



BIRMINGHAM CITY
University

2018 ANNUAL ENVIRONMENT REPORT



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1. INTRODUCTION AND HEADLINE FIGURES FROM 2017/18

Birmingham City University is committed to improving its environmental performance while encouraging and embedding a sustainable way of life for students and staff. As an educational establishment, we have a responsibility not only to educate our students and staff on more sustainable practices, but also to lead by example by improving our own performance.

This report summarises the University’s continued progress in its environmental performance during the 2017/18 academic year, as part of our ISO 14001:2015 accredited Environmental Management System (EMS).

Table 1 outlines the difference (increase/decrease) in performance in 2017/18 compared to 2016/17 for some key environmental impacts. The increases in energy and water consumption can be attributed to an expanding estate, and waste production due to the closure of the City North Campus. Further explanation for the data trends is outlined in the relevant sections of this report.

Carbon emissions	0.51%	↓
Energy consumption	7%	↑
Water consumption	9.9%	↑
Operational waste production	9%	↑
Operational recycling rate	5%	↑
Procurement	Flexible Framework Level 4	↑

Table 1: Headline environmental performance from 2016/17 to 2017/18

2. ISO 14001 ACCREDITATION

- The University’s Environmental Management System (EMS) was audited in January 2018 by the global certification body NQA. The audit was successful with two Minor Non-Conformities and five Opportunities for Improvement identified.
- BCU and the University of Derby collaborated to conduct each other’s peer audits in 2017/18, which was a valuable exercise for both institutions.
- An Environmental Officer and a Carbon and Energy Reduction Officer were appointed in May 2018 to create an Environmental Team, alongside the Environmental Manager, which has helped the University to expand its environmental work.



LOOKING FORWARD TO 2018/19:

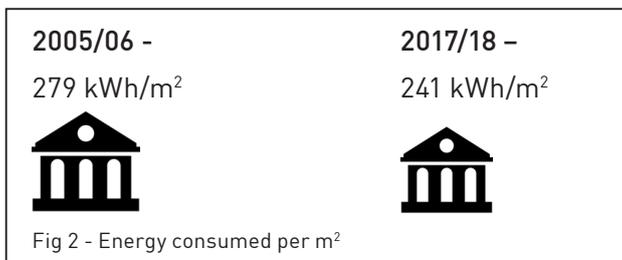
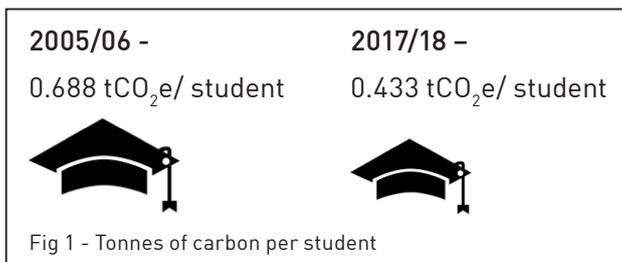
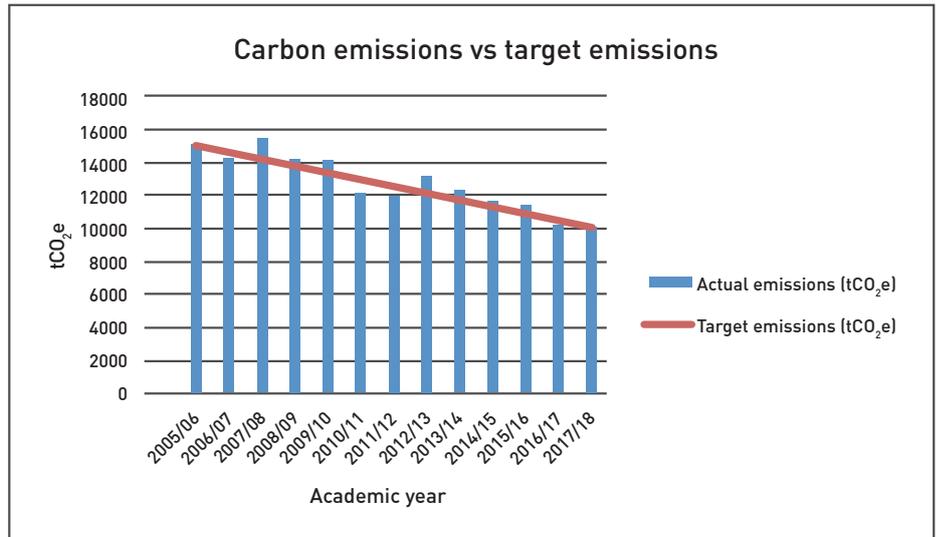
- BCU will collaborate with Aston University to conduct peer audits for 2018/19.
- The next external audit by NQA will take place from 23-25 January 2019.

