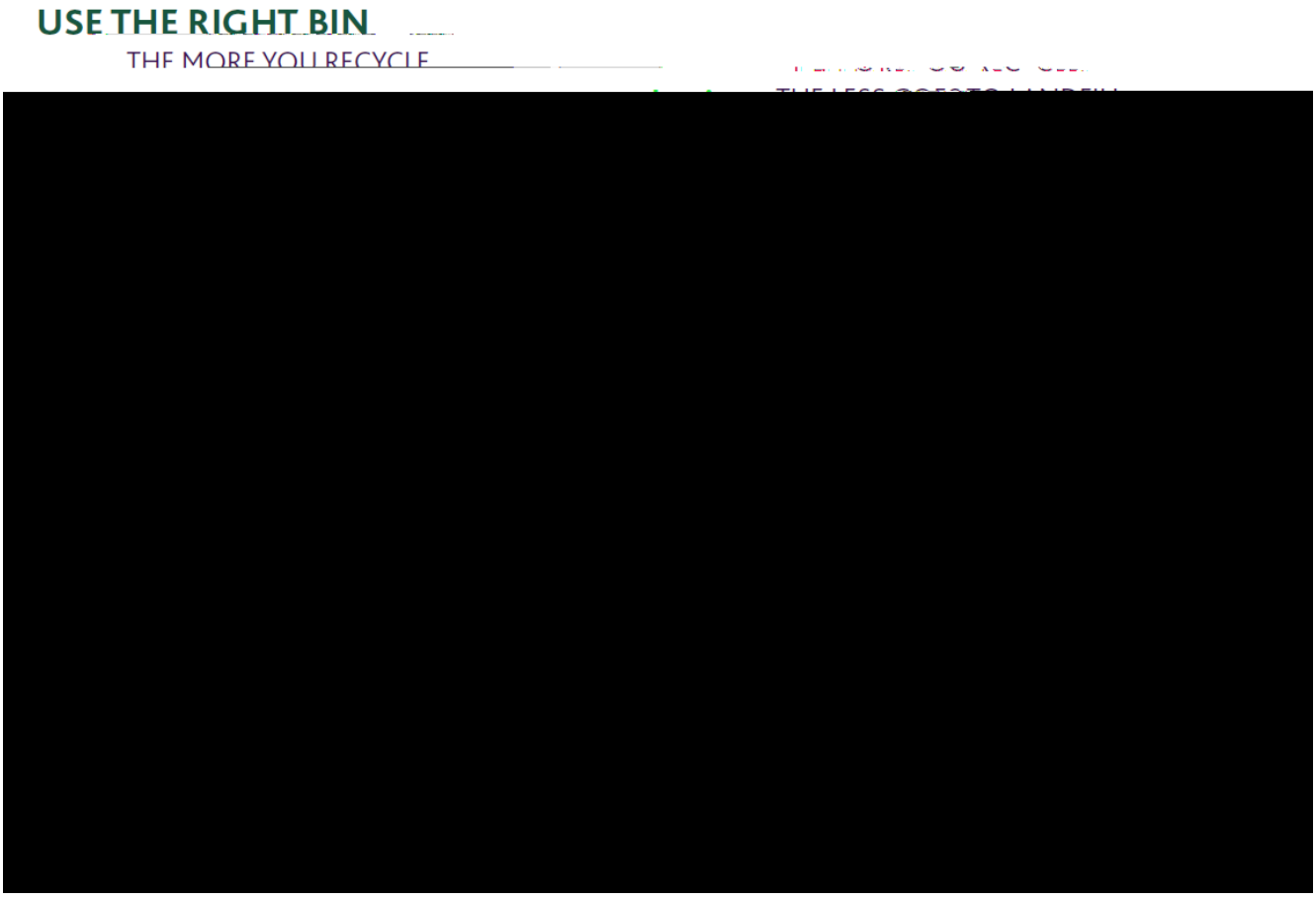
Moving towards zero waste

A Sustainable Waste Management Strategy for the University of Worcester

2020-2030



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and for high risk or hazardous streams (e.g. hazardous waste, clinical and biological waste, waste electrical and electronic (WEEE), etc).

Net Zero Carbon

6. Analysis of the University's carbon footprint and the likely trajectories for all carbon scopes in a 1.5°C warming scenario have confirmed that the Univeu-0 0 1(p)6 t2ve6(f)692 (it)t ths-1 (o)2 (n)1t >>

utilising Green Impact, Student Switch Off and Green Impact Students' Union by collaborating with the SU and their societies

6. Monitoring and evaluating waste management practices. Monthly monitoring and evaluation meetings take place to ensure our waste management practices identify areas for improvement and to ensure that this strategy is effective

8. We are continually working at ways of reducing the number of items we procure (see procurement strategy for more details), minimising the amount of waste we produce and reducing the volume of waste sent to landfill. The University is aware of the importance of the Zero Waste Hierarchy and the need to

- Refuse/Rethink/Redesign
- Reduce and Re-use
- Preparation for Reuse
- Recycling/Composting/Anaerobic digestion
- Material and chemical recovery
- Residuals management

9. Waste management procedures are improving year-on-year and we aim to reduce greenhouse gas (GHG) emissions from waste/recycling per full Time Equivalent students and staff by 5% annually from 2018-19 baseline to 2030, by maximising re-use, redistribution, and recycling. Recent initiatives include:

- Bin the Bin – removing all personal bins and creating central recycling/waste to landfill bins
- Winning £15,000 Recycling League competition in St Johns Halls
- White bags project with local housing association and two local primary schools
- Introducing the regular Repair Café Worcester into campus

Recycling schemes are also in place across the campus for toner and printer cartridges, computer equipment, books, batteries, cardboard, textiles, spectacles/hearing aids and shoes.

