BIRMINGHAM CITY University

2023/24 ANNUAL ENVIRONMENT REPORT

FOREWORD

I am delighted to introduce BCU's 2023/24 Environment Report. This report provides a summary of our environmental and sustainability performance over the past academic year.

BCU maintained a strong position in the People & Planet University League, being ranked as the 27th best university in the UK for environmental and ethical performance and practice. We continue to perform well in environmental policy, auditing and environmental management, and carbon reduction. Over the next year, we will use the league table to pinpoint areas of improvement; work is already underway to update several areas of environmental strategy.

Our Public Sector Decarbonisation Scheme projects are key initiatives in our net zero carbon journey and continue to progress. 2023/24 saw the installation of 297 solar panels and enabling works for transition to air source heat pumps completed. These are important investments that BCU is making for its future environmental sustainability.

Looking ahead, the University's new Strategy 2030 has identified environmental sustainability as one of four core enablers central to achieving our strategic aspirations. This will see continued and new efforts to embed sustainability at the heart of what we do. The strategy articulates our commitment to building a sustainable future for our communities by using education, research, and responsible practices to develop environmentally conscious graduates.

In line with this, a new sustainability strategy will be developed in 2024/25, to reframe and refresh the University's commitments and approach to sustainability in accordance with the new Strategy 2030. I look forward to engaging with the whole university community in developing and implementing this new strategy in the coming years.

David Mba,
Vice Chancellor



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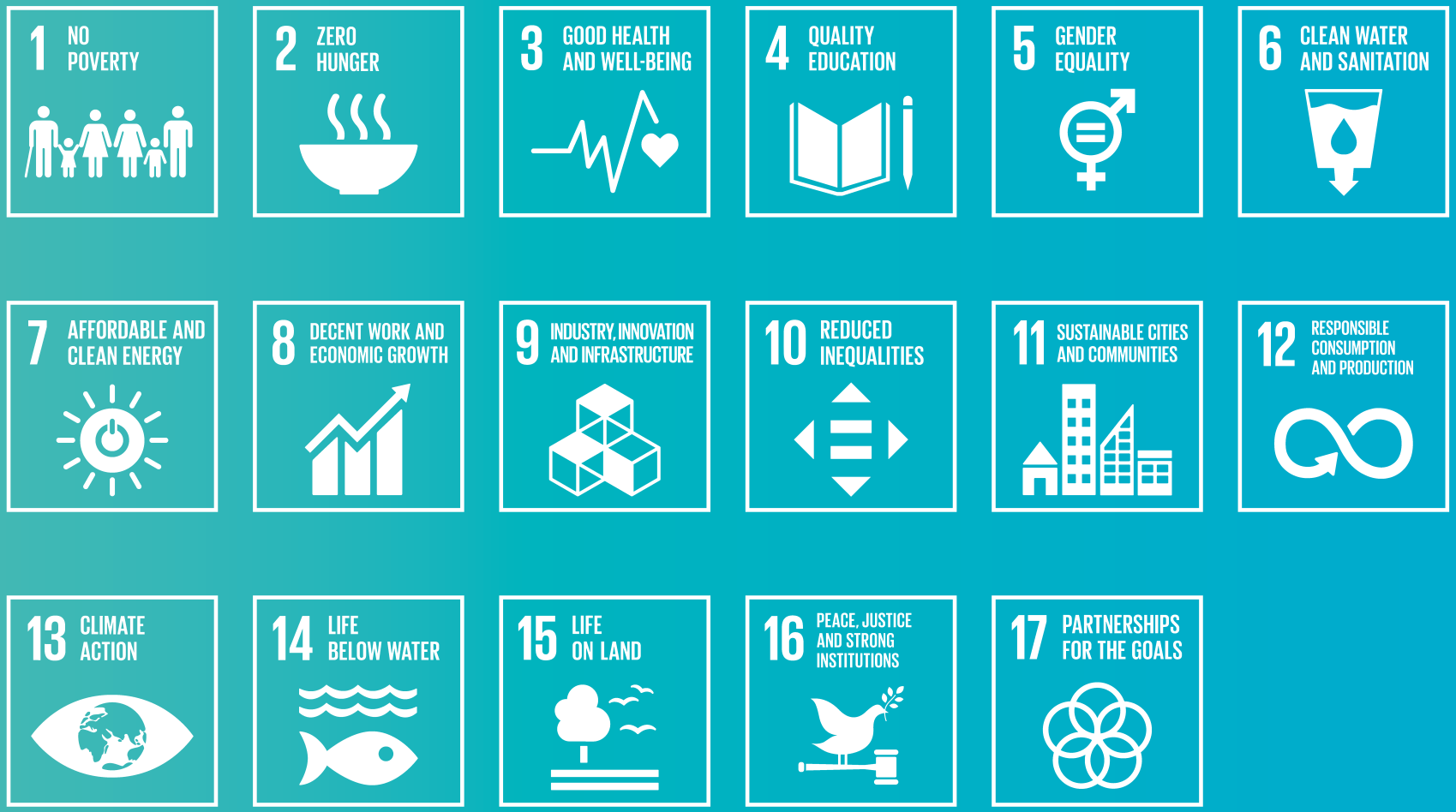
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KEY

These are the 17 UN Sustainable Development Goals (SDGs). For each section of this report, the relevant SDGs are referenced at the top of the page to indicate the goals our sustainability work is contributing to.



1. INTRODUCTION

2023/24 proved to be another challenging year regarding resourcing, with the team level fluctuating throughout the year which has seen delays in some areas of work, such as the completion of the new Biodiversity Action Plan and the Travel Plan.

The team and wider University colleagues continue to deliver work to the best possible standard, and environmental performance has continued to improve across a range of areas as highlighted in the headline figures below , with notable reductions in our waste production and scope 1 and 2 carbon emissions, and increase in the number of staff environmental champions.

The University has continued to make a number of accomplishments within sustainability, such as achieving gold in the Hedgehog Friendly Campus scheme, and further successes are outlined below.

Headline figures and successes from 2023/24 include:

66
SUSTAINABILITY
related communications delivered to staff and students

WATER WASTAGE
DECREASED TO
5%
compared to 14% in 2021/22.

ISO 14001:2015
ENVIRONMENTAL MANAGEMENT SYSTEM
ACCREDITATION MAINTAINED

OVERALL
WASTE PRODUCTION
REDUCED BY **2.9%** (from 2022/23)

ACHIEVED GOLD
HEDGEHOG FRIENDLY CAMPUS
AWARD

27.6%
REDUCTION
in scope 1 and 2
EMISSIONS
from 2022/23

ENVIRONMENTAL TEAM DELIVERED
15 EVENTS
ENGAGING
500 STAFF
STUDENTS AND EXTERNAL STAKEHOLDERS

Water meter data loggers fitted
ACROSS OUR ESTATE

STAFF ENVIRONMENTAL CHAMPIONS NETWORK OF
92
MEMBERS

RANKED 27 IN THE
People and Planet university league.

2. CARBON EMISSIONS SUMMARY

The University is working to improve the capture of environmental data, including the reporting of our carbon emission. Work has been underway to make changes to systems and process, such as expenses claims and feedback forms, to improve the reporting of our scope 3 travel emissions.

Table 1 outlines our emissions and where we are looking to improve data capture. This has been based on the Standardised Carbon Emissions Framework (SCEF) for Further and Higher Education which was published by the Environmental Association of Universities and Colleges (EAUC).

Standardised Carbon Emissions Framework Categories			**2023/24**	
Scope	Category	Area	tCO2e	Comment
1	1	Natural gas	2830	
	2	Fleet - petrol	1	Rounded up for reporting.
	2	Fleet - diesel	10	
	3	Refrigerants & Volatile Organic Compounds (VOC) - fugitive emissions (refrigerants)	140	F-gas leaks only
	3	Volatile Organic Compounds	0	Data not currently collected.
	4	Gas oil	1	
	4	Woodchip (CO2e reported for N2O and CH4)	0	None ordered in 2023/24.
	5	Land & Livestock		Not applicable to BCU.
Sub-total - Scope 1			2981	
2	1	Electricity (location based)	2396	
	1	Electricity (market based)	2252	Bryt energy is 100% renewable
	1	Solar - generated electricity (avoided emissions)	14	Rounded up for reporting.
	1	Renewable Energy Guarantee of Origin certificates	1	
	1	Power Purchase Agreements	0	Being reviewed
	2	Purchased heat or steam		Not applicable to BCU.
Sub-total - Scope 2			2411	
3	1	Purchased goods and services	44675	HESCET data
	1	Water	14	
	2	Capital goods - Construction	1227	HESCET data
	3	Fuel and energy related activities - electricity transmission and distribution	319	
	3	Fuel and energy related activities - electricity well-to-tank	800	Waiting for Bryt