3. UTILITIES AND CARBON

3.1 ENERGY AND CARBON

Data trends:

- During 2017/18, the closing of less efficient buildings at City North and moving student accommodation to more modern facilities have been positive initiatives to reduce energy consumption. However, running inefficient generators during a gas leak at City North, and the new Royal Birmingham Conservatoire running humidity control 24/7 has led to an increase in energy consumption of 7% from 2016/17. The University recognises this and is working hard to identify initiatives to manage and reduce our energy consumption.
- As of 2017/18, BCU has achieved a 33.24% reduction in carbon emissions against a 2005/06 baseline, which was 0.36% off our 2017/18 emissions target.
- A more energy efficient estate, coupled with a reduction in carbon across the electricity grid, has helped the University's carbon emissions to fall.
- The tonnes of carbon per student head has dropped from the baseline of 2005/06 (Fig 1), along with the energy (kWh) consumed per m² of BCU building floor space (Fig 2).



Initiatives delivered over 2017/18:

- 100% renewable electricity purchased in 2017/18
- A programme of energy efficiency projects, to be funded by Salix Finance, has been identified. These will be delivered during summer 2019.
- Building Management Systems improvements and the installation of SystemsLink energy monitoring, targeting and management software has meant we can capture detailed energy consumption data and improve our energy data management and analysis, to identify areas of excessive consumption and implement measures to reduce this.
- Energy broker appointed to ensure best prices are achieved for electricity and gas, with a move to flexible energy procurement from August 2019.
- Audit of metering infrastructure, which has led to more accurate billing and a significant credit due to incorrect billing.

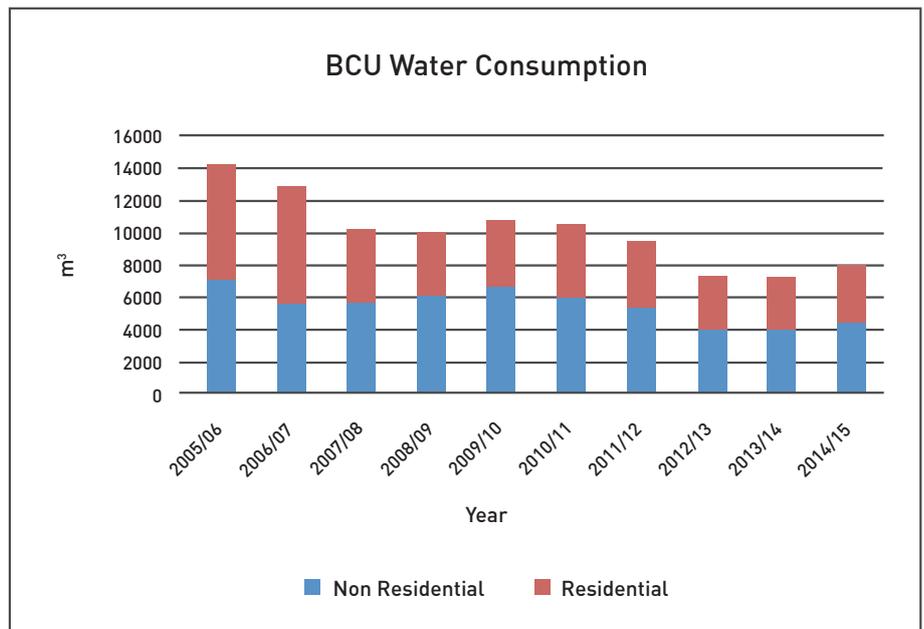
Looking forward to 2018/19:

- An Energy Strategy, incorporating the Carbon Management Plan, is being written for publication in spring 2019.
- The Salix-financed energy efficiency projects will be delivered in summer 2019.
- Further improvements to energy data collection and management for all utilities, to ensure consumption is monitored and overconsumption is targeted.
- The top five energy consuming buildings have been identified with energy audits and further projects will be undertaken.
- A Building Management System Engineer will be recruited to help control buildings more tightly, ensuring that services are only running when required.

