



BIRMINGHAM CITY
University

2019 ANNUAL ENVIRONMENT REPORT



FOREWORD

2019 has seen the environmental agenda become further embedded into the BCU way of life, and the delivery of some exciting schemes such as the bee hive installation on one of our buildings.

This Environment Report shows that we are making good progress in some areas, and there is undoubtedly much more work to be done.

On 20 September 2019, the University declared a Climate Emergency, committing to develop a programme that will deliver a transformed university, with sustainability embedded in our curriculum and our operations. Throughout 2019, we consulted on and developed the University's first Environmental Plan 2020-25. This outlines a variety of environmental targets, initiatives, and new ways of working for the University to reduce its environmental impacts and work towards becoming a zero carbon institution.

My commitment to the agenda is demonstrated through including environmental sustainability as one of the key priorities in the new University Strategy, cementing it at the heart of what we do, and I look forward to further improving our environmental performance over the next five years.

Professor Philip Plowden
Vice Chancellor



CONTENTS

1.	Introduction and headline figures from 2018/19	pg. 3
2.	ISO 14001:2015 accreditation	pg. 4
3.	Energy consumption	pg. 5
4.	Water	pg. 6
5.	Waste	pg. 7
6.	Transport	pg. 9
7.	Procurement and construction	pg. 10
8.	Biodiversity	pg. 11
9.	Catering	pg. 12
10.	Embedding sustainability in the curriculum	pg. 13
11.	Engagement, communications and training	pg. 14

1. INTRODUCTION AND HEADLINE FIGURES FROM 2018/19

This report outlines BCU's environmental work and progress made over 2019. As well as improving our own environmental performance, the University also wants to support local, regional and global efforts to protect the future of the planet and is working to align with the United Nations Sustainable Development Goals (SDGs). The 17 SDGs, which have been agreed by world leaders, provide a shared blueprint for a sustainable future for people and the planet.

In this report we demonstrate how our actions and performance reflect the aims of the SDGs, which have been indicated at the start of each section.

Throughout 2019, our Environmental Plan 2020-25 was developed, which achieved sign off in February 2020. Reporting will reflect this Environmental Plan from 2020 onwards.

1.1 Summary of progress

ASPECT	TARGET	STATUS	2018-2019 PROGRESS
ISO 14001:2015	Continue to manage, maintain and continually improve our ISO 14001:2015 Environmental Management System	Achieved	Successful audits and maintained ISO 14001:2015 accreditation
Energy	Reduce our carbon emissions by 43% by 2020-21 from a 2005/06 baseline	On track	We have achieved a 38% reduction in our carbon emissions
Water	Reduce water consumption by 1% year on year by 2019/2020	Achieved	Water consumption decreased by 6% compared to 2017/18
Waste	Zero non-hazardous waste to landfill	Achieved	Waste is reused and recycled, and where this is not feasible sent to energy from waste
	Reduce waste 1% year-on-year to 2019/20	Not achieved	Due to the final stages of a building closure at the end of 2018 there was a 1.6% increase in overall waste production for 2018/19
Transport	Implement the actions from the 2018-2020 Sustainable Travel Plans in line with the timetable specified in these documents.	On track	Travel Plan actions successfully delivered Progress against Travel Plan targets will be identified from the 2020 Travel Survey
Procurement	Maintain Level 4 of the Flexible Framework for Sustainable Procurement	Achieved	Maintained Level 4
Biodiversity	Plant native bulbs and species across BCU sites and deliver student and staff engagement throughout 2018/19.	Achieved	Thousands of native bulbs planted across our sites and Eco Society and staff engaged with biodiversity projects
Catering	Deliver targets and initiatives outlined in the Sustainable Catering Policy	Partially achieved	Further initiatives implemented to reduce waste through the contract, however the silver Food For Life accreditation review has not taken place
Curriculum	Develop a strategy and approach to support the integration of sustainability into the curriculum by July 2019. Support the use of BCU environmental data and sites in the use of student assessments and projects throughout 2018/19.	Achieved	Sustainability has been integrated into the Periodic Review of our curriculum and work is underway to support the Business School as the first to participate. A new 'Embedding Sustainability into the Curriculum' course for staff was accredited by an external body (SEDA) in June 2020 The Environmental Team has supported Faculties from a sustainability perspective in specific courses and assignments.
Engagement, Communications and Training	Support Fairtrade Fortnight in February 2019 and hold a University Green Week in March 2019 with a target to engage 300 students at each. Deliver at least one environmental communication per month throughout 2018/19, through the implementation of the Environmental Communications Plan. Develop a new suite of environmental training courses and deliver to at least 30 key staff throughout 2018/19 in line with demand.	Achieved	Events and communications delivered. New environmental training developed and delivered to over 30 members of staff.