2. CARBON EMISSIONS SUMMARY

Scope	Category	Area	tCO2e	Comment
3	3	Fuel and energy related activities - gas well-to-tank	504	
	3	Fuel and energy related activities - petrol well-to-tank	0	
	3	Fuel and energy related activities - diesel well-to-tank	3	
	3	Fuel and energy related activities - gas oil well-to-tank	0	None used in 2023/24
	4	Upstream transportation and distribution	0	Emissions included in scope 3 category 1.
	5	Waste generated in operations - waste	4	Significant change in DEFRA conversion factors for 2024
	5	Waste generated in operations - waste water	17	
	6	Business travel - air travel	866	
	6	Business travel - rail travel	13	
	6	Business travel - hotel	0	Data not currently collected.
	6	Business travel - taxi/coach	0	Data not currently collected.
	6	Business travel - car hire	0	Data not currently collected.
	6	Business travel - grey fleet	0	Data not currently collected.
	7	Employee commuting - staff commuting	1971	EAUC travel carbon emissions spreadsheet used
	7	Employee commuting - Staff homeworking	0	Calculation method to be agreed
	8	Leased buildings and vehicles	0	
	9	Downstream transportation and distribution - UK student travel & international student travel	13060	EAUC travel carbon emissions spreadsheet used
	9	Downstream transportation and distribution - Student accommodation	0	Data not currently collected.
	10	Processing of sold products		Not applicable to BCU.
	11	Use of sold products		Not applicable to BCU.
	12	End of life treatment of sold products		Not applicable to BCU.
	13	Downstream leased assets - leased buildings and vehicles	0	Data not currently collected.
	13	Downstream leased assets - land use		Not applicable to BCU.
	14	Franchises		Not applicable to BCU.
	15	Investments	0	Data not currently collected.
Sub-total - Scope 3			63,476	
TOTAL tCO2e (all 3 scopes)			68,847	

Table 1. BCU's scope 1, 2 and 3 carbon emissions for 2023/24

OBJECTIVE 1: EMBEDDING SUSTAINABILITY IN OUR PROCESSES

3. Environmental Management System

Objectives and Targets	Status
Continue to manage, maintain and continually improve our ISO 14001:2015 certified Environmental Management System throughout 2020-25	EMS maintained

3.1 Progress update:

EcoCampus conducted a peer audit of our Environmental Management System (EMS) in January 2024. The two-day audit included a review of EMS documentation, evaluation of compliance, interviews with members of staff and on-site audits of the School of Art and STEAMhouse buildings.

The audit identified 1 minor non-conformity (MiNC) and 5 opportunities for improvement (OFI). The MiNC related to no environmental induction for new starters; this is due to a change in training systems and the previous environmental awareness training not being compatible with the new format. Work is underway to update the training and upload it onto the new system. OFIs included reviewing the Environmental Committee, F-gas asset registers, and updates to documents.

Our ISO 14001:2015 surveillance audit took place in February 2024 over 5 days. The audit identified 2 MiNC and 6 OFIs. The MiNCs related to the management review and delays in delivering spills training. The management review was completed in April 2024 and work is underway to incorporate spills training through our online training system, making it easier to deliver and monitor completion. OFIs were centred around improvements to documents, processes and training.

Internal audits were conducted by the Sustainability Team in 2023/24 at the following sites:

- STEAMhouse
- Curzon Building
- School of Jewellery
- Assay Offices
- Ruskin Hall
- School of Art
- St Paul's Square
- The Pavilion

3.2 Going forward we will:

- Continue to develop EMS documentation and review audit approach.
- Conduct a peer audit in March 2025.
- Conduct an external recertification audit in May 2025.



OBJECTIVE 1: EMBEDDING SUSTAINABILITY IN OUR PROCESSES

4. Procurement

Objectives and Targets	Status
Maintain Level 4 of the Flexible Framework throughout 2020-25, exploring the option of achieving Level 5 or moving to ISO 20400:2017 should it become a formalised accreditation.	Continuing to maintain level 4 of the Flexible Framework
From 2020 onwards, all procurements over £60k require a Sustainability Impact Assessment (SIA), which considers environmental, economic and social impacts, and a light-touch process in place for contracts below £60k.	Achieving
All "higher-tier" suppliers will have a sustainability action plan by 2025 and are being monitored to ensure delivery.	In progress

4.1 Progress update:

During 2023/24 the Procurement Team has continued to embed sustainability as a requirement through sustainability impact assessments (SIA) and discussions with stakeholders to drive sustainability into contract deliverables.

Procurement have continued to work to the principles of Level 4 of the DEFRA Sustainable Procurement in Government Flexible Framework, with the hope to achieve Level 5 in flagship areas.

All procurements undertaken are assessed on a preliminary basis for sustainability, and where appropriate a full SIA is completed to help inform the procurement objectives, although this is not always based on the monetary value, but instead on the opportunities for sustainability improvements.

Following a review of Contract Management practice, the categorisation of University contracts of importance has changed. The new categorisation will result in specific action plans and re-assessment of sustainability objectives where appropriate. Performance will then be recorded centrally and alongside other contract information for compliance monitoring and reporting.

Key procurements in 2023/24:

Waste and Recycling: The University's main waste contract was retendered this year, and following a close competition, was awarded to Veolia, in a continuation of the long-standing partnership. This will ensure the University continues with a zero waste to landfill approach and a commitment to improving recycling rates and innovation. The new contract includes contractual key-performance targets to reduce both the absolute volume of waste and proportionate to University population; as well as a commitment to improving recycling proportions.

Pest Control: The University's Pest Control requirement was also retendered this year, and after a very competitive process, Rentokil succeeded in retaining the contract. Rentokil have established a track-record of working in partnership with the University to innovate the pest control services with impressive results: BCU's pest-related incidence is amongst the lowest in Birmingham. The new service includes:

- low-energy LED electronic fly killing units.
- the use of intelligent electronic gull deterrents and hawking to discourage avian pests.
- the UK's only pest-control R&D centre.

Mobile Phones: The University entered into a new multi-year agreement with Abzorb for the provision of mobile phones and services, replacing the previous ad-hoc provision. Abzorb impressed with their commitment to net zero carbon emissions and approach to sustainability, despite also being the cheapest bidder.

- 95% electricity used to power mobile services is renewable.
- Commitment to net zero carbon emissions by 2040.
- Opportunity to move to eSIMs to remove plastic waste.

Key contracts: Outsourced catering contract: BaxterStorey provide a comprehensively sustainable approach to the service, which is measured monthly via a suite of KPIs:

- Remove single use plastics from University catering within 2 years.
- Managing and reducing food waste, including anaerobic digestion.

OBJECTIVE 1: EMBEDDING SUSTAINABILITY IN OUR PROCESSES

- Reduction of coffee cup waste by promoting sustainable alternatives (measured and reported monthly) and use of single-wall cups.
- Reducing energy usage – outlets are now individually metered to enable more precise control of energy usage.
- Zero emissions vehicles – campus deliveries have moved to electric vehicles.

The University's e-waste continues to be managed by SER and ensures zero-landfill and 100% re-use or recycling of all University e-waste. All revenue generated by the re-use of IT equipment is given to the University's charities.

Litho-print Services for commercial printing, are carbon-offset and supplies FSC certified paper for all the University's requirements.

CDW, the University's computer supplier of Lenovo laptops and computers, continue to be carbon-offset, and all packaging is recycled.

Heat Decarbonisation Project is underway to deliver the move to sustainable heating at two University buildings, following a successful bid for grant-funding. Gas boilers are being replaced by air-source heat pumps for building heating at The Pavilions and Seacole buildings. Further details of these projects can be found in the 'Energy and Carbon' section of the report.

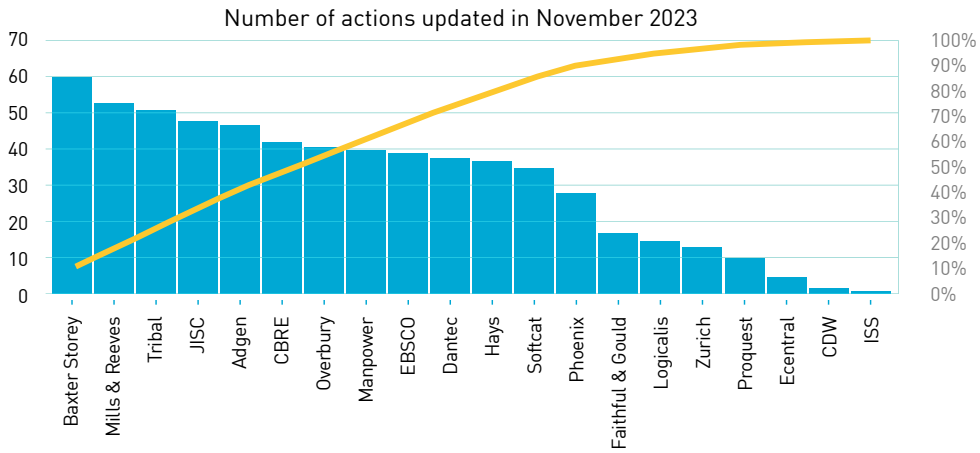
Training and development:

- Contract Management training has been delivered to more than twenty colleagues across the University, including how to embed and develop sustainability considerations during the lifecycle of supplier contracts using continuous improvement methodologies.
- A Finance intern assigned to work on the Net Zero Carbon Supplier tool gained experience working with the project and received training in the platform and sustainable procurement principles.
- The University Procurement and Environmental teams continue to work with peers in the sector via the TEC consortium to share and embed best practices in energy and sustainability.
- Each member of the Procurement Team has a sustainability goal in their performance review to support the delivery of our Environmental Plan.

