



NEWNHAM COLLEGE

Environmental & Sustainability Policy

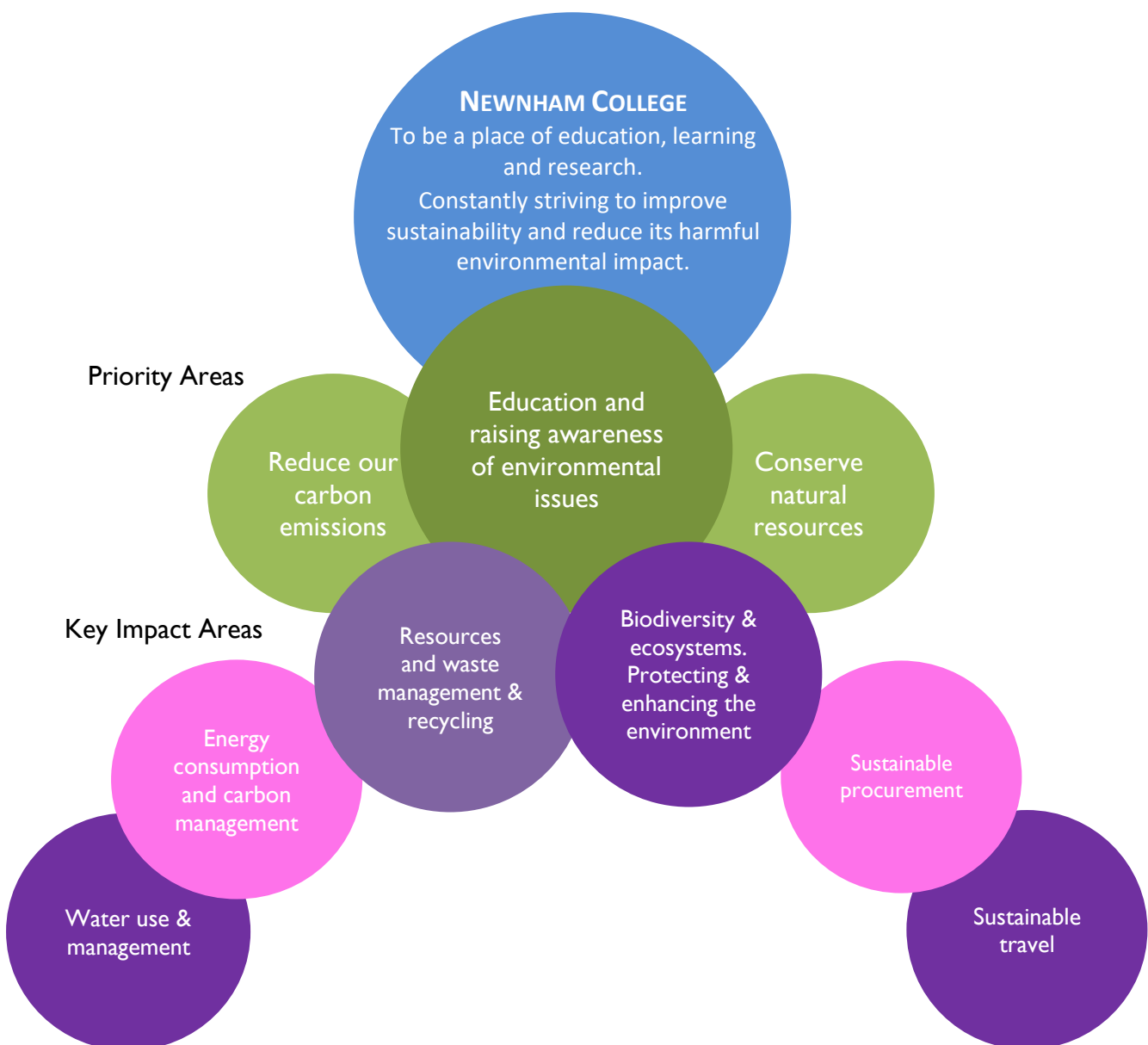


Reviewed by the College Environmental & Sustainability Committee	During 2023/2024
Adopted by the College Council	19/06/2024

Introduction

Newnham College is committed to making a positive impact through constantly improving its environmental and sustainability performance. The College recognises the need to function all year round in a manner that minimises its harmful environmental impact. This policy is based on the following model which aligns with the University of Cambridge's core areas for environmental action.

