British Geological Survey

ANNUAL PROGRESS REPORT 2021

Environmental Sustainability Strategy

A commitment to transparent reporting of sustainability data, as well as open communication regarding future goals and how they will be achieved

Contents

Foreword

This report is published by the British Geological Survey (BGS) and outlines how we have progressed towards greater environmental sustainability (minimising harm and enhancing benefit) whilst staying at the cutting edge of our research, following our Environmental Sustainability Strategy. Our strategy follows our parent organisation's (UKRI) vision to 'embed sustainability in everything we do' (UKRI Strategic Prospectus, 2018). We will embed it in all we do and continue to make a positive contribution by lowering our environmental impact and addressing current environmental challenges and global sustainability issues.

Acknowledgements

A large number of BGS staff have contributed to the project through collection of data, giving their advice, writing and reviewing, etc. This collection of staff, the BGS Environmental Sustainability Strategy Group, is as follows:

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Annual Progress Report 2021 on the BGS Environmental Sustainability Strategy

BGS is a world-leading geological survey and environmental science organisation, delivering a programme of research internationally. We are focused on research to understand the Earth and its associated environmental processes and, by doing so, we contribute to creating a more secure and sustainable future. As the national geological survey, we are the UK's premier provider of objective and authoritative scientific data, information and knowledge to help society understand our Earth.

We recognise that we are experiencing a period of unprecedented environmental change and societal expectations to respond to this change. Positive action is needed to address the environmental sustainability challenges, including climate change and loss of biodiversity, both of which are a result of human actions.

Our research, focusing on decarbonisation and resource management, environmental change adaptation and resilience, and multi-hazards and resilience, enables us to understand how our planet is changing and to contribute solutions and adaptive responses. We acknowledge, however, that the research we undertake and how we support it has its own impact on the environment. We must understand this impact and work towards reducing it to a minimum. This is the focus of our Environmental Sustainability Strategy. Our strategy follows our parent organisation's (UKRI) vision to 'embed sustainability in everything we do' (UKRI Strategic Prospectus, 2018), as well as aligning with the objectives of the European Union Climate Adaptation Plan[1]. We will incorporate this strategy into every aspect of our business practice and continue to make a positive contribution by lowering our environmental impact and addressing current environmental challenges and global sustainability issues. Through this, we will also drive sustainable innovation within NERC and the wider environmental science community.

First Annual Report

This document outlines how we have progressed towards greater environmental sustainability (minimising harm and enhancing benefit) whilst staying at the cutting edge of our research, through the delivery mechanisms outlined in the 15 commitments of our Environmental Sustainability Strategy. We have published our environmental sustainability plans with clear milestones, on which progress reports have been made at six-monthly intervals. This report seeks to evaluate the current performance of the strategy through review of the targets, to be communicated to BGS staff, the BGS Senior Management Board, the BGS Board and UKRI.

[1] https://ec.europa.eu/clima/policies/adaptation/what_en

We have begun to transform the way we work, through baselining and benchmarking the current environmental performance of our estate (electricity, gas, water, waste), which has enabled us to identify gaps in the way we collect data and build a foundation for improvement.

We have started to work with our funders and supply chains to drive positive environmental improvements. We have acknowledged that major investments are required and will make cases for these. In addition, we have made quick-win improvements where possible, for instance phasing out all non-recyclable and single-use plastics. We will continue to ensure our catering is more sustainable, e.g. using local, organic, plant-based produce and reducing the use of foods with a high environmental impact. We have begun to increase biodiversity on our estate by planting more trees, allowing areas to naturalise, designating no-mow areas between April and October to encourage wild flowers, and creating a community garden.

We aim to achieve net-zero carbon for our directly managed estates and research in line with the UKRI commitment. By 2040, we will have substantially raised our standard for environmental sustainability, and we will have fully embedded it in our science strategy and estate management; we plan to work beyond compliance.

At the end of year five, we will obtain independent external assurance of our performance against our objectives.

Priority areas

To achieve significant improvements in our environmental sustainability we identified three priority areas within which action is being taken. These reflect our assessment of areas where we impact the environment and where we can make significant improvements. These are:

- the BGS estate
- working practices
- our business travel

We have set out our key 15 commitments and provided an action plan, a responsible person and reporting line for each of these areas (Table 1). Our progress on delivery will be published every year, where commitments will be refreshed as required, and achievements summarised.

Table 1 Summary of our Environmental Sustainability Strategy commitments.

Area of improvement	Commitment
BGS Estate	1. Reduce energy and fossil fuel consumption on site
	2. Reduce water usage
	3. Reduce waste sent to landfill
	4. Reduce and recycle paper
	5. More sustainable IT infrastructure
	6. Increase biodiversity on Keyworth site
	7. Sustainable internal catering
	8. More sustainable laboratories
	9. More sustainable infrastructure
	10. Climate change adaptation
Working practices	11. Low-carbon working
	12. More sustainable procurement
	13. Advocacy, awareness, and communication
Business travel	14. Reducing the environmental impacts of business travel
	15. Cultural change in the BGS travel attitude

