

## PEMBROKE COLLEGE BIODIVERSITY STRATEGY

The following paper includes the following:

- Recommendations in Brief
- Proposed Executive Statement
- Background Information
- Areas of Focus
- Full Recommendations, including Implementation

The three focus areas are identified as construction, planting (and the estate), and the supply chain. Recommendations are made separately for each of the three areas. Recommendations are additionally made for the communication of this strategy.

### Recommendations in Brief

- Commit to achieving Biodiversity Net Gain in construction projects in line with the University target of 20%,
- Undertake data collection to calculate the biodiversity baseline of the College's Estate,
- Commit to quantifying the biological harm caused by the supply chain,
- Commit to reducing this harm.

### Executive Statement

Pembroke is committed to preserving biodiversity directly across its physical site, and indirectly through its supply chain.

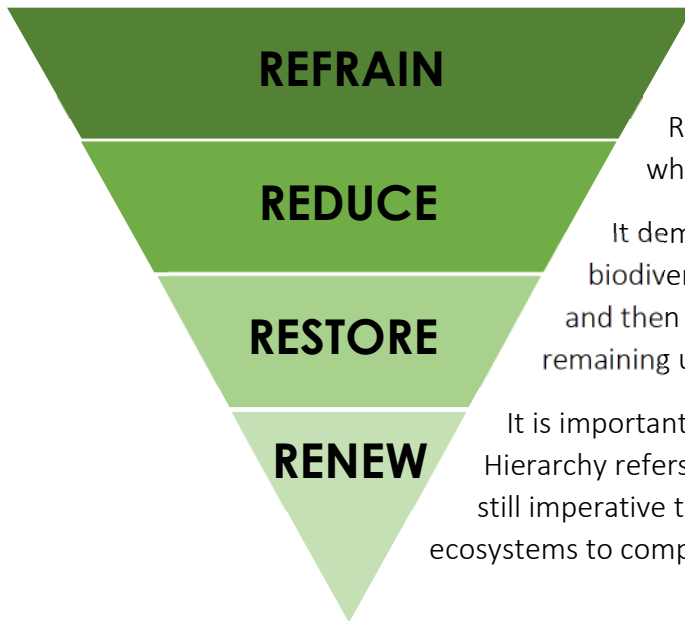
Pembroke is making commitment to biodiversity net gain in construction projects of 20%, in line with the University target.

Pembroke is committed to maintaining transparency of its impacts and actions. We are therefore committed to:

- quantifying the biodiversity effects of our supply chain as accurately as data allows,
- mitigating this effect through procurement decisions and behavioural influencing,
- increasing the systematic awareness of the biological effects of the supply chain, through supporting our students and academics

## Background Information

### The Mitigation and Conservation Hierarchy



The Mitigation and Conservation Hierarchy aligns with the Waste Hierarchy (Prevent, Reuse, Recycle, Recover, Dispose) to outline the most preferred actions when protecting biodiversity.

It demonstrates the importance of conserving the biodiversity which is remaining (through Refrain and Reduce), and then making positive changes to mitigate the impact of remaining unavoidable actions through restoration and offsetting.

It is important to note that the Mitigation and Conservation Hierarchy refers to negating the negative impact of future actions – it is still imperative to engage in restoration and renewal of habitats and ecosystems to compensate for past losses.

### University Targets<sup>1</sup>:

The University has made targets based on the Hierarchy above. They have made the following commitments:

- Measure, report and compensate for the damage to biodiversity caused by the University's operations and supply chain.
- Agree and implement a plan to enhance biodiversity on the University estate and beyond, taking the wellbeing of the University's staff and students, and wider community, into account.
- Set a target of quantifiable biodiversity net gain of 20% for all development projects on University land, achieved and measured in accordance with industry-standard best practice.
- Bring the University's biodiversity research and actions to the wider community, for example through engagement events at the University's museums and gardens, to stimulate interest in and concern for biodiversity, and to strengthen the links between biodiversity and wellbeing.

### Difficulties with quantification

Measuring biodiversity is more complex than measuring carbon equivalents (though these also have their opponents). Suitable metrics are not immediately obvious, and there are a variety of aspects (species richness, soil quality, habitat areas, etc.) which have biological value.

Whilst use of metrics is valuable and essential, the values generated should not be taken as a be-all and end-all of the true value of a site or action, and nor should a potential action be evaluated only on its ability to increase a certain metric.

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<sup>1</sup> <https://sustainability.admin.ox.ac.uk/biodiversity>

## Areas of Focus

### Construction

Construction causes both direct and indirect losses to biodiversity. Given current data availability, it is probably infeasible for the College to quantify the indirect effects of its construction projects, though it should look to do so in the future.