2. ISO 14001:2015 ACCREDITATION



Target: Continue to manage, maintain and continually improve our ISO 14001:2015 Environmental Management System

Status: Achieved

Progress update:

BCU has an Environmental Management System (EMS) in place to help to ensure we have a robust and systematic approach to identifying, monitoring and managing our environmental aspects and impacts. Our EMS is accredited to the International ISO 14001:2015 standard.

We successfully navigated our external surveillance audit in January 2019, and Aston University peer audit in December 2019. Following these audits improvements have been implemented in how we manage EMS documentation, reduce waste contamination, and manage compliance with TM44 and F-gas regulation.

Through our internal environmental audits, improvements have been recognised across our sites. Big advances have been made at the School of Jewellery in correctly storing flammable materials, reducing waste and increasing recycling.

Going forward:

- The recertification audit of our ISO 14001 EMS took place in early February 2020 and we were successful in retaining accreditation, with four Opportunities for Improvement identified.
- Further improvements to environmental training will be delivered.



3. ENERGY CONSUMPTION



Target: Reduce our carbon emissions by 43% by 2020-21 from a 2005/06 baseline

Status: On track

Progress update:

As Figure 1 shows, 2018/19 has seen BCU achieve a 38% reduction in carbon emissions against the HEFCE 43% reduction target. This is measured against a 2005/06 baseline.

During 2018/19 electricity consumption has remained the same as the previous year, whereas gas consumption has seen an increase. This has been due to mechanical faults on both of the biomass boilers, which has restricted the hours of operation and meant the gas boilers have been used in both Parkside and Curzon buildings.

The number of residential properties greatly decreased in 2018/19 as residences at City North and City South campuses were closed.

Initiatives delivered over 2018/19

A number of energy efficiency projects were carried out over the summer including LED lighting retrofit at the School of Art, boiler replacement at the School of Jewellery, and several fan replacements across the estate. Over the course of 2019/20 we should benefit from around £50k worth of savings from our energy bills.

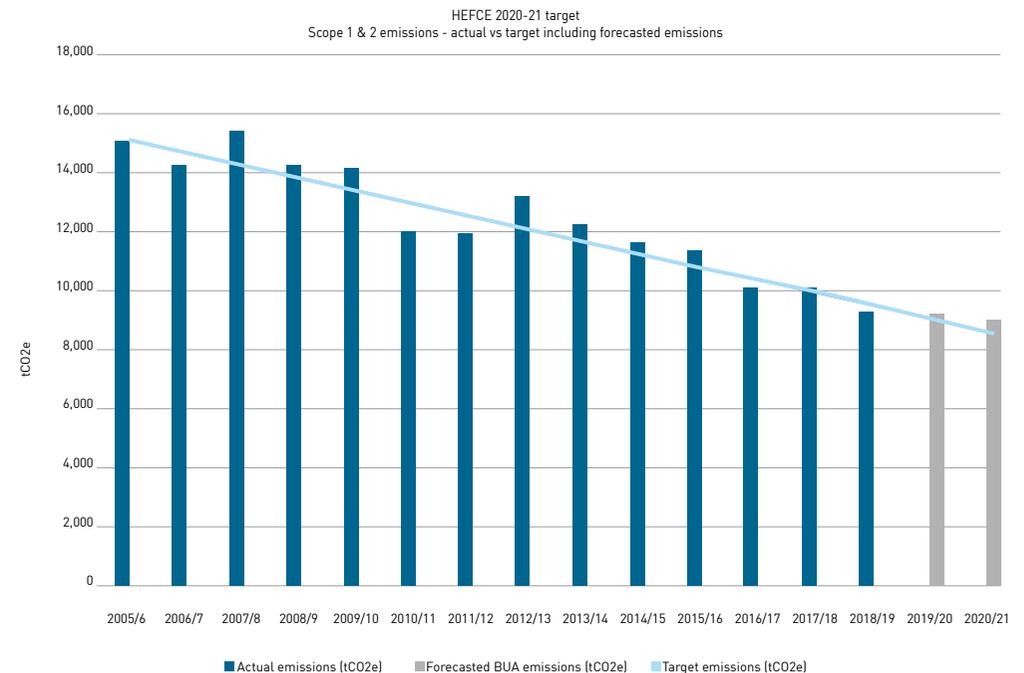
Several issues with solar panels on our buildings were resolved in 2018/19 and onsite generation increased by 150% compared to 2017/18. The University also changed its approach to energy procurement in 2019 and started to procure 100% renewable electricity and gas for its own sites.