Commitment 1:
Reduce energy and fossil fuel consumption on site

Scope

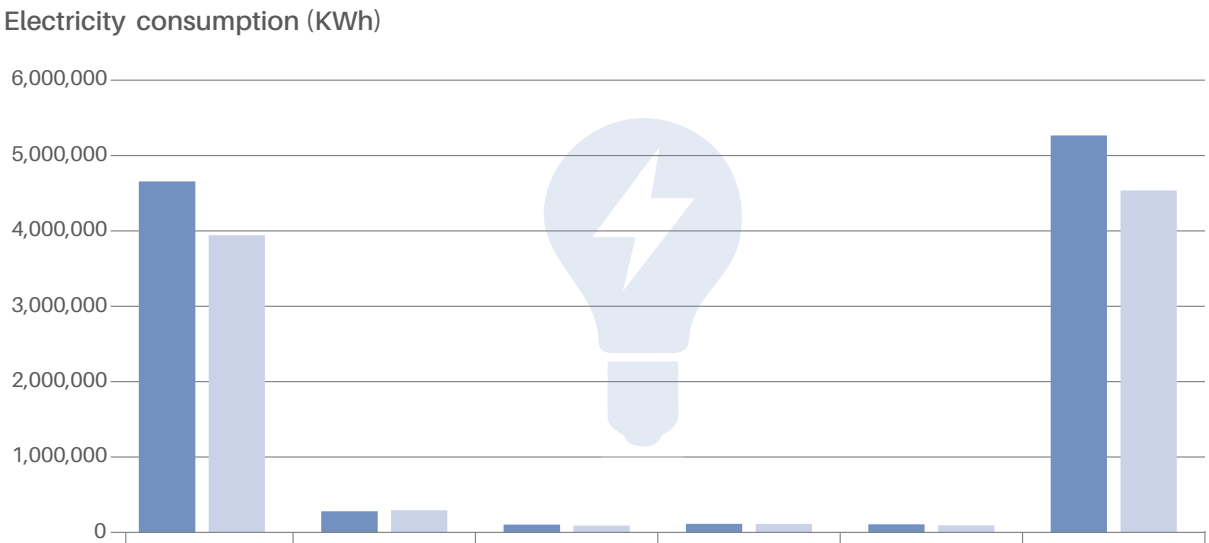
Energy including fossil fuels are used to power all facilities and laboratories on site and form an essential component of day-to-day operation.

Aims

- Understand our sites energy requirements.
- Reduce our overall energy consumption and increase the proportion delivered by renewable resources.
- Work towards achieving net zero carbon for energy sources across BGS estates.

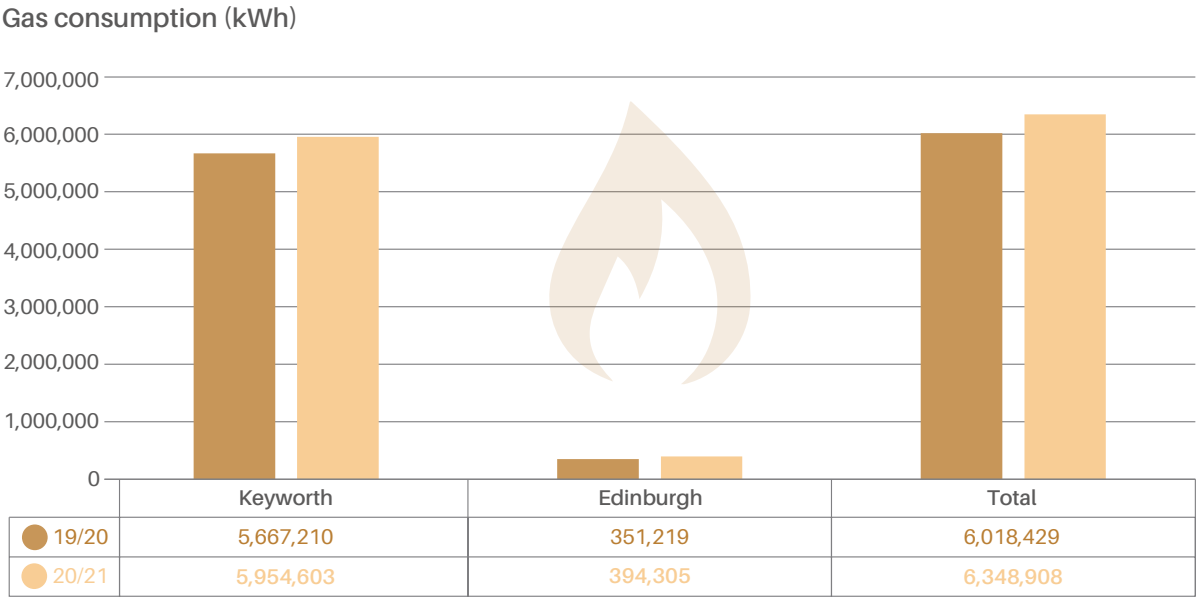
Achievements to date

In the financial year (FY) 2020–2021, several achievements have been made that help us to understand and reduce energy and fossil fuel consumption. For example, energy sub-metering of the Keyworth site has been implemented, and a large solar array on the core store roof has been installed. Contracts have been awarded for air source heat pumps and a greening survey has been received for the observatories. Following liaison with suppliers, both gas and electricity tariffs have been confirmed as non-fossil fuel and are classed as 'green', across all BGS sites.



