

# **St John's College**

## **Environmental Sustainability Plan**

The College recognises that climate change is one of the most critical issues facing society. We believe that everyone has an important part to play in tackling the impending dangers of climate change and biodiversity loss, and the College is committed to reducing its negative impacts and improving its positive impacts. We can do this by ensuring that environmental sustainability is at the centre of our day-to-day operations and activities and how we manage our buildings and holdings.

### **CONTEXT**

At the end of 2021, Governing Body approved the College's approach to environmental, social and governance (ESG) matters, which recommended development of an overarching ESG policy, an environmental sustainability plan, a framework for responsible investments and people strategy. The Sustainability Working Group was set up to take forward the development of an environmental sustainability plan. Its Terms of Reference are:

1. The Sustainability Working Group will meet at least once per term. The group will report into the Domestic and Establishment Committee.
2. The group will be responsible for the development of an environmental sustainability plan as set out in the "Approach to ESG" paper that was presented to General Purposes Committee, Finance and Estates Committee and Governing Body.
3. The environmental sustainability plan will establish a timeframe for, and actions needed to achieve net zero carbon and biodiversity gains. Once approved by Governing Body this will then be monitored through reports to Domestic and Establish Committee via the Domestic and Establishment Sub-Committee.
4. The plan will encompass College operations in the first instance, and then consider the broader commercial, agricultural and investment portfolios.

The Working Group comprises representatives from across the College community, including Fellows, staff, students and subsidiary companies, and is chaired by alumna Briony Fitzsimons, an expert on sustainability strategy and policy.

As per its Terms of Reference, the Working Group considered key areas of College operations and activities to identify where and how we can act to reduce our carbon footprint, increase biodiversity and set relevant targets. It was informed by the consultants who are supporting the development of the College Masterplan and the College's land agents. Changes to the College's equity holdings and the development of a Responsible Investment Policy were taken forward by Finance & Estates Committee and Investment sub-Committee, and the outputs of that work are included in this plan.

### ***Alignment to the Oxford University Environmental Sustainability Strategy***

As part of the collegiate University, the College is mindful of [Oxford University's environmental sustainability strategy](#). This includes targets "to achieve net zero carbon and biodiversity net gain by 2035", the University has taken 2009/10 as its carbon baseline, and

2018/19 as its biodiversity baseline. The strategy focuses on ten priorities, of which six are within the scope of St John's Environmental Sustainability Plan (carbon emissions from University buildings, biodiversity, sustainable food, sustainable resource use, international travel and local travel). We are already working with the University and other colleges on joint initiatives, such as purchasing energy and electricity from renewable sources and encouraging more sustainable travel.

## CARBON BASELINE

To chart the pathway to net zero emissions, an essential first step was to establish the College's current carbon footprint with a baseline survey (see appendix 1). Data from the 2018/19 academic year (the last year of normal operations before the pandemic) was gathered and emissions measured across:

- Scope 1 - these are the direct emissions released by the College, primarily from gas boilers used for heating buildings and fugitive emissions from refrigeration systems;
- Scope 2 – these are indirect emissions associated with purchased electricity for use in College buildings;
- Scope 3 – these are all other indirect emissions from College activities, including travel, procurement, waste, and equity and property investments.

Total emissions from College operations were 29,387 tonnes, of which 4% were scope 1 and scope 2 emissions respectively and 96% scope 3. This was a first assessment and it is expected that the baseline will be recalculated in subsequent years, as reporting methodologies evolve, to ensure accurate comparison.

As the assessment did not include the carbon footprint of the College's property portfolio the land agents Savills were commissioned to undertake a carbon baseline of the residential, commercial and rural portfolio using 2020/21 data; this established emissions of 12,749 tonnes.

