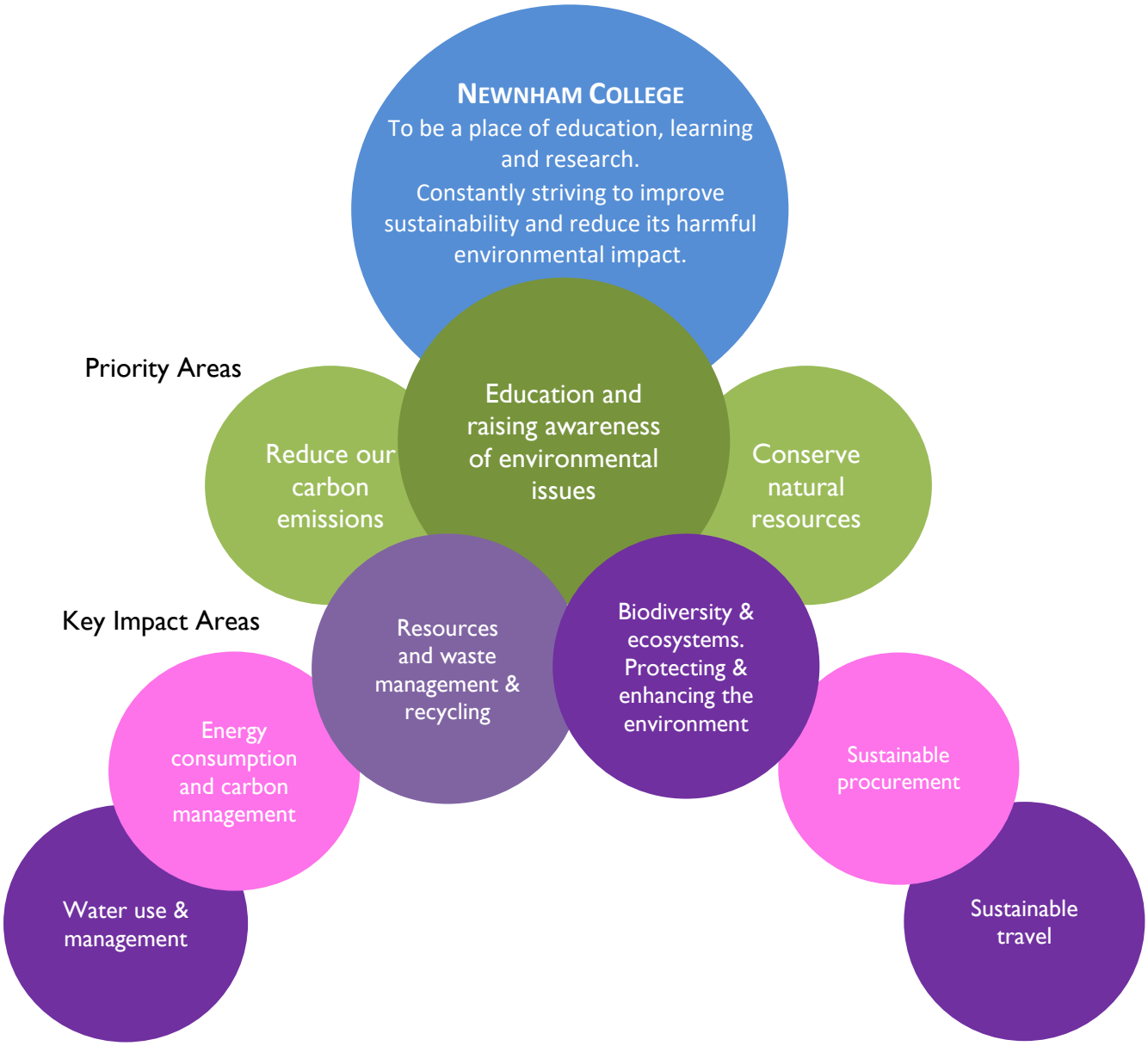
Newnham College
Environmental & Sustainability Policy

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. It is chaired by the Principal, Alison Rose and the Secretary is the Domestic Bursar, Wendy Evans.