The model has 3 priority areas and 6 key impact areas:



The Environmental and Sustainability Committee (ESC) provides oversight of the College's commitment to function in a manner that reduces its harmful environmental impact.

The focus of this policy is to improve the environmental impact of systems in College and influence the behaviour of individuals. This policy will be reviewed annually by the ESC and any recommendations/changes will be brought to the Council for approval. The ESC is chaired by the Principal and the Secretary is the Domestic Bursar.

Priority Areas:

1. Reduce our carbon emissions There are three scopes of emissions:

Scope 1 covers all direct greenhouse gas (GHG) emissions by a company. It includes fuel combustion, company vehicles and fugitive emissions.

Scope 2 covers indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3 covers other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, outsourced activities, waste disposal, etc.

2. Conserve natural resources Our policies on water, carbon, resources and waste management, biodiversity and sustainable procurement and travel contribute to this priority.

3. Education and raising awareness of environmental issues This is done through initiatives such as Green Week, communication on our website and Newnham News, good signposting to sustainable behaviour.

Key Impact Areas:

1. Water use & water management
2. Energy consumption and carbon management
3. Resource and waste management & recycling
4. Biodiversity and ecosystems. Protecting and enhancing the environment
5. Sustainable procurement
6. Sustainable travel

Water use & water management

Water is a scarce resource, and the Cambridge Water Company area has been identified as being in severe water stress. The Government has set a target to reduce **personal water consumption to 110 litres per person per day by 2050.**

Aims and Targets:

To conserve water through efficient use and management. To reduce water consumption in all buildings by the installation of infrastructure* and communication / publicity of water reduction messaging.

*(Dual flush toilets / Low Flow Showers).

We have identified which of our buildings have water meters and an initial baseline per day figures for 2021-2022 as shown below. However, the figures for DGB and Clough are not meaningful given the number of people other than residents using water in the building. The 2023-2024 data for Whitstead should give us more confidence about what is achievable.

Building	2021-2022 Data	2022-2023 Data	Notes
Dorothy Garrod Building	503 litres per resident per day	14,125 m ³ / 365 days* / 86 rooms = 0.449 m ³ per day = 449 litres per resident per day	These figures include the admin corridor, public toilets, Iris Café, laundry and the gym plus watering of the Café, Strachey & roof top gardens.
Clough	379 litres per resident per day	3,190 m ³ / 280 days** / 57 rooms = 0.199 m ³ per day = 199 litres per resident per day	These figures include the buttry and servery.
Whitstead	136 litres per resident per day	379m ³ / 240 days*** / 16 rooms = 0.098 m ³ per day = 98 litres per resident per day	This postgraduate house was refurbished between April and Sept 2023. Low flow showers and dual flush toilets will be installed, and the water usage will be monitored post contract.

2022-2023: Assumptions on the number of days to divide the total water usage by:

Based on *365 days = there is a large laundry & rooms are often used during the vacations.

Based on **280 days = average of 4 periods x 70 nights.

Based on *240 days** = 8 months x 30 days as the house was empty from March to July.

