ST HILDA'S COLLEGE ENVIRONMENTAL SUSTAINABILITY STRATEGY

2024 -2035

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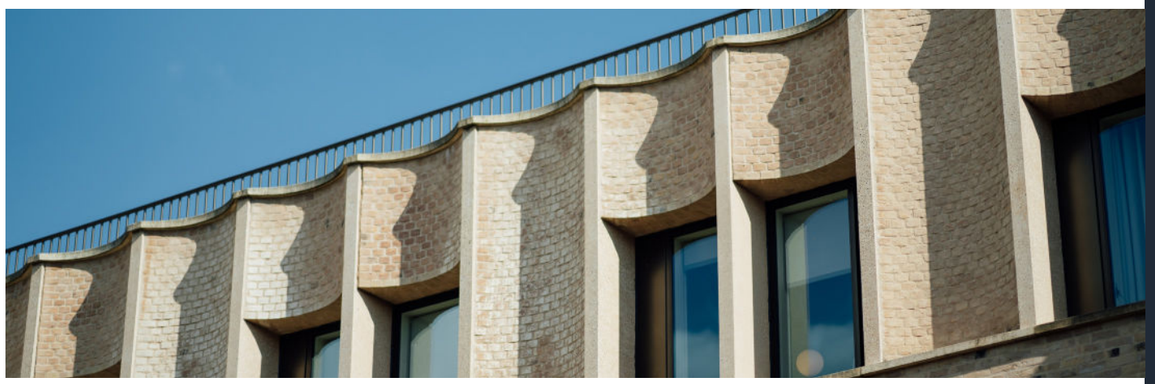


2 FOREWORD: THE IMPERATIVE

As the planet heats up faster than ever before, with the 7 of the last 10 years being the hottest 7 since measurements began in central Europe[1], and warming trends over the past 30 year annual averages in Great Britain clearly visible[2], we are confronted by the UN weather agency, WMO, announcing in June 2024 that 'At least one of the years between now and 2028 will very likely set a new temperature record, breaking through the crucial 1.5°C temperature limit.'

Predictions have indicated that failing to uphold the 2015 Paris Accord to the 1.5°C temperature limit will lead to disastrous effects on our globe, in terms of weather, changes to our planet, natural hazards, safety, and costs. Additionally, inequities will abound.

While St Hilda's College can have but a minuscule effect on the net national picture, we must take on the challenge and do our share by combining our commitment, our resources and our scholastic abilities to help to reduce our emissions year on year, and demonstrate a holistic culture of sustainability.

Our intent is summarised in the first sustainability strategy for the College. It has evolved through consultation with students and staff over the past two years. We have defined our purpose, our scope and then targeted our priority areas with clear practical goals that will bring us closer to achieving biodiversity net gain, while moving towards net zero greenhouse gas emissions by 2035.

While the College has been in the vanguard of sustainable investment through its advisory role in the development of the Sarasin Climate Active Endowment Fund, and we have put our endowment funds behind this programme, our capacity to invest from this source is very limited. Much of our future success will be contingent upon the College raising sufficient funds to invest in decarbonisation. This is why 'sustainability' is one of the focuses of our 2024-2029 fundraising campaign.

There is no time to lose.

Sarah Springman
Principal, St Hilda's College

[1] MeteoSwiss. 2024. Temporal development of temperature and precipitation. Federal Office of Meteorology and Climatology MeteoSwiss.
[2] Met Office. 2024. UK climate averages. Met Office.

3 AT A GLANCE

Climate change and biodiversity loss are two of the defining environmental issues of our time. St Hilda's College is committed to mitigating these trends. Through this Environmental Sustainability Strategy, we lay out a framework by which we can make meaningful, measurable progress towards a more sustainable future. Our Strategy was created with input from students and staff. It is a plan envisioned by and for the entire College community.

The structure of this Strategy mirrors that of the University Environmental Sustainability Strategy, with some slight modifications. We have set 3 overarching Targets:

1 **Net zero greenhouse gas emissions by 2035.**
All Scope 1 (direct), Scope 2 (indirect, from energy use), and Scope 3 (indirect, from upstream and downstream of College) emissions are included.

2 **Net biodiversity gain by 2035.**
We will measure biodiversity both on-site and in terms of upstream and downstream impacts of all College operations.

3 **Holistic culture of sustainability by 2035.**
Many College contributions to sustainability will likely be intangible, but nonetheless essential. We have included this target to embrace our role as an academic and residential community with downstream impacts that exist in the lifestyles and values of our alumnae.

We have identified 7 Priority Areas through which we will achieve these targets. These Priorities represent a union of the University Strategy's 10 Priorities with the structure of our own College's administration:

1. **Academic:** Academic Office
2. **Buildings:** Domestic Bursar's Office, Buildings Office
3. **Gardens/land:** Buildings Office, Gardening Team
4. **Food:** Domestic Bursar's Office, Dining Team
5. **Resource use and waste:** Domestic Bursar's Office
6. **Travel:** Bursar's Office
7. **Investments:** Bursar's Office

We have also identified 5 Enablers that will underpin our work towards the 3 Targets in all Priority Areas. Some of these correspond to College Offices, as follows:

1. **Governance:** Principal's Office
2. **Funding:** Bursar's Office, Development Office
3. **Communication:** Principal's Office (Head of Communications)
4. **Reporting:** All Offices will consider this independently
5. **Offsetting:** Principal's Office

Each Priority Area and Enabler has its own Action Plan, containing quantitative commitments, metrics, timelines, and budgets. These can be found in Appendix 1.

4 INTRODUCTION

4.1 Our Purpose

Climate change and biodiversity loss are two of the defining environmental issues of our time. Governments, organisations, and individuals all have a role to play in mitigating these trends by reducing their greenhouse gas emissions and biodiversity impacts.

St Hilda's College is committed to excellence and equality in both academic and college life. In the context of environmental sustainability, we believe that excellence compels us to be at the forefront of sustainable action, and equality compels us to pull our weight in this global endeavour. We have made tremendous progress in our operational sustainability in recent years, but we recognise that the urgency of environmental issues requires an even more ambitious approach. We have created this Environmental Sustainability Strategy to map out a path towards reducing, and ideally eliminating, our own environmental impacts by 2035. This Strategy also looks outwardly, as we strive to learn from and contribute to sustainability in the wider university, city, and alumnae community. We recognise that the sustainability of our college is a shared responsibility of staff and students. Hence, we have developed this strategy with input from students, staff, and sustainability experts. It is a plan envisioned by and for the entire College community.