Going forward:

- The Energy and Carbon Strategy, with associated ambitious targets, will be published in spring 2020. This has been delayed so as to align with overall BCU strategy.
- A large amount of funding for further energy efficiency projects has been approved by the Board of Governors. These include further LED retrofit and increasing the amount of solar generation across the estate. This was due to be delivered in summer 2020, however due to COVID-19 this is not likely to be feasible.
- Building audits will continue to identify areas for further improvement in operating our buildings.



Figure 1: Scope 1 & 2 carbon emissions – actual reductions against targets by academic year.



4. WATER

Target: Reduce water consumption by 1% year on year by 2019/2020

Status: Achieved

Progress update:

As Figure 2 shows, water consumption at BCU has decreased by 6% compared to 2017/18. This is mainly due to the reduction in the number of residential properties directly controlled by BCU.

Several data loggers have been installed during 2018/19, with further installations taking place throughout 2019/20. This means that we have real-time data, with associated alarms, to help us identify leaks or periods of abnormal usage.

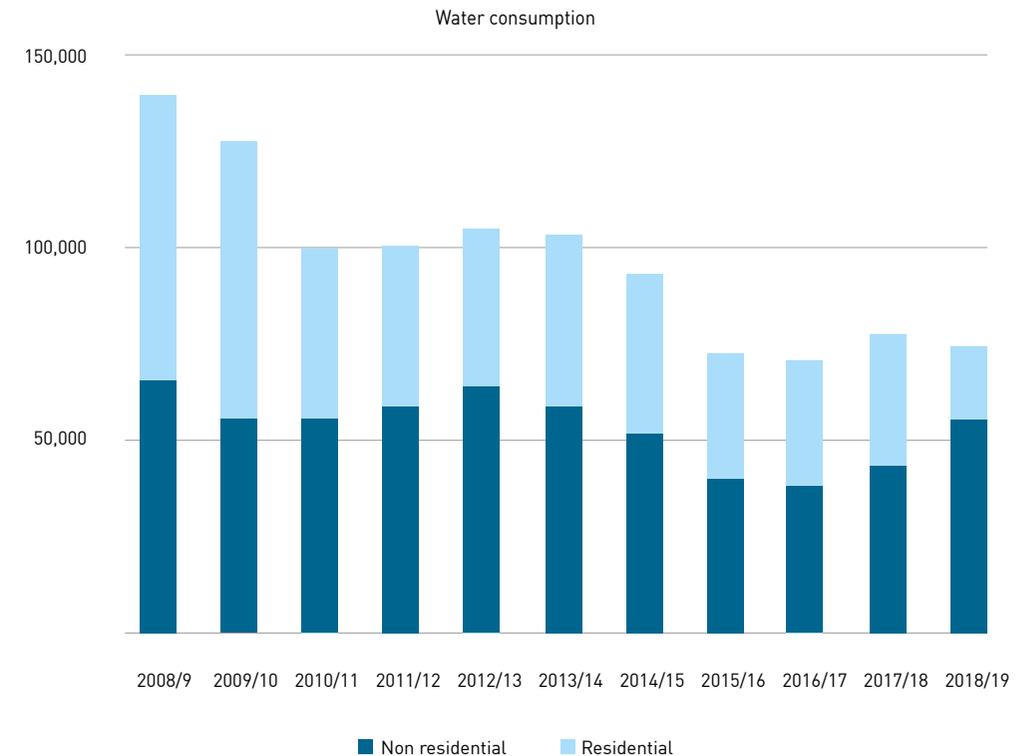
Going forward:

- Continue to improve data collection methods by installing further data loggers.
- Work closely with a third party company to identify areas of improvement.
- Install low flow and low water consumption sanitary ware in all new buildings and refurbishments.



Figure 2:

Water consumption split by non-residential and residential consumption over the last 11 years.



5. WASTE

Target: Reduce waste 1% year-on-year to 2019/20

Status: Not achieved

Progress update:

Unfortunately there was a 1.6% increase in waste generated, which meant the 1% reduction target was not realised.

5.1 University Waste

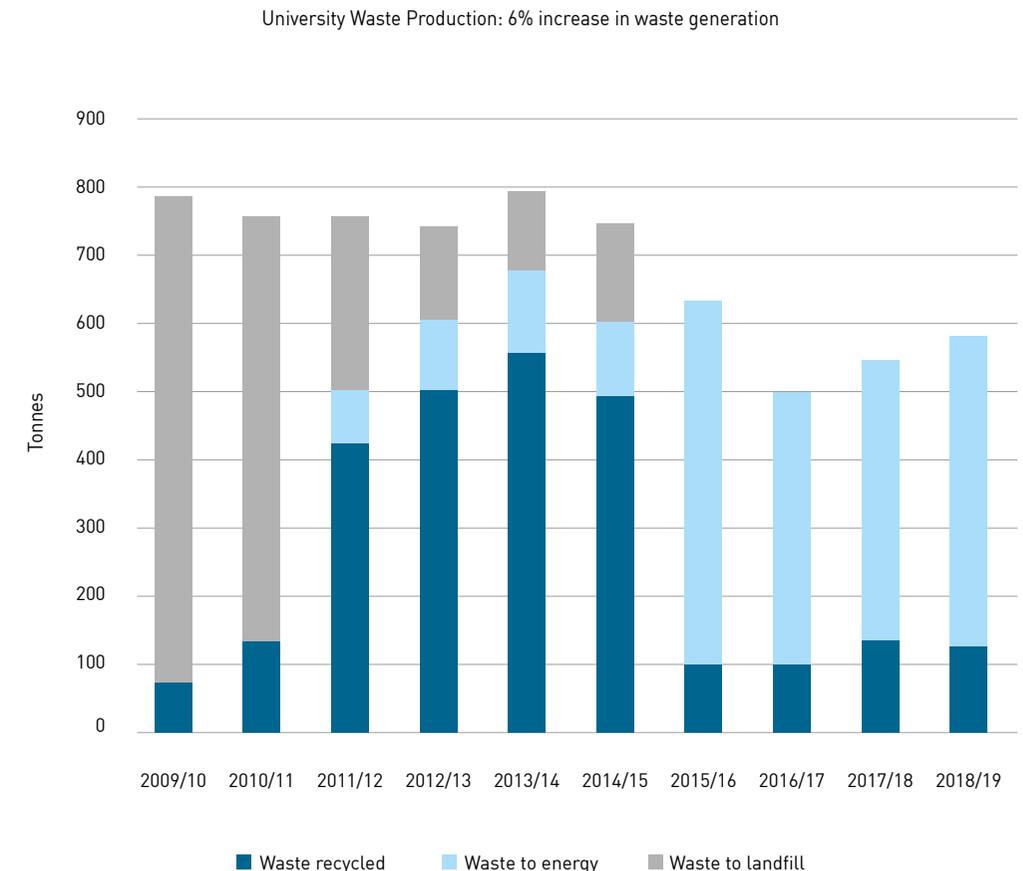
University waste production increased by 6 % from 2017/18 to 2018/19. In August and September 2018, we experienced high levels of waste generated from the final closure of one of our sites, which caused anomalies in our data hence the increase in waste in 2018/19 figures. We expect waste tonnage to reduce in 2019/20.