	Keyworth	Edinburgh	Hartland	Eskdalemuir	Hertsmonceux	Total
19/20	4,656,714	281,364	104,946	113,384	108,773	5,265,181
20/21	3,943,317	294,156	92,211	112,159	93,818	4,535,661

Figure 1 Energy consumption comparison between FY 2019–2020 and 2020–2021, categorised by BGS site/observatory. *Wallingford, Cardiff, Belfast, NHM are excluded as we are tenants.



	Keyworth	Edinburgh	Total
19/20	5,667,210	351,219	6,018,429
20/21	5,954,603	394,305	6,348,908

Figure 2 Gas usage comparison between FY 2019–2020 and 2020–2021, categorised by BGS site.

A reduction in electricity usage by 729,520 kW (14%) occurred between FY 2019–20 and 2020–21 (Figure 1), aligning with reduced staff attendance of the Keyworth site during site closure and restrictions through the COVID-19 pandemic. There was a slight increase in energy consumption at Edinburgh, as the base energy load is primarily driven by fabric heating, IT, cooling and lighting, rather than the number of staff attending site. The observatories all demonstrated a drop in usage driven by both a reduction in activity and the installation of more efficient equipment.

Gas consumption saw a slight increase (330, 479 kWh), driven by the need to heat the same spaces on site but with open windows for extra ventilation during winter, to ensure COVID-19 compliance (Figure 2). At the Keyworth site, some of this gas usage increase was mitigated by the installation of new more and efficient boilers.

Targets for 2021–2022

Appoint local champion to drive behavioural savings. Develop local metrics through sub metering and temporary metering. Publish reports highlighting variance in energy use monthly to area champions, ensuring that targets are set for each area.

Achieve Silver Laboratory Efficiency Assessment Framework (LEAF) accreditation, report on savings made from implementation of LEAF.

Capital Investments include installation of a second solar array, air source heat pumps, solar panel car ports, and continue with building improvement works (windows, lights, etc.). Improve the Building Management System optimisation.

Develop a decarbonisation heating plan for Keyworth, and develop a renewable design for Observatories.

Responsible person: Head of Estates and Facilities.

Commitment 2:
Reduce water usage

Scope

Water is used throughout all facilities and laboratories across the BGS sites and is an essential component of day-to-day operation.

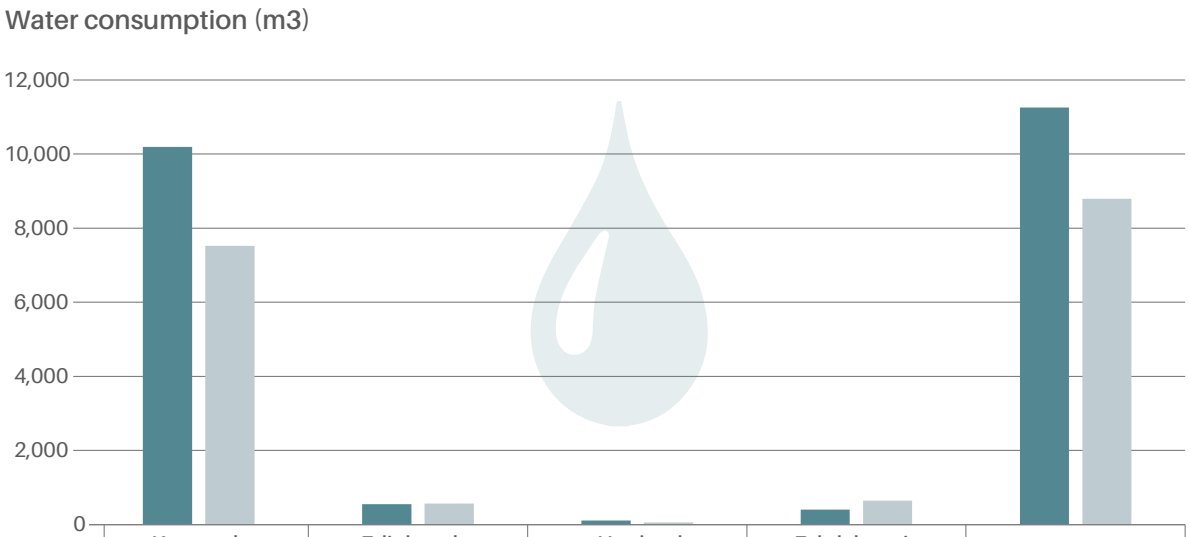
Aims

- Understand our water usage.
- Increase our use of efficient technology.
- Consider and implement grey water technologies where appropriate.
- Reduce our water consumption.

Achievements to date

Baseline data on water usage has now been collated to facilitate work with area champions (Figure 3). To further understand water usage rates, a water audit is currently being undertaken by NERC, as well as a Keyworth drainage survey. Additionally, a report following the recent condition survey of buildings for investment planning is being compiled. Water reduction projects (e.g. use of grey water) are also now included in long-term maintenance planning.

Water usage has been reduced considerably at Keyworth (26%; 2,671 m^3) most likely due to the restricted number of staff on site through the COVID-19 pandemic. Water usage at the Edinburgh site is relatively consistent between reporting years, as the base load is more independent from the number people attending site. The water usage at Eskdalemuir observatory increased by 58% (235 m^3), which requires further investigation.