Measurement: Regular (monthly and quarterly) reporting of sustainability goals occurs in several key contracts, such as waste management, catering and cleaning.

The NETpositive Supplier Engagement tool allows us to report on supplier progress with sustainability goals. Figure 1 highlights the number of sustainability actions updated from our top 20 suppliers, which gives an indication of the supplier engagement and activity. Further work will be undertaken to encourage our suppliers to engage further with the tool and how they support our sustainability agenda.

Figure 1. Number of sustainability actions updated by our top 20 suppliers



OBJECTIVE 1: EMBEDDING SUSTAINABILITY IN OUR PROCESSES

4.2 Going forward we will:

- Continue to participate in the Net Zero Carbon Supplier toolkit project to better understand our procurement carbon emissions.
- Continue to work with a prioritised list of our main suppliers to and better understand our Scope 3 emissions.
- Follow up on NETpositive Supplier Engagement toolkit findings.
- Develop a sustainable procurement roadmap/strategy including goals for procurements and development of general principles (e.g. no single-use plastics).
- Start a review of Power Purchase Agreements and energy consortiums in relation to sustainably generated energy and access to best practice and frameworks.
- Continued development of centralised KPI reporting and embedding of sustainability into Contract Management disciplines and using continuous improvement to drive changes to contract delivery.
- Extend SIA assessment to include non-process procurements (e.g. waivers).
- Be reviewing the resourcing of the Environment team focusing on supply chain analysis and scope three standards working with procurement.
- Continue to monitor the sustainability performance of the catering provider through a suite of KPIs.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

5. Biodiversity

Objectives and Targets	Status
Achieving gold for the Hedgehog Friendly Campus scheme	Achieved
Using the ecological survey report, develop a Biodiversity Action Plan (BAP) for BCU to maintain the number of species and habitats, and where feasible increase these	In progress
Maintain, and where feasible, increase food growing sites around campuses by 2025 from 2020 provision	In progress

5.1 Progress update:

Our draft Biodiversity Action Plan (BAP) has been further developed and is expected to be published in the 2024/25 academic year. The BAP will outline targets which are aligned to the biodiversity metric of each site to allow for future measurement against our target with a changing estate.

Due to an update in how biodiversity net gain is measured, our sites were re-surveyed in August 2023 to ensure that our baseline and targets are in line with the latest Biodiversity Metric 4.0. The updated surveys and metrics will be applied to our BAP.

The University has achieved the bronze, silver and gold award for the Hedgehog Friendly Campus scheme, one of only two universities in the country to achieve such a feat.

The Hedgehog Friendly Campus initiatives protect declining hedgehog populations by creating safer, more welcoming environments across university campuses. Through habitat improvements, awareness campaigns, and community involvement, the initiative promotes biodiversity, and supports hedgehog conservation efforts, contributing to a greener, more sustainable campus.

Some of the actions completed through the Hedgehog Friendly Campus programme include:

- Creation of 8 hedgehog homes – Students and staff worked together to build wooden structures for hedgehogs, providing a resting place for them during the day.
- Insect Hotel Workshop – Collaborating with the local biodiversity charity, the community environmental trust, an insect hotel was constructed by staff and students to promote biodiversity at the university
- Strimmer stickers were attached to strimming machinery, providing a visual prompt to the Grounds Team to check the surrounding area for animals before turning the strimmer on.
- Collaborating with the local community – Groups such as the Canal and River Trust worked with to improve biodiversity on campus and in the community.
- Wildflower garden created to provide habitats and food for wildlife.

5.2 Going forward we will:

- Finalise and achieve sign off the BAP.
- Complete the planting of the Plot C wildflower meadow.
- Deliver further planting projects and schemes to support biodiversity improvements across our estate.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

6. Catering

Objectives and Targets	Status
Embed sustainability as a core requirement in the tender of the catering contract in 2020/21, developing a new Sustainable Catering Policy and Targets for the duration of the contract (2021/26)	Achieved
Deliver our Sustainable Catering Policy and Targets.	In progress

6.1 Progress update:

In 2023/24 BaxterStorey achieved Food for Life Bronze award across all our sites. The Food for Life accreditation ensures sustainability criteria are delivered through our catering provision such as free-range eggs in all cooking, Marine Stewardship Council (MSC) certified fish, using local suppliers and seasonal produce.

BaxterStorey continue to work with local suppliers and bespoke dedicated suppliers where feasible. R-Oil natural rapeseed oil is locally farmed in the Cotswolds and is used across our sites. The used oil is collected and converted into biofuel.

Westway's, established in 1889, supply all BaxterStorey's sausages which are produced in the West Country. They won Sustainability Champion 2023 in the Taste of the West awards.

BaxterStorey participated in the 2024 BCU Waste Awareness Week, where they offered Eco to Go boxes and Keep Cups for sale on the day. These are also sold year-round at different locations to encourage students and staff to move away from using disposables.

They continue to move towards more plant-based provisions, with many vegan options available, and continue with the Food Equilibrium project which reduces the amount of meat on a selection of menus.

BaxterStorey has introduced a new supply chain purchasing approach where the following items are ordered and delivered from one supplier which were previously delivered by three different suppliers, therefore reducing food miles associated with contract delivery.

Our catering contractor, BaxterStorey, is also involved with several other sustainability initiatives including:

Soup With Purpose: Using rescued seasonal vegetables at their nutritional best from going to waste through the Waste Knot scheme, BaxterStorey chefs make soup for our students and staff. 50p from every box of Waste Knot vegetables goes in the Soup With Purpose charity fund. The proceeds of this go to local charities across all the regions; in the Midlands this is The Bus Shelter Homeless Community who provide shelter, food and support for rough sleepers who are looking to become independent and get off the street.

Beans is How: Beans is How is a campaign aiming to double global bean consumption by 2028. BaxterStorey is the first to sign the pledge within the food service industry. BaxterStorey plans to get more beans on menus and is looking to inspire and educate about plant-based alternatives with a lower carbon footprint.

6.2 Going forward we will:

- Review and refresh the Sustainable Catering Policy for the University in partnership with BaxterStorey.
- Develop sustainability KPIs for the new catering contract performance meetings.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

7. Energy and Carbon

Objectives and Targets	Status
Reduce our scope 1 and 2 carbon emissions by 43% by 2020/21 (absolute and by FTE students and staff targets) against a 2005/06 baseline year	Achieved
Continue to purchase 100% renewable energy (both electricity and gas)	Achieved for electricity, outstanding for gas
Increase onsite energy generation from 2020 levels by 2025.	Achieved
Review what is required to achieve a net zero carbon University before 2050 and start the delivery of actions to achieve this by 2025.	In progress
Throughout 2020/25, improve the capture of scope 3 carbon emission data for reporting, and setting associated goals for reporting and net zero carbon work.	In progress

7.1 Progress update:

Scope 1 and 2 emissions (emissions related to electricity, gas, refrigerant leaks, and petrol and diesel consumption) for 2023/24 are 5392 tCO2e. This represents a 21.28% reduction compared to 2022/23. This is mainly due to a reduction in gas use and a change in our electricity contract moving to a 100% renewables contract in April 2024 and using market based emissions factors for this consumption. Figure 2 illustrates how BCU's emissions have fallen since 2005/06.

We've previously identified that the target for scope 1 and 2 emissions for 2023/24 was 6,242 tCO2e and we have achieved this through the various dynamic projects we have initiated such as the Public Sector Decarbonisation Scheme (PSDS) work at Seacole and the Pavilion which is nearing completion.



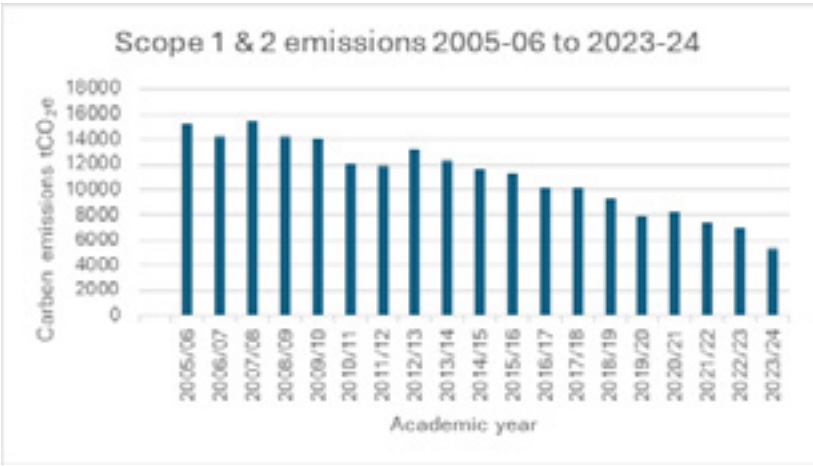


Figure 2. Scope 1 and 2 emissions reductions 2005/06 to 2022/23.