4.2 Our Scope

This Strategy seeks to improve the environmental sustainability of St Hilda's College. Other dimensions of sustainability – including social and economic – are outside the scope of this document, even as they remain priorities for the College.

More specifically, the Strategy applies to all activities within the operational and financial purview of St Hilda's College. All College buildings, lands, administration, investments, and communications are included in this scope. This Strategy applies to individual behaviours only to the extent that they can be influenced by College operations. For example, while we may educate students on the benefits of reducing meat consumption in general, we cannot directly influence nor quantify their dining choices beyond the college dining hall. Similarly, while college-funded travel falls within the remit of this Strategy, private travel does not.

We acknowledge that some College activities have high environmental impacts, yet are also central to our College's twin commitments to education and accommodation. For example, travel by international students coming to and from Oxford to study at St Hilda's does fall under this Strategy. However, even as we strive to quantify and reduce the environmental impacts of such activities, our College commitments take priority. International students are integral to our community, and we will not put up barriers to their entry.

4.3 Our Process

This Strategy was developed during the 2023-2024 academic year by the St Hilda's College Sustainability Working Group. Development and writing were led by Jonathan Rutter (MCR President and Environmental Officer), Cato Kienhuis (JCR Environmental Officer) and Dr Philippa Hulley (Associate Professor in Biomedical Sciences, SCR Tutorial Fellow). Commitments and action plans for each Priority Area (see Section 4.5) were developed by the relevant College officers, in consultation with the lead writing team. Most of these College officers were members of the Sustainability Working Group, which met once per term.

The general structure of the Strategy was based around the 2021 University of Oxford Environmental Sustainability Strategy. We modified the central university's targets, priorities, and commitments to fit our College operations and values. Community engagement was central to this process, reflecting three core beliefs of the Working Group: (a) the Strategy should represent the values and priorities of all College members, (b) the Strategy will be stronger with a wider range of creative solutions, and (c) participation of students and staff in Strategy development will promote engagement in sustainability more widely.

We began Strategy development in Michaelmas Term 2023 by eliciting community input. We distributed a survey to all members of the college JCR, MCR, SCR, and staff (total 345 responses, ~43% of the community). We followed up with smaller focus groups of students and staff (total 32 participants), both in Michaelmas Term 2023. These efforts helped us to understand the values and priorities of the College community with regards to sustainability. Furthermore, we used the survey and focus groups to gather fresh ideas for sustainable solutions.

We developed the core content of the Strategy during Hilary Term 2024. We conducted a broad review of relevant peer-reviewed literature, other Oxford college sustainability strategies, and sustainability criteria from Green Impact Programme and the Climate League of Oxford and Cambridge. We compiled our findings together with those of our own survey and focus groups to produce a sustainability information packet for each college office. These packets served to guide college officers in developing the Action Plans for their sections of the Strategy (Appendix 1). They can be found on the Sustainability Resources page of the College website.

We wrote the first draft Strategy in early Trinity Term 2024. Simultaneously, each college office produced its own Action Plan within the Strategy framework. The draft was modified based on input from college's General Purposes Committee and Sustainability Working Group during Trinity Term. We released an updated draft Strategy to the entire college community at the end of Trinity Term. The draft was available for two weeks, during which time any college members could submit comments. We have addressed these comments in the final Strategy, and provided explanation for any comments which did not result in changes to the document. [The final Strategy and Action Plan (this document) was approved by Governing Body and took effect immediately thereafter.]

Results of the 2023 survey and focus groups, and 2024 public comments, can be found in Appendices 2-4.

5 TARGET AND PRIORITY AREAS

5.1 Targets

The overarching targets of this Strategy are as follows:

1. **Net zero greenhouse gas emissions by 2035.**
Anthropogenic greenhouse gas (GHG) emissions have driven a rise in global temperatures over the past 200 years, with increasingly negative consequences for the functioning of Earth's systems, human life, and biodiversity. The 2015 Paris Agreement set a goal of limiting temperature rise to 1.5°C by reducing global greenhouse gas emissions,[3] yet this threshold has already been broken in the past year.[4] We aim to achieve net zero for all 3 types of GHG emissions: Scope 1 (direct emissions from college operations, such as gas burning), Scope 2 (indirect emissions from college operations, such as electricity usage), and Scope 3 emissions (indirect upstream and downstream emissions from college-related travel, food, resource use, etc.).[5] We will measure our GHG emissions in terms of carbon dioxide equivalents (CO_{2e}), which account for variations in the global warming potential (GWP) of different greenhouse gases.[6]

2. **Net biodiversity gain by 2035.**
Biodiversity refers to the variety of life on Earth, from the genetic to the ecosystem level. Although there is no single metric by which to measure biodiversity, there is widespread recognition that biodiversity is in decline worldwide.[7] We aim to contribute to a slowing and eventual reversal of this trend, both by enhancing biodiversity in college-owned lands, and by reducing our indirect biodiversity impacts both upstream (through supply chains) and downstream (through waste). Where possible, we will measure our biodiversity impacts in using quantitative, scalable metrics (e.g., species extinction equivalents). We will also regularly quantify biodiversity on site, including the gardens and Radley Large Wood, using multiple ecological metrics.[8]

3. **Holistic culture of sustainability by 2035.**
Many College contributions to sustainability will likely be intangible, but nonetheless essential. We have added this target to embrace our role as an academic and residential community with downstream impacts that exist in the lifestyles, values, and decisions of our staff, students, and alumnae. The target also encompasses our College's responsibility to promote sustainability externally, including in the wider university, city, and country. This target does not have a single headline quantity to achieve by 2035, but we have committed to several quantitative benchmarks that can measure our progress within this target.

Why we set these targets

We have chosen these targets because they align with those established by the Intergovernmental Panel on Climate Change, the Convention on Biological Diversity, and the University of Oxford. Thus, these targets are bigger than our college – they represent standards across society.

However, we acknowledge that we may not have the financial or technical capacity to achieve Targets 1 and 2 by 2035. Indeed, these targets are likely unattainable through changes to college operations alone. They will require wider shifts in the national energy grid towards renewable sources, as well as substantial spending on carbon and biodiversity offsets. We could have set less ambitious targets to account for our own limitations, but in doing so we might risk losing sight of how ambitious international sustainability targets require us to be. Instead, we have kept these targets, and sought to balance ambition and realism in the following ways:

- We have set ambitious, quantitative, time-bound commitments to avoid and reduce the impacts of on-site college operations. In doing so, we aim to minimise our reliance on the national grid and offsets. Compared to offsetting, we believe this approach is a better use of limited financial resources in the short term.