Throughout 2019 schemes have been underway to reduce the amount of waste we generate as a University and increase the levels of recycling including:

- The roll out of food waste recycling in further buildings, including the deployment of food waste caddies in staff and student kitchen areas.
- Further removal of individual desk bins to encourage use of central facilities and increase recycling levels
- Site waste audits conducted of our sites to identify gaps in recycling facilities, which have been rectified e.g. glass bins at our School of Art.
- Review of one weeks' worth of compactor waste contents in Parkside Building to analyse the waste. This identified waste streams that could be recycled and the potential source of these. As a consequence we introduced new procedures for managing the service yard and controlling waste being deposited in the compactor. This resulted in an increase in recycling percentages and this process will be replicated on a further two sites.
- Waste Contractor, Veolia, attended two staff/student engagement days in 2018/19, providing an interactive game to develop awareness and understanding of staff/ students.

- Environmental Champions have been supporting waste reduction by setting up recycling schemes such as crisp packet and disposable cup recycling in their buildings. Two Environmental Champion sessions focused on waste and recycling, where the team educated the Champions Network on key waste and recycling streams and issues at BCU, goals and what messages they should pass to students and staff. Additional waste projects were offered for Champions to get involved in.

Figure 3: University waste production



5. WASTE

Accommodation Waste

Our University owned halls, University Locks, is now on same waste contract as our academic sites, which has led to an improvement in data capture for the site. The site experienced a 19.8% reduction in waste generated on site in 2018/19, see Figure 4.

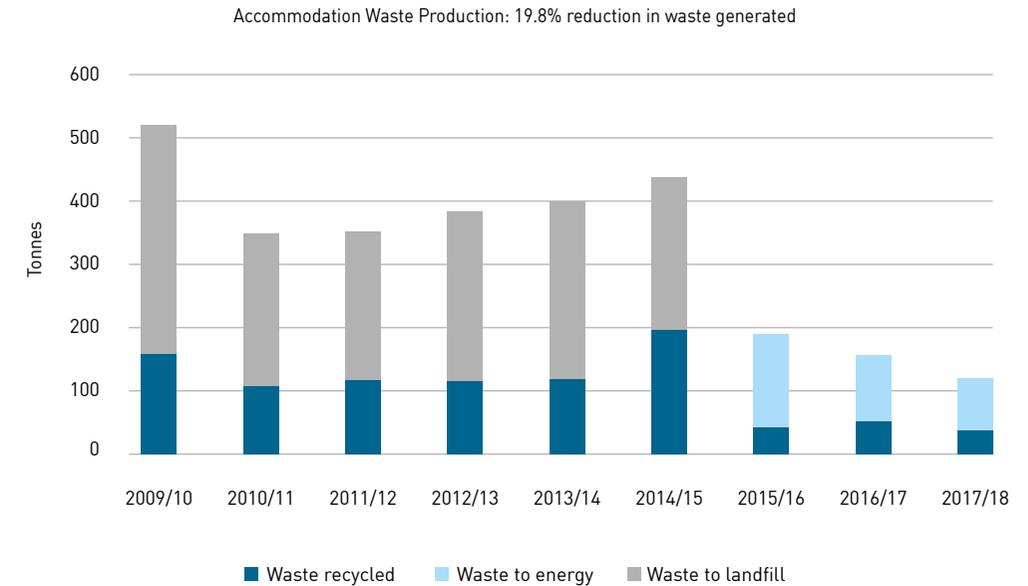
University Locks has undertaken a number of positive schemes to reduce waste including:

- Continuing our partnership with British Heart Foundation, with 130 bags collected from April – July 2019.
- Accommodation partnered with TFR Group in 2019 to recycle mattresses from University Locks. TFR breaks down the mattress into its component parts and achieves a recycling rate of 92%.
- Repurposing Christmas trees students have left into new Christmas decorations.