During 2023/24 BCU used 2 GWh less gas than the previous year. This has been achieved through the completion of the Building Management System (BMS) consolidation project and monitoring consumption across our portfolio. The Lodge used 440,757kWh of gas last year and this year used 101,645kWh.Removing gas from Benjamin Zephaniah House, previously known as University House, as part of the refurbishment provided an overall saving of 145,751kWh gas, with no future use to report for this site going forward.

We have moved onto a 100% renewable electricity supply during 2023/24 which has significantly reduced our electricity carbon emissions and will continue to do so through the lifetime of the contract, set to expire in March 2026. This is based upon market-based carbon data as opposed to location-based data which has been used to report previous years emissions.
There is potential for further savings in the coming year as PSDS work at Seacole and Moor Lane Pavilion is completed. Solar panels were installed at Moor Lane and Seacole during Summer 2024, and this is being monitored for future reporting. Seacole has 117 panels 50kW capacity and Moor Lane Pavilion has 180 panels at 70KW capacity. LED lighting replacement has taken place throughout the central Seacole area and the whole of the Pavilion.

OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

Overall, 5,339 and 951 new LED lights have been installed across the two buildings respectively. In Seacole alone, comparing the total electrical power consumption for the old lighting system and the new lights has reduced the electrical power demand by 290,000kW per year. Power savings are further enhanced with automatic daylight dimming controls and presence detection.

These projects were the beginning of BCU's journey to net-zero carbon in scope 1 and 2, moving away from fossil fuel heating to a low carbon heat pump solution. These projects will give BCU experience and learnings to take forward to future projects.

The BMS project has been transformational for BCU. Sensors have been upgraded, and control has been brought under one program which has improved functionality and access. This has allowed for improved operational control by consolidating systems/heating controls. Several buildings that weren't under the control of the BMS have been added and unsupported controllers and sensors have been upgraded. The project will also deliver improved user functionality and comfort by bringing all the buildings onto one common platform that can be viewed remotely. The Energy Manager has access to the BMS and collaborates with Engineering and the BMS contractor to identify and rectify issues in a timely manner. With the revised Thermal Comfort Policy expected to go live in early 2025 with clearly defined temperature ranges for heating and cooling there is the potential for further savings across the portfolio. A decarbonisation report has been developed for Parkside Building, and this is ready for any future applications for funding. Over the next year there will be a net zero project pipeline established to identify future projects and anticipated costs.

BCU continues to engage with our neighbours on the development of a decarbonised heat network and will incorporate this work into planning for the future of the estate, although this is not expected to be realised until 2033/34.

7.2 Going forward we will:

- Finalise the Public Sector Decarbonisation Scheme projects and report on our experiences.
- Monitor the BMS consolidation project and identify any further areas for improvement.
- Continue to prepare projects that are application ready for future rounds of decarbonisation funding.
- Advise on low carbon requirements for refurbishments.
- Work collaboratively in all areas to achieve our net zero carbon ambitions.
- Continue to improve data capture.
- Roll out smart meters to areas where they are not currently in operation.
- Explore power purchase agreements.
- Explore all funding streams for future work.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

8. Environmental management and compliance

Objectives and Targets	Status
Zero major non-conformances due to a compliance obligation breach.	Achieved
From 2020/25, complete the marking of manhole covers with correct identification across the estate, to include drainage CCTV inspections to all PPM maintenance contracts.	In progress

8.1 Progress update:

A compliance evaluation was conducted in January 2024, which included interviews with staff to understand how environmental compliance is managed across the University. The evaluation identified areas for improvement, such as document storage and access, improvements to tracker documents and reviewing drainage and discharge consents.cvv

A few refrigerant gas leaks occurred in 2023/24 in Curzon Building, Doug Ellis, and Millennium Point. This equated to 89.2 tCO2e, and we continue to work to try and reduce this.

During 2023/24, drainage plans were developed for the School of Art, School of Jewellery and Pavilion sports ground. Drainage marking was also put in place at these sites to indicate direction of flow and if the drainage covers were surface water, foul water or combined. This will support us in our site and incident management.

8.2 Going forward we will:

- Continue to progress drainage mapping and drain labelling across the estate budget permitting.
- Complete an environmental compliance review.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

9. Sustainable buildings

Objectives and Targets	Status
Achieve an EPC rating of 'A' on all new builds.	No new builds in 2023/24
Achieve BREEAM 'Excellent' as a minimum for all new builds.	No new builds in 2023/24
Deliver BCU's Sustainable Building Standard for all new builds and refurbishments from 2020-25.	In progress

9.1 Progress update:

University House: 2023/24 saw the major refurbishment of University House, converting it from a professional services office building to the new home of the College of Education. The building has now been renamed the Benjamin Zephaniah Building in honour of the writer and poet. The project across floors 1 to 4 was handed over in November 2024 and the ground floor is due for completion in 2025. Once finished a full whole life carbon assessment for the project will be finalised which will improve our scope 3 carbon emission reporting.

The project has followed the SKA HE principles, which allowed BCU to assess fit-out projects against a set of sustainability good practice measures. Examples of measures embedded as part of the project include installation of LED lighting and lighting controls, insulation, FSC timber, and leakage detection.

Joseph Priestley Building agile project phase 2: The upper floors of the Joseph Priestley building agile project were completed in September 2023, finalising the move to a professional services hub. LED lighting replacement and furniture reuse were the two main environmental achievements of the project.

STEAMhouse fit out: The first, second and fourth floors had a shell and core fit out with lighting, electrics and mechanical units installed. Standards were replicated from the base build and fit out which followed BREEAM Excellent requirements and design principles.

Seacole simbulance room: The old biomechanical engineering room was converted into a purpose-built ambulance simulator. The 'simbulance' is fitted with the latest industry technology and will help equip paramedic students with the skills and confidence to tackle complex incidents. New energy efficient ventilation and LED lighting was installed as part of the fit out.

Vice-Chancellor Office moves: The Vice-Chancellors office was also moved within Curzon Building, which saw the previous offices repurposed into teaching space. LED lighting was installed, and the majority of furniture was reused as part of the project.

Furniture was also reused across our sites, with University House furniture reused in STEAMhouse, and furniture from Seacole moved to University House.

9.2 Going forward we will:

- Integrate sustainability considerations as a priority in future Masterplanning work.
- Continue to specify net zero and environmental requirements in our project briefs.
- Review standard specifications for M&E works and integrate sustainability considerations as part of these.
- Review the UK Net Zero Carbon Building Standard and how these could be integrated into our new build and retrofit requirements.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

10. Transport

Objectives and Targets	Status
Encourage and increase staff, student and visitor sustainable travel through the implementation and two-yearly refresh of the University Travel Plans. Specific targets outlined in the Travel Plans.	In progress
Improve the capture of business travel information through any travel procurements from 2020/25.	In progress
Review and agree an approach to post-combustion engine vehicles for BCU.	In progress

10.1 Progress update:

To reduce barriers to cycling, a sustainable form of transportation, students and staff were taught how to ride a bike through adult cycling lessons. Utilising University owned Brompton Bikes, students and staff were taught how to ride a bicycle by qualified trainers from the sustainability organisation EcoBirmingham. Due to the success and popularity of the initiative, free adult riding lessons will become an annual activity for the BCU community to take part in.

Other cycling incentives include free on campus bike maintenance sessions, a salary sacrifice bike hire scheme and free breakfasts offers to staff and students that cycled to campus.

A travel guide has been published by BCU Active. The Travel Guide provides sustainable travel options from Birmingham City University's City Centre Campus to various sports venues. It highlights door-to-door travel times for walking, cycling, buses, and trains, promoting eco-friendly and cost-effective commuting solutions.





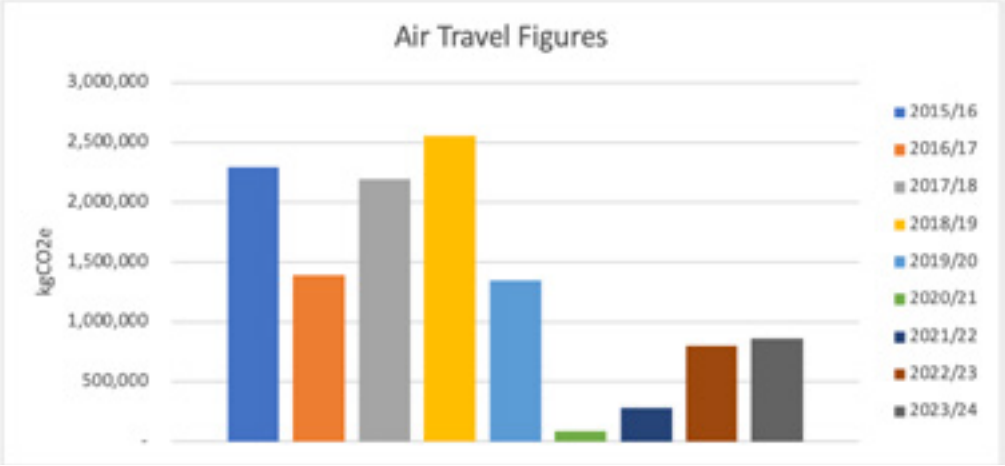
OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

Further actions taken during 2023/24 include:

- University partnership fostered with the National Express, to offer visitors to Applicant Taster Days free bus travel to BCU. This offer increased the use of public transport and reduced travel carbon emissions.
- An online form has been created to allow students, staff and visitors to provide their feedback and recommendations on travel to and from the university.
- Identification of 4 sites across City Centre and City South campuses for electric vehicle charging points to be installed.