- We have committed to a regular review of carbon and biodiversity offset options, with the recognition that they will be necessary in the long term to attain our targets. This approach will allow time for more offset options to be developed and vetted, and for the potential emergence of joint offsetting schemes with other colleges.

- If we lack the resources to achieve a target or commitment, we will communicate why in our regular reporting, including an estimate of how much money it would have taken to afford.

We also recognise that, as an educational institution with multifaceted ties to the wider university and city, our commitment to sustainability is broader than our operational footprint. Even as we anticipate challenges with achieving Targets 1 and 2, we believe we are well placed for an ambitious pursuit of Target 3.

5.2 Priority Areas and Enablers

We have identified 7 Priority Areas through which we will achieve our 3 overarching Targets. These Priority Areas represent a union of the University Strategy's 10 Priority Areas with the structure of our own College's administration, though we emphasise that their implementation will also be the responsibility of the SCR, MCR, and JCR:

1. **Academic:** Academic Office
2. **Buildings and Energy:** Domestic Bursar's Office, Buildings Office
3. **Gardens and Land:** Buildings Office, Gardening Team
4. **Food:** Domestic Bursar's Office, Catering/Dining Team
5. **Resource use and waste:** Domestic Bursar's Office
6. **Travel:** Vice Principal/Bursar's Office
7. **Investments:** Bursar's Office

We have also identified 5 Enablers that will underpin our work towards the 3 Targets in all Priority Areas. These Enablers also correspond to College Offices, as follows:

1. **Governance:** Principal's Office
2. **Funding:** Bursar's Office, Development Office
3. **Communication:** Principal's Office, Head of Communications
4. **Reporting:** Principal's Office, responsibility of all offices
5. **Offsetting:** Principal's Office, Bursar's Office

The rest of this strategy is organised into 12 sections that correspond to our 7 Priority Areas and 5 Enablers. Each section includes 3 subsections: (1) an explanation of its context, (2) an overview of our progress as of 2024, including any quantitative baselines that we have already been able to establish, and (3) a list of our commitments for 2035. Unless otherwise indicated, quantitative commitments are to be measured relative to a 2024-2025 baseline. The implementation details for each commitment, including actions, reporting metrics, and budgets, are contained in each section's Action Plan, which can be found in Appendix 1.

[3] UN COP21. 2015. The Paris Agreement. United Nations.
[4] Poynting, M. 2024. World's first year-long breach of key 1.5C warming limit. BBC.
[5] UK Department for Energy Security and Net Zero. UK greenhouse gas emissions reporting: Scope 3 emissions. UK Government.
[6] See Enabler 4: Reporting for more details.
[7] Diaz, S & Malhi, Y. 2022. Biodiversity: Concepts, patterns, trends, and perspectives. Annual Review of Environment and Resources 47, pp. 31-63.
[8] See Enabler 4: Reporting for more details.

6 PRIORITY AREA 1: ACADEMIC

6.1 Context

Our College, as an educational institution, has impacts on sustainability that go beyond its operations. We play an important role in shaping public discourse and driving societal change. Research is a key mechanism by which these impacts are realised, but not the only one. Courses, tutorials, talks, and networking events all influence the environmental attitudes and career choices of our graduates.

6.2 Progress as of 2024

Sustainability features in research and publications by our academic staff and students across Sciences, Social Sciences and the Humanities. Staff projects include:

- Professor David Howey leads a research group focused on modelling and control of battery systems for electric cars and the power grid.
- Associate Professor Lisa Wedding leads a research group exploring the future of applied seascape ecology research.
- Dr Rebecca Armstrong, Mary Bennett Tutorial Fellow in Classics, has a particular interest in representations of plants in the literature of the ancient world and has published a book on the subject.
- Emeritus Fellow Dr Sarah Watkinson has translated decades of experience in mycology into award-winning poetry, and in 2019 was elected inaugural Writer in Residence at Wytham Woods.

Multiple St Hilda's graduate students are engaged in environmental research through departments such as Geography, Biology, Education, Engineering, and Chemistry. Many of these students receive financial support from the college through scholarships and research grants. We regularly host academic talks with sustainability themes. For example, the 2023 Lady English Lecture, featuring alumna Sarah Mukherjee MBE, centred around the challenges of sustainability communication. Additionally, our annual Green Feast is always preceded by a seminar that spotlights environmental concerns. Previous invited speakers for the Green Feast seminar include former Swiss President Doris Leuthard, Professor of Geosystem Science Myles Allen, and Climate Research Associate Dr Rupert Stuart-Smith.

6.3 Commitments

Commitments towards Target 3 (Culture):

A1. Increase student engagement in courses and research related to environmental sustainability by 2030, and again by 2035.

A2. Increase funding towards courses and research related to environmental sustainability by 2030, and again by 2035.

A3. Increase awareness of sustainable research at St Hilda's, both internally and externally, by 2030, and again by 2035.

A4. Establish a sustainability monitoring network by 2025 and increase participation year on-year through 2030.

See Appendix 1 (Action Plans) for our implementation plan 310 for these commitments.

7 PRIORITY AREA 2: BUILDINGS & ENERGY

7.1 Context

Reducing greenhouse gas emissions from buildings is a top priority for College members.[9] Indeed, the energy consumption of buildings is the primary contributor to our College's Scope 1 and 2 emissions. Our Scope 1 emissions consist almost entirely of natural gas burning for heating, whereas our Scope 2 emissions are tied to our use of electricity from the public grid. Although we already purchase our electricity from a 100% renewable supplier, our Scope 2 emissions will still be calculated in terms of the UK grid average.[10]

We expect that buildings make up the largest portion of our college's direct biodiversity impacts through habitat loss and greenhouse gas emissions. However, these impacts are likely outweighed by indirect impacts from food, resource use, and waste.[11]

7.2 Progress as of 2024

In 2022, we commissioned a full independent audit of our on-site (Scope 1 and 2) emissions. The audit estimated the carbon footprint of our buildings on the main college site at 580 tonnes CO_{2e} per year (not including Scope 3 emissions or off-site college accommodations). We are already in the process of reducing this number.

Our new Pavilion and Anniversary buildings were designed by architects Gort Scott for very low emissions from heat and power with their form and fabric helping to control internal climate. Design features include windows that regulate sunlight penetration, an exposed concrete structure to stabilise temperature through thermal mass, natural ventilation, precast concrete fins to shade windows, and an efficient combined heat and power system.

