**GreenMine and Waste management. 2**

**Waste collection and disposal**

The UK generated around 222 million tonnes of waste in 2018[1], according to the most recent figures available. That’s roughly three tonnes of waste per person, way above the global average: [James Morris: Tackling the UK’s waste problem](https://www.linkedin.com/pulse/tackling-uks-waste-problem-how-protect-our-future-james-morris-acma-/)

As said by Patrick Brighty, Recycling Policy Advisor at the Environmental Services Association (ESA) approximately:

· 50% of UK waste is recycled

· 23% goes to landfill in the UK (worldwide 40%)

· 12% is treated and released into rivers or the sea

· 7.5% is incinerated

· And the rest is used as back fill (typically waste materials used in construction to refill excavated ground).

So, what are the problems and how to sort it?

1. **Waste solutions?**

Re-use our domestic waste rather than just dump it is important, but can be costly and not always convenient.

Initiatives to increase efficiency have been take or proposed, but so far don’t really sort the problems.

**The problems and initiatives.**

* Collecting everything separate could help, but is very cost- and time intensive. Some parts in Brighton already need to use 9! Bins. Daily Mail19/01/2024: [CLARE FOGES: The bin lunacy that's turned my home into a shanty town - with residents in Bristol now forced to separate their recycling into up to NINE containers and waste collected only once a fortnight](https://www.dailymail.co.uk/femail/article-12980139/Clare-Foges-bin-recycling-Bristol.html)
* Data from recycling facilities shows that [over 16% of the recycling is contaminated](https://wrap.org.uk/resources/guide/tackling-contamination-dry-recycling#:%7E:text=Evidence%20generally%20points%20to%20contamination,material%20to%20MRFs%20was%20contamination.). Because what is and isn’t recyclable varies a lot from area to area and even more from country to country.
* Let the manufacturer pay (and collect) could help as well, but at the end, the consumer pays anyway and we don’t want our industry to have even more hurdles.
* Charging residents for collecting recyclable waste covers the costs for councils but appears to be contra productive.
* Education at primary schools should take place anyway to create more awareness for the future.
* For industrial waste: Waste managers could (or should) be appointed in larger companies to create awareness, both for board as employees, about the real need to produce future waste (packaging) and as long it is needed, sort waste to both limit extra costs and unnecessary waste production.

1. **Landfills**

Why do landfills cause pollution?

Landfills can produce objectionable odors and landfill gas can move through soil and collect in nearby buildings. Of the gases produced in landfills, ammonia, sulphides, methane, and carbon dioxide are of most concern. Ammonia and hydrogen sulphide are responsible for most of the odors at landfills. And, as you can imagine, landfill sites are often responsible for the contamination of soil and groundwater, as the contaminating materials, such as lead and mercury, that the stored waste may contain can spread to the soil and water near the site.

So, what are the three main environmental issues with landfills?

It's not just the sight of increasing piles of waste that's the problem. There are many negative issues associated with landfill. The three most important problems with landfill are toxins, leachate and greenhouse gases.

More detailed, landfill problems are described in the links below.

[A study of PFAS Leakage from Landfills](https://www.diva-portal.org/smash/get/diva2:1788250/FULLTEXT01.pdf)

[Microplastics in landfill leachate](https://www.sciencedirect.com/science/article/abs/pii/S0301479723010083)

[Climate change likely to increase legacy landfill water pollution, finds report](https://www.endsreport.com/article/1858367/climate-change-likely-increase-legacy-landfill-water-pollution-finds-report)

[bbc.com: Landfill site fire prompts warning to shut windows](https://www.bbc.com/news/articles/cpr8z20xrvwo)

Climate impact from each of the biggest landfills is the same as from 130.000 to 1.5 million cars!

[uncovered LARGE methane emissions from landfills](https://www.science.org/doi/10.1126/sciadv.abn9683?utm_source=hs_email&utm_medium=email&utm_content=2&_hsenc=p2ANqtz-9MhEcBzhdy9kJgIeFMb22OPmivq7CkCe1YJDFO_nw6sSfk96TJ26H2dt2NQugtVYJWO4rvxtxuAfKk1FCtJM4pVnu-7w&_hsmi=2)

So, what can (should) be done to tackle these problems?

Just cover them with earth can’t be a long-term solution. Although some governments seem to think different about this: [bbc.com: Homes on former landfill site approved despite methane fears](https://www.bbc.com/news/uk-england-leicestershire-67997432) .

Digging it up could clean the land, but where to bring it? Burn it?

Or, use and recycle the needed resources in it to valuable off-takes leaving a perfectly clean site for building, leisure etc. for now and the future.

Many initiatives are planned by positive minds, but the solution should simply be: Produce less waste and recycle all unsorted waste without any emissions. That is exactly what GreenMine is offering with their High Tech WCP’s. This WILL help the UK and other countries reach their agreed targets.

To see how it works, visit [GreenMine High Tech Carbonisation: How it works](https://www.youtube.com/watch?v=r7gFklj0htY&utm_source=hs_email&utm_medium=email&_hsenc=p2ANqtz-9JHmoTi-90ek6yUJIITtc0wBeLj5e658G55QsLjg89UnrKHamJD0AxW1Qr7y0cHVy3_DBE)

Wit expected earnings per WCP of £290K per month (Expected plastic subsidies not included) it creates a profitable opportunity for both GreenMine as landfill owners (Interesting lease offers and it prevents future court cases).

**GreenMine’s mission is to process UNSORTED existing legacy landfill waste as well as new waste, without any sorting required to create useful offtakes that can be monetized easily.**

**GreenMine’s WCP’s ((Waste Carbonisation Plants) can already recycle 98% of all unsorted waste using their own produced clean energy and without air pollution.**