Key Implementation mechanisms

- Compare the water usage in these four buildings on an annual basis. **Bursary / Maintenance - Ongoing**
- Investigate what other colleges are doing with regard to water management. **Domestic Bursar / Buildings Manager - Ongoing**

- Consider how to introduce a process for monitoring for leaks in the system.
Maintenance
- Continue to implement a programme of installing low flow showers, dual flush toilets in toilet cisterns. **Maintenance - (Whitstead completed Summer 2023)**
- Consider other sources of water for the gardens around the DG building as current tank capacity for stored water is insufficient for the minimal watering requirements around the DG building. **Maintenance / Gardens Department**
- Two new greenhouses installed in 2023 have rainwater harvesting and automatic water misting. Minimal constant watering is a more effective use of water. **Head Gardener - Completed**
- Gardening have a policy of minimal watering eg no watering of lawns. Regular mulching retains moisture. Permaculture garden has rainwater collection. **Head Gardener**
- More porous water hoses are being purchased to allow for more controlled usage – **Lent Term 2024 – Head Gardener - Completed**
- Raising awareness of how to save water – notices around the College / special events / talks. **All members of the College – UPDATE Easter Term 2024:** posters now in all student laundries re saving water.
- The HK Team replacing contract (rented) washing machines, which use a lot of water, with more efficient industrial domestic scale machines.
- The Gardeners are now purchasing more drought tolerant plants, trees and grass.

Energy consumption & carbon management

Aims and Targets:

To reduce carbon emissions across the College site. To set ourselves a realistic target for reducing our scope 1 and scope 2 emissions to net zero.

The UK Government has set a target to reduce UK carbon emissions to net zero by 2050. The University of Cambridge has committed to reduce its Scope 1 and Scope 2 emissions to zero by 2038. Newnham aspires to set a target at least as ambitious as the University and ideally more ambitious. However, there are particular factors which make it very difficult to capture the baseline from which we are seeking to reduce. The College had a major building project in 2016-2018, affecting a sizeable portion of the estate and enabling it to start to build up a conference business. From 2020, Covid has meant great variations in the number of students in College and the number of events and conferences. Public health advice on ventilation has had to take priority over energy conservation. We need to be in a position to have a stable baseline for energy consumption in order to use the University model for producing a science-based target and the academic year 2022-2023 is likely to be the first that we can use for that.

Newnham College is part of a well-established procurement agreement in relation to energy from renewable sources. This means all our electricity comes from wind farms or solar energy.

The demands for gas onsite (scope 1) remains a serious challenge. Should electricity be our preferred alternative, the local electricity infrastructure is incapable of coping with estimated demand should the switch from gas to electrically powered systems occur quickly. There is also considerable cost and disruption involved in converting a gas-based heating and hot water system into a fully electric one.

Before deciding on our strategy for moving out of gas, we need to reduce our energy demands as far as we can. Most of our buildings are listed. This means that even apparently simple tasks like double glazing windows require approval by local planning and conservation officers. Heritage double glazed windows are a lot more expensive than other types, and the lifespan of double glazing has to be considered as part of the overall life cycle of these windows. Investigating ways of doing this is an important part of our strategy.

There are some ways in which we can start to reduce our consumption immediately. These are included in the plan below.

Key Implementation mechanisms

- **NEW ET 2025:** The Rare Books Library – this building has been completed refurbished with new lead roof, to replace the perspex roof that required replacing every 20 years, insulation, LED lighting, underfloor heating and the latest environmental controls.