Other recent achievements in this Priority Area include:

- All electricity from a green supplier
- Replacement of single-glazed windows with double-glazed glass completed on 9 buildings so far with options for others in development
- Thermostatic radiator valves installed in more than 250 rooms across 10 buildings
- LED lighting replaced old incandescent fittings in 379 rooms across 15 buildings
- Installing solar panels and rainwater capture on the Principal's lodgings
- Introduction of a building retrofit programme to maximise water efficiency

[9] See Appendix 2: 2023 Survey Report.
[10] Higher Education Statistics Authority 2022. 2022. Estates management 2021/22.
[11] Bull, JW, et al. 2022. Analysis: the biodiversity footprint of the University of Oxford. Nature, 604(7906), pp. 420-424
[12] QODA. 2022. St Hilda's College Decarbonisation Strategy, Executive Summary. QODA 2862.R02.

7.3 Commitments

Commitments towards Target 1 (Emissions):

B&E1. Reduce Scope 1 emissions from all college buildings by 50% by 2030, and 100% by 2035.

B&E2. Reduce annual Scope 2 emissions from 346 all college buildings by 40% by 2030, and 80% by 2035, inclusive of national grid decarbonisation.

B&E3. Reduce per capita energy consumption from all college buildings by 20% by 2030, and 40% by 2035 (also Target 3).Commitments towards Target 1 (Emissions):

Commitments towards Target 2 (Biodiversity):

B&E4. For all development projects, achieve 20% net biodiversity gain.

B&E5. Reduce per capita water consumption from all college buildings by 20% by 2030, and 40% by 2035 (also Target 3).

Commitments towards Target 3 (Culture):

B&E6. Increase awareness of the environmental impacts of energy consumption (both in general and personal use) by 2030, and again by 2035.

See Appendix 1 (Action Plans) for our implementation plan for these commitments.

8 PRIORITY AREA 3: GARDENS AND LAND

8.1 Context

Our College gardens and woodland are home to a fascinating variety of animals, plants, and fungi.[13] Enhancing this biodiversity through strategic management can help our College work towards Net Zero (Target 1) and Net Biodiversity Gain (Target 2).

Contributions towards these targets will likely be modest compared to reductions in our energy consumption and indirect biodiversity impacts.[14] However, sustainability in our gardens is about more than net biodiversity gain. Nature is very important to our college community, and people love our gardens.[15] Thus, we recognise that our college lands will play an important role in promoting a holistic culture of sustainability (Target 3) by connecting people to nature.

8.2 Progress as of 2024

Our gardening team helps provide the College community with access to beautiful natural spaces to connect with and value our place as an integral part of nature. Notable achievements include:

- To enjoy and support insect, bird, and bat communities, we have developed a diverse plant collection in our grounds (and even on the Anniversary Building rooftop!).
- On our beautiful riverbank, special care and maintenance provide a rich habitat and abundant insect life. Coir rolls on the river wall support the growth of native waterside plants.
- Our gardens are peat free. Bark chippings from pruning provide mulch, and our compost comes from regionally recycled green waste. No chemical sprays are used for insect or weed control, and we are moving towards chemical-free moss control by scarifying with quiet, battery-operated mowers from the St Hilda's Garden Fund.
- Our planting is focused on perennials, allowing healthy plant communities to knit together long-term. Our Garden Fund has supported the planting of several new trees – four cherries, a magnolia, and an Indian rain tree. We are also very proud to have two endangered black poplars (male and female) in our meadow on the main college site.
- To maintain meadow plant diversity, our fritillary meadow is mowed annually only in late summer after seeds have fallen.

In addition to our sustainability initiatives in the college gardens, we purchased Radley Large Wood (22.4 hectares) in 2021. Since then, in collaboration with Nicholsons, we have been actively managing the land to promote carbon dioxide uptake and robust habitats for biodiversity. We have advertised the woodland as a place for students and staff to enjoy the natural world, and we have already begun to monitor its flora and fauna through biodiversity surveys.

[13] St Hilda's College. 2023. Our Gardens: Ecology.
[14] Bull, JW, et al. 2022. Analysis: the biodiversity footprint of the University of Oxford. Nature, 604(7906), pp. 420-424
[15] See Appendix 2: 2023 Survey Report.

8.3 Commitments

Commitments towards Target 1 (Emissions):

G&L1. Increase greenhouse gas uptake of all college lands by 10% by 2030, and 15% by 2035.

Commitments towards Target 2 (Biodiversity):

G&L2. Enhance water management on college lands year-on-year.

G&L3. Achieve 10% net biodiversity gain across all college lands by 2030, and 15% by 2035.

Commitments towards Target 3 (Culture):

G&L4. Increase engagement with the college gardens and woodland year-on-year.

See Appendix 1 (Action Plans) for our implementation plan for these commitments.

9 PRIORITY AREA: FOOD

9.1 Context

Food production is a major source of greenhouse gas emissions and negative biodiversity impacts worldwide.[16] Animal-based products such as meat and dairy, as well as commodities such as coffee and chocolate, have disproportionately high impacts. Indeed, the most sustainable red meat products generally have a higher carbon footprint than the least sustainable plant products.[17]

From a college perspective, reducing consumption of these high-impact foods is the most effective step towards reducing GHG emissions and biodiversity loss.[18] However, we acknowledge that strict top-down interventions (e.g., immediately eliminating meat) are currently unpopular among much of our college community and may result in people choosing not to eat in hall.[19] Members of the college community have suggested various behavioural interventions to reduce high-impact food consumption more gradually and voluntarily. Community members also want to see sustainable sourcing of ingredients and food waste reduction, both of which will contribute to our Targets.

If we can ensure that our dining hall food is more sustainable than the average food staff and students would eat outside college, then increasing overall usage of the dining hall will have environmental benefits and is a worthy goal for this strategy. We will aim to reduce both per capita (i.e., per dining hall user per day or similar) and overall impacts. However, we acknowledge that increasing usage may have the counterintuitive effect of increasing our dining hall's environmental impacts, even as net environmental impact is lessened.

9.2 Progress as of 2024

Based on a 2019 assessment of the environmental impact of St Hilda's food, [20] beef meals comprised 9% of all meals sold and 32% of greenhouse gas emissions, whereas vegan and vegetarian meals comprised 54% of meals and 9% of emissions. We currently prioritise sustainability in the dining hall in several ways:

- Across all our catering for students, staff and visitors, we are moving our menus in line with the seasons and providing local and British produce.
- Our popular annual Green Feast has showcased sustainably-produced food since 2008, with an emphasis on local suppliers.
- Two of the three options on our daily Dining Hall menu are vegetarian or vegan.
- We currently have 6 meat-free meals per week, including all meals every Monday.
- We assess our food suppliers for ethical and sustainable practices.