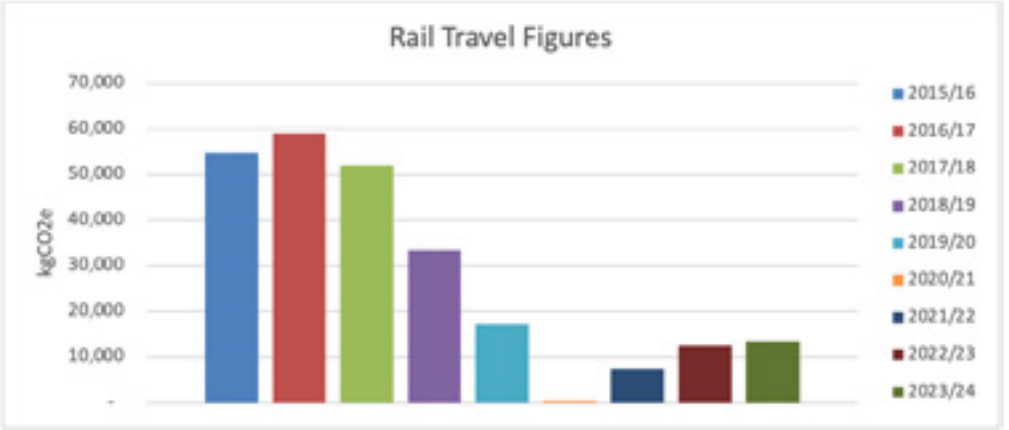
Business travel data – air and rail: Business air mileage saw a 37% increase from 2,459,410 miles in 2022/23 to 3,381,423 in 2023/24, and a rise in carbon emissions from 803 tCO_2e to 866 tCO_2e respectively (figure 3). Although air travel is still lower than pre-Covid levels, the University will need to work to reduce its carbon emissions from air travel to support meeting its net zero carbon targets.

Figure 3. BCU air business travel carbon emissions



Similarly to air travel, rail business travel has increased from 2022/23 to 2023/24 by 9% in mileage and 8% carbon emissions (figure 4). Rail mileage increased from 219,762 in 2022/23 to 238,587 in 2023/24, and carbon emissions increased from 12.4 tCO_2e in 2022/23 to 13.4 tCO_2e in 2023/24. It is worth noting that the air and rail data from this report relates to data captured from our travel provider, Key Travel. Any business rail and air travel outside of this has not been captured in this report. Work is underway to improve capture of our travel data, from business travel and commuting to student travel abroad and visitor travel.

Figure 4. BCU rail business travel carbon emissions

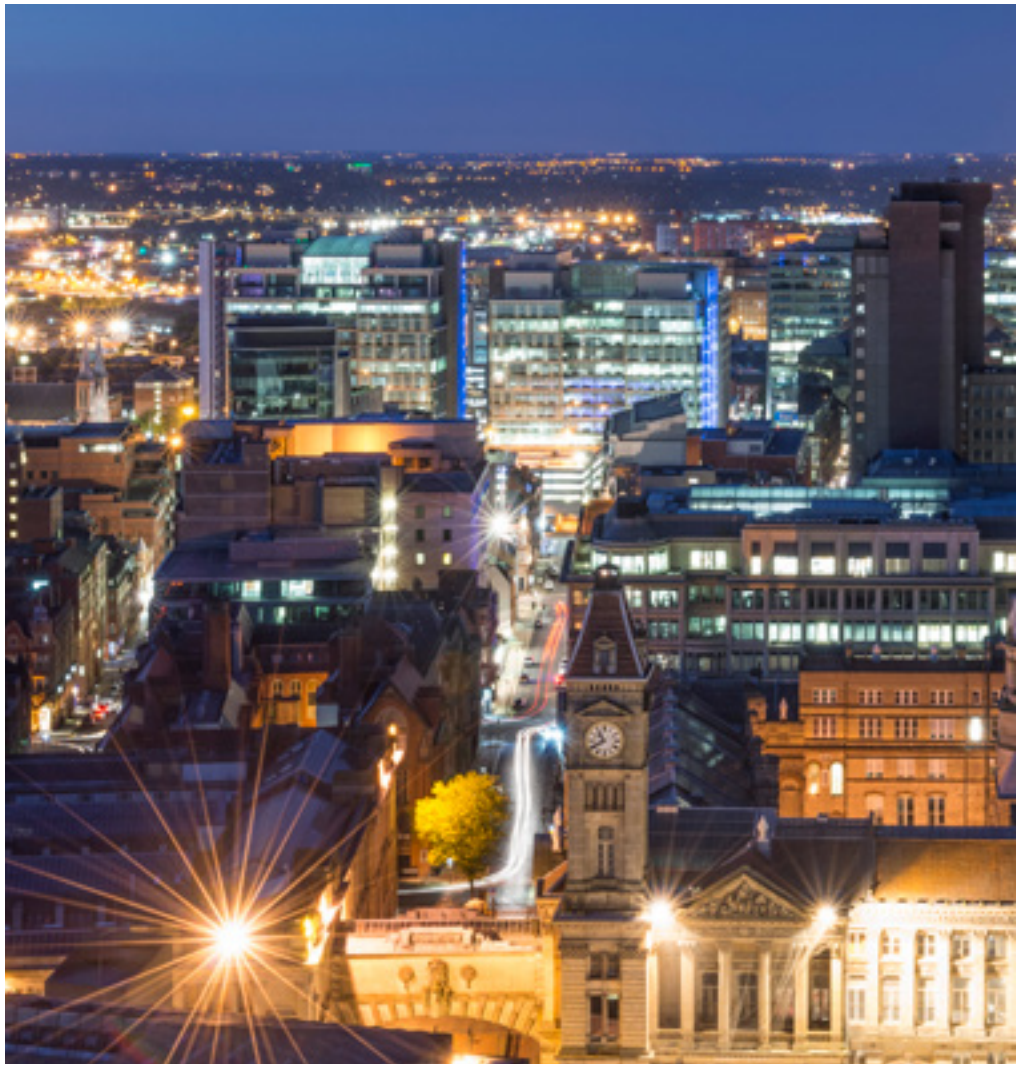


The Sustainability Team have been working with the International College to improve the data capture of the travel abroad programme for students. Environmental questions were integrated into the Go Abroad post mobility survey to help estimate carbon emissions associated with their travel. Baseline emissions from Go Abroad travel came to 430 tCO_2e in 2023/24.

OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

10.2 Going forward we will:

- Publish to 2024-2027 Travel Plan, outlining BCU's sustainable transport commitments.
- Run a travel survey in October - November 2024.
- Install electric vehicle charging points at Curzon, Seacole, Heneage Street and Harborn Road properties.
- Continue to improve data capture associated with business travel and commuting.
- Deliver bike maintenance stands across campuses.
- Review business travel policy and implement measure to reduce travel emissions.
- Investigate the possibility of increasing Cycle2Work maximum spend thresholds.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

11. Waste and recycling

Objectives and Targets	Status
Reduce the amount of waste generated year on-year by 1% by 2025 from a 2018-19 baseline.	Achieved – 2.9% reduction
Increase recycling rates annually by 2% per year by 2025 from a 2018/19 baseline.	Achieved
Maintain zero waste to landfill (excluding waste from building projects).	Achieved
Establish and maintain a Waste Task Group at BCU throughout 2020/25 to continue to identify areas of waste prevention and reduction and increase recycling.	In progress

11.1 Progress update:

2023/24 saw a 2.9% decrease in total waste generated when compared to 2022/23 across all academic and accommodation buildings (figure 5). This is an 8% decrease on the baseline figure of 2018-19.

Waste across the University has continued to reduce in quantity despite staff and student footfall remaining consistent and further additional buildings within the BCU estate.

There have been more concerted efforts to reuse furniture where possible during project renovations, and to donate smaller items to students within accommodation therefore avoiding these items going into general waste.

However, in 2023/24 there have been further building and space reconfiguration projects which have increased the amount of industrial waste disposed of by 3% on the previous academic year. Due to changes in waste laws, items that contain POPS, such as soft furnishings must be treated differently now, which has further contributed nearly 2% to the industrial waste. Despite this, waste is still lower than the previous year.

In 2023-24, the overall recycling rate for the University, decreased 1% on the previous year, however this is still 18% above the baseline figure of 2018/19. This 1% reduction can be attributed to a reduction in paper recycling of 19% in comparison to the previous year. In 2022/23 a huge increase of paper recycling was produced from clearance projects taking place in readiness for space moves. Paper recycling, however, remains consistent making up 20% of the total waste across BCU.

There has also been a 10% increase in cardboard recycling from the previous year. This is also directly related to changes in space use and agile working, where new IT equipment and furniture has been purchased and therefore cardboard packaging has been disposed of.