11. The table below shows our latest carbon emissions data and historic data for comparison and the detailed breakdown for 2021-2022 and how this was split into recycling and waste to energy, across the academic and residential estate.

12. The level of construction waste varies each year dependant on capital development and refurbishment programmes. Virtually all construction waste is recycled.
13. There are many different waste streams generated by the operations of the University and the following table shows the volumes of waste produced by waste category and splits it between residential and non-residential parts of the estate in academic year 2021-2022.

- Concrete measures to promote re-use and stimulate industrial symbiosis – turning one industry's by-product into another industry's raw material
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g., for packaging, batteries, electric and electronic equipment, vehicles)

Resources and Training

17. Most of the waste generated by the University is removed from the campuses under one contract. Smaller contracts are in place for specialist waste streams, confidential waste, WEEE waste, batteries, clinical waste, textiles, and toners. The last two waste streams are given to support several charitable enterprises.
18. Campus services staff are responsible for the segregation and collection of waste streams on campus and manage the external contracts. They provide an internal waste collection service from all areas of the campuses. Students are responsible for emptying their own waste directly into Eurobins, both rubbish and recycling, and food. Cleaning staff are responsible for emptying waste bins and recycling bins in office and teaching areas.
19. The University has skips for cardboard and a compactor (capacity 20 m^3) permanently on site located in the recycling compound at the rear of Woodbury Building. Estates contractors are not permitted to utilise these facilities, and they are used primarily for surplus furniture which cannot be used, non-re-useable fixtures and fittings and green waste by the grounds team.
20. Staff have undertaken several training courses including waste legislation, however further training would be beneficial to keep all staff involved up to date with this complex heavily legislated area

Waste streams

21. At the University of Worcester, waste is generated from the following activities:

Office/administrative activities
Laboratory teaching, which produces chemical waste
Demolition, construction, and refurbishment of buildings
Grounds maintenance
Maintenance of a transport fleet and parking facilities
Catering services
On-campus residential accommodation
Students' Union shop, social and catering outlets

Much of the waste produced at the University falls into two specific categories – hazardous and non-hazardous. In addition, there is a significant amount of catering waste

Food Waste

22. Food waste is segregated and collected both from the university catering provision and food caddies are provided in student halls and staff kitchens. The University currently uses a company called ReFood ltd to collect and dispose of food waste across our sites. Students and Staff have small food bins located in the communal kitchens, when full they are tipped into the large 240 litre located outside the student halls and a central Hines bin store. Bins they are collected weekly by the contractor and incinerated for energy. We have around 25 x 240 litre food waste bins for students and staff. We aim to increase the number of bins and cover more sites going forward. Most food waste is generated from hospitality. The outsourced catering contract includes rigorous KPI's and training regimes to reduce both plate waste and kitchen waste. We also train key staff who order food for hospitality events, on how to best gauge food order numbers to minimise food waste from events. This includes student engagement and events including Green Impact Projects.

Catering

23. The waste and resources action programme (WRAP) undertook a detailed waste audit, and a summary of their findings is shown below. In understanding their findings it is important to understand the definitions of 'avoidable' and 'unavoidable' food waste. These are given below.

    Avoidable food waste is food that was, at some point prior to disposal, edible (e.g., a slice of bread, apples, meat) and could have been eaten if it had been better portioned, managed, stored and/or prepared. 'Avoidable' food waste also includes some food items that may or may not be eaten as a matter of consumer preference such as bread crusts and jacket potato skins.

    Unavoidable food waste is food waste that is not, and has not been, edible under normal circumstances (e.g., meat bones, eggshells, pineapple skin, tea bags, potato skins from chip production).

The Future

24. The future direction for waste management in universities is being shaped by continuing to adhere to practices that prioritize waste reduction, reuse, and recycling over disposal. This can be achieved by following the waste hierarchy model, which sets out the most favourable and least favourable options for waste management. We continue to review new technologies that can improve waste management practices, such as waste-to-energy systems, smart waste bins, and innovative recycling techniques. The Sustainable Procurement Group continuously reviews circular economy models to recommend being adopted to promote a closed-loop system where waste is minimized, and resources are reused and recycled. The introduction of the Repair Café to campus will be monitored and reviewed to evaluate the impact.
25. We will continue to use Green Impact, and Student Switch Off to engage with staff, students, and other stakeholders to raise awareness about waste management issues and promote sustainable behaviour. Go Green Week will continue to a focal point for education and training programs, waste reduction campaigns, and community engagement initiatives.
26. We are committed to data-driven decision making, and the regular monitoring and evaluation of our waste management practices, to identify areas for improvement, and set targets for waste reduction and recycling. This will help us achieve improved recycling and reuse rates, cost savings, and reduced carbon emissions.
27. There is enormous