable with general recycling.
 - ▶ Separate collect of packs for recycling would not be cost effective or the best environmental option.



Interesting Waste

- ▶ Bottled water 7.7 Billion bottles sold in UK each year - why buy bottled water? Tap water is 100% drinkable. Bottled water is a completely avoidable product that uses plastic to manufacture and fuel to transport.
- ▶ Tetra Packs - made from a plastic/paper/aluminium sandwich, although it can be recycled, the end product is a very low grade recyclate made from very high grade raw materials. Most of the plastic and aluminium is lost.
- ▶ Takeaways - need I say more? Take your own coffee mug to the café or use a café that serves in real cups and serves food on real plates.
- ▶ Carrier bags - before the bag tax we used 4.5 billion bags a year. There has been a major reduction in litter and waste from plastic carrier bags, a big environmental success, but not in the use of plastic. To make “bags for life” and purpose made bin liners which have replaced carrier bags uses just a much plastic as before.
- ▶ Mattresses - 6.4m disposed of each year only 14% recycled. There are so many different designs and manufacturing techniques, recycling is very hard (it costs about £50). The resulting products are of very low value. There is no market for second hand mattresses for obvious reasons. They are difficult to landfill or incinerate. Please don't change your mattress unless you have to.
- ▶ Nappies - 2.5 billion sold every year in UK - 3% UK WfH . They are a fantastic product and to be realistic, they are here to stay. Efforts to recycle them have met with variable success. They need to be collected separately from normal waste or recycling which make the process expensive and technically difficult.