Food waste recycling remains consistent with this stream being the second biggest recyclable across the University. Further rollout of food caddies within staff kitchens and more student accessible food bins, as well as refurbished catering areas have all contributed to food waste remaining a significant recycling stream and therefore avoiding the general waste route.

Accommodation have seen a 20.8% reduction in overall waste production, achieving a 14% recycling rate which is a 2% increase on the previous year. The reduction in total quantity of waste within accommodation has positively contributed to the overall 2.9% reduction in total waste across the estate.

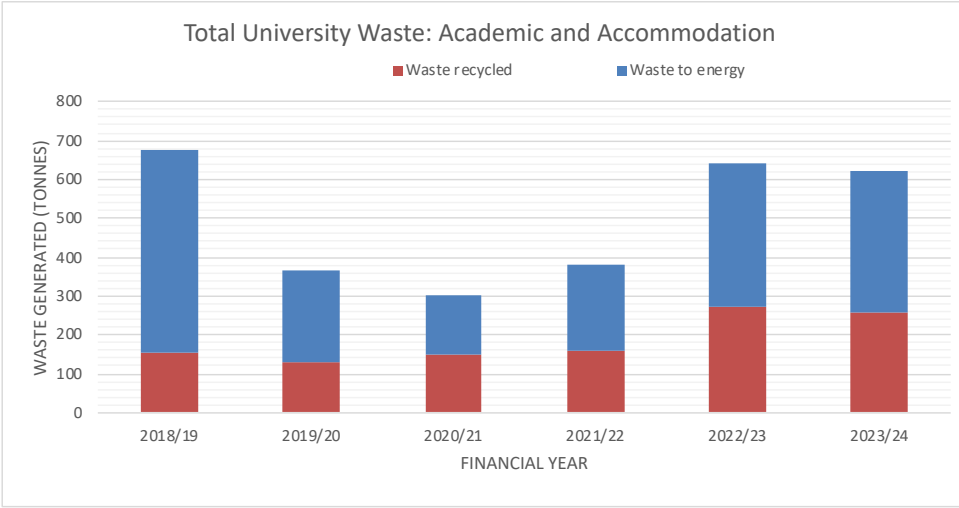


Figure 5. Total University waste generated from accommodation and academic buildings.

OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

The increase from 2021/22 to 2022/23 is directly correlated to footfall on campus, with more students returning to face-to-face teaching and staff returning to workplace offices post Covid. Additional buildings, such as STEAMhouse, also opened adding to the estate portfolio and student numbers were higher than the previous year.

Waste reduction and recycling initiatives: March 2024 saw the University hold its third annual Waste Awareness Week. This was the biggest and best event to date. All waste and cleaning contractors to BCU engaged with staff and students in a Waste Awareness fair to educate and gain valuable feedback on waste and recycling within the University. During the week, a "CommonWaste Games" event was held in Parkside to further engage and educate stakeholders whilst having fun with waste themed games. A litter pick also took place around the city centre involving both staff and students, and supported by our waste partner, Veolia, who's staff joined in from a local depot. A mini "games" day was also held within University Locks to encourage and promote better recycling within accommodation.

Reviews have taken place across certain buildings where recycling rates have previously been identified as low. Work has been undertaken to implement correct waste management practices and educate staff and students on waste segregation within these buildings leading to improved levels of recycling.

General waste and recycling bin signage has been reviewed and updated to unify and simplify the message of recyclable items, making it clearer and more helpful in identifying the correct bin to use.

To further encourage the use of recycling bins, various communication methods have been used including digital advertising across TV screens, articles and good news stories in staff newsletters and membership to staff user groups to help drive the recycling message.

Items such as stationary, crockery and cutlery that have been surplus to requirements when clearing out buildings for refurbishment projects, have been donated to students within accommodation. This has demonstrated a positive contribution to student experience whilst also contributing to waste avoidance.

Regular audits carried out by BCU's Quality Control Officer, assisting with ensuring lower contamination of external bins by staff and contractors. All Facilities staff have undertaken a waste awareness toolbox talk, delivered by the Quality Control Officer, to ensure they fully understand and support the recycling message.

BCU also continues to work in partnership with ISS, our cleaning contractor, who are asked to identify and report hotspots where recycling is being contaminated. Where possible, and safe, the ISS cleaning team also help to segregate waste to reduce contamination into other waste streams and promote recycling.

Through our robust monitoring of the University waste streams, Veolia, our waste contractor, commented that the University recycling is the best it has ever seen. Positive feedback around waste and its associated robust documentation was also received again from the ISO14001 auditors when carrying out the external Environmental accreditation.

The Grounds and Gardening team play a key role in reusing or composting green waste created from around campuses. Additional compost bins have been built around City South Campus and compost bins now implemented within the city centre to help reduce the quantity of green waste sent to contractors for disposal and therefore reducing both cost and carbon emissions. The Grounds and Gardening team also reuse pallets for making compost bins and chip fallen trees and branches for use on the gardens.

The FM contracts team now meet with the Sustainability Team monthly to discuss waste management initiatives and agree targets to continue to reduce and improve waste statistics.



OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

Coffee cup recycling has been further rolled out in 2023/24, with an expansion of coffee cup bins onto each floor within Joseph Priestley building and a trial coffee cup bin situated near Starbucks in Parkside. Within staff areas, the results are pleasing with several hundred cups having been recycled within the academic year, however this isn't as successful within student areas as this bin is often contaminated. For the upcoming year, further bins will be rolled out to Seacole building within staff areas to encourage further recycling and preventing another material from going to general waste.

BCU continues to recycle all redundant IT and electrical equipment via our WEEE waste contractor and 10% of all rebates are donated to Birmingham and Solihull Women's Aid. In 2023-24, £609 was donated to charity on behalf of BCU.

11.2 Going forward we will:

- Further promote waste "good news" stories using digital media to educate and inform staff and students of the importance of recycling and what happens to waste streams both during and after the recycling process, including a waste stream topic per month advertised on internal communications.
- Implementation of food waste recycling at University Locks with a trial in Block A in September 2024, followed by roll out across the accommodation in January 2025.
- Conduct waste audits of all our sites by end of 2024/25.





OBJECTIVE 2: REDUCING THE ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

12. Water

Objectives and Targets	Status
Install water meter loggers and establish a baseline of water consumption for 2019/20	Achieved
Once a baseline is established, develop a water reduction target and approach to reduce water consumption and associated carbon emissions by 2025	Achieved

12.1 Progress update:

Figure 6 shows the change in water consumption split by residential and non-residential since 2008/09. Water consumption has increased by 22,101m3 (31% increase) compared to 2022/23. Water wastage (water that is used due to faulty appliances and leaks) has continued to fall but it still accounts for around 5% of overall water consumption. A target was set in 2021/22 to reduce wastewater by 5% by 2025. This was achieved in 2022/23 as wastewater was reduced from 14% in 2021/22 to 7%. Work will continue to reduce wastewater across our sites. Working with our partner, Demeter, we view our online portal regularly to identify leaks. Demeter also highlight issues that require further investigation to us. We respond quickly to unusual water patterns raising it first with onsite staff for investigation but then escalating it to a service ticket after discussion with the Engineering team.

Seacole continues to have a high level of wasted water and we're trying to engage with academic colleagues to identify genuine usage. Further sub-metering is required within the larger buildings to assist in locating where problems may be occurring when prolonged increases in consumption occur. We're also aware of a leak at University Locks but this is difficult to quantify due to issues with the water logger which will hopefully be fixed early 2025.

We are also exploring our options regarding a new water contract to find a suitable water retailer willing to work with us to reduce our water consumption.

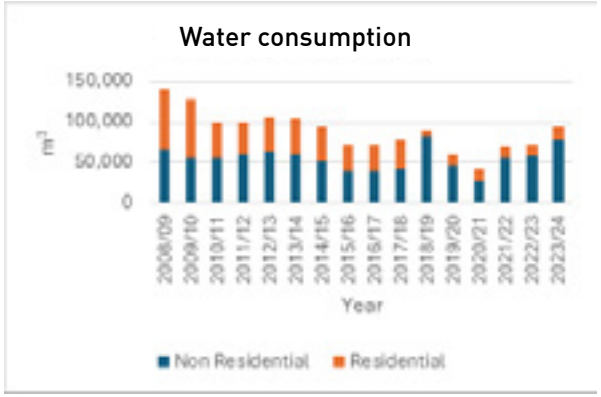


Figure 6. comparison of annual water consumption split by residential and non-residential, from 2008/09 to 2023/24

12.2 Going forward we will:

- Procure a new water retail contract before 1st October 2025.
- Continue to monitor water data loggers and investigate high levels of water use.
- Explore sub-metering upgrades during refurbishments.
- Continue to carry out water audits across the estate.
- Continue investigations at buildings to identify source of water wastage.



OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY

13. Curriculum

Objectives and Targets	Status
Sustainability has been integrated as a requirement in the course approval form	Achieved
By 2025 every course has been assessed for sustainability, using the SDGs as a framework, via the Periodic Review.	Lack of resource to achieve programme timescales
Develop and deliver a new SEDA accredited course for staff on Embedding Sustainability in the Curriculum by August 2020.	On hold due to resourcing

13.1 Progress update:

Education Development Service: A light touch 'Introduction to embedding sustainability into the curriculum' session has been integrated into the PgCert by the Education Development Service (EDS) however staff resourcing does not currently allow for more strategic in-depth training to be delivered.

