

**DULWICH COLLEGE**  
FOUNDED 1619

# Environmental Impact Report

2023



## Executive statement

*I am honoured to present to you our third Environmental Impact report and pleased we are building upon the sure but cautious foundations of previous years as we look to build a sustainable school environment. Having seen something of the reality of the effects of climate change in Antarctica last Winter, but also having witnessed some heartening evidence of climate repair, this subject is closer than ever to my strategic thinking for Dulwich College.*

*A concern to be acting sustainability lies at the heart of our decision making and is reflected in many activities at the College. We are keen to encourage the involvement from our whole community – pupils, alumni, staff, parents, governors, contractors and school partners – in all of our sustainable enterprises. To see our Senior Prefects acting as role models on Green issues for our pupils at DUCKS gives me particular pleasure and I believe this report provides evidence that we can be very proud of our collective response to the challenge of climate change and the need to promote biodiversity.*

*We were delighted to have been commended in the School House Green Champion Awards for 2022 – read here about our honourable mention and about Sustainability at Dulwich. My grateful thanks to all those who were involved in collating materials for our submission for this award.*

*However, we acknowledge how much there is yet to be done to make a significant difference in our environmental impact and that we will need to work with trusted and demanding partners. An excellent introduction to Dr Elizabeth Rushton of the School of Education, Communication and Society at Kings College London (and of the BERA Research Commission 2021-2022 on Education for Environmental Sustainability) has resulted in our referencing Dr Rushton's document 'A Manifesto for Education for Environmental Sustainability' in drawing up the Sustainability curriculum, from DUCKS to the Upper School. Our Head of Sustainability and Procurement is working with other field experts in planning our long-term strategy towards Net Zero, which I will look to share with you in our 2024 Environmental Impact report. Our short, medium and long-term aims and objectives will take the College towards 2050 with a challenging run of carbon reducing initiatives.*

*I hope you enjoy reading this report, and that it spurs us all on to move forward together on the sustainability agenda.*

**Dr Joseph Spence**  
The Master





# About Us

Dulwich College is an academically selective independent boys' school in south London. With 1,800 pupils and over 500 staff, we are a vibrant community which comprises DUCKS, our co-educational Kindergarten and Infants' School, our Junior School for boys from seven to 11 years, and our Senior School made up of the Lower, Middle, and Upper Schools.

## The College has four principal aims:

- We aim to offer an education which inculcates a lifelong aptitude for learning: we look to balance traditional and innovative approaches to learning.
- We aim to be an outstanding school of access: we are at our strongest when we are socially diverse and working in partnership with others.
- We aim to ensure that our pupils develop talents that enable them to make a positive difference: we hope to ingrain in all our pupils a sense of service.
- We aim to be a sustainable school: our duty is the stewardship of the school for current and future generations of pupils and alumni, balancing environmental care, social well-being and growth.

We are an environmentally and socially conscious school and we recognise that our school activities, obligations and operations impact upon people and the environment. We are ambitious in embedding sustainability across our operations and through our Academic studies, both in and beyond the classroom.

We are committed to operating the school responsibly, in line with our values, and in compliance with all legal requirements. Our commitment extends not only to the environment, but to our colleagues, students, and the communities in which we operate. This is our third year of reporting on Environmental impact. In 2019 the College Governors formally adopted a Sustainability Action Plan, with detailed targets across all sectors and stakeholders for education, behavioral change, and progressive reductions in emissions. Similarly, this year's report will feed into our Sustainability Action Plan.





### Aim to reduce energy consumption thus reduce emissions and cost

Utility	Last year	This year	Variance
Gas	7,545,273 kWh	6,988,462 kWh	-7%
Electricity	2,168,713 kWh	2,405,880 kWh	+11%

For this reporting period we have seen an overall decrease in power usage across the campus of 3.2% versus the same period last year. Due to the high temperatures last Summer 22, increasing air Conditioning on campus led to an increase in Electricity.