3.2 WATER

Data trends:

- The University's has made great strides in reducing its water consumption, which has halved over the past nine years. This is mainly due to moving to new buildings with lower water consumption.
- In 2017/18 we consumed 78,539 m³ of water, which was an increase of 9.9% compared to the year before.
- Previous water consumption data has been collected via a less robust methodology, and approximately 90% of this is estimates. We propose to use 2017/18 as the baseline year for measuring improvements going forward.



Looking forward to 2018/19:

- Installing meter data loggers that will allow us to improve data collection, identify leaks and target overconsumption.
- Ensuring that water-efficient devices are specified for new builds and refurbishment.

4. WASTE

University waste data trends:

- The University has been working hard to reduce the amount of waste it generates. The volume produced from academic buildings increased in 2017/18 by 9% (45.6 tonnes); however, this was mainly due to the closure of City North Campus and disposal of waste from clearing the site.
- Overall recycling rates increased in 2017/18 from 20% to 25%. This is due to a drive from Facilities to roll out food waste recycling, and improve recycling bin provision and signage.

Accommodation waste data trends:

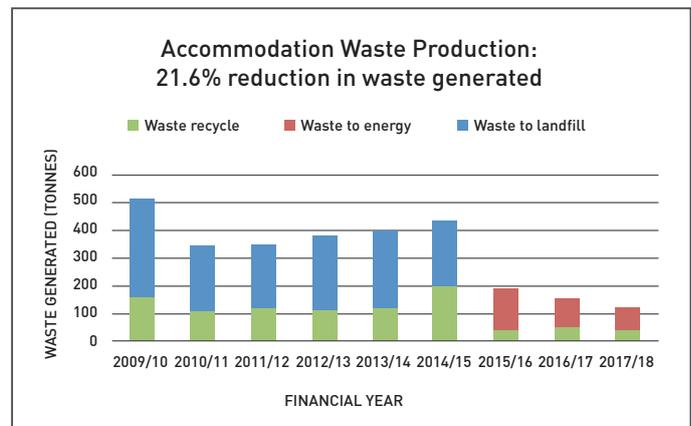
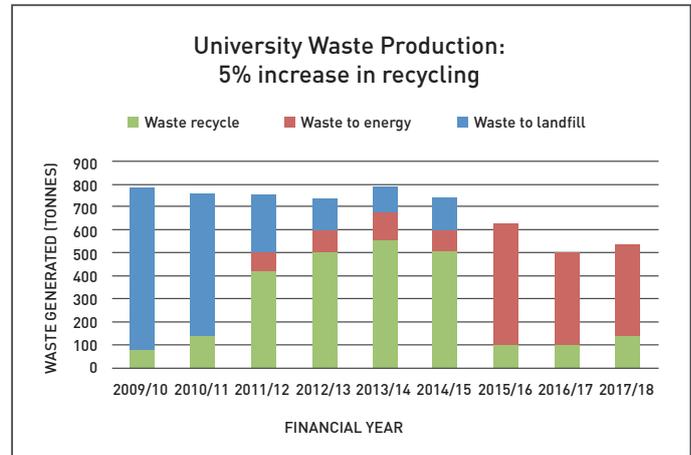
- The volume of waste produced by BCU-owned accommodation reduced in 2017/18 by 21.6% (33.7 tonnes). This reduction is due to scaling back the accommodation owned by the University.
- The recycling rate reduced slightly from 33% in 2016/17 to 31%.