- **NEW LENT TERM 2024:** The Bursar, College Accountant, Buildings Manager and Domestic Bursar are meeting once a month to review the energy usage building by building (gas and electrical usage). This meeting enables the College to review trends, investigate any areas of concern, with regard to unusual usage and remedy in a timely manner. **Bursar / Accountant / Buildings Manager / Domestic Bursar**
- **NEW LENT TERM 2024:** the Buildings Manager is to organise a set of electrical submeters from the main College substation to allow the usage in the individual Champney, Fawcett and DG buildings to be reviewed (currently they are all on one main electrical meter). This work has been approved and is scheduled to take place in August 2024. **Buildings Manager**
- **NEW EASTER TERM 2024:** the College has received a site wide Decarbonisation Strategy Report which has been discussed with Council and Governing Body. It is planned to use the refurbishment of the Kennedy Building as a low carbon pathfinder project for the other buildings on the site.
- Keep up to date with best practice within the University by attending seminars and training. **Bursar, Domestic Bursar and Buildings Manager**
- Where new boilers are required in postgraduate housing, replace with air source heat pumps or other green alternatives. **Bursar, Domestic Bursar and Buildings Manager**
- Supporting carbon reduction measures in capital projects for any new buildings. **Buildings Estate Committee (BEC)**
- College buys the most energy efficient appliances wherever possible, rated either AA or AAA. Energy labelling has recently changed to encourage innovation: <https://energylabel.org.ukchanged>.
- Investigate and implement renewable energy projects. **BEC**
- **LED lighting:** the replacement of all the traditional light fittings with new LED light fittings, lamps and control mechanisms in public areas and corridors (PIRs etc.). This is taking place in all areas of College (all of the PG houses were completed during their recent refurbishments). This is a large piece of work involving infrastructure and cabling, as many of our lights are bespoke. Most of the Champney's buildings (except ½ of Sidgwick, Kennedy and the College Dining Hall) have been completed. Work in the Library has started, and then (not shown in order), the following areas will be started: the Old Labs, GGF, Pightle, Principal's Lodge, and the Coach House: **Maintenance & External Contractor**
- Installation of computerised controls (BMS) for the postgraduate houses. **Maintenance**
- All kitchen replacements (students and Fellows) using energy efficient electric appliances rather than gas cookers (Old Hall, GGFs, 2WWG, 6WWG and RFB complete; Peile 2nd and 3rd floors completed summer 2022).
- Thermostatic valves to be installed in radiators in student and Fellows rooms. Only Sidgwick and ½ of Old Hall to complete in summer 2024: **Buildings Manager**

- Insulation of the large heating and hot water distribution pipes that run through the Champneys Buildings (some have been completed in Sidgwick and Peile bedrooms but there are a lot more to do). **Buildings Manager**
- The Iris Café kitchen uses entirely electrical appliances.
- Investigate whether electrical appliances can replace gas in the main kitchen when gas appliances need replacing. **Catering Operations Manager**
- The College Greenhouses were replaced in January 2023 with energy efficient glazing system to reduce the need for heating.
- Modifications or upgrades of energy-intensive equipment. **All HODS**
- Raising awareness of energy consumption – notices around the College, special events, talks and social media. **All members of the College**
- Provision of a vegan option on every student menu to reduce the carbon emissions produced by food.

Sustainable Investment Policy:

The College has a sustainable investment policy which can be found here:

<https://newn.cam.ac.uk/wp-content/uploads/2021/03/Newnham-College-Statement-of-Investment-Principles.pdf>

Resources, waste management & recycling

Aims and Targets:

To minimise and actively manage waste through elimination, reduction, reuse & recycling.
To increase the amount of our waste which is recycled by 2025.
To decrease the amount of single use plastics in use

Key Implementation mechanisms

- Our aim is to have 50% of our 74 student kitchens with food composting bins. **Ongoing Lent Term 2024:** all kitchen composting bins are now being issued by the Housekeeping Office and publicity posters located around the College asking for volunteers to be “**Composting Champions**”.
- Raising awareness of recycling opportunities – notices around the College / special events / talks / social media. **For MT 2023** – to have one clear message: “Do NOT contaminate” the mixed recycling in the clear plastic bags – i.e. wash all containers and do not put food waste into these recycling bins. **All members of the College / JCR / MCR and Communications Directors - Ongoing**
- The JCR to encourage the recruitment of JCR Community Hall Officers who will lead the way promoting recycling etc. **JCR Ongoing**
- The JCR and MCR to encourage “global sharing” and to arrange more events where people can “swap” items in order to recycle and not just throw away or buy new. **JCR/MCR Ongoing**
- The College will, when possible, re-use and refurbish existing furniture and furnishings rather than purchasing new items. **Housekeeping Manager/Domestic Bursar**

