

2023 - 2024

Annual report and accounts



Forest Research

Annual Report and Accounts 2023 to 2024

For the period 1 April 2023 to 31 March 2024.

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1 Performance overview

Chief Executive's Statement



Summary of 2023 to 2024 - James Pendlebury, Chief Executive

It is an exciting time for forestry and Forest Research (FR), and we are building on the success of previous years. Through delivering our 'Strategy for Growth' we have grown our income for the fourth year in a row and continue to be a trusted provider of knowledge, data, products, and services. Our staff numbers have increased to support and deliver our new research activities and we have been successful in attracting a wide variety of talented and enthusiastic new colleagues. FR have also continued to secure welcome investment and support from the Department for Environment, Food & Rural Affairs (Defra) to upgrade and improve our built estate and scientific capabilities.

Our People

Forest Research's staff are fundamental to our success. Their expertise, pride and passion have made us the UK's leading provider of applied forest research. We recognise that our future reputation depends on the work we will do, not just on the work we have done.

We were delighted that Tom Jenkins, Head of FR in Wales, was awarded the MBE in the King's New Years Honours for Services to the Forestry Sector. Tom has contributed greatly to forestry in several roles in the last three decades and, in particular he has been responsible for driving improvements in professional standards across the sector.

On a personal note, it was a great pleasure to hear that Chris Quine, our Chief Scientist has been elected a Fellow of the Royal Society of Edinburgh (RSE). The RSE is Scotland's national academy, and fellows are elected representing many areas of expertise following a very competitive process. Chris is the first Forest Research employee to receive this welcome recognition.

It was also our great pleasure to present long service certificates to several colleagues for their incredible work over the years in the Forestry Commission (FC) and Forest Research. The following served an amazing total of 415 years in support of our nation's forests: Sue Benham (38 years); Garry Duncan (48 years); Dai Evans (33 years); Nick Fielding (49 years); Gary Kerr (38 years); Ian Macleod (38 years); Russell Anderson (45 years); Ben Ditchburn (32 years); Sophie Hale (25 years); Colin Smart (25 years) and Diane Osborne (40 years).

Outcomes

Our people drive our successes and as a result of the dedication of our staff we have fully delivered or completed in year milestones for 16 out of 18 Key Actions for 2023 to 2024, with two actions substantially complete and a further three with future year milestones ongoing.

Our continuing growth in bids won and non-core income demonstrates that Forest Research is a well-established and recognised partner for delivering forest related research. It reflects the skills of our staff, their commitments, the relevance of our science, as well as the increased interest in trees and forests across the UK and further afield.

Our Business

Our 'Strategy for Growth's' primary goal was the generation of new business, and we have demonstrably delivered on this objective over the last four years. We have grown our operational income by over 85% during this period and our staff complement has increased accordingly. This has shifted the challenge we face from one of growth to the need to consolidate and build on our success. Therefore, we are in the process of updating our strategy to move the focus from growth to sustaining ambition, aligned to the Forestry Commission's Strategy 'Thriving for the Future'.

During the current year we have delivered on our core activities as well as the research outcomes for several large projects aligned to the Defra Research and Development interests. Work on projects delivered for the Nature for Climate Fund (NCF), the terrestrial Natural Capital Ecosystem Assessment (NCEA), and within the Centre for Forest Protection (CFP) and Future Proofing Plant Health (FPPH) programmes have contributed significantly to our successes for the year. Our collaborative approach is particularly evident in the suite of 30 projects which comprise the NCF R&D programme, involving 29 collaboration agreements and eight funded PhD studentships.

Profile and engagement

The focus of our communications is on increasing the profile and impact of our research amongst policymakers, forestry practitioners and the wider scientific community. We do this through several channels including attendance at events, social media and website activity, and online seminars. Our website is the primary way that many of our audiences access Forest Research's work, and there were over 250,000 unique individual visits to the website during the year.

We promoted our researchers' work through a