This table combines the data from both baseline assessments:

| College Operations                   | Scope 1 | Scope 2                       | Scope 3                  | Total  |
|--------------------------------------|---------|-------------------------------|--------------------------|--------|
| Gas combustion                       | 1,220   | Electricity 1,076             | Investments 23,011       |        |
| Vehicle fuel                         | 16      |                               | Goods and Services 2,409 |        |
| Refrigeration emissions              | 6       |                               | Capital Goods 730        |        |
|                                      |         |                               | Commute 516              |        |
|                                      |         |                               | Other 403                |        |
|                                      | 1,242   | 1,076                         | 27,069                   | 29,387 |
| Commercial and Residential Portfolio |         | Scope 3                       |                          |        |
|                                      |         | Built environment Commercial  | 1,874                    |        |
|                                      |         | Built environment Residential | 882                      |        |
|                                      |         | Rural environment - Farmland  | 10,373                   |        |
|                                      |         | Rural environment - Woodland  | (380)                    |        |
|                                      |         |                               | 12,749                   |        |
| TOTAL COLLEGE IMPACT                 | 1,242   | 1,076                         | 39,818                   | 42,136 |

Note: Figures are tonnes of CO<sub>2</sub> equivalent

## NET ZERO ACTION PLAN

The College has not yet set a net zero target as data collection is still ongoing. This environmental sustainability plan is intended to be a living document that will be amended as more data becomes available, which will allow us to set meaningful and realistic targets on our pathway to net zero.

To be in line with a 1.5°C reduction pathway as defined by the Paris Agreement, the College will need to reduce its scope 1 and scope 2 emissions by more than 46% by the academic year 2029/30 compared to an 2018/19 baseline, in line with the absolute reduction pathway outlined by the Science-Based Targets initiative (SBTi). Under the SBTi initiative's guidance with respect to net-zero, a 27.5% reduction would be required for scope 3 over the same time period.

From the data of the baseline assessment and initiatives already underway in other College areas, the Working Group recommends to focus on ten areas to reduce emissions with the aim of achieving net zero as soon as possible, but by 2040 at the latest, and contribute thought leadership. Some of these are under direct College control, whereas others will require increased engagement and cooperation with suppliers, advisers and tenants.

### Operational Impacts & Upstream Value Chain

1. Reduce our carbon emissions from College buildings
2. Reduce the amount of waste we generate and maximise recycling
3. Reduce emissions related to travel
4. Increase the use of sustainable food in College
5. Increase sustainable resource use in procuring goods and services
6. Increase overall biodiversity on the College site

### Downstream Value Chain

7. Develop and implement a [responsible investment policy](#) for College equity holdings – was taken forward by Finance & Estates Committee and now agreed by Governing Body
8. Develop and implement a comprehensive ESG approach for College developments – taken forward through the Oxford North development
9. Support College tenants in their operations to reduce carbon footprint and increase biodiversity – taken forward with the support of the College's land agents

### Sustainability Purpose

10. Increase research and engagement on environmental, net zero and biodiversity gain initiatives

This plan fleshes out in more detail the actions the College will undertake to make progress on these areas to achieve its net zero target. The plan and targets will evolve as we are gathering more data, especially from the Masterplan and from our property managers.

Progress will be monitored by Governing Body.

## OPERATIONAL IMPACTS & UPSTREAM VALUE CHAIN

### 1. Reduce our carbon emissions from College buildings

#### **Target**

***Reduce scope 1 and 2 carbon emissions associated with College buildings on the central site owned and operated by the College by 80% by 2035 against a 2022 baseline, subject to a detailed programme and recommendations from the Masterplan.***

The target will be achieved through the implementation of fabric improvements and greater use of self-generated renewable energy. Interim targets will be further defined and quantified based on the Masterplan outputs but are expected to include improvements to insulation and switching to LED lighting in the least energy efficient Quads by the end of 2025.

#### **Target lead: Works Bursar**

Adapting historic and listed buildings to make them more energy efficient has its challenges. Such works will also need to be considerate of the wellbeing of staff and students living and working on the site. The College has a proud record of sustainable construction of its more recent buildings. Kendrew Quad, completed in 2010, includes solar panels, geothermal heat pumps and a biomass boiler. The new Library and Study Centre, opened in 2019, is carbon-neutral as it incorporates passive environmental control measures to reduce energy consumption, and is heated by ground-source heat pumps that were installed on the Great Lawn and photovoltaic roof panels.