	Keyworth	Edinburgh	Hartland	Eskdalemuir	Total
19/20	10,198	550	107	406	11,261
20/21	7,527	566	57	641	8,791

Figure 3 Water usage comparison between FY 2019–2020 and 2020–2021, categorised by BGS site/ observatory.

Targets for 2021–2022

Generate an action list and recommendations based on NERC water survey for all sites.

Track progress as a result of the action list generated by the NERC water audit.

Improve environmental compliance following drainage survey on site.

Review lab water consumption activities through LEAF Silver accreditation.

Use sub-metering data to monitor water consumption and public reports to energy champions.

Report potential water leaks identified through sub-metering data.

Responsible person: Head of Estates and Facilities.

Commitment 3:
Reduce waste sent to landfill

Scope

Waste collected includes general waste, mixed recycling, food waste, cardboard, plastics, metal, wood, waste electrical and electronic equipment, and hazardous/chemical waste.

Aims

- Minimise the overall creation of waste produced on site.
- Recycle as much waste as possible.
- Dispose of non-recyclable material in an environmentally aware way.

Achievements to date

Some progress towards waste reduction targets has been made, including implementation of new waste streams, such as recycling bins for plastic bags in the labs. A waste management handbook is being written, and will be made available to staff. Waste wood (core boxes/pallets) has been advertised to staff to reuse/repurpose (n = 80). Gardening waste (shredded woody material) has also been offered to staff for home gardening use.

Collation of baseline waste data is ongoing, and so specific waste targets have not yet been set. However, a key objective to reduce waste sent to landfill is running in parallel with LEAF initiatives to implement staff engagement, raise awareness and encourage reduce/reuse/recycle principles.

Targets for 2021–2022

Increase staff engagement through staff notices and publish waste management handbook.

Work with our waste contractor to identify appropriate waste initiatives they provide and to ensure recycling is optimised.

Aim to reduce consumption and/or increase reusing of surplus items, such as core boxes, pallets, waste furniture, and evidence savings made.

Responsible person: Head of Estates and Facilities.

Commitment 4:
Reduce and recycle paper

Scope

This commitment includes reducing the use of paper and cardboard as a consumable for business purposes, including reduced use of printers and increased use of recycled paper/cardboard where possible. This commitment aligns with paper/cardboard reduction mechanisms, more sustainable IT infrastructure, more sustainable laboratories, more sustainable procurement, and advocacy, education and communication.

Aims

- Reduce use of paper and cardboard.
- Increased use of recycled paper/cardboard.
- Ensure current paper supplies meet global sustainability standards.

Achievements to date

Discussions have taken place at senior management level about the logistics of reducing printer hardware on site. Although there has been a decreased amount of paper used through printing over 2020/21, this has been largely a result of reduced staff numbers on site through the COVID-19 pandemic. As more staff return to the office over the coming months, a plan regarding the number of printers and paper usage required on each site will be made. Paper usage will be monitored.

Targets for 2021–2022

Reduce the number of printers on each site to less than 1 printer per 100 members of staff.

Encourage virtual-first working, utilising online platforms and sharing media.

Instigate a business card recycle scheme, as well as encouraging increased use of virtual/recycled business cards.

Responsible person(s): Head of Estates and Facilities/Head of IT.

Commitment 5:
More sustainable IT infrastructure

Scope

IT infrastructure includes server infrastructure concentrated in dedicated computer rooms and dispersed equipment, for example desktops, laptops, printers and network switches. Sustainability targets will also consider the raw materials used and waste generated in the manufacture of IT infrastructure, the energy consumed during use of the infrastructure and the waste generated by its disposal.

Aims

- Use efficient equipment with the lowest energy requirements and longest life spans.
- Purchase from ethical sources.

Achievements to date

Installed more efficient storage area networks (SAN) at both Keyworth and Edinburgh. Network infrastructure upgrades are underway at the Keyworth site which are more efficient.

Discussions have started regarding smaller scale infrastructure savings, for example, implementing screen savers and ensuring staff are turning off monitors out of hours.

Targets for 2021–2022

Analysis of sub-metering data to establish reduction in consumption resulting from IT infrastructure improvements.

Reduce consumption by IT infrastructure for each site, in agreement with staff.

Implement staff engagement strategies to raise awareness and encourage reduce/re-use/recycle principles.

Continue with network upgrades to the wider BGS site.

Explore more sustainable IT technologies.

Responsible person: Head of IT.

Commitment 6:
Increase biodiversity

Scope

This commitment is mostly relevant to our Keyworth site, where we manage the estate. This commitment is owned by the BGS Estates team in conjunction with a small group of staff volunteers (the Wilding Group). The two groups meet at regular intervals to support each other's endeavours in respect to BGS biodiversity and ensure effective communication. We aim to promote biodiversity and make the site more nature and staff friendly.

Aims

- Increase wildlife on our sites and ensure a range of wildlife habitats.

Achievements to date

70% of the Keyworth grassland was left no-mow between March–October 2021, which increased wildflowers (including bee orchids) and encouraged insects, and larger animals on site. The Keyworth pond was improved including the repair of the grey water filling system from a nearby roof.

In June 2021, all 6 of the BGS applications for the 'NERC Biodiversity Fund' were approved for funding. These are: insect and bird observation equipment (purchased), installation and development of a reptile habitat (installed), procurement of gardening tools (purchased), planting of flowering bulbs and bushes (November 2021), signage (installed) and planting of fruit trees (November 2021). These projects will be completed by March 2022.