#### Short term goals:

- Using installed tools [BMS and eSight] to identify areas of saving
- Prioritising ESOS 3 report actions
- Completing solar panel review
- We have three solar PV installations on the campus, two of which were installed by a local scheme, SE24 Sustainable Energy. The third, on The Laboratory, was installed as part of our new build. In the reporting period, they generated approximately 106,147 kilowatt hours (kWh) of electricity, an increase of 32% on the previous year.

Building	Last year	This year	Variance
Sports Centre	34,000 kWh	47,960kWh	+41%
Lord George	32,200 kWh	45,129kWh	+40%
The Laboratory	14,000 kWh	13,058kWh	-7%
<b>Total</b>	<b>80,200 kWh</b>	<b>106,147kwh</b>	<b>+32%</b>

Streamlined Energy & Carbon Reporting (SECR) compliance details are added to the Colleges' management accounts on an annual basis. The College is committed to robust, practicable and enduring measures to meet the challenge of climate change.

### Energy saving case study

The College engaged consultancy to review lighting across the main campus and Sports Centre. In order to complete the change across Campus to LED lighting, over 2500 fittings were identified and a proposal and timeline was agreed. Working during School holidays and nights, over 85% of these lights have been changed to LED energy saving light fittings. This will save the College 69% less energy powering these fixtures annually.

The new fittings come with a 7 year [50000 hour] warranty and are maintained under the installation costs. We are near completion of this project and look forward to seeing the savings in energy in these areas.



### Aim to minimise water use across campus, thus reduce emissions and cost

	Last year	This year	Variance
Water	25,980 m <sup>3</sup>	29,032 m <sup>3</sup>	+11.7%

The College has installed automated meter reading on 75% of the meters, this has improved up-to date invoicing and provides greater visibility of our water usage across campus.

With the extremely hot weather and the campus having to maintain the quality and safety of our grass pitches, our water usage increased compared to 2020/21.

The added drinking fountains on campus enabled our students to bring in their water bottles and keep hydrated through the peak of the hot weather.

Understanding our water consumption and implementing a strategy and plan for improving efficiency is a priority for 22-23.

We are conscious of the importance of conserving water through efficient grounds maintenance. To maintain playing fields in suitable and safe condition for sports, irrigation is required in dry months. Regular limited watering, usually during the cool part of the day, is the most efficient and sustainable process: by keeping the clay soil moist, water soaks into the ground and returns to the aquifer rather than running off wastefully from hard ground.

#### Short term goals

- Completing installing AMR on all meters
- Auditing therefore identifying all meter feed locations
- Harvesting rainwater





### Aim to dispose of all college waste responsibly and cost effectively

Waste treatment	Last year		This year		Variance
	tonne	%	tonne	%	
Waste to energy	200	71%	164	61%	-18%
Recycling	74	26%	105	39%	+41%
Landfill	7	2%	0	0%	-100%
<b>Total</b>	<b>281</b>	<b>100%</b>	<b>269</b>	<b>100%</b>	<b>-4.2%</b>

A successful waste management strategy provides economic and environmental benefits by diverting waste from landfill. Waste diverted from landfill can be used to generate renewable energy as well as Grade-A recyclables, resulting in a reduced level of potent Greenhouse Gas (GHG) emissions such as Methane and Carbon Dioxide.

We minimise waste and pollution using the waste hierarchy: Prevent, Reduce, Reuse, Recycle, Recover, Dispose. Our understanding of our waste production and treatment is improving and we continue to implement waste reduction measures.

This year we produced 4% less waste than last year. We did not send any of our waste to landfill. The proportion of waste that was recycled this year has increased by 15%, the inclusion of recycled waste at our senior boarding houses has contributed to this uplift. Our waste converted to energy through incineration decreased.

The College is receiving accurate data on waste via reporting by Sustainable Advantage, to help us track how much waste we are producing. We have set a realistic goal this year of 42% recycled whilst maintaining our total average weight output of 270-280 tonnes overall.