Going forward:

- Launch of Waste Task Group to further reduce waste and increase recycling.
- Finalisation of the Waste Strategy in 2020.

Figure 4: Accommodation waste production



6. TRANSPORT



Target:

Target 2018/19	Target Achieved
Implement the actions from the 2018-2020 Sustainable Travel Plans in line with the timetable specified in these documents.	Yes
Promote a reduction in car use through the design and master planning work at our City Centre and City South Campus developments.	Yes
Provide information on journey planning to students, staff and potential students through specific travel events and at key events such as Welcome Event and Go Green Week during 2018/19.	Yes

Status: Achieved

Progress update:

Actions from the 2018 - 2020 Sustainable Travel Plans work have been implemented. Sustainable travel activities and events included journey planning information, the promotion of sustainable travel options and a reduction in car use for students and staff.

Sustainable travel information has been embedded across various locations including HR staff inductions, the external website, BCU external welcome site for new students, Campus Live, and via information at Open Days.

Our Brompton scheme has been expanded from 8 to 11 bikes, with more foldable bike lockers installed at City Centre and City South campuses, and free cycle maintenance and awareness training sessions delivered.

Ongoing communication is taking place with staff and students surrounding local changes, such as the Clean Air Zone and other progressions in Birmingham and the University is liaising with the council on future travel planning in the region.

The University is liaising with National Express to negotiate travel incentives for students and staff including:

- National Express to provide route improvements in 2020 that will better serve BCU staff and students.
- National Express to provide BCU with a portal for staff and students, including incentives such as a £1 hop between campuses for students, and staff discounts and incentives.

Going forward:

- Continue to work with travel providers and the City Council to develop initiatives and influence the regional transport agenda.
- The Travel Plans were due to be refreshed in 2019/20 and the travel survey conducted in April 2020, however due to COVID-19 this has been rearranged for 2020/21.



7. PROCUREMENT AND CONSTRUCTION



Target:

Maintain Level 4 of the Flexible Framework for Sustainable Procurement
Achieve at least BREEAM Excellent for new builds

Status: Achieved

Progress update:

BCU is continuing to operate at Level 4 of the Government's Flexible Framework for Sustainable Procurement. The University continues to use the Net Positive Futures supplier engagement tool, which supports suppliers in developing a sustainability action plan. All new suppliers with a contract value of over £25k are mandated to produce a sustainability action plan if successfully awarded a contract to continue to drive sustainability through procurement. Procurement are undertaking a review of top 10 suppliers for each category to develop a sustainability action plan.

Our new builds, Seacole and Curzon B extensions, received a BREEAM Excellent certification. BREEAM is an international scheme that provides independent third party certification of the assessment of sustainability performance of buildings, and 'Excellent' means the new builds achieved over 70% of the sustainability criteria (areas such as energy, waste, water and materials used).

Going forward:

- Integration of sustainability into the overall Procurement Strategy and develop high-level sustainability outputs for each Category Strategy
- Review and develop an approach to capturing scope 3 carbon emission data from purchasing
- Ensure the agreed sustainability action plans for cleaning, security and waste is delivered within agreed timeframes
- Develop reporting mechanism for sustainability outputs
- Develop sustainability briefs and specifications for new build and refurbishment tenders



8. BIODIVERSITY



Target:

Target 2018/19	Target Achieved
Plant native bulbs and species across BCU sites to attract birds and insects throughout 2018/19.	Yes
Support the Eco Society in using the allotment at City South and encourage food growing throughout 2018/19	Yes

Status: Achieved

Progress update:

The Grounds Maintenance Team have planted native bulbs and species across BCU sites, including anemone and snakes-head fritillary. Staff engagement activity was completed to support planting of bulbs and learning about biodiversity.