Engagement and education of staff has been achieved through blogs, daily brief (to BGS staff), and social media communications. An article on the biodiversity efforts was published in the Keyworth News (local newspaper).

The Nottinghamshire Wildlife Trust and the Wilding Group have carried out several surveys of bats and moths at the Keyworth site, these surveys will be repeated in following years to check for improvements. The Nottinghamshire Wildlife Trust have advised on the siting of bird and bat boxes (currently waiting to be installed by our Estates team). Monthly meetings are held between Estates and the Wilding Group. As part of this, there is currently a tree maintenance plan in draft form, which will require further Estates/Wilding Group liaison with the ground maintenance team. A plan for an orchard and cherry tree walkway is also in preparation.

At our other sites we are in discussions about biodiversity initiatives. Around the Lyell Centre an area of no-mow was agreed. Wallingford site owners (UKCEH) have an established biodiversity policy including no-mow areas, an orchard, and animal habitats.

Targets for 2021–2022

Plant trees and shrubs (as above) including an orchard and cherry tree walkway in autumn 2021.

Increase no-mow areas for March–October 2022. Assess the impact of bird boxes and reptile habitats through cameras. Install remaining bird and bat boxes.

Responsible person: Head of Estates and Facilities.

Commitment 7:
Sustainable internal catering

Scope

The strategy applies to all aspects of sustainable food, including procurement, preparation, provision, food waste and waste management, canteen operation and general catering activities. This applies to all BGS sites where food is purchased or sold by BGS. This food strategy will apply to all of our catering activities and food served for all our events, and will be fully reflected in our catering tenders and contracts. The aims of this commitment align with those of Commitment 12 (more sustainable procurement).

Aims

- Reduce catering impacts on the environment.
- Reduce consumption of high carbon-footprint foods.

Achievements to date

Despite limitations from restricted site access and low internal events during the COVID-19 pandemic, progress has been made to improve the sustainability of internal catering. For example, a sustainable food supply contract has been tendered and the bread and baked goods contracts have been awarded with sustainability requirements included. Contracts for fresh, frozen and other foods are to be awarded in the FY 2021–2022. These contracts specify that Red Tractor assured meat is purchased and will allow monitoring of the sustainability of food sources.

Comparison data with previous years is not currently possible due to a reduction in service following site attendance restrictions. When site occupation increases to ~50%, it will be possible to conduct customer surveys and review sustainable operations.

There has also been a significant increase in the provision of plant-based meal options, a plant-based meal is available every day. All tea, coffee, bananas, orange juice and sugar are now Fairtrade, as well as 60% of chocolate sold. As staff numbers increase on site, further implementation of seasonal menus, including naturally abundant local produce, will be introduced.

Targets for 2021–2022

Communicate food policies and information around what has been implemented to improve the sustainability of our food services via staff notices.

Decrease the number of menu items containing ruminant meats.

Evidence increases in sustainably sourced products.

Monitor and aim to reduce food waste.

Responsible person: Head of Estates and Facilities.

Commitment 8:
More sustainable laboratories

Scope

Laboratories are some of the most energy and resource intensive areas of BGS. We aim to reduce these loads in the labs through a series of initiatives, in conjunction with the Laboratory Efficiency Assessment Framework (LEAF) initiative. LEAF is a standard for sustainable laboratory operations and contains actions on plastic, water, energy and other resources, as well as reducing carbon emissions whilst creating an environment that supports high research quality. This commitment links with several of our sustainability commitments. The LEAF criteria will also act as evidence for changes.

Aims

- Ensure efficient equipment and laboratory infrastructure with the lowest energy requirements and longest lifespans.
- Reduce consumables and waste, and deal with waste in the most environmentally sustainable way.

Achievements to date

Following Bronze accreditation in 2020, work has commenced to complete the Silver criteria for the LEAF submission by the end of November 2021. BGS have been working alongside the British Antarctic Survey (BAS) to implement LEAF criteria, sharing our best practices. LEAF has also been discussed at several Staff Q&A sessions to engage with staff and has received successful feedback from engaged laboratory staff.

Targets for 2021–2022

Silver criteria assessment to be piloted in the Keyworth isotope laboratories before rolling out to other labs.

Analyse data from the online calculators and establish where further improvements can be made.

Aim to further communicate with all staff regarding LEAF efficiencies.

Look to achieve Gold accreditation in 2022.

Responsible person(s): LEAF Leads/ Head of Estates and Facilities.

Commitment 9:
More sustainable infrastructure

Scope

This commitment refers to infrastructure at all BGS sites, but mainly Keyworth and Edinburgh.

Aims

- Increase renewable energy usage, aiming to use 100% renewable energy by 2040.
- Reduce the environmental impact of our buildings and infrastructure.

Achievements to date

A large solar array has been installed (600 kW), with a second large solar array planned for Keyworth this FY (530 kW). Two large air source heat pumps are being installed at Keyworth. A heating decarbonisation plan has been commissioned, to produce a multi-year costed plan to move towards sustainable heating solutions for Keyworth. At our Observatories similar heating decarbonisation and renewable energy solutions are being designed, with a view to tendering for implementation in FY 2022–2023. Assessments during the tender processes for these refurbishments will include sustainability and full lifecycle impacts, as well as setting the start point for new builds for zero carbon impact, which has been a major discussion point on recent projects with NERC.