9.3 Commitments

Commitments towards Target 1 (Emissions):

F1. Reduce (per capita) annual upstream GHG emissions from food by 25% by 2030, and 50% by 2035.

Commitments towards Target 2 (Biodiversity):

F2. Reduce (per capita) annual upstream biodiversity impacts from food, including estimated land use, by 25% by 2030, and 50% by 2035.

Commitments related to food waste (Targets 1 and 2):

F3. Reduce per capita food waste by 25% by 2030, and 50% by 2035.

F4. Reduce food packaging by 25% by 2030, and 50% by 2035.

Commitments towards Target 3 (Culture):

F5. Increase per capita usage of dining hall by 25% by 2030.

F6. Reduce per capita meat consumption year-on-year.

F7. Increase awareness of the environmental impacts of food (both in general and for personal meals) by 2030, and again by 2035.

See Appendix 1 (Action Plans) for our implementation plan for these commitments.

[16] Ritchie, H et al. 2022. Environmental Impacts of Food Production. Our World in Data.
[17] Ritchie, H. 2020. Less meat is nearly always better than sustainable meat. Our World in Data.
[18] Taylor, I et al. 2023. Nature-positive goals for an organization's food consumption. Nature Food 4, pp. 96-108.
[19] See Appendices 2-3: 2023 Survey and Focus Group Reports.
[20] Gray, N. 2019. A guide to understanding and reducing the environmental impact of food at St Hilda's. St Hilda's College and Oxford Partnership for Operationalising the Conservation Hierarchy.

10 PRIORITY AREA 5: RESOURCE USE AND WASTE

10.1 Context

For the University of Oxford (not including the colleges), resource use is the top contributor to biodiversity and climate impacts, more than buildings and food combined.[21] These impacts are almost entirely indirect, meaning they occur upstream (supply chains) or downstream (waste) of university operations. Although relative impacts may differ for our College, we recognise that reducing our resource use and waste are essential to achieving our targets.

Resource use in our College includes paper, packaging, IT equipment, cleaning products, furniture, and water. Our waste includes general waste, recyclables, gardening waste (Priority Area 3), and food waste (Priority Area 4).

10.2 Progress as of 2024

We are working to increase the recycling of waste and to minimise the amount sent to landfill through the following sustainable practices:

- Refurbishing old furniture, or buying refurbished furniture rather than new
- Separate bins for recycling and landfill waste in all buildings
- Water stations and battery disposal bins in Anniversary Building
- Providing reusable water bottles and returnable cups at events and conferences
- Huge reduction in on-site printing
- Paper recycling points throughout college
- Whiteboards are offered to conference clients as an alternative to paper flip charts

In the dining hall specifically, these practices include:

- Food waste used for energy production
- Gas cookers in the process of being replaced with electric
- Reduced single use plastic
- Encouraging keep cups and reusable water bottles
- Recycle packaging where possible
- Cooking oil is recycled off site
- Limiting use of tablecloths to minimise washing

10.3 Commitments

Commitments towards Target 1 (Emissions):

R&W1. Reduce annual upstream GHG emissions from resource use by 25% by 2030, and 50% by 2035.

Commitments towards Target 2 (Biodiversity):

R&W2. Reduce annual upstream biodiversity impacts from resource use, including estimated land use, by 25% by 2030, and 50% by 2035.

Commitments related to waste (Targets 1 and 2):

R&W3. Reduce per capita mass of non-recycled waste year-on-year, aiming for 25% reduction by 2030, and 50% by 2035.

R&W4. Reduce paper waste by 75% by 2030, and 90% by 2035.

R&W5. Eliminate use of single-use plastics by 2027.

R&W6. Reduce per capita water consumption from all college buildings by 20% by 2030, and 40% by 2035.

Commitments towards Target 3 (Culture):

R&W7. Increase general awareness of college and Oxford waste management guidelines.

See Appendix 1 (Action Plans) for our implementation plan for these commitments.

[21] Bull, JW, et al. 2022. Analysis: the biodiversity footprint of the University of Oxford. Nature, 604(7906), pp. 420-424

11 PRIORITY AREA 6: TRAVEL

11.1 Context

Some forms of travel, but especially air travel, are a major source of Scope 3 greenhouse gas emissions across the UK.[22] Mitigating these emissions requires avoiding travel or using more sustainable forms of transport when possible. To reach Net Zero without eliminating fossil fuel-powered travel entirely, offsets are also required.[23]

At St Hilda's, our international travel emissions come primarily from students and staff travelling overseas for college-related research and business. Our local travel emissions come from staff and students commuting to College, UK students travelling to and from their homes, and local research and business travel (including of guests to St Hilda's conferences). We view research travel as under the remit of university departments, unless it is funded by our College.

Emissions from travel to and from Oxford (i.e., before and after vacations) will not be included in our college emissions totals, as they are already included within the central University Strategy. Nevertheless, we still aim to quantify and reduce these emissions where possible. These efforts will be essential as we look towards increasing our population of graduate and visiting students in the near future. We believe the benefits of bringing in these students outweighs the potential increase in travel emissions, which would likely have occurred elsewhere regardless. Moreover, we believe that our international students are an integral part of St Hilda's, and we should reduce, not increase, barriers to their inclusion in our community.

11.2 Progress as of 2024

On average, College members spend 3.6 hours/week in a car during term (more for staff) and 11 hours/year flying for academic purposes (more for international students). Thus, as a College, we estimate our annual emissions at 597 tonnes CO_{2e} per academic year from car travel and 1109 tonnes CO_{2e} per year from air travel. These are roughly equivalent amounts across the year.[24]

We have recently taken a two key steps towards reducing our College's emissions from travel:

- All college-owned vehicles are now electric.
- We ask that students applying for travel grant funding do not travel by air within continental Europe.

[22] UK Government, Department for Energy Security and Net Zero. 2022. Carbon footprint of travel per kilometer, 2022. Our World in Data.
[23] Axelsson K et al. 2024. Oxford Principles for Net Zero Aligned Carbon Offsetting (revised 2024). Smith School of Enterprise and the Environment, University of Oxford.
[24] See Appendix 2: 2023 Survey Report.

11.3 Commitments

Commitments towards Target 1 (Emissions):

T1. Eliminate Scope 3 emissions from college-funded air travel to nearby destinations within continental Europe by 2026 (distance threshold TBD by end of 2025).

T2. Reduce Scope 3 emissions from college-funded air travel to more distant destinations by 2030, and further by 2035 (goal percentages TBD by 2025).