Food waste remains a focus with the whole community. The students have learnt that every week, on average the College recycles one tonne of food. This comes from both preparation and plate scrapings. During Eco Week, students were awarded a sticker if their plate was returned to the server empty. A review is taking place on portion sizes as the boys are served by the Catering Assistants, pupils may ask for small portion, this could result in savings without any cost.

### Short term goals

- Capturing total waste data accurately
- Recycling where possible increasing total %
- Engaging local Council in waste strategy



"There is no Planet B"  
by DC and JAGS Year 7



## Aim to lower CO<sub>2</sub> emissions relating to the activities of the college

Staff transport	Last year	This year	Variance
Car	32%	31%	-1%
Electric car	5%	4%	-1%
Cycle/Scoot	24%	25%	+1%
Walk	23%	22%	-1%
Public transport	14%	16%	+2%
Other	3%	3%	0%

In July 2022, we implemented a full survey to track how staff travel to work.

- 66% of staff use environmentally friendly methods of transport, including walking, cycling, public transport, and electric car.
- 34% use less sustainable methods of transport (including private cars, car share, and coaches).

We requested postcode data within the survey. We are able to use this anonymised data to calculate average mileage versus method of transport. This data was used to assist with the calculation of the full Carbon Balance Sheet.

### Short term goals

- Reviewing travel on trips and expeditions
- Encouraging commuting by public transport, cycling and walking
- Maximising use of EV chargers

Student transport	Last year	This year	Variance
Coach service	28%	25%	-3%
Cycle/Scoot	21%	14%	-7%
Walk	14%	17%	+3%
Public transport	22%	25%	+3%
Car	12%	13%	+1%
Other	3%	6%	+3%

The College has Gold star accreditation with TFL.

This year's student travel survey results indicated that 25% of pupils use the Foundation Schools Coach Service. This service operates 29 routes to schools in Dulwich.

35% of surveyed students live within the four closest SE Postcodes, which is reflected in our results by the 17% of students that walk to school and 14% that cycle on a daily basis.

With such excellent rail links to both the borough of Bromley and into Victoria mainline station, 15% of our pupils travel by British rail. 10% of the students travel into Dulwich using public bus services, whilst only 13% of parents drive and drop off their children to school.



2022 saw the launch of 'Dulwich College Homerun' app. Parents sign up to access a comprehensive database of travel references that enables collaboration on journey sharing, walking buses and safer travel together on public transport.

*"Our mission at HomeRun is to reduce the negative impacts of the school run on local communities and the environment. We do that by helping parents and employees plan easier, greener journeys to school. We also facilitate robust measurement of the school run, to help realise and maintain sustainability improvements."*

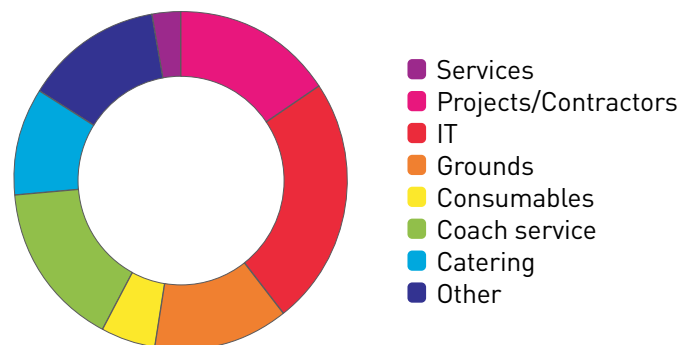
*"It's a complex area with lots of stakeholders, but the school run has a huge impact on our communities and our children. We believe that by using technology there is a real opportunity for change."*

**Pooya Kamvari**  
CEO, HomeRun App





## Aim to achieve accuracy on CO<sub>2</sub> emissions from (Scope 3, Category 1)



While most of Dulwich College's respondents have modest ESG performance, some have strong environmental awareness and oversight. We have reviewed all the suppliers' initiatives and achievements in this area. There are several parts where further improvements can be addressed, including waste management, transportation, and workplace wellbeing.