Completed:

- Newnham College Free Cycle group is very active on Facebook.
- **Michaelmas Term 2021:** catering reintroduced a policy of avoiding single use plastics and Vegware. All users encouraged to bring their own reusable containers or use and return butterfly plates and crockery. Vegware no longer on display. Vegware not available to staff or Fellows. Students have to pay for containers.
- **Michaelmas Term 2022:** the Housekeeping Manager introduced a new cleaning chemical system (03 non-toxic cleaning product) and thus reduced the amount of plastic wastage from chemical products, by reducing the amount of different cleaning products in use, and also using re-fillable containers.
- **Lent Term 2023:** the College introduced a “Waste Management Policy”: <https://newn.cam.ac.uk/wp-content/uploads/2023/08/Newnham-College-Waste-Policy.pdf> - this has been updated in light of the new waste and recycling contractor (see below).

- **Lent Term 2023:** around 80 arm-chairs from the Champneys Buildings were refurbished, rather than replaced.
- **Easter Term 2024:** The Housekeeping Manager has successfully completed the re-tender process for the waste and recycling contract for the main College site. **The College is now sending zero waste to landfill.** All waste that was previously black bin (landfill) is now collected by Ellgia and all contents in the black bins are re checked and distributed for further recycling. The importance of separating waste is essential to prevent fines from the company if the waste is not correctly disposed into appropriate coloured bags.

Biodiversity and ecosystems: Protecting and enhancing the environment

Aim and Targets

To be a leading college within Cambridge to protect and enhance its gardens and wildlife. To increase the biodiversity and wildlife with the site.

Key Implementation mechanisms

- To ensure no planned, preventative maintenance impacts negatively on the biodiversity and to put in measures to prevent damage.
- Raising awareness of the College environment – notices around the College / special events / talks / wildlife blog / social media. **All members of the College**
- New additions to the Sustainability Map (See Appendix B – attached)
- New reports on the Inaturalist App <https://www.inaturalist.org/>

The Head Gardener has the following arrangements in place for biodiversity management:

- Retain existing areas of ecological value, and establishment and management of new habitats and ecological features where possible. **In place**
- Monitor and record garden wildlife (moth trap, bumblebee transect; wild plant record; camera trap). **In place**
- Creation of new areas of grassland, annually cut in late summer and hay removed to increase diversity. Cut in mosaic pattern, i.e., cut areas at different times to increase diversity/ habitat; A new permaculture forest garden has been planted behind the Pightle. **Ongoing**
- Mulch borders to control weeds and conserve water; leave seed heads on overwinter; plant with varieties that are good for pollinators/ native species where possible. **In place**
- Creation of new shallow pond with variation in depths/planting etc to increase species diversity. **In place** (behind the Pightle)
- No pesticides used in the garden. **In place**
- Selective herbicide used as little as we can – very occasionally on ornamental lawns. **In place**
- Glyphosate used no more than 3 times a year on hard surfaces (mainly in the carpark and gravel path areas). **In place**
- Sensitive management of work around badger (*Meles meles*) sett. **In place**
- Sensitive management of trees and hedges – leave ivy on where possible as habitat; no hedge trimming in bird breeding season; planting new hedges try to use a mix of native species. **In place**
- Meadow management: by cutting at the right time and removing the hay species diversity can be improved. **In place**
- Monitor the effects of our biodiversity management, and review. **In place**