T3. Reduce Scope 3 emissions from local commuting/deliveries to college by 2030, and further by 2035 (goal percentages TBD by 2025).

Commitments towards Target 3 (Culture):

T4. Reduce per capita number of hours spent flying/in a car for college purposes by 2030, and further by 2035.

We assume that most biodiversity impacts from college travel are caused by greenhouse gas emissions, and are hence included in our commitments towards Target 1.

See Appendix 1 (Action Plans) for our implementation plan for these commitments.

Lovely

12 PRIORITY AREA 7: INVESTMENTS

12.1 Context

An organisation's investments (and divestments) not only send a signal about its values but can also contribute to larger-scale shifts across the economy. From a sustainability perspective, a climate-responsible investment strategy is one which drives, rather than hinders, societal progress towards the goals of the Paris Agreement. With this test in mind, the Oxford Martin School Principles for Climate-Conscious Investment call for organisations to only invest in companies with a genuine commitment to net-zero emissions that includes quantitative interim targets.[25]

Our College has a diverse portfolio of investments, including an endowment fund managed by Sarasin and Partners. The environmental impacts of the companies in this fund do not directly factor into our own College-centric measures of greenhouse gas emissions and biodiversity. Nevertheless, as we indirectly contribute to these impacts through our investments, these companies must demonstrate progress towards our targets to earn our investment in the long term.

We recognise here that our return on investments will be important to funding other Priority Areas in this Strategy (Enabler 2). Thus, for our commitments in this section, we have sought to balance the benefits of sustainable investment with the loss of sustainability funding that would result from a stricter investment policy.

12.2 Progress as of 2024

We are committed to working and investing with businesses that operate responsibly towards the climate. In 2018, we became the first Oxford college to adopt a policy that aims to ensure firms we work with act in compliance with the 2015 Paris Agreement to limit global warming. We have pledged not to invest in fossil fuel companies, and we are lobbying our bank to reduce its lending and business with those firms.

With input from our undergraduates, our Investment Committee was instrumental in designing our Climate Active Endowment Fund. This fund, managed by Sarasin and Partners, is based on the Oxford Martin Principles which provide a framework for engagement with firms on climate policies and for disinvestment if responses are inadequate. We support actions by Sarasin to lobby companies and other groups to increase their accountability (ESG) and commitment towards the Paris Agreement goals by signing letters insisting on better behaviours and governance.

12.3 Commitments

Commitment towards Target 3 (Culture):

I1. Reduce the direct and indirect greenhouse gas emissions from our investment portfolio by 2030, and further by 2035, such that achieving Net Zero across all investments by 2050 remains a realistic goal.

I2. By 2035, invest only in businesses that are realistically committed to reducing their biodiversity impacts and ideally to achieving net biodiversity gain by 2050.

I3. Act as sustainable investments influencer locally and internationally.

Note the emissions and biodiversity impacts from external investments will not be included in college impact totals. See Appendix 1 (Action Plans) for our implementation plan for these commitments.

[25] Millar, RJ et al. 2018. Oxford Martin Principles for Climate-Conscious Investment. Oxford Martin School, University of Oxford.

13 ENABLER 1: GOVERNANCE

13.1 Context

St Hilda's College Governing Body has committed to sustainability one of the College's strategic pillars / goals. Implementation of the commitments in this Strategy requires sustainability to be integrated into all College decisions and processes. Promoting a culture of sustainability among decision-makers is critical, but not sufficient, for implementation. We believe our governance structure – including what committees and positions exist, who reports to whom, how student views are represented, etc. – is critical to operationalising our commitments and overseeing their progress.

13.2 Progress as of 2024

The College established a Sustainability Working Group in 2023, led by the Principal, Professor Dame Sarah Springman. The Working Group meets once per term and reports to the College's General Purposes Committee, which in turn reports to our Governing Body. The Working Group includes two sub-groups, one focused on buildings and energy, and the other on biodiversity. Representatives from across the College community are members of the Working Group, including the JCR and MCR Environment & Ethics representatives.

13.3 Commitments

G1. By 2025, integrate sustainability considerations into the responsibilities of all college committees and operational staff.

G2. By 2025, establish a permanent means of including sustainability matters within the College's Committee structure, tasked with providing the overview on the implementation of this strategy.

G3. By 2026, increase St Hilda's representation in and contribution to central university sustainability governance relative to 2024.

G4. By 2027, hire a (part time) staff member tasked with monitoring the implementation of this strategy, including preparing data for reporting in terms of the College's progress towards each target and commitment.

See Appendix 1 (Action Plans) for further details on our Enabler commitments.

14 ENABLER 2: FUNDING

14.1 Context

Achieving our sustainability targets will require an extraordinary financial input by our College. For example, decarbonisation of our buildings is an ongoing and highly expensive process. We currently fund such initiatives through income from students, donors, and investments. However, this funding is currently insufficient to achieve our goals.

We recognise that some sustainability-related decisions could lose the College money and must be weighed against the benefit of keeping that money for other sustainability expenditures. For example, the income from our endowment fund is critical for funding sustainability initiatives within our College. An even stricter investment policy could significantly reduce this income, leaving less money for decarbonisation. We have and will continue to involve both students and staff in discussions about these trade-offs.[26]

14.2 Progress as of 2024

We have already invested considerable funds in sustainable initiatives on-site, including the construction of more sustainable new buildings, the ongoing retrofitting of old buildings, and the active management of Radley Large Wood. Through our Climate Active Endowment Fund, we are also investing in businesses that prioritise environmental sustainability while generating income for the College. Furthermore, our Development Office is putting sustainability at the forefront of its upcoming fundraising efforts.

14.3 Commitments

F1. By 2035, raise £20M at a rate of £2M per year to cover building decarbonisation.

F2. By 2035, fund one named research fellowship to support sustainability-related research in any discipline.

F3. By 2030, establish one permanent DPhil scholarship to support sustainability related research in any discipline.

F4. Seek funding to hire a (part time) staff member tasked with monitoring the implementation of this strategy (see G4).

See Appendix 1 (Action Plans) for further details on our Enabler commitments.

[26] See Appendix 3: 2023 Focus Group Report.

15 ENABLER 3: COMMUNICATION

15.1 Context

Communication is essential for motivating and facilitating participation in our collective sustainability efforts. Raising awareness of sustainability is an important outcome of a good communication strategy, but in isolation may not be enough to promote widespread behavioural change. Thus, communication is as much about increasing engagement as it is about increasing knowledge. Furthermore, communication is not one-directional. Many of our sustainability goals require regular dialogue between students and staff.