We plan to explore the survey results with each individual supplier in the normal course of business, to learn more of what they have done and how they can build further initiatives which will support Dulwich College's own ESG performance. Several of our suppliers have quite comprehensive environmental initiatives under way. Some of these initiatives are innovative and may offer useful lessons to Dulwich College. They may also be willing to share their experience with other suppliers, provided it does not impinge on any competitive advantages they enjoy as a result of these initiatives..

However, the majority of our suppliers, particularly those which are small to medium organisations, are not focusing on ESG issues. This offers an excellent leadership opportunity for Dulwich College to engage with suppliers and take them on a similar journey. By doing

so, Dulwich can encourage suppliers to use comparable approaches, ones that match and support our own efforts. This, in turn, will strengthen Dulwich College's own Net Zero plans.

### ESG Oversight activities

Only one in six suppliers is already producing an annual ESG report, and a further one-third have plans to do so in the next 18 months. It was encouraging to see that nearly half were also vetting their own supply chain, as this indicates an awareness of the importance of emissions in the supply chain and perhaps a willingness to investigate Scope 3 emissions for Dulwich College.

### Carbon Footprint

Over a quarter currently calculate their carbon footprint and offset their carbon. These companies should be able to provide this information to use in our own Net Zero report. Half of the remainder have plans to do so in the next 18 months, and there may be value in supporting them to introduce this reporting. Just 1 in 6 suppliers are setting their Net Zero plans and over 40% have no plans to do so.

### Transportation

Our Suppliers' fleets are mostly diesel vehicles – on average 72% of their fleets are diesel vehicles. There is very little uptake currently with EVs.

### Short term goals

- Engaging with suppliers
- Consolidating ordering and deliveries
- Reviewing food purchasing and waste, reducing meat and dairy consumed







## Aim to maximise the use of the grounds to encourage wildlife and well-being

Human life depends on a healthy environment for our sustenance and livelihoods. Research shows the positive impacts of spending time in green space on child development and physical and mental health. Nature has also been shown to reduce stress and promote wellbeing in adults.

We are continuing with our wild flower meadow planting and are creating a nature corridor to attract both native and new species of wildlife to our campus. Beyond the positive impacts for our students and staff, we believe it is our ethical responsibility to reduce the loss of natural habitats and preserve and promote biodiversity. We will be creating small areas of seating for contemplation, discussion and relaxation, taking into consideration the change in climate to include both sunny and shady spots.

We are conscious of our responsibilities as custodians of an important part of London's green and open spaces and we are working hard across many areas to do all that we can to preserve, sustain and enhance this precious environment. Many of our biodiversity initiatives have involved participation from our students, particularly through our DUCKS and Junior School Forest School activities.

We are proud of what we have achieved and are aware that more needs to be done to protect and promote biodiversity across our estate.

### Short term goals

- Creating wilding corridor
- Establishing quiet areas
- Encouraging activity and interest outdoors

*"On Monday the 22 November, Dr Nayeri took 15 Sixth Form Geographers, and one enthusiastic geographer from Year 11, to the Royal Geographical Society in Kensington to hear a fascinating talk by Lizzy Crotty on 'Rewilding the Wild – lessons from Australia'. Lizzy Crotty works for the Australian Wildlife Conservancy which is the largest conservation NGO in Australia in terms of land it protects. This talk continued a series of talks hosted by and attended by GeogSoc on the theme of climate change and followed talks by Dr Lizzy Harnett and Paul Turner on sustainable finance and COP 26/ the climate emergency. This talk went into great detail regarding the dangers of the introduction of foreign species into Australia with the feral cat killing nearly 1.4 billion animals every year in the Australian bush. This talk is incredibly poignant off the back of COP26 and will undoubtedly continue to be a theme GeogSoc continues. The trip was a wonderful opportunity to enjoy Geography outside of school and we really enjoyed being together as a group of geographers at the RGS."*