Further work the Team has delivered in 2019 includes:

- Supported the former Eco Society and staff groups in food growing projects at City South Campus and on Curzon Building terrace
- Added log piles at City South for insects and invertebrates
- A compost bin has been installed at City South Campus to reuse our leaf litter and reduce green waste removed from site

A beehive was also installation on the roof between Millennium Point and The Parkside Building at our City Centre Campus in summer 2019. The benefits of the project have included:

- Positive engagement from staff and students, interest from the Students' Union
- Projects underway linking sustainability in the curriculum, for example, on bee counting technology, future beehive designs for 2019/20 and honey pot designs
- Grounds Maintenance Team increasing 'bee-loving' plants around the Estate

Going forward:

- Appoint a consultant to undertake biodiversity surveys of our sites to inform a Biodiversity Action Plan
- Complete the Curzon Building terrace food growing area and relocation of the City South allotment



9. CATERING



Target:

Target 2018/19	Target Achieved
Review the Silver Food for Life catering accreditation and implement measures where feasible by July 2019.	No
Reduce food waste from the previous year and increase recycling through food weighing and monitoring, and reviewing bins and signage.	No
Identify opportunities to further reduce waste generated through the catering contract in 2018/19, including use of disposable cutlery containers and cups, and use of glass for meetings.	Yes

Status: Partially achieved

Progress update:

The review of the potential to achieve the silver Food for Life catering accreditation has not taken place, however the accreditation to the bronze award has been maintained.

There was a slight increase in the cost of food waste as a proportion of the catering contract costs from 0.5% in 2017/18 to 0.71% in 2018/19. Unfortunately this was due to a loss of freezer stock caused by a number of freezer breakdowns in two of our buildings. However a lot of schemes have been implemented to reduce catering waste elsewhere.

Further initiatives have been implemented throughout 2019 to reduce waste through our catering contract:

- Eco 2 Go reusable food containers were launched across our sites to encourage staff and students to reuse a container when taking food away instead of using a disposable one.
- The amount of crockery and mugs has been increased in food outlets and is being offered as the first option by catering staff. A 15p charge is applied for using a disposable cup, which has had a positive impact in reducing the amount of disposable items being used.

- Reusable cups are sold at our catering outlets and a discount given for using one for hot drinks. 6,990 discounts were given in 2017/18 for staff and students using a reusable cup, which increased greatly in 2018/19 to 27,711.
- Plastic straws and stirrers have been removed.
- A water bottling machine has been installed in Curzon Building to enable the use of glass water bottles and glasses for meetings instead of plastic. Further machines are being installed in Millennium Point and Seacole buildings.

Catering has continued to support environmental events at the University, such as Go Green Week and Fairtrade Fortnight, details of which are covered in section 11 of the report.

Going forward:

- Reduce food waste from previous year
- Identify further opportunities to reduce waste through the contract
- Introduce further plant based recipes throughout 2019/20
- Start to develop ideas for the catering contract tender process in August 2020



10. EMBEDDING SUSTAINABILITY IN THE CURRICULUM



Target:

Target 2018/19	Target Achieved
Develop a strategy and approach to support the integration of sustainability into the curriculum by July 2019.	Yes
Support the use of BCU environmental data and sites in the use of student assessments and projects throughout 2018/19.	Yes

Progress update:

A paper was presented to the Learning, Teaching, Assessment and Quality Committee (LTAQC) in June 2019 to seek approval for the inclusion of sustainability within the new Periodic Review and Course Approval processes. The Committee approved this and sustainability content was included in the Periodic Review process.

The Business School are the first to trial this revised process and the Environmental Manager has been working with the appointed Corporate Social Responsibility (CSR) lead in the School to develop a process to map where the SDGs are met in the current curriculum and where this can be strengthened.

The School of Architecture and Design have mapped their curriculum against the SDGs and are undertaking further work to review the Education for Sustainable Development guidance.

A Task and Finish Group for Course Design and Development will take place in 2019/20, which will include the Environmental Manager to input from a sustainability perspective.

The Environment Team and Centre for Academic Practice (CAP) in the Education Development Service (EDS) have been working together to develop a new 'Embedding Sustainability into the Curriculum' training course for staff. This will help enable staff to understand what sustainability means in the context of their module or course, learn more about the SDGs, and how sustainability can be further embedded for our students benefit. The course was accredited by SEDA (Staff and Educational Development Association), in June 2020 and is the first of its kind in the UK.

