

57953 Waste Recycling

I am currently undertaking a project on waste recycling education. Would you be able to answer a few questions for me?

What are the main sorting and processing stages that waste undergoes in Edinburgh city centre after residents place it in the designated recycling bins?

There is not a specific waste collection system for the city centre, with the exception that a small number of households have their waste collected using reusable bags and recycling boxes, instead of bins. The following responses relate to Edinburgh as a whole. Edinburgh is roughly split in two, with approximately 50% of households receiving kerbside collections, and 50% (flats) receiving communal bin collections.

Further detail is published on our website at:

<https://www.edinburgh.gov.uk/whatgoesineachbin>

Are there differences in the recycling processes for household waste and commercial waste?

The Council does not provide a commercial waste collection to businesses. The only commercial waste we collect is that from our own buildings, which is managed in the same way as a communal bin collection.

Businesses must put in place a collection contract with a waste management company and sort their waste into different streams by law. The processes will be similar to those the Council uses for household waste.

During waste transportation, is it first consolidated at local transfer stations (such as Seafield or Millerhill) before being sent to larger processing plants?

We have two transfer stations at Seafield and Bankhead. Some of the mixed recycling and the non-recyclable waste, and the glass, is bulked there before transfer to the reprocessors. Other streams, such as food waste and garden waste, as well as the remaining parts of the mixed recycling and non-recyclable waste will be delivered directly to the reprocessors.

How automated is the recycling process in Edinburgh city centre?

What proportion of sorting is still carried out manually?

We are assuming this part of your request relates to the mixed recycling service. This is reprocessed into the different streams by Biffa (see below) who use both mechanical and manual processes to do this.

Most of the mixed recycling is sorted manually, but mechanical processes are used for metals (magnets for steel, and Eddy Current Separators for the aluminium). Please note that Biffa is just the sorting plant, and they sell on the materials to third parties. The processes there will be more mechanised.

For recyclables (plastics, glass, paper, metals), how does the council ensure they are not "contaminated" or re-mixed during transport?

When they are bulked at Seafield or Bankhead, they would go into a different storage bay depending on which materials they are. The sorting process for the mixed recycling removes

contaminants as part of the process. Similar processes will take place at the reprocessors for food, garden waste, glass, etc.

Is Edinburgh's recyclable waste primarily processed locally, or is it transported to other parts of Scotland (such as the Millerhill Recycling and Energy Recovery Centre)?

The mixed recycling is sorted locally, and the streams are sold onto the end users. The garden waste, glass and food are all reprocessed relatively locally. The processes are set out on our website (see below).

To which specific recycling plants are different materials like plastic, glass, and paper sent? Could you provide examples of their destinations?

This is published on our website at:

<https://www.edinburgh.gov.uk/whathappenstorecycling>

Does Edinburgh still export any waste to Europe or other countries? If so, what are the recent proportions and trends?

We do not export any, although the reprocessors might (for example paper and card will be sorted into different streams and much of it used in the UK but some streams could also be sent for export). Metals are also traded globally. However, the main material which goes for export would be textiles (reusable clothing).

Following the 2022 refuse collection strike, have adjustments been made to Edinburgh's waste management model?

No, this was an industrial dispute related to pay (and was a nationwide dispute, with targeted action in Edinburgh's waste services, as well as targeted action in other services in other parts of Scotland).

a. Was refuse ever temporarily stockpiled or sent elsewhere?

No, the issue was collecting the waste from the bins and the street.

What proportion of waste processed at Millerhill Energy Recovery Centre is ultimately converted into electricity or thermal energy?

To which areas or households is this energy supplied?

All waste at Millerhill is used to generate energy, with metals recovered from the resulting ash. The separate food waste plant, also located at Millerhill but run by a separate company, is an anaerobic digestion plant so that also generates electricity from the gas which is produced.

Electricity from the plant is supplied to the UK's electricity grid, rather than directly to specific properties so it cannot be directly linked in that way. However, the plant also creates waste heat, and a heat network is under development which will pipe the heat to properties in the surrounding area. This area is an area of developing housing estates, the BioQuarter and the hospital, so conceivably any of those or other businesses in the area might be part of the heat network.

How has Edinburgh's waste recycling rate changed in recent years?

Has it met the recycling targets set by the Scottish Government?

It is approximately 38% and has been stable in recent years.

The Scottish Government's targets are national targets. We have set ourselves a target of 50%, however this will need to be reviewed as a result of changes to legislation which will affect the waste the Council is responsible for, and its responsibilities.

What are the approximate costs of waste management in Edinburgh (including transportation, sorting, and energy recovery)?

This year's budget for waste collection and disposal (which includes recycling and energy recovery) is forecast at £47,675,261 gross (£37,121,921 net, after income from sales of recyclable materials, energy recovery, etc.). This excludes pest control costs which are included in the waste management budget.

This year's budget for Cleansing (street cleaning, litter bins and fly-tipping removal and disposal) is £ 16,424,689 gross (£16,345,989 net, after income from cleaning up public events, etc.). This excludes public conveniences, which are included in the Cleansing Budget.

a. What proportion of the council's budget does this represent?

Approximately 5%. Approximately two thirds of the Council's budget, and this would be true for other Councils too, is spent on social care and education. The remaining portion has to fund all other services including waste, libraries, parks, housing and homelessness, roads, etc.

Which types of waste are most challenging to recycle effectively?

For instance, composite plastics or electronic waste – how does the council manage these?

Some materials such as disposable nappies are not recyclable at all, because there are no facilities in the UK to do so (or, in some cases, because there is no process to do so). Multi-material items such as composites and manufactured goods like electricals are more challenging than single material items like plastic bottles, cans paper, etc. However, for some, such as electricals, there are specialist reproprocessors. For others, such as the nappies, they would have to be used to generate energy.

Which types of waste do residents commonly mix, leading to increased costs for secondary sorting?

There is no specific type of waste which stands out, but some people might be confused about which types of plastic to recycle, or by poor on-pack labelling. For example, takeaway food packaging might contain a cardboard insert which is labelled as recyclable, but if it is contaminated with food, we do not want that, and it should go in the non-recyclable waste bin. There is a certain percentage of people who do not try to recycle properly and just put anything in any bin.