At St Hilda's College, we communicate with students and staff through induction trainings, emails, WhatsApp, the College website, online resources (including the student handbook), and physical signage. These avenues are and will continue to be relevant for encouraging proper waste management, advertising sustainability-related guest lectures and other events, disseminating resources, and informing people of their climate and biodiversity impacts. Reporting of progress towards our targets (see Enabler 4) also requires regular communication, including dissemination and feedback.

15.2 Progress as of 2024

- **General sustainability:** We provide sustainability updates via College newsletters and a new sustainability notice board in the Lodge. Our 2023 survey and focus groups encouraged all students and staff to have a voice in this Strategy.[27]
- **Waste management:** We have updated and increased the number of recycling signs in College and included a waste management section in the student handbook.
- **Dining:** We now post information about the local origins of our food in the dining hall. Our dining hall also has a new Instagram account, which sometimes features sustainability-themed messaging.
- **Gardens:** We advertise garden tours on a weekly basis via email. We promote College biodiversity on the Hildabugs Instagram account. Student environment officers have advertised multiple student events with the gardening team, as well as walks in Radley Large Wood.

[27] See Appendices 2-3: 2023 Survey and Focus Group Reports.

15.3 Commitments

C1. Increase engagement in college sustainability-themed events and sustainable living year-on-year.

C2. Increase awareness of the college's environmental impacts, at both collective and individual levels, year-on-year.

C3. Increase awareness of college sustainability successes and initiatives year-on-year.

C4. Establish regular monitoring, coordination, and timely submission to awards and initiatives connected with the University.

C5. Promote this sustainability strategy outside the college, including to other colleges and/or the media.

See Appendix 1 (Action Plans) for further details on our Enabler 713 commitments, including 714 communication actions that are specific to other Priority Areas.

16 ENABLER 4: REPORTING

16.1 Context

Regular and transparent reporting is essential to holding any organisation accountable to its targets. This Strategy lays out commitments that are quantitative and time-bound, allowing for clear measurement of progress. As of 2024, we are still working towards a final plan to measure our progress in each Priority Area. Our metrics will take the following information into account:

- **Target 1 (Climate):** Greenhouse gas emissions for Scopes 1-3 are generally calculated in terms of tonnes CO_2 equivalents. Conversion factors for these calculations are provided by the government and updated annually.[28]

- **Target 2 (Biodiversity):** Biodiversity on the College site may be calculated through multiple metrics,[29] including DEFRA's statutory habitat-based metric.[30] To quantify the college's overall biodiversity impacts (not just on site), the most scalable approach might involve an extinction risk metric such as local relative species loss or species extinction equivalents. Oxford studies on overall biodiversity impacts[31] (including greenhouse gases) and food supply chains[32] have previously calculated these metrics by using publicly available datasets.

- **Target 3 (Culture):** Measuring cultural shifts may not be possible through a single metric. However, we could take inspiration from previous studies of environmental education,[33] which measure direct and indirect behavioural outcomes of educational interventions using multiple metrics.

More specific metrics and reporting timelines can be found in each Priority Area's action plan (Appendix 1).

16.2 Progress as of 2024

We have previously measured and reported on our Scope 1 and 2 emissions through an independent audit.[34] More recently, our 2023 sustainability survey and focus groups have laid the foundation for future measurement and reporting of more behaviour-centric metrics, including travel, dining, and use of our gardens.[35] These reports, and those of other sustainability actions, are currently delivered on a termly basis to the Sustainability WorkingGroup, which then reports to the College's General Purposes Committee.

16.3 Commitments

R1. Starting in 2025, include an overview of our phased progress towards each target and commitment in our annual report and make it publicly available.

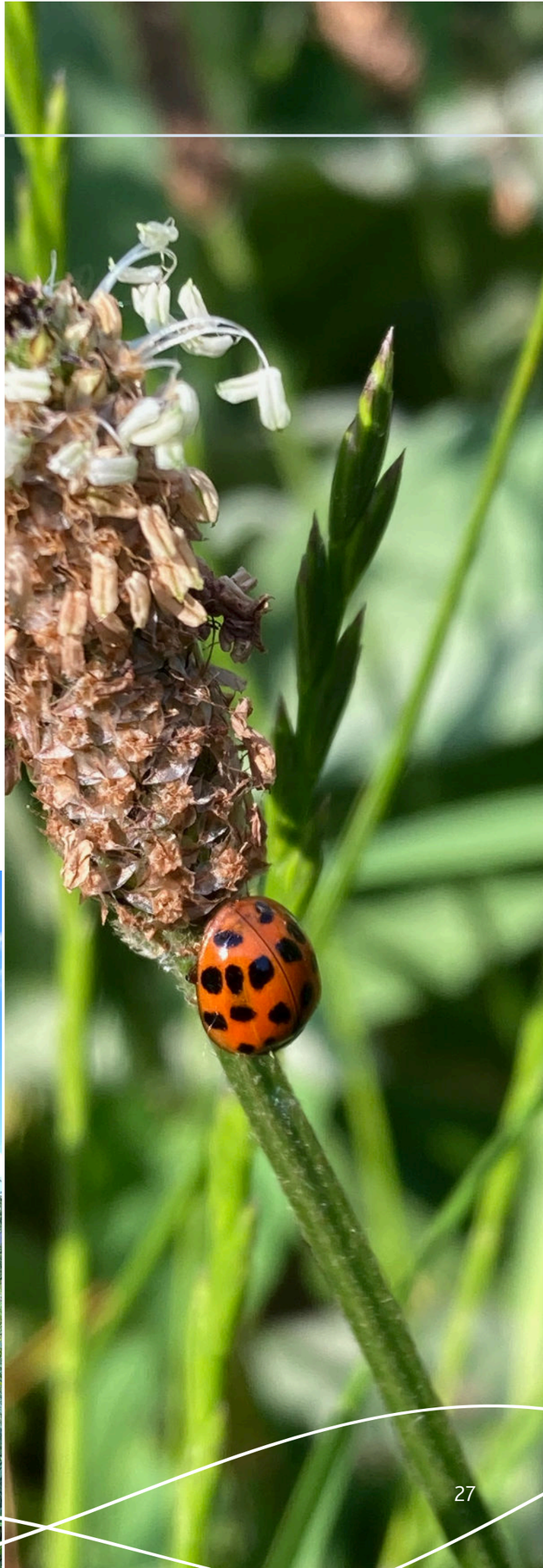
R2. Starting in 2027, conduct a full review and subsequent revision of this strategy and its action plans in 2028, in preparation for the subsequent 4 year strategic period.