- Adapt/change practice where necessary. **In place**
- Develop a better understanding and knowledge of species and habitats by keeping and reviewing data. **In place**
- Establishing and operating a permaculture garden. **In place**
- **NEW LENT TERM 2024:** A 'natural' chemical to complement the glyphosate treatment program has been sourced. Pelargonic acid (derived from Pelargoniums) which is an organic fatty acid that breaks down the cell wall, causing desiccation and dieback of top growth. We plan to use this on some pathways around the College and outside properties (once sufficiently controlled with glyphosate). We are hoping that this strategy will enable us to exclusively use this chemical once the weeds have been sufficiently knocked back by glyphosate or to minimise glyphosate use to one or two applications per year.
- **NEW from the Garden Committee Lent Term 2024 meeting:** Wildlife Survey – the Committee discussed carrying out a wildlife survey in the grounds and to install some wildlife cameras. **Planning stage**
- **NEW from the Garden Committee Lent Term 2024 meeting:** Hedgehog Friendly Campus – the Head Gardener to discuss with a local alumna who wishes to assist the College become a Hedgehog Friendly Campus and so to purchase some hibernation boxes for this purpose. <http://www.hedgehogfriendlycampus.co.uk/> **Planning stage**
- **NEW EASTER TERM 2024:** The beehives are being refurbished. A queen and nucleus are to be delivered in May/June 2024. **The work has started.**

Housekeeping Manager

- O3 non-toxic water based cleaning product introduced and now used College wide. **In place.**
- **NEW ET 2024:** when the O3 non-toxic waster based cleaning product was introduced in MT 2022, the College was still having to use two toxic products: a toilet cleaner and a limescale cleaner. During the Lent Term 2024 the Housekeeping Team carried out a trial using a plant based toilet cleaner and limescale remover, which was hugely successful: The College plan to use up the old stock first then changing over to the new plant chemicals, the plan long term is to have the 5ltr bottle dispensers which means less packaging. [Eco-Friendly Cleaning Products: Powerful Cleaning for Home & Business– Delphis Eco UK](#)

Sustainable procurement

Aims and Targets

To influence positively the sustainability credentials of the goods and services that the College purchases.

For each purchase to consider sustainability criteria within the procurement process.

After energy, the main consumables we purchase are:

- Food and Beverages
- Stationery and housekeeping paper supplies (toilet rolls / handtowels)
- Cleaning supplies (we hire linen)
- Furniture and Furnishings (replacement and refurbishment)
- Building Materials and supplies (for example, timber, plumbing materials, paint) - **In place**. *UPDATE OCT 2022: in the past three postgraduate house refurbishment projects sustainable hardwood has been used.*

Key Implementation mechanisms

- Remain a member of the Fairtrade Association.
- Food purchasing policy, purchasing local and in season. **In place**
<https://newn.cam.ac.uk/wp-content/uploads/2022/02/Newnham-College-Food-Procurement-and-Sustainability-Policy.pdf>
- Provide the appropriate training and guidance for staff who are involved in purchasing decisions. **ALL HODS**
- Engage with the collegiate University to implement targeted supplier engagement to promote continual improvements. **Bursar / Domestic Bursar / HODS / Reps on other University Committees - ongoing**
- Raising awareness of the items that are procured in a sustainable manner – notices around the College / special events / talks / social media. **All members of the College** Update - The Iris Café promoted Green Week during 2021, 2022, 2023 and 2024.
- Introduction of Green Mondays for the Buttery evening service. **In place**
- Introduction of offering only vegan / vegetarian options in the Buttery evening service during Green Week. **In place**
- Green Formal Halls introduced. **In place**
- Recycling of building materials, electrical items, IT equipment and light bulbs.
Maintenance / IT Department
- Promoting the University Recycling event on the Sidgwick Site. **In place**
- **MT 2023:** the Conference & Events Co-Ordinator (Megan Halliday) has been working on sustainability as part of Newnham's conference offer. This has involved working closely with the Catering Department and other departments. Through this work the

Conference Office have succeeded in getting the College a Silver Green Impact Award in June 2024. In 2024/25, they will aim for Gold.