Condition surveys have been carried out at all BGS sites. This survey will be used to generate a 5-year maintenance investment strategy. A review of buildings controls is underway, which is expected to have improved our energy performance at Keyworth by the end of FY 2021–2022. LED lighting has been installed and some windows have been replaced. Building performance is compromised by current ventilation requirements.

Targets for 2021–2022

Installation of air source heat pumps at Keyworth.

Installation of second solar array at Keyworth.

Work on plans to decarbonise our Observatories.

Update our long-term maintenance plans following commissioning of heating decarbonisation plan.

Evidence increased passive performance of building through portfolio of buildings improvements.

Replace all natural gas boilers with renewable alternatives.

Publish reports of energy generated from renewables for engagement purposes.

Responsible person(s): Head of Estates and Facilities/Director of Operations.

Commitment 10:
Climate change adaptation

Scope

Climate adaptation is defined as 'managing climate-related risk through adaptation'. In line with the Climate Change Act (2008), UK Climate Change Risk Assessment (CCRA; to be updated July 2021), Greening Governments Commitments and UKRI Sustainability Strategy, UKRI institutes are required to create a climate change adaptation plan which assesses the major risks of flood/drought, increased temperatures, risks to natural capital, pests and diseases, including non-native species.

Aims

- Determine the potential risks and opportunities specific to the BGS sites, operations and scientific outputs (alongside NERC risk assessments).
- Create a Climate Change Adaptation plan, in conjunction with NERC.

Achievements to date

Work has begun on developing a CCRA to improve our resilience to future climate change. NERC held a workshop for BGS staff in November 2020, from which a draft plan was developed and issued in February 2021. As of March 2021, NERC are currently looking at implementation of the plan, monitoring and evaluation as well as reporting and communication of the plan.

Additionally, the staff-led Wilding team have looked for non-native/invasive species including Japanese knotweed, hemlock, Himalayan balsam on Keyworth site. None were found.

Targets for 2021–2022

Continue to work with NERC on the action plan following the CCRA.

Create a 'slim' CCRA to be published both externally and internally.

Conduct a follow-on survey of the most common non-native/invasive species on Keyworth site.

Responsible person: Head of Estates and Facilities.

Commitment 11:
Low-carbon working

Scope

Encourage staff, contractors and visitors at BGS sites to embed environmental sustainability into their ways of working to reduce the carbon footprint of the site. To embed environmental sustainability in research projects and UKRI-aligned activities, from inception to completion.

Aims

- To achieve low-carbon and environmentally sustainable ways of working for staff.
- Improve awareness of the carbon footprint of projects.
- Include environmental sustainability assessment at all stages of projects.
- Compliance with UKRI environmental sustainability ambitions.

Achievements to date

Analysis of working patterns has been hindered by continued COVID-19 site attendance restrictions, however, the staff environmental sustainability survey which was circulated in July 2021 indicated that 45% of staff (the largest proportion) felt that commuting was the single biggest contributor to their working carbon footprints (Figure 4). We have introduced a question on the hybrid working approval form to encourage staff to consider the environmental impact of home-working.

To promote low-carbon commuting, a national electric bicycle shop (Pure Electric) has now been added to the UKRI Cycle to Work scheme. There are ongoing discussions with the Heriot Watt University environmental manager to implement a campus wide electric vehicle charging strategy, which will include provision at the Lyell Centre. There are existing electric car recharge points on Keyworth site.

The staff environmental sustainability survey also investigated staff engagement with potential sustainability tools (e.g. carbon calculators and sustainability tracking apps). 62% of survey respondents suggested staff would, or might be, interested in using a sustainability tracking app. As such, the feasibility of using a sustainability tracking app such as 'Green Rewards' is now being discussed with UKRI.

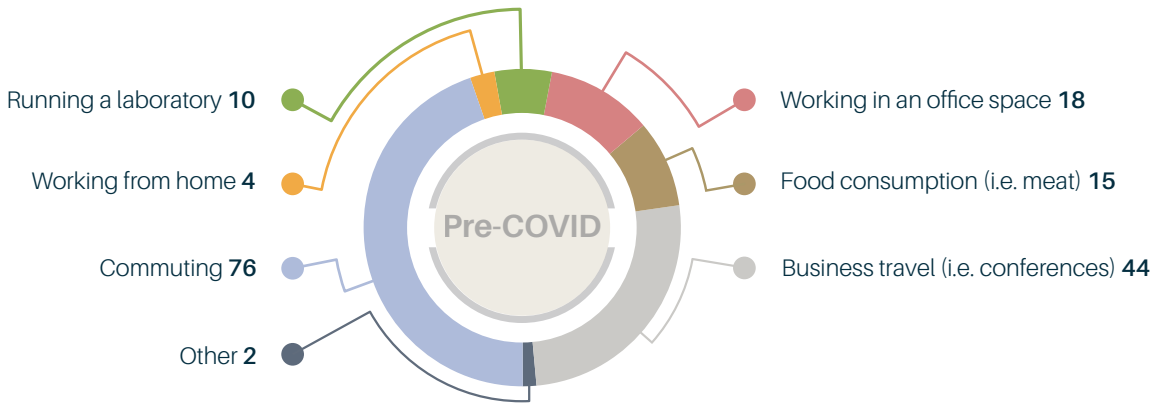


Figure 4 Results from the Staff Environmental Sustainability Survey (as a percentage), about what they felt the biggest contributor to their carbon footprint was in an average (pre-COVID-19) year.