R3. Building on the survey conducted in 2023, develop and distribute an annual sustainability survey to all students and staff to gather data for subsequent reporting.

R4. By end of 2025, quantify Scope 1 and 2 GHG emissions in annual reports.

R5. By 2027, quantify Scope 3 GHG emissions and biodiversity impacts in annual reports.

See Appendix 1 (Action Plans) for further details on our Enabler commitments.



[28] Department for Energy Security and Net Zero and Department for Business, Energy, & Industrial Strategy. 2024. Government conversion factors for company reporting of greenhouse gas emissions. UK Government.
[29] Bull, JW et al. 2019. Net positive outcomes for nature. Nature Ecology & Evolution 4, pp. 4-7.
[30] DEFRA. 2024. Calculate biodiversity value with the statutory biodiversity metric. UK Government.
[31] Bull, JW et al. 2022. Analysis: the biodiversity footprint of the University of Oxford. Nature, 604(7906), pp. 420-424.
[32] Taylor, I et al. 2023. Nature-positive goals for an organization's food consumption. Nature Food 4, pp. 96-108.
[33] Ardoin, NM et al. 2020. Environmental education outcomes for conservation: A systematic review.Biological Conservation 241, pp. 108224.
[34] QODA. 2022. St Hilda's College Decarbonisation Strategy, Executive Summary. QODA 2862.R02.
[35] See Appendices 2-3: 2023 Survey and Focus Group Reports.

17 ENABLER 5: OFFSETTING

17.1 Context

Oxford Martin School defines an offset as an "emissions reduction or removal resulting from an action outside an organisation's boundaries used to counterbalance the organisation's residual emissions."[36] Organisations generally look to offset their greenhouse emissions through the purchase of carbon credits that represent an emissions reduction or greenhouse gas removal elsewhere. Biodiversity credits similarly purport to offset an organisation's biodiversity impacts by restoring biodiversity elsewhere.[37]

Because of our indirect (Scope 3) impacts, we recognise that offsets are necessary for our College to achieve Net Zero emissions and Net Biodiversity Gain. However, they are also highly controversial.[38] Critics note that offsets often do not demonstrate permanence or additionality, and they do not address the root causes of environmental degradation. As a result, we believe our best course of action in the short term is to focus on minimising our environmental impacts. Meanwhile, we will continue to assess the state of the offset market, with the potential for investment closer to 2035 in line with Oxford Principles.[33] These principles emphasise that good practice offsetting should involve carbon dioxide gas removal and long-term storage, which most carbon credits available today do not.

17.2 Progress as of 2024

We do not currently purchase carbon or biodiversity offsets, but we have contributed to the conversation around their pros and cons. At our 2024 Green Feast Seminar, we welcomed Professor Myles Allen, who strongly advocated for carbon capture and storage to be scaled up using funding from the fossil fuel industry.[39] However, St Hilda's alumnus Dr Rupert Stuart- Smith has warned against an overreliance on carbon removal without sufficient short-term emissions reductions.[40]

17.3 Commitments

O1. By 2029, achieve clarity on how unavoidable college greenhouse gas emissions may be offset in an affordable manner by 2035.

O2. By 2029, achieve clarity on how unavoidable college biodiversity impacts may be offset in an affordable manner by 2035.

See Appendix 1 (Action Plans) for further details on our Enabler commitments.

[36] Axelsson, K et al. 2024. Oxford Principles for Net Zero Aligned Carbon Offsetting (revised 2024). Smith School of Enterprise and the Environment, University of Oxford.
[37] Bull, JW et al. 2013. Biodiversity offsets in theory and practice. Oryx 47(3), pp. 369-380.
[38] Oxford Martin School. 2024. Panel discussion: 'The great carbon market debate: is it over for offsetting?' YouTube.
[39] Belcher, M. 2024. The Green Feast and Seminar Pt 1. St Hilda's College.
[40] SSEE. 2023. Excessive state reliance on carbon dioxide removal is 'likely inconsistent with international law,' says Oxford research. Smith School of Enterprise and the Environment, University of Oxford.

18 LOOKING FORWARD

Examples of actions in the strategy

2025

- Increase perennial plant cover, especially along river
- Define a region beyond which college will not fund air travel
- Start a trial of food waste bins
- Quantify Scope 1 and 2 GHG emissions in annual reports
- Ensure recycling bins and bag colour are consistent across college

2027

- Install solar panels of Anniversary and Hall Building
- Install audio recorders to monitor animal activity over long term
- Quantify Scope 3 GHG emissions and biodiversity impacts in annual reports
- Change 100% of food suppliers identified as higher impact
- Replace all single-use plastic with longer lasting alternatives

2035

- Have a DPhil scholarship funded to support sustainability research in any relevant discipline
- Install solar panels on all buildings
- Install air source heat pumps

* all actions are dependent on funding availability and structural feasibility. This a non-exhaustive list

This Strategy's Action Plans (Appendix 1) contain a series of actions associated with each commitment listed above. The timeline above includes some examples of these actions. Please note that all actions are subject to review in later years, as we gather more information on funding availability and structural feasibility.

19 ACKNOWLEDGEMENTS

Firstly, we thank all the members of the St Hilda's College Sustainability Working Group and other college staff members who helped develop this strategy during the 2023-2024 academic year. Without their patience and willingness to engage, this strategy would not have been possible. St Hilda's College expresses its gratitude particularly to Jonathan Rutter (MCR President and Environmental Officer), Cato Kienhuis (JCR Environmental Officer), and Dr. Philippa Hulley (Associate Professor in Biomedical Sciences and SCR Tutorial Fellow), for developing and leading this project.

Secondly, we thank the hundreds of St Hilda's students and staff members who contributed to the strategy by participating in our survey and focus groups. Your input was both fascinating and essential to our process.

Thirdly, we thank the staff and students of other Oxford colleges who produced their own sustainability strategies before we began ours. We drew inspiration from these documents and from all the work that they described.

Finally, we thank the several people who provided invaluable advice and guidance on the development of the survey, focus groups, and final strategy document: Professor Dame E.J.Milner-Gulland, Dr Joe Bull, Dr Bennett Grooms, Tom Oliver, Angela Phan, and Charlotte Maddinson.

20 APPENDICES

20.1 Appendix 1: Action Plan

20.2 Appendix 2: 2023 Survey Report

Can be found here:

https://www.st-hildas.ox.ac.uk/asset/survey-results-report.pdf **20.3**

Appendix 3: 2023 Focus Group Report

Can be found here:

https://www.st-hildas.ox.ac.uk/asset/focus-group-results-report.pdf

20.4 Appendix 4: 2024 Public Comments Report

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