Initiatives delivered over 2017/18:

- Food waste recycling has been rolled out across all catering areas.
- Our Quality Control Officer started conducting waste audits of BCU buildings to identify opportunities for improving facilities and signage.
- Bin signage has been reviewed and improvements made.
- Improvements have been made to data capture in partnership with the waste contractor.
- Furniture reuse from City North Campus has continued, saving money and reducing waste.

Looking forward to 2018/19:

- Go out to tender on our waste contracts.
- Develop and launch a new Resource and Waste Management Strategy with waste reduction targets and actions.
- New bin signage rolled out across all sites.
- Trial of food waste caddies in kitchenettes.
- Set up a Waste Task Group.
- Deliver a programme of communications on recycling to students and staff.



5. TRANSPORT

Transport data trends

- A Travel Survey of students and staff was conducted in April 2018 which highlighted positive changes in behaviour, with a reduction in single occupancy car use at City South and City Centre campuses for both students and staff (tables 2 and 3).
- The two bar charts show the modes of travel that students and staff currently take at the City Centre and City South campuses. Targets have been put in place for 2018-20 to achieve further increases in the use of public transport, walking and cycling, and to reduce single-occupancy car use.

Initiatives delivered over 2017/18:

- BCU's Travel Plans were refreshed in 2018, which involved running and promoting a survey to review changes in student and staff travel behaviour. Internal and external stakeholder engagement sessions were held in August 2018 to gain feedback on the plans.
- A sustainable travel event took place in November 2017 and sustainable travel was promoted at the Welcome Event and Go Green Week.
- Discussions have taken place with key travel providers and stakeholders such as HS2, Transport for West Midlands and NextBike. BCU is involved with key public transport proposals for the area and investigates any opportunities for students and staff discounts.

Looking forward to 2018/19:

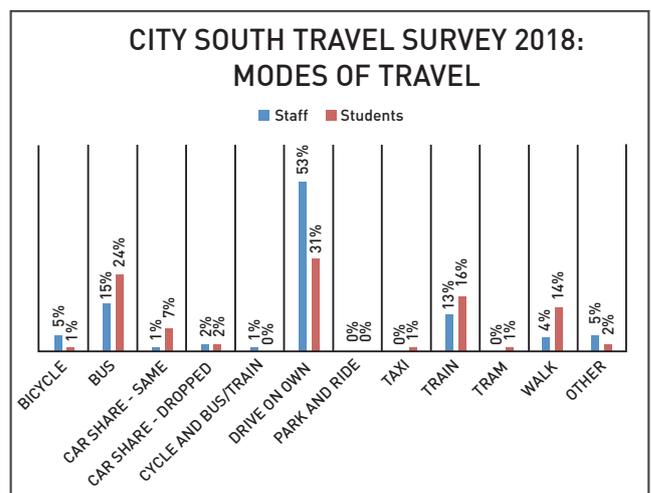
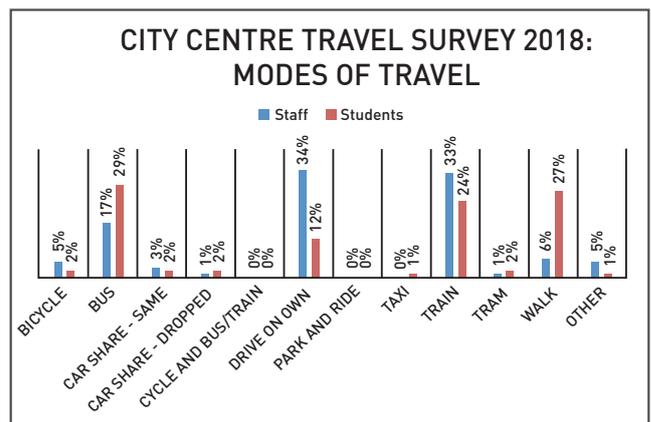
- Develop and deliver a travel communications plan to ensure students and staff are kept abreast of the latest sustainable travel news and updates for the area.
- Deliver the Travel Action Plan associated with the 2018-20 Travel Plan.
- Continue conversations with travel providers and stakeholders to identify if there are any opportunities to negotiate discounts for students and staff.
- Continue to promote and run the Brompton bike loan scheme.