- **NEW LENT TERM 2024: from the Garden Committee meeting:** there are plans to create a culinary herb garden outside the buttry. **In planning stage.**
- **EASTER TERM 2024:** The Governing Body, have agreed that the vegan/vegetarian main courses on the SCR online booking system, would be shown as the default option, and people would have to 'opt-into' the meat/fish option. Currently the default option shown on the system is the meat/fish. **Will be implemented MT 2024.**

Completed:

- **MT 2022:** The price of the vegan and vegetarian main course reduced to reflect the cost difference between meat/fish options and also to encourage more members to choose these options.
- **MT 2022:** The vegan and vegetarian main courses are always listed first on the menu to encourage people to choose these options.
- **MT 2022:** O3 non-toxic water based cleaning product introduced and now used College wide.
- **Lent Term 2023:** around 80 arm-chairs from the Champneys Buildings were refurbished, rather than replaced.
- **Summer 2023:** As part of the Whitstead refurbishment project, much of the existing furniture was retained and re-used in the building, rather than purchasing all new furniture and several items that had been in storage in College was relocated in this house, again rather than purchasing new items.
- **NEW ET 2024:** During the Lent Term 2024 the Housekeeping Team carried out a trial using a plant based toilet cleaner and limescale remover, which was hugely successful: [Eco-Friendly Cleaning Products: Powerful Cleaning for Home & Business—Delphis Eco UK](#)

Delphis are the first UK company to:

- pioneer the use of 100% grade post-consumer recycled plastic (PCR) and have 100% of their range bottled in PCR, diverting plastic from the ocean & reducing carbon emissions by 61%
- be awarded the DEFRA-administered EU Ecolabel accreditation
- be Scope 1 & 2 Carbon Neutral
- achieve B-Corp Status and founding signatory with Race to Zero, The Climate Pledge & The Plastics Pact
- offer product-level Carbon Reporting to enhance your Scope 3.

Sustainable travel

Travel patterns are in flux in Cambridge. The cost of housing in Cambridge has also meant that more staff are commuting longer distances from locations only accessible by car. There is a renewed impetus towards electrification of transport, with all new conventional petrol and diesel cars and vans set to be banned from sale in 2035. The current high cost of electric cars puts them out of reach of most staff, but we can start to plan towards increased usage of electric cars.

The College invested in upgrading its Wi-Fi system in 2020-2022 which allows live streaming. College has bought Owl technology to support virtual meetings and has invested technology to ensure it can host high-quality virtual conferences in a cost-effective way.

Aims and Targets

To support travel and conferencing options for academics, staff and students which reduce carbon emissions.

To support moves to electrification of transport.

Key Implementation mechanisms

- Undertake a survey of staff and Fellows to understand their modes of travel to work and likely changes over the next 10 years. **Domestic Bursar & Comms**
- Installation of infrastructure for six electric car charging points at Whitstead. **(Done)**
- Installation of an electric car charging point in RFB car park **Plan to install during 2024-2025 Buildings Manager.**
- Introduce a travel expenses policy for official travel on College-funded business which enables academics and staff to choose a more expensive form of transport where the chosen method of transport is less harmful to the environment. **Bursary**
- Investigate use of a carbon offset scheme where College-funded overseas travel by air is essential. **Bursary**
- Provide the infrastructure (hardware & software) to allow live streaming. **(Done)**
- Set up the new conference rooms in the DGB as Hybrid Meeting Rooms. **(Done)**
- Installation of further upgrades to video conferencing facilities and the technical support on how to use them and actively advertise this. **(Done)**
- **April 2022:** The University of Cambridge recently (April 2022) released a “University Guide to Sustainable Travel Policy” found here: https://www.environment.admin.cam.ac.uk/files/university_of_cambridge_transport_strategy_2019-2024.pdf The College will review and then consider whether to adopt this Policy. **(Environmental & Sustainability Committee > College Council)**
- **April 2024:** The College also to consider ways of encouraging more sustainable travel to and from College for all members of the College i.e. students arriving and departing each year and also those undertaking a daily commute to and from work. **(Environmental & Sustainability Committee & Comms).**