The Environment Team has also supported the University in providing data and advice for courses, modules and student projects. This includes a Building Information Modelling (BIM) project at the School of Art, the development of sustainable coursework for the Project and Relationship Management Master's module, and supporting students completing sustainability related dissertations.

Going forward:

- Achieve sign off of the new 'Embedding Sustainability into the Curriculum' SEDA course in 2019/20
- Embed sustainability into the Periodic Review process for its start in January 2020
- Work with the Business School, who are first to go through the new Periodic Review
- Input sustainability in the Course Design and Development Task and Finish Group



11. ENGAGEMENT, COMMUNICATIONS AND TRAINING



Target:

Target 2018/19	Target Achieved
Support Fairtrade Fortnight in February 2019 with a target to engage 300 students.	Yes
To hold a University Green Week in March 2019 linked to Graduate+ week with a target to engage 300 students	Yes
Raise awareness of sustainability issues across the University delivering at least one environmental communication per month throughout 2018/19, through the implementation of the Environmental Communications Plan.	Yes
Develop a new suite of environmental training courses and deliver to at least 30 key staff throughout 2018/19 in line with demand.	Yes

Progress update:

The following work has been delivered over 2019 regarding environmental engagement, communications and training:

Awareness/Engagement

- Expanded environmental presence at the Student Welcome Event in September, including waste, travel and catering partners/suppliers and an environmental table with engaging games/activities
- Successfully ran Fairtrade Fortnight and engaged with over 300 students
- Ran a successful Go Green Week in conjunction with Graduate+ engaging with over 300 students, receiving national press coverage from a joint litter pick in collaboration with Aston University, University College Birmingham and BMet
- Successfully ran a Sustainable Travel Day including a second-hand bike sale, stands from transport providers including National Express and TfWM, and our Security Team selling discounted D-Locks and Bike Register Kits. Games and awareness were delivered of the impacts of air pollution.
- Staff/student food growing projects have been started on Curzon Building terrace and our City South Campus

- Staff and student bulb planting activity took place with a chance to learn about the new BCU beehives

Communications

- Implemented the Environmental Communications Plan 2018/19, providing regular communications via corporate University communication channels every month to staff and students
- Embedded environmental messages and information across the University, including:
 - Campus Live (compulsory for accommodation students)
 - BCU Welcome Site for all new students
 - External BCU Environmental Webpages
 - Presentations/workshops (embedded into some start of term lectures, delivered by Environmental Champions)
- Students' Union work and engagement has taken place, with BCUSU setting up a new Environmental Committee, environmental training delivered to SU staff, linked environmental communications to SU communication channels, and had SU volunteers during environmental events
- The Environmental Champions Network grown to over 60 members and has seen increased engagement. Champions are becoming recognised in their departments, with Champions volunteering and running environmental initiatives such as regular litter picks and recycling initiatives



11. ENGAGEMENT, COMMUNICATIONS AND TRAINING



Training

- Developed a suite of environmental training courses, including: environmental awareness, spills response and waste documentation compliance
- The following training has been delivered to over 30 key staff members:
 - Delivered spills response training to Security, Technicians, and Facilities Teams
 - Delivered Waste Documentation training to Facilities Supervisors and Technicians
 - Delivered environmental awareness training to the Students' Union (all staff, School Reps and Officers)
- A draft Environmental Awareness Training course has been inputted into Moodle, which will be compulsory for all staff
- Developed a plan to integrate training onto e-learning platforms to improve efficiency of annual training needs. A new training matrix has been developed and new content is underway

Going forward:

- Continue to deliver environmental events such as Go Green Week and Fairtrade Fortnight
- Raise awareness of sustainability issues across the University delivering at least one environmental communication per month throughout 2019/20, through the implementation of the Environmental Communications Plan
- Develop a new suite of environmental training courses and deliver to at least 30 key staff throughout 2019/20 in line with demand
- Support the newly established Earth Society
- Continue to embed the SU Environmental Committee throughout 2019/20, working with the Environmental Team to identify key impacts and actions to reduce these



KEY

These are the 17 UN SDGs as referenced throughout the document.
For more information on the SDGs visit the UN website.