The direct effects of construction are easier to measure, and from November 2023, all planning permission in England will require a 10% Biodiversity Net Gain, under the Environment Act.

Achieving a significant biodiversity net gain within Pembroke's planned projects should not be unfeasible – most of the College's land would currently be classified as urban developed land with a sealed surface, and therefore attract a 0 biodiversity score. Minimising footprint increases will allow for as much habitat to be retained as possible, and then the inclusion of elements such as green roofs and native planting can provide gain.

### Planting and the Estate

Increasing the biological value of the estate provides benefits to both nature, and the Pembroke community. Recommendations, including specific planting recommendations, have been made to the College in an Ecologist's Report, attached in the supporting papers.

It is the most direct and most visible impact the College can have on the value of its land to biodiversity.

### The Supply Chain

The indirect effects of the supply chain on biodiversity throughout the globe will be significant.

The University has committed to measuring and compensating for this effect. This is not a realistic or achievable goal. The relevant data is not available within the supply chain.

The College should not commit to something it cannot achieve. However, it should commit to reducing the harm of the supply chain as far as possible, through responsible sourcing and influencing behavioural changes. It is also important for the College to reassess its ability to quantify its impacts as the market and information availability increases.

The catering department at Pembroke have already undertaken a number of sustainability-focussed initiatives, and data availability within the food supply chain is relatively advanced.

The production of foodstuffs directly affects biodiversity through the management of the land used to grow crops and house animals, and indirectly through its contribution to climate change.

A comprehensive study was undertaken by Lady Margaret Hall using 2018/19 data. It found that it was unachievable for an organisation such as an Oxford college to become nature positive in its food provision without widespread systemic change. However, it did provide an analysis of a range of actions that can be taken by organisations and their relative estimated effects on the biodiversity impacts of LMH. The report, published in *Nature Food*, can be found [here](#)<sup>2</sup>, and an assessment of individual interventions can be found in Supplementary Text 2 [here](#).

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<sup>2</sup> Taylor, I., Bull, J.W., Ashton, B. et al. 'Nature-positive goals for an organisation's food consumption'. *Nature Food*, 98-108 (2023).

## Full Recommendations

### Regarding Construction

For all large developments (over £5 million project cost, or involving an increase in building footprint):

- Include the target of 20% Biodiversity Net Gain (BNG), measured through the relevant planning metric, within the Architect's Brief of each Project,
- Require that an option including 20% BNG be included in the RIBA Stage 2 design and cost plan, such option to be:
  - taken as the default for progression to RIBA Stage 3,
  - considered on both its financial and non-financial benefits and detractors.

### Regarding Planting and the Estate

- Undertake data collection for a baseline to be generated, such baseline to be:
  - Calculated in line with the Defra (Natural England) Biodiversity Metric 4.0<sup>3</sup>,
  - Externally validated,
  - Inclusive of the following:
    - Main Site,
    - Rokos Quad,
    - The Geoffrey Arthur Buildings,
    - The Sports Ground,
    - The Boathouse,
    - 10 Littlegate Street,
    - 29 Alexandra Road,
    - 10 Hill View,
    - All commercial holdings within the ring road;
  - Exclusive of the following:
    - Property of which the College is the freeholder but not the leaseholder
- Commit to increasing the biological value of the estate, with actions including (but not limited to) those which will improve the quantified value.

### Regarding the Supply Chain

- Commit to quantifying the indirect effects of the supply chain as accurately as possible, as data availability and resourcing allow,
- Begin the above commitment with an analysis of the catering supply chain, including building the ability to collect the necessary data into the implementation of BlueRunner Solutions,
- Support, in principle, changes to the catering provision to both enforce and encourage behavioural change of those dining in College, such changes to be:
  - Prior to a full analysis of the upstream biodiversity effects of Pembroke's own catering provision, based on research at LMH, on the basis that:
    - There is significant similarity between the catering provision at Oxford colleges, and
    - The need for colleges to take actions to prevent further biodiversity loss is time critical

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<sup>3</sup> <https://publications.naturalengland.org.uk/publication/6049804846366720>



- Costed and discussed with stakeholders, for a recommendation of specific actions to be presented to this Committee in 2024
- Commit to reducing the biological harm of the supply chain

Regarding the Communication and Transparency of this Strategy

- Publish the approval of the above on the College website;
- Publish all quantified results of the above actions (with methods of calculation), including the existing and proposed values of building projects.