**Max Meyohas (Year 12)**  
GeogSoc President





# Emissions

Source	Last year	This year	Variance
Natural Gas	483 tCO <sub>2</sub> e	465 tCO <sub>2</sub> e	-3.7%
Electricity (location-based)	1,385 tCO <sub>2</sub> e	1,284 tCO <sub>2</sub> e	-7.2%
Transport	16 tCO <sub>2</sub> e	18 tCO <sub>2</sub> e	+12.5%

Natural gas emissions decreased, associated with reduced gas consumption, as a result of improved heating controls through the BMS. Despite the increase in electricity consumption during 2021/22, electricity emissions decreased by 7%. This is due to increased use of renewable energy by the UK electricity grid, which reduced emissions associated with UK electricity for 2022.

Through our own on-site electricity generation, we have also saved 23 tCO<sub>2</sub>e by using 100% renewable electricity in place of grid supplied electricity. This is a 32% increase in emissions savings, relative to 2020/21.

Our electricity supply is certified 100% renewable sources, therefore when reporting electricity on a market-basis we can claim 0 tCO<sub>2</sub>e from our electricity consumption. The market-based reporting method enables organisations to calculate their emissions using their electricity suppliers fuel mix, so that those procuring renewable energy can demonstrate the benefit of their low/ zero emissions contracts.

We have an ongoing replacement program of diesel fleet to electric vehicles (EV), in order to address our transport emissions. Currently four EV vehicles have been purchased, with a costed programme to replace remaining fossil-fueled vehicles with electric in the next three to four years. In addition, 18 EV chargers have been installed on-site to facilitate charging for staff and encourage uptake of EV vehicles. Sourcing electric

minibuses as they become available on the market remains a priority.

Work is underway to create a clear guide for the College to review and communicate its commitment to Net Zero, setting realistic short, medium- and long-term targets embedded within the Colleges future operation and activities. Plans for gathering accurate data to feed into our Annual Carbon Balance sheet are continuing. Information from both Academic and Operational departments is being reviewed to produce a coherent approach to Carbon footprint analysis.







## Sustainability in the Classroom

We see the classroom as a place to educate young minds about social and environmental responsibility. Pupils learn about specific aspects of sustainability within the curriculum, gaining a solid grounding in the scientific and historic principles underpinning issues like climate change and diversity and inclusion. However, finding solutions to the big problems facing our planet requires some thinking outside the box.

We nurture principles of stewardship and love of nature through our Forest School provision for both our Junior School and for DUCKS.

Pupils gain leadership skills by getting involved in the Climate Change Society or becoming Sustainability Representatives.

Children at DUCKS enjoyed Our Senior students give a presentation in their assembly on Sustainability at the College, during Eco week.



*"Artists often capture and distil moments in time through their work. The quiet, everyday act of being present in a landscape can become extraordinary. We are reminded of the geological time it has taken to create what is around us- and how quickly we are destroying it."*

**Mari Matsuda**

*Reconsidering our relationship with the environment, the art department presents an exhibition which seeks to celebrate the enduring beauty of nature while also drawing to attention to our duty to protect and preserve it.*

*Through a range of responses including ceramics, photography, sculpture, drawing and painting, animation and video art, ceramics, photography, the exhibition touches on many environmental issues that concern us all.*

*In classes and in clubs the Year 7s explored ideas concerning the swathes of discarded objects found in the environment. They also created an intricately detailed and large-scale ceramic wall relief installation inspired by the fragile beauty of coral reefs and the human-caused threats they face through coral bleaching.*

*Colourful multi layered digital photography, Photoshop manipulations and stop-motion animations ask us to reconsider our relationship with the natural world, while at first glance we could easily mistake these images for aerial views of mountain ranges or ice caves, upon closer inspection we realise that these landscapes are made of the very material which corrupts our natural world.*

*The Year 10 artists presented a series of serene drawings focusing initially on weeds, these optimistic plants which can be found within inner London, occupy our urban and often hostile landscape. They have to be adaptable and find little bits of soil in which to prosper. Proof that when left alone, nature always finds a way to take over.*







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