The Masterplan includes a thorough assessment of College buildings, facilities and use of spaces to ensure they meet current and future needs. By early 2023, we expect to have the findings from detailed fabric studies and a performance assessment of electricity and gas usage of College buildings and off-site accommodation. This will help us to prioritise opportunities for reduction in energy usage and develop a phased roadmap to achieve net zero carbon.

The longer-term plan is to move towards more self-generated energy, phasing out gas boilers and installing solar PV panels on suitable roofs. We are undertaking a feasibility study on creating a single energy centre on the College site with air source heat pumps.

### 2. Reduce the amount of waste we generate and maximise recycling

#### **Target**

***Reduce waste that goes to landfill by 10% during 2022/23 and increase recycling, especially of food waste. This will be achieved by providing food waste collections in student areas.***

***Reduce food waste by 5%. This will be achieved by improving kitchen preparation techniques, better portion control, offering guidance to students on meal preparation with***

***less waste, and establishing links with local homeless charities to provide them with genuine excess food.***

***Reduce mixed recycling by 5%. This will be achieved by working with our suppliers to reduce packaging and by swapping glass water bottles for filtered water taps.***

***Target lead: Domestic Bursar***

Between September 2021 and August 2022, the College's total waste by weight was 127,330 kg. This was split into general waste (landfill) 55,731 kg, mixed recycling 31,722 kg and food 39,877 kg.

We are encouraging recycling and have placed bins for recyclables and general waste in many College areas. All recyclable plastic, glass and cardboard is collected in separate wheelie bins. Waste oil is collected by each kitchen and recycled, and we are looking into options to make it easier for staff and students to separate food waste. A waste compactor was installed in 2017, which compacts the waste in wheelie bins, thus reducing the number of waste collections.

We have already phased out plastic bottles in all catering areas. Staff and students receive a free reusable water bottle and Keep Cup for hot drinks, and water fountains have been installed in all main College areas. Prior to this, 1,000 plastic bottles of water were purchased per week on average. Sparkling and filtered water for events is produced onsite and provided in reusable glass bottles.

### **3. Reduce emissions related to travel**

***Target***

***Increase sustainable commuting to work by offering cycle-to-work and electric vehicle salary sacrifice schemes in the first half of 2023.***

***Target lead: Bursary Manager***

We encourage staff to use public transport, walk or cycle to work. The College already offers a discounted bus pass scheme and interest free loans to purchase a rail season ticket or a bicycle. We will transition to electric vehicles for our works, Bagley Wood and garden operations when replacements are due. A salary sacrifice bicycle scheme was implemented in December 2022, and we are looking to introducing an electric vehicle scheme soon to encourage more staff to make the switch to more sustainable travel. The installation of electric charging points at the College and suitable outlying buildings will support the transition to cleaner transport.

As part of a global University, the College attracts students from around the world. For many there is no alternative but taking a flight at the beginning and end of each term or academic year. Our academics travel to attend international conferences and to conduct their research. However, we would like to address emissions from aviation and work with

the University on the implementation of a travel policy that incorporates a travel hierarchy for domestic and international travel for staff and students as follows:

- Avoid travel;
- Reduce travel demand to and from the College;
- Travel without flying;
- Fly when there are no alternatives.

We will keep under review schemes to offset aviation emissions resulting from necessary travel on College business and students flights.

#### 4. Increase the use of sustainable food

##### **Target**

***Achieve Fairtrade accreditation and Kale Yeah accreditation in the first half of 2023.***

##### **Target lead: Domestic Bursar**

We are increasingly using seasonal products, often sourced from local suppliers, in particular fruit, vegetables, dairy products, fresh meat, fish and sandwiches, thus reducing the number of food miles. The College has a Fair Trade policy and is seeking Fairtrade accreditation. The kitchens have greatly increased the choice of vegetarian and vegan meals, which are now available at every meal. We recently applied for Kale Yeah accreditation, which will offer increased plant based menus, and food labelling according to sustainability.

In terms of food procurement, the College has joined the collegiate procurement group, allowing better tracking of the supply chain.