EDS has continued to support curriculum decolonisation work through jointly hosting the Decolonising HE Academic Practice two-day event in partnership with De Montfort University in June 2024. The event discussed how decolonising knowledge provides challenges but also opportunities in HE pedagogy and research, with 15 workshops delivered by various speakers.

Sustainable curriculum examples: Some examples have been highlighted below of the innovative and exciting sustainability practices happening across BCU.

College of English and Media:

- Media: BCU provides Level 6 extra curricula training aimed at television production students. Students are shown how to use the ALBERT sustainability calculator which is used by production companies (UK and International). This is one day training which provides an overview of sustainability issues in general and then in television production and is seen as an advantage when looking for work in television production. Since 2020, 202 Media students have successfully passed the BAFTA sustainability training.
- English: An academic has introduced a core Level 5 module called 'Writing and the Environment', which examines texts that engage critically and creatively with natural and man-made environments. The module introduces students to historical and present-day debates about nature, climate change, industrialisation, cities, animals, and disease. It develops an understanding of literature's role in addressing ethical questions and environmental challenges and aligns with the UN's Sustainable Development Goals (SDGs) on sustainability, equality, and education.
- Media: Decolonising the curriculum - The project aims to enable the course team to acknowledge and challenge structures and practices that exclude (intentionally or unintentionally) and prioritise white, middle-class knowledge and experience.

  Good practice on these examples was shared by academics at a Faculty of Arts, Design and Media Roundtable at BCU to encourage others to learn and act.

College of Jewellery, Fashion and Textiles:

- The Growth Garden initiative continues in the Parkside Building courtyard, where plants are grown to use for natural dyes and support sustainable learning. The College has now partnered with Birmingham Botanical Gardens to support the development of the Growth Garden at BCU, and they will develop a partner garden at their site in Edgbaston.

College of Business, Digital Transformation and Entrepreneurship:

- One Planet Business module: The undergraduate marketing courses undertake a final year sustainability module, called One Planet Business, which covers key concepts like the UN SDGs, the Triple Bottom Line, and gets students to think about the impact of organisations on people and the planet in order to develop solutions to make organisations more sustainable.
- The College is going through a reapproval of its courses in which all the modules will incorporate at least one of the UN SDGs, in addition to still having a dedicated sustainability module. The new courses will launch in September 2026.



OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY

College of Accounting, Finance and Economics:

- During the 2023/24 academic year, a new module was offered called Accounting for the Planet. This module introduced students to the key concepts around sustainability and sustainability reporting. Students were introduced to various accounting standards, including IFRS S1 and IFRS S2. Students were introduced to the UN SDGs and asked to assess how a company of their chose reported on their SDG performance. Students also undertook an external ICAEW Fundamentals of Sustainability certificate as part of the module to further enhance their understanding of the subject area and to gain external certification on the subject area.
- The Graduate School of Management (GSM) is at the forefront of environmental sustainability-driven curriculum, enterprise partnership and knowledge creation. As a college, it has contributed to several areas of environmental sustainability during the 2023-24 academic year. GSM academic has led the Principle of Responsible Management Education (PRME) Sharing Information on Progress (SIP) reporting work and submitted it to the PRME Commons on 31 August 2024. GSM also hosts the PRME UK and Ireland chapter secretariat. GSM academics secured new KTP funding focused on Upcycling and circular economy in the wood processing industry. It is also running several KTP projects that contribute to net-zero, circular economy and environmental sustainability through Digital technologies.



College of Law, Social and Criminal Justice

- Legal Professionalism Skills and Attributes module incorporates sustainability and the UN SDGs in its delivery, content, and assessment. For instance, the assessment scenario requires students to draft a skeleton argument and carry out an advocacy over an environmental law scenario. Relatable climate and environmental pollution scenarios are integrated to raise awareness and pique student's interest in sustainability. This is a skills module concerned with helping students develop key lawyering skills and formalities for effective advocacy: identifying legal issues, researching them, building arguments, and presenting them in written and oral form.
- Environmental Sociology and Social Justice: A new level 5 optional module has been approved which highlights how classical and contemporary social theorists have variously highlighted, socially constructed and marginalised the role of nature and ecology in social organisation, development, stratification and conflict. It will centre these debates in the context of an intensifying climate crisis that threatens human, animal and plant life. Speakers from relevant NGOs will be invited to discuss career trajectories focusing on environmental issues and sustainable development.
- As part of Graduate+ Week, the College coordinated a talk from the Environmental Crime Division of The Environment Agency, where they discussed career opportunities with the Agency for our graduates.

College of Life Sciences:

- Over in our City South Campus, an Associate Professor in Sports Therapy has set up the Gardening Project, encouraging students to engage with the outdoors, gardening and food growing. Projects have included creating raised beds and making a meadow area, to growing salad and vegetables and creating a mini pond area.

13.2 Going forward we will:

- Embed sustainable curriculum as a core requirement in the new Teaching and Learning Strategy.
- Develop case studies of good practice from BCU academics to promote their work internally and externally.

OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY

14. Engagement, communication and training

Objectives and Targets	Status
Deliver four environmental engagement events per year	Achieved
Deliver at least one environmental communication per month to staff through our communications channels.	Achieved
Make use of central student communications channels to communicate messages and news of events to the student body.	Achieved
Embed environmental content through nonstandard communication channels to students throughout 2020/25.	Achieved
Increase the number of Environmental Champions joining the network year on year from 2020 to 2025	Achieved
By 2025, all permanent staff have completed the environmental awareness training, with specific environmental training provided to key stakeholders from a 2020 baseline.	In progress

14.1 Progress update:

Engagement: Over 2023/24, the Environment Team delivered 15 events, engaging over 500 staff, students and external stakeholders. Additionally, 66 articles, social media posts, and newsletters were shared to keep stakeholders informed about the latest sustainability developments at BCU.

Membership of the Environmental Champions network increased from 79 in 2022/23 to 92 in 2023/24.

Sustainability events included:

- **Waste Awareness Week** – 5 days of activities that encourages staff and students to reduce, reuse and recycle and avoid waste. Events included the Common Waste Games, Waste Fairs and litter picks.
- **Hedgehog Awareness Week** – A week of activities designed to raise awareness of the challenges hedgehogs face, as well as actions to make our campus more biodiversity friendly. Events included Hedgehog Home, Insect Hotel, and Wildlife Survey Workshops.
- **BCU Biking Days** – 2 days of incentives to get the BCU community riding to campus. Events included Dr Bike maintenance sessions, Learn to Ride lessons and Biker's Breakfasts, providing free breakfasts for any staff or student who cycled to campus.

National Awards Recognition: The University received two Green Gown finalist nominations. The Green Gown's celebrates and awards the higher and further education sectors for their contributions towards sustainability.

- **BCU Volunteering** are finalists in the Creating Impact category, recognising the impactful actions of student volunteers in the community.
- **Rachel Bramwell**, Accreditation and Licensing Officer, is a finalist in the Sustainability Champion category, acknowledging Rachel's commitment to sustainability at the university outside of a job role that directly connects to the subject.

14.2 Going forward we will:

- Update the communications and engagement strategy, considering initiatives that have low uptake.
- Introduce a staff and student engagement programme to best utilise staff and student environmental champions.
- Support the SU student Welcome Week and SU Environmental Committee.
- Deliver carbon awareness training.
- Reintroduce a Go Green Week.



OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY



15. Research and partnerships

Objectives and Targets	Status
Environmental activities contribute towards the Graduate+ awards programme each year, including attending and/or involvement in environmental events and volunteering.	Achieved
Maintain our graduate attributes to include a sustainability and global element year on year.	Achieved
STEAMhouse: Deliver environmentally focused event/workshop once a year from 2020/25.	Achieved
Work in collaboration with stakeholders and organisations throughout 2020/25 to keep at the forefront of the environmental agenda locally, regionally and globally	In progress
Deliver research projects to develop sustainable solutions locally, regionally and globally through Faculty Research Centres and Groups, for example the Global Environmental Challenges Research Centre	In progress

15.1 Progress update:

Graduate+: Graduate+ has continued to support the sustainability agenda by integrating associated events as part of Graduate+ Weeks.

In March, Graduate+ Week integrated sessions such as:

- Climate Awareness, where students could develop their understanding of the climate crisis
- Doughnut Economics, reviewing economics from a social foundation and within ecological boundaries
- Measure my carbon footprint, where students learnt how to measure their carbon footprint and take steps to reduce it.

Work is ongoing to deliver a self-contained eLearning package on climate literacy. The purpose of the materials is to provide a grounding in climate literacy without the need for an in-person input from an external speaker.

Graduate+ is working in partnership with the Sustainability Team and the International Office to develop a sustainability course for all students participating in the Go Abroad scheme to undertake. They will also accept a sustainability challenge with a series of activities pre-placement, during their international placement and post the placement looking at areas such as carbon footprint of travel choices and carbon offsetting. It is hoped the course will be launched in March 2025.