STUDENTS	Modal change			
	City Centre	School of Art	School of Jewellery	City South
Single-occupancy car	0%	-3%	+10%	-9%
Public transport (Bus/train/tram)	-6%	-5%	-13%	+3%
Walking and cycling	+6%	+12%	+6%	+9%

Table 2: Student % modal changes from 2015 to 2018

STAFF	City Centre	School of Art	School of Jewellery	City South
	Single-occupancy car	-21%	+9%	-10%
Public transport (Bus/train/tram)	+19%	-3%	0%	+6%
Walking and cycling	+3%	-6%	-8%	0%

Table 3: Staff % modal changes from 2015 to 2018



6. PROCUREMENT

Initiatives delivered over 2017/18:

- BCU has worked with sustainability consultancy NETpositive Futures to achieve Level 4 of the Flexible Framework for Sustainable Procurement.
- What does this mean?
 - **People:** We have a Sustainable Procurement Champion in place, procurement staff have performance objectives relating to sustainability, and staff have received sustainable procurement training.
 - **Policy, Strategy, Communications:** BCU has a Sustainable Procurement Policy in place, and sustainability is embedded into our Procurement Strategy which is communicated to key staff and suppliers.
 - **Procurement Process:** sustainability has been built into the procurement process and a Sustainability Impact Assessment introduced which needs to be completed for each procurement.
 - **Engaging Suppliers:** BCU has implemented an online Supplier Engagement Toolkit, which enables our suppliers to develop sustainable action plans.



Looking forward to 2018/19:

- Maintain Level 4 of the Flexible Framework.
- Integrate sustainability into each Procurement Category Strategy for our key areas of spend, and all other procurement strategies.
- Provide sustainability advice and input in tenders.
- Ensure the top 10 suppliers for each category have sustainability action plans in place on the Supplier Toolkit.



7. BIODIVERSITY

Initiatives delivered over 2017/18:

Grounds maintenance:

- A log pile has been created at City South to attract local wildlife and the pond area at Ravensbury House planted up.
- Three bird boxes have been installed at City South.
- Bird feeders have been installed at the City Centre Campus.
- Native trees and shrubs have been planted at City South such as mountain ash, Guelder rose and blackthorn.

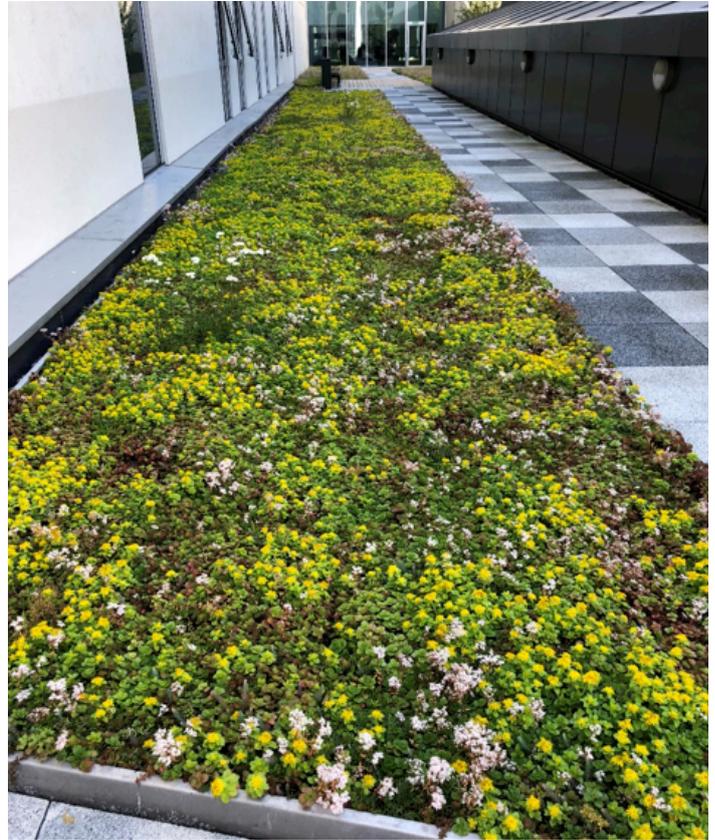
New build completions:

Three new builds were completed in 2017/18, which have the following biodiversity features:

- Royal Birmingham Conservatoire: Four insect boxes have been installed around the outside areas of the site. A green roof has been installed on the bike shelter.
- City South: A pond has been created at City South, providing a new habitat, and wildflower seed planted.
- Curzon Building extension: Trees and planters have been installed on the roof terrace.