#### 5. Increase sustainable resource use in procuring goods and services

##### **Target**

***Identify the top 50% suppliers (by spend) of non-food items and actively engage with them to align our sustainability targets. Work with other colleges and the University to identify shared procurement routes that have more advanced sustainability plans. More targeted plans will be developed during 2023.***

##### **Target lead: Domestic Bursar**

Everything the College purchases has an associated carbon cost. These represent a large portion of our footprint (around 3,100 tCO<sub>2</sub> as per our baseline assessment) but are often out of our direct control. Reducing the environmental impact of our consumption and procurement can be achieved by increased recycling, engagement with and scrutinising of our supply chain and sharing best practices within the collegiate University.

We are already sourcing our cleaning products from a supplier using sustainable products and renewable packaging that do not derive from fossil fuels. We use a local laundry supplier for our uniforms, thus reducing the number of miles travelled by collection and deliver vehicles.

#### 6. Increase overall biodiversity on the College site

##### **Target**

***College gardens: Use outputs from the baseline assessment to develop strategies and actions for a more wildlife friendly garden during 2023.***

***Bagley Wood: to be confirmed***

***Target leads: Domestic Bursar, Works Bursar, Keeper of Bagley Wood, Keeper of the Groves***

The large College gardens provide a peaceful space in the City centre. In addition, the College owns Bagley Wood in Kennington on the outskirts of Oxford. We have engaged Future Nature WTC, the trading subsidiary of the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust, to advise us on opportunities to enhance biodiversity in the College gardens. As a first step, a baseline assessment of present habitats will be undertaken to inform best options for a more wildlife friendly garden. The results from the survey will be available by the end of 2022, following which a strategy and actions will be developed in the first half of 2023.

In conjunction with our forestry consultant, the College is undertaking a strategy review of Bagley Wood to develop a long-term management plan. The plan will consider opportunities for biodiversity gains, diversification to make the wood more resilient to the effects of climate change and pest damage and a long-term review of carbon storage and sequestration.

#### **DOWNSTREAM VALUE CHAIN**

#### 7. Develop and implement a responsible investment policy for College equity holdings

##### **Target**

***Ensure equity holdings are compatible with the College's Responsible Investment Policy.***

***Target lead: Principal Bursar via Investment sub-Committee and Finance and Estates Committee***

The College has a large portfolio of equity investments and relies on investment returns to fund its operating and academic activities. According to the baseline survey, equity investments accounted for 23,000 tCO<sub>2</sub> out of 27,000 tCO<sub>2</sub>, which is about 80% of overall emissions.

In 2020, the College evaluated its approach to ethical investments and established a framework for considering investment in certain asset classes. The [report](#) is available on the College website. As a result, Governing Body decided to divest from tobacco and to limit investment in arms companies. It further commended the Oxford Martin Principles for climate-conscious investment as a framework to consider engagement.

The equity portfolio was restructured during 2022 to focus on a few select funds with strong ESG credentials that invest in sustainably-run companies and offer superior growth and stable long-term returns. As part of this restructuring, fossil fuel investments were removed from all equity holdings, reducing emissions by about 18,000 tonnes, about 67% of all scope 3 emissions.

A [Responsible Investment Policy](#) has been agreed by Governing Body, setting out the College's approach to responsible investments, engagement and monitoring of equity holdings. The College has joined the [Responsible Investment Network – Universities \(RINU\)](#), which is run by Share Action. This forum will enable the College to achieve greater impact than it would from acting alone and offers additional means of monitoring and engaging with institutions with similar aims. As part of the policy, the College is committed to an annual screening of its equity holdings to determine if adjustments are needed to certain asset classes. The policy also requires all managers holding over 5% of total invested value to provide an annual report on their ESG activities and engagement.

#### 8. Develop and implement a comprehensive ESG approach for College developments

##### **Target**

***Ensure that environmental sustainability principles are a key part of each development and contractual commitments are fulfilled by developers.***

##### **Target lead: Principal Bursar via Oxford North Committee and TWO Board**

The College owns a number of development holdings. Oxford North is the most advanced with planning consent in place and development partners appointed. However, there are a number of other developments likely to come forward in the coming years. It is recognised that developments will have an impact on the College's carbon footprint as part of scope 3 emissions.