STEAMhouse: STEAMhouse ran a Challenge Event March 2024. The STEAM Challenge Event aimed to enable collaboration between Solihull's schools, Solihull Council, Community representatives and industry partners to explore the role that schools play in creating climate resilient communities and the tangible steps that can be taken to lower emissions to meet the needs of Net Zero.

STEAMhouse also delivered a Challenge Lab on embedding STEAM and employability into the curriculum in partnership with EDS. The workshop discussed introducing STEAM principles into the class and curriculum. This enabled staff to embed industry in the classroom, employability skills and support graduate outcomes aligning curriculum with BCU's Learning and Teaching Strategy.

Research and partnership examples: The University continues to develop partnerships regionally and globally and delivery sustainably focused research. Some examples of this are outlined below.

College of Law, Social and Criminal Justice:

- An Associate Professor in Law conducts research in the field of Sustainability, specifically on the UN SDGs. They have just completed a recent research project, in form of an edited book published by Routledge (July 2024), demonstrating how the capability approach to human development can contribute to the realisation of the UN SDGs. The capability approach dictates that success should not be measured by economic indicators but by people leading meaningful, free, fulfilled, happy, or satisfied lives. The research was also publicised in the CLSCJ Newsletter of September.
- The College hosted the 2024 UK Animal Law Conference which had a heavy emphasis on wildlife and sustainability.
- The College also conducts research linked to sustainability work in law, and some collaboration across our college. The research stream includes critical animal studies, environmental constitutionalism, and posthuman legalities. It includes advocacy in the areas of animal rights and rights for nature, the contribution of deep theoretical reflections to key environmental policy actors, engagement with political processes and policymaking in the areas of global animal law and global environmental law, and the growth of global networks in this area.

OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY

College of English and Media:

- Dr Tatiana Grieshofer's English linguistics research on Legal-Lay Discourse and Procedural Justice in Family and County Courts supports SDG 16 (Peace, Justice, and Strong Institutions) by addressing procedural justice and improving legal communication, especially for unrepresented parties. It also advances SDG 10 (Reduced Inequalities) by promoting fairer court practices and reforms to reduce barriers in legal proceedings.

College of Jewellery, Fashion and Textiles:

- Fashion and Textiles academics ran a collaboration with the British Red Cross charity, using stock as part of a cross-school collaborative practise module where students used stock to develop new garments and business concepts around second-hand futures in order to reduce consumption and waste.
- BCU and Birmingham Botanical Gardens partnered to create an exhibition of nature-inspired fashion by BA Fashion Design students. The first-year students used plants, animals, buildings and the listed landscape of the gardens as inspiration for their work. This creative process has inspired a range of pieces, from abstract to more figurative design, with the influence of the gardens felt in every piece.



College of Built Environment:

- CEBE academics won the Sir Peter Hall Award for Excellence in Research and Engagement at the Royal Town Planning Institute Awards for Research Excellence 2023 for Climania, a climate action game. The academics co-created the game with a group of teenagers and urban planners that aims to engage young people on how the built environment contributions to the climate emergency, and to encourage action to help mitigate and adapt to climate change through urban planning and design measures, with a specific focus on retrofitting buildings. Climania was created over two months with the help of 13 teenagers, CEBE researchers and urban environment professionals. The prototype for the game was subsequently tested in community play events, revised and produced as an open access resource.
- BCU's Centre for Future Homes research team organised a workshop at the London headquarters of home warranty and insurance provider NHBC to discuss the live consultations on the Future Homes Standard and the Home Energy Model. The workshop was attended by the UK's largest home builders, manufacturers, architects and energy assessors. They heard presentations from Professor in Construction David Boyd and lead civil servants from the Department of Levelling Up and Communities, the Health and Safety Executive, and the Department for Energy and Net Zero. The team has also established a Home Energy Model Task Force to support the Government to address concerns with the Home Energy Model.
- Researchers are conducting a project to address the environmental impact of single-use plastics in the UK construction industry by identifying and implementing innovative approaches to the manufacture, use and management of plastic packaging. The project seeks to reduce plastic waste, promote recycling and develop alternative materials through collaborative action research involving parties across the supply chain.
- Intelligent air-sourcing to net zero: This project aims to optimise energy management and reduce running costs of heat pumps by developing intelligent controls that maximise solar self-consumption, use off-peak energy and provide grid balancing.
- The College is also leading the Digital Twin Development for One Eastside. This project aims to revolutionise building management by developing a functional digital twin platform for the One Eastside tower. It seeks to enhance building maintenance, sustainability and efficiency through real-time data integration and advanced analytics, contributing to the 2030 net zero targets.

OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY

College of Engineering:

- BCU hosted two Women in Engineering events on Tuesday 18 June and Wednesday 19 June, which saw more than 170 pupils from 12 West Midlands schools visit City Centre Campus. These events were an opportunity for Key Stage 3 female pupils from schools across the region to take part in an exciting engineering challenge, where they worked in teams to tackle sustainability issues by building floodproof homes. The event took place in Millennium Point, beginning with an introductory talk from the Head of College for Engineering and guest speakers Severn Trent Water and a BCU Senior Technician. Students then moved into the team challenge, where they designed floodproof homes that had features such as floodwalls, waterproofing membranes, using elevation or even making the house float. The winning design featured a rainwater harvesting chimney, triangular structure and insulation to the internal structure.

University wide:

- Rigs to Reefs: BCU students collaborated with students at Cal Poly University in the USA to create an immersive experience which will reveal the extensive coral reefs living underneath disused oil rings in California. The concepts are part of Ocean Sight One, a unique collaboration between BCU and California Polytechnic State University based in Sans Luis Obispo in California, known as Cal Poly. It focuses on the future of 23 decommissioned oil and gas platforms off the coast of Santa Barbara, California, and preserving the amazing marine life which has grown up underneath them.



BCU India: The BCU India Group continue to develop collaborative relationships in India between academia, industry, government, and business organisations. Sustainability is integrated into the work the group does and some examples from 2023/24 include:

- Colleagues from CEBE attended the Multinational Symposium on the Resilient Planet (March 2024 in New Delhi), organized by the British Council and funded by the International Science Partnerships Fund (ISPF). They both received full funding from the International Science Partnerships Fund to attend the British Council's Multinational Symposium, with the overarching theme of exploring how a Resilient Planet can be achieved. The symposium focused on interdisciplinary research to address major environmental challenges and to lead the green industrial revolution to protect the planet. Priority research themes for the symposium included clean energy, extreme weather and climate, agri-tech and environmental resilience. Lessons learned from this symposium will continue to inform and guide CEBE efforts in promoting sustainable urban development.
- Birmingham City University and Bengaluru City University co-hosted a conference on the Dual Transition of Net Zero Carbon and Digital Transformation on the 16th and 17th February 2024 in Bengaluru as part of the British Council and Karnataka State Higher Education Council funded work carried out by Dr Shishank and Professor de Ruyter. Professor de Ruyter travelled to Bengaluru City University and presented a keynote speech on securing a 'Just Transition' in the passenger vehicle manufacturing sector.
- A Professor in ADM visited India as Keynote Speaker at the 15th ISOLA (Indian Society of Landscape Architects) Conference "Landscapes of Coexistence", held from 23 to 24 February 2024 at the historic city of Bhopal, Madhya Pradesh, India.



OBJECTIVE 3: CREATING A GREEN CULTURE IN BCU, LOCALLY AND GLOBALLY

BCU Volunteering:

The 2023/24 academic year saw the successful trial of a comprehensive volunteering programme. Each volunteering event directly connects to at least one of the United Nation's Sustainable Development Goals.

The programme includes regular volunteering bulletins, days, and micro-volunteering activities. The programme exceeded its target, with 275 direct matches—205 from the brokerage service and 70 through volunteering days—surpassing the goal of 150.

BCU engaged 1,231 students in various volunteer roles, such as course representatives and orientation volunteers. Across faculties, the Faculty of Business, Law, and Social Sciences (BLSS) led participation with 41%, followed by the Faculty of Health, Education, and Life Sciences (HELS) at 24%. Arts, Design, and Media (ADM) saw the lowest engagement, representing only 12%. Undergraduate students made up the majority of participants, with 142 volunteers compared to 93 postgraduates and 40 graduates.

BCU organised four staff volunteering days in collaboration with Birmingham Museums Trust, the Canal and River Trust, and other partners, with 25 staff members participating—an increase from previous years. The University also worked closely with external organisations such as St John Ambulance and NSPCC, hosting campus fairs and promoting volunteering opportunities.

The BCU volunteering programme had significant environmental impacts, including clearing 31 bags of litter from canals, generating 10,913 meals through food redistribution with FareShare West Midlands, and creating snuffle mats for Hearing Dogs. These activities helped reduce waste, improve public spaces, and support sustainable community initiatives.

15.2 Going forward we will:

- Expand the volunteering project further, offering more volunteering opportunities and increasing student participation.
- Deliver Graduate+ weeks with sustainability events and activities.
- Develop a sustainability course for all students to complete as part of the Go Abroad scheme.
- Delivery of STEAMsprints with a sustainability focus.