The survey also suggested staff were interested in incentives for living and working more sustainably and participating in work related carbon offsetting activities. The possibility of these schemes will be reviewed for FY 2021–2022.

Targets for 2021–2022

Draft a staff-wide briefing to highlight the carbon-footprint of a typical working day to increase engagement on improving environmental sustainability.

Investigate evidence in environmental sustainability of home working versus impact on business.

Assess the success of integrating environmental sustainability into project initiation documents (PID).

Identify the feasibility of carbon offsetting activities which may be undertaken by staff.

Encourage staff to establish their personal baseline by use of carbon calculator and/or sustainability tracking app.

Responsible person: Chair of Environmental Sustainability Working Group.

Commitment 12:
More sustainable procurement

Scope

Ensuring environmental sustainability in all procurement of goods and services through BGS's sustainable procurement strategy. This strategy encompasses our sustainable food strategy and is embedded within the sustainable laboratories strategy, energy and IT infrastructure.

Public sector procurement in the UK is governed by various regulations and strategies. BGS recognises its responsibility to carry out its procurement activities in an environmentally and socially responsible manner and we recognise that we need to make long-term commitments to the amount and way we purchase.

BGS has zero tolerance to slavery and human trafficking.

We have a responsibility to procure goods and services in a sustainable way.

Aims

- Ensure environmental sustainability is at the heart of the procurement system through engaging directly with the UKRI and UKSBS commercial business function.
- Drive sustainable innovation within NERC and the wider environmental science community.

Achievements to date

A full review of the procurement strategy has been undertaken and we have increased sustainable procurement. Key risk areas have been identified.

The Commercial Business Partner has completed sustainable training. Social value is now being evaluated in relevant new procurements. All staff have attended mandatory slavery and human trafficking awareness training

Targets for 2021–2022

Audit/baseline of current state using flexible framework tool.

Initiate the use of sustainable procurement tools with support from UKSBS, to measure and monitor sustainable procurement strategy.

Produce a report on the sustainable procurement strategy.

Procurement of new or replacement of existing equipment will include the consideration of environmental impact, to improve sustainability long term.

Raise awareness of sustainability-led purchasing with all staff through training. Supplier's carbon reduction plans to be a requirement for all new procurements where the anticipated value is over £5M per annum.

Produce guidance on sustainable procurement for staff.

Responsible person(s): Commercial Business Partner/Head of Finance.

Commitment 13:
Advocacy, awareness and communication

Scope

To advocate for net zero and create an awareness campaign that not only puts the environmental sustainability strategy at the forefront of the minds of staff, partners and stakeholders, but also inspires staff to improve their environmental sustainability performance and contribute to achieving net zero by 2040. This will be achieved by sharing our strategy actively and engaging external and internal communications.

Aims

- Raise awareness amongst staff of the environmental sustainability strategy and the corporate commitments.
- Help staff to reduce their carbon footprint by providing education and training and offering decarbonisation initiatives.
- Identify environmental champions to help drive and support this strategy.
- Work in partnership with local businesses and institutes to create a wider positive impact.

Achievements to date

The Environmental Sustainability Strategy has been shared with staff through office notices and promoted through the BGS external website and social media channels. Through better website management there has been an increase in traffic to the strategy. In total the Environmental Sustainability landing page, strategy and news articles received 1063 page views between November 2020 and October 2021. The strategy page received 360 page views and was downloaded 93 times. 61% of the page views and 81% of the strategy downloads came in the second half of the year. Four external blogs have been published (612 views) relating to our environmental sustainability work, with another two being developed for the solar panel car ports and the Silver award in the LEAF initiative. Social media posts have also been issued throughout the year promoting our environmental sustainability credentials and evolving strategy. Notable examples include recycling, sustainable labs, solar panels, and biodiversity.

There have also been various office notices, including articles highlighting more sustainable practices, such as the waste associated with traditional business cards and promoting digital alternatives.

The environmental sustainability questionnaire was shared with staff. In total 172 responses (26% of the staff body) were collected, providing a base of data from which to assess progress and changing attitudes as annual surveys are conducted in future.

Targets for 2021–2022

Update the Environmental Sustainability web page and strategy document on the BGS website as mid-year and annual reports are published.

Continue to provide external media releases, blogs and articles and use social media channels.

Responsible person: Director of BGS Communications and External Affairs.

Commitment 14:
Reducing the environmental impacts of business travel

Scope

Business travel refers to travel by employees for work purposes. This includes, conferences/ workshops, training courses, fieldwork, business development, non-home office-based project work, offshore work etc.

Aims

- Reduce the environmental impact of business travel through reduced carbon emissions.
- Set a challenging but achievable annual BGS target for reducing business travel-related carbon emissions.

Achievements to date

BGS business travel has been assessed for FY 2017–18 and 2018–19. Flights produced over 90% of carbon emissions. Work was undertaken to characterise the flights related to BGS activities and the destination on a continent and country basis. For example, conference attendance was identified as an area that could be reduced relatively easily.