A comprehensive ESG strategy is currently being developed for Oxford North in cooperation with its joint venture partners. Sustainable living and working at the site as well as environmental-friendly connectivity to other areas of Oxford are at the heart of the strategy. There will be significant investment in improving walking, cycling and bus services to and from Oxford North. The strategy and metrics will be agreed in early 2023.

#### 9. Support College tenants in their operations to reduce carbon footprint and increase biodiversity



## **Target**

***Obtain EPC ratings for all residential and commercial buildings. Upgrade buildings that do not meet current regulations and are not exempt. Closer engagement with tenant farmers on carbon reduction strategies. Enhance biodiversity net gain or carbon sequestration.***

### **Target lead: Principal Bursar with Savills land agents**

A baseline survey was commissioned in the first half of 2022 to assess operational emissions from the College's residential, commercial and rural Savills portfolio (see appendix 2). The next steps will be to develop a long-term strategy to develop sustainability and decarbonisation strategies across the portfolio.

For the built environment, this will include a focus on those buildings with the lowest EPC score, in particular improving and upgrading existing fabric. Specific targets to be delivered by end of April 2023 are:

- Input all property EPC data into the Property Management system, including new or refreshed data since the initial benchmarking and estimated carbon from each property in line with the current EPC rating
- Rank the residential and commercial properties in terms of carbon produced as a ratio of rent
- Carry out around 10 detailed cost/benefit analyses of decarbonising and EPC compliance by specific property types
- Investigate methods to reduce carbon, e.g. green tariff electric, roof mounted solar
- Review standard tenancy agreements to incorporate deliverable environmental covenants to assist ESG

For the rural portfolio, more detailed studies will be undertaken with three selected farm that will help us develop a carbon reduction strategy by farm type (dairy and arable). The studies will consider the current carbon output of the farms and potential solutions, as well as establishing landlord and tenant responsibilities. We expect outputs from these deep-dive studies in the first half of 2023 and will work closely with our tenant farmer to support them in their carbon reduction activities. In addition, we will support measures to encourage uptake of stewardship programmes, currently 32% of holdings are operating under such a programme.

In terms of biodiversity net gain, a pilot study will be undertaken with a local Wildlife Trust on a parcel of College land to assess options to enhance biodiversity.

EPCs currently only look at the built property but do not consider the green space with a property, such as gardens. These spaces provide opportunities for biodiversity net gain or enhanced carbon sequestration that we will consider as part of our strategy, for example: planting hedges rather than boarded fenced, putting up bird boxes in gardens, placing solar panels on fields and non-listed houses.

## **SUSTAINABILITY PURPOSE**

### **10. Increase research and engagement on environmental, net zero and biodiversity initiatives**

Enabling excellence in academic research and developing strategies to support innovation and knowledge transfer are two core pillars of the College's strategy. The College appointed its first Net Zero Fellow in 2021 who is a Research Fellow on Inclusive Net Zero and for the Oxford Net Zero Initiative. College funding has been granted for an interdisciplinary research project to identify policy bottlenecks and knowledge-gaps that are delaying the transition to net zero emissions. The project will bring together social and physical Oxford scientists with key decision-makers in the public and private sector as well as civil society to better understand those principles and arguments that are efficacious in bringing about the necessary change in societal and governmental behaviour to avert catastrophic climate change.

January 2023

Appendix 1: Aklimat Baseline Assessment

Appendix 2: Savills Baseline Assessment

# Carbon Report

**St John's College**  
Oxford



This document details St John's College's carbon footprint, reduction commitments & actions, in accordance with science-based targets requirements

Published **February 2022**

## Footprint

|                                      |                          |               |
|--------------------------------------|--------------------------|---------------|
| <b>Company</b>                       | <b>St John's College</b> |               |
| <b>Scope 1</b> (t CO <sub>2</sub> e) |                          | <b>1,242</b>  |
| <b>Scope 2</b> (t CO <sub>2</sub> e) | Location-based           | <b>722</b>    |
|                                      | Market-based             | <b>1,076</b>  |
| <b>Scope 3</b> (t CO <sub>2</sub> e) |                          | <b>27,069</b> |
| <b>Intensity</b> (kg / student)      |                          | <b>2.0</b>    |
| <b>Year</b>                          |                          | <b>2019</b>   |
| <b>Standard</b>                      | <b>GHG Protocol</b>      |               |
| <b>Relevant exclusions</b>           | <b>None</b>              |               |