Looking forward to 2018/19:

- Continue planting native species across BCU sites.
- Install compost bins across BCU sites.
- Engage students and staff on biodiversity and food growing.
- SU Eco Society student allotment initiative at City South Campus and planting at University Locks.



8. FOOD AND CATERING

Initiatives delivered over 2017/18:

- The University and its catering contractor, BaxterStorey, have made headway in improving the sustainability of catering at BCU.
- BaxterStorey has been very active in supporting BCU's Go Green Week and Fairtrade Fortnight in 2018 with a series of events and offers such as:
 - Healthy Me promotion
 - Go Green Week initiatives including Meat-free Monday, a KeepCup offer and coffee grounds giveaway for compost
 - Fairtrade bake off and banana selfie competition.
- Implemented a new supplier of rapeseed oil which is 100% natural and sourced from The Cotswolds.
- Work was done to reduce the amount of disposable cutlery and food containers used through simple measures such as moving them behind tills so they have to be requested.
- Milk dispensers were installed in kitchens to eliminate plastic bottle waste and glass recycling was put in place at the Royal Birmingham Conservatoire.
- BaxterStorey's Training Tuesdays included training for catering staff on energy and water efficiency in the kitchen.
- This work, along with sustainable food sourcing such as Marine Stewardship Council certified fish and free range eggs, culminated in BaxterStorey achieving the Bronze Food for Life award at the start of September 2018.

Looking forward to 2018/19:

- Review Silver Food for Life award for actions that can be implemented throughout 2018/19.
- Promote the sustainable menu option in the new hospitality brochure.
- Identify and deliver options to reduce waste generated through the catering contract including:
 - Reduction in the amount of disposable items used
 - Promoting a reusable cup campaign and the change in pricing to encourage the use of reusable cups
 - Reviewing the opportunity to introduce water glasses for meetings instead of plastic bottles.



9. CURRICULUM, TRAINING AND ENGAGEMENT

Initiatives delivered over 2017/18:

Communications and Engagement:

- Stands promoting sustainable travel, catering, and recycling featured in the 2017 Welcome Week.
- Go Green Week took place in February 2018, with support from the Students' Union. The SU ran a canal clear up, a second-hand bike sale, free bike maintenance, advice on recycling, and information on eating healthy and sustainably.
- Fairtrade hampers, a Fairtrade goods stall and bake offs were run for Fairtrade Fortnight.

Training:

- Environmental awareness training for staff has been updated and refreshed, and will be uploaded on Moodle.
- Spills training was delivered to Facilities Supervisors.

Curriculum:

- Meetings took place with the Deputy Vice-Chancellor and Students' Union Vice President Student Voice about integrating sustainability into the curriculum and involving Student Reps.
- Sustainability to be included as a requirement in the course approval form, requiring courses to provide evidence that sustainability is considered in at least one module for each year of the course.

Looking forward to 2018/19:

Training:

- Develop a new training matrix and range of environmental training materials to deliver to key members of staff and contractors over 2018/19 including cleaning and catering staff, Facilities supervisors and attendants, Grounds Maintenance Team, FM Helpdesk, technicians and the Students' Union.

Communications and Engagement:

- Deliver at least one environmental communication per month to students and staff.
- Work with the SU to run events including sustainable travel, Fairtrade Fortnight and, in conjunction with Graduate+ Week, a Go Green Week in March 2019.

Curriculum:

- Develop a strategic approach to integrating sustainability in the curriculum with the Deputy Vice-Chancellor, Associate Deans, student School Reps and Students' Union.