This analysis enabled provisional recommendations to be made. For example, a conference policy (BGS Director permission for travel outside of Europe) has been agreed and introduced. BGS uses a 'Permission to Attend' form or PTA to allow overseas travel; in conjunction with BGS colleagues, a new PTA has been created that has relevant fields to ensure ease of data capture. A carbon accounting system based on departmental distribution of overall target is being developed and is based on internal discussions. Ongoing discussions with the BGS operations team have been undertaken to ensure uptake. To compliment this, BGS-wide targets have been set based on NERC commitments (40% cut by 2025).

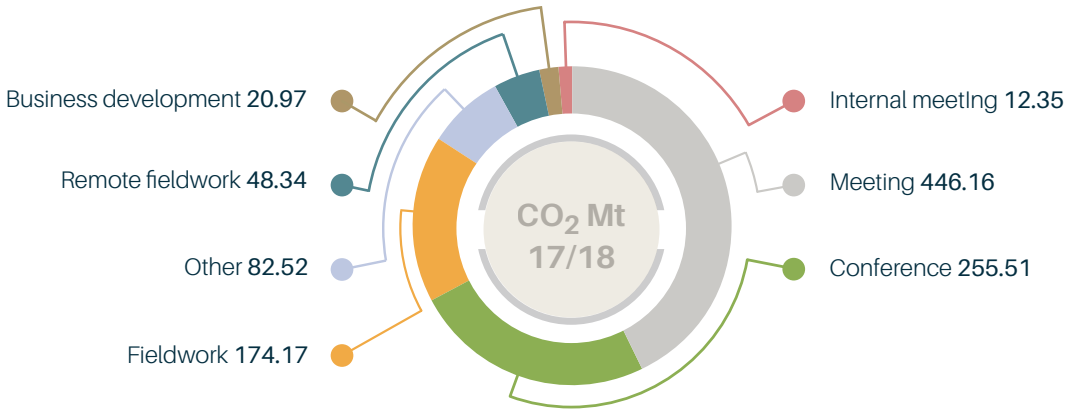


Figure 5a Reasons for BGS business travel 2017–2018..

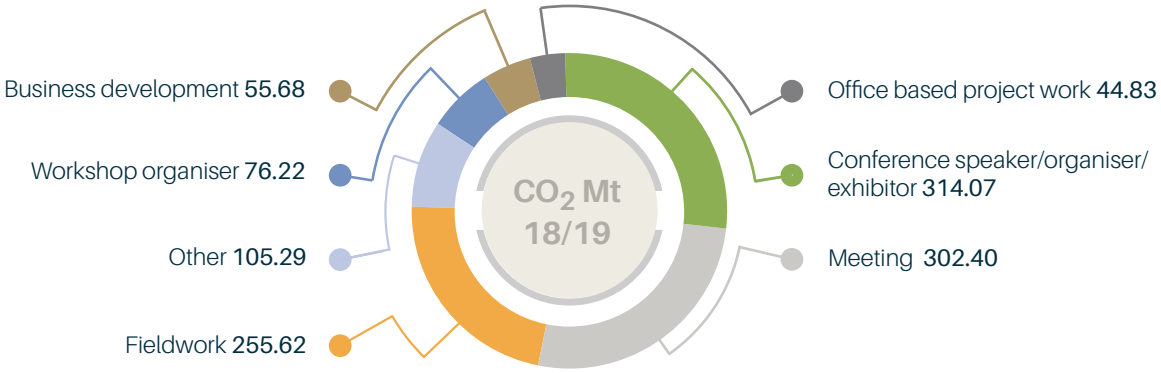


Figure 5b Reasons for BGS business travel 2018–2019..

Targets for 2021–2022

Draw up a pilot study for carbon accounting methodology (based on harvesting information from Permission to Attend/Permission to Travel forms) before April 2022.

Trial implementation of business travel carbon management system before April 2022.

Agree business travel carbon reduction target for FY 2022–2023.

Responsible person: Director of Policy.

Commitment 15:
Cultural change in BGS travel attitudes

Scope

To successfully implement sustainable development travel practices within BGS, it is critical to implement a shift in the cultural value perception of travel.

Aim

- Instil a cultural change in BGS attitudes to travel.

Achievements to date

There is a recognition that an approach based on educating staff on their responsibilities alongside implementing a system to limit the carbon emissions related to business travel is required. To ensure that this is achieved data on past use has been communicated to staff in two Q&A sessions.

Data analysis showing past emissions by transport mode have been communicated to BGS staff. A virtual lunchtime lecture has been given by the business travel strategy team on BGS business travel impacts and future carbon reduction plans. This presentation was also made available to all staff. The business travel team have discussed with colleagues responsible for travel (Health and Safety and Business Development) to remodel the Permission to Attend form to enable harvesting of travel carbon data and to display individual footprint prior to travel. A mechanism is being created to view carbon emission data from PTAs. Alongside this, development of practical air travel carbon accounting system at project/Challenge level has begun. BGS-wide and departmental targets are being developed.

Targets for 2021–2022

Continued engagement with staff through webinars/Q&As.

Monitor use of revised Permission to Attend form in reducing travel for post-COVID-19 recovery.

Responsible person: Director of Policy.

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