## Commitments

| Category    | Target                                | Baseline, 2019 (t CO <sub>2</sub> e) | Progress         |
|-------------|---------------------------------------|--------------------------------------|------------------|
| Scope 1 & 2 | Reduce absolute emissions 46% by 2030 | 2,318                                | N/A (first year) |
| Scope 3     | Measure and reduce Scope 3 emissions  | 27,069                               | N/A (first year) |

## Actions

### Completed in 2021

- Completed baseline inventory
- Switch facilities to 100% renewable electricity

### Planned for 2022

- Investment Portfolio Review
- Masterplan Review: efficiency and energy usage savings across the Estate

# Executive Summary



Savills has been commissioned by St Johns College, Oxford to quantify and compare the operational emissions from the College's endowment portfolio, including its residential, commercial and rural assets, as well as to provide a summary natural capital assessment of the rural element. This exercise has estimated emissions for the portfolio to create a baseline year, which the College can use to develop and assess its sustainability and decarbonisation strategies. We have set out some areas where further investigation may be required.

The College's real asset portfolio in scope for this assessment includes:

Built Environment – **46** commercial and **187** residential properties

Rural Environment – **2,524 ha** of farmland and **255 ha** of Woodland.

College Operation – we have referred to the study carried out by Akclimate – See Appendix 1.

Each element was assessed using an appropriate but consistent methodology for the asset type.

The table on the right provides the results of the St Johns College, Oxford carbon baseline analysis.

| Total GHG Emissions                               | Total CO <sub>2</sub> Emissions Per Annum | Built Environment                     |                                       | Rural Environment              |                                 | College Operations*                 |
|---|---|---------------------------------------|---------------------------------------|--------------------------------|---------------------------------|-------------------------------------|
|   |   | Commercial                            | Residential                           | Farmland                       | Woodland                        |                                     |
| Scope 1 Emissions                                 | 1,242 tCO <sub>2</sub>                    | 0                                     | 0                                     | 0                              | 0                               | 1,242 tCO <sub>2</sub>              |
| Scope 2 Emissions                                 | 1,798 tCO <sub>2</sub>                    | 0                                     | 0                                     | 0                              | 0                               | 1,076 tCO <sub>2</sub> Market Based |
|   |   |                                       |                                       |                                |                                 | 722 tCO <sub>2</sub> Location Based |
| Scope 3 Emissions                                 | 41,135 tCO <sub>2</sub>                   | 1,874 tCO <sub>2</sub>                | 882 tCO <sub>2</sub>                  | 11,296 tCO <sub>2</sub>        | 14tCO <sub>2</sub>              | 27,069 tCO <sub>2</sub>             |
| Offset/Sequestered per annum                      | -1317 tCO <sub>2</sub>                    | 0                                     | 0                                     | -923 tCO <sub>2</sub>          | -394 tCO <sub>2</sub>           | 0                                   |
| Total emissions per annum                         | <b>42,858 tCO<sub>2</sub></b>             | 1,874 tCO <sub>2</sub>                | 882 tCO <sub>2</sub>                  | 10,373 tCO <sub>2</sub>        | -380 tCO <sub>2</sub>           | 30,109 tCO <sub>2</sub>             |
| GHG intensity ratio for built assets – floor area | 0.08 tCO <sub>2</sub> /m <sup>2</sup>     | 0.12 tCO <sub>2</sub> /m <sup>2</sup> | 0.05 tCO <sub>2</sub> /m <sup>2</sup> |                                |                                 |                                     |
| GHG intensity ratio for rural land – land area    |   |                                       |                                       | 4.11 tCO <sub>2</sub> /hectare | -1.49 tCO <sub>2</sub> /hectare |                                     |
| Intensity per student                             |   |                                       |                                       |                                |                                 | 2 KG                                |

\*The operational carbon calculations were carried out by Akclimate in 2022 based on the 2019 operational figures.