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.

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 website and Newnham News, good signposting to sustainable behaviour

Key Impact Areas:

1. Water use & water management
2. Energy consumption and carbon management
3. Resources 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 / 'Hippos' in toilet cisterns).

We have identified which of our buildings have water meters and an initial baseline per day figure from 2021/22, as shown below:

- **Dorothy Garrod Building: 503 litres per person per day.** *These figures include the admin corridor, public toilets, Iris Café, a large laundry and the gym plus watering of the Café, Strachey and Roof top garden.*
- **Clough: 379 litres per person per day.** *These figures include the Buttery.*
- **Rosalind Franklin Building: 251 litres per person per day.**
- **Whitstead: 136 litres per person per day.** *This postgraduate house is being 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.*

Key Implementation mechanisms

- Compare the water usage in these four buildings on an annual basis **Bursary / Maintenance**
- Investigate what other colleges are doing with regard to water management - **Domestic Bursar / Buildings Manager**
- Consider how to introduce a system for monitoring for leaks in the system **Maintenance**
- Continue to implement a programme of installing low flow showers, dual flush toilets and 'Hippos' in toilet cisterns. **Maintenance**
- 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 to be installed in January 2023 will have rainwater harvesting and automatic watering. Minimal constant watering is a more effective use of water **Head Gardener**
- Gardening have a policy of minimal watering eg no watering of lawns. Regular mulching retains moisture. Permaculture garden has rainwater collection **– Head Gardener**

- Raising awareness of how to save water – notices around the College / special events / talks – **All members of the College**

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

- Put in place a system to measure the energy baseline in academic year 2022/23, prior to calculating a science based target
- 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 - **Ongoing**
- Investigate and implement renewable energy projects – **BEC**
- Complete the installation of LED lighting in all areas (only some graduate houses and some Fellows rooms remain to be installed). **Maintenance**
- 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. This project is being started in Peile Hall summer 2022. **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.
- **Catering Operations Manager** to investigate whether electrical appliances can replace gas in the main kitchen when gas appliances need replacing.
- The College Greenhouses are being replaced January 2023 with energy efficient glazing system to reduce the need for heating. **Head Gardener**
- 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. **Catering Department**

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

- In October 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 buttery plates and crockery. Vegware no longer on display. Vegware not available to staff or Fellows. Students have to pay for containers.
- In Lent Term 2022, a dedicated vegware recycling bin was installed in the Iris Café which will be sent to a specialist vegware recycling centre.
- Newnham College Free Cycle group on Facebook.
- Raising awareness of recycling opportunities – notices around the College / special events / talks / social media – **All members of the College**
- The JCR to encourage the recruitment of JCR Community Hall Officers who will lead the way promoting recycling etc. – **JCR**
- The Housekeeping Manager in Michaelmas Term 2022 reducing the amount of plastic wastage from chemical products, by reducing the amount of different cleaning products in use and also using re-fillable containers for a new O3 non-toxic cleaning product. – **Housekeeping Manager**
- 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**
- Our aim is to have 50% of our 74 student kitchens with food composting bins.

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, ie, 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 etc on over winter; 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**
- Michaelmas Term 2022 – a proposal to use O3 non-toxic water based cleaning product – **Housekeeping Manager**
- 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 (End of licence in 2022 – alternatives are being considered); **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**

Sustainable procurement

Aims and Targets

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

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

The three main consumables we purchase are after energy are:

- Food and Beverages
- Stationery and housekeeping paper supplies (toilet rolls / handtowels)
- Cleaning supplies (we hire linen other this would be a large cost centre)
- 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**
- 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 Café promoted Green Week during 2021.
- Introduction on 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 to be introduced – **In place**
- Recycling of building materials, electrical items and light bulbs – **Maintenance**
- Promoting the University Recycling event on the Sidgwick Site. **In place**

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 2030. 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 the electric car charging point in RFB car park - **Domestic Bursar**
- Installation of infrastructure for up to six electric car charging points next to Whitstead – Summer 2023 – **Domestic Bursar**
- 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 and 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** completed summer 2022)
- **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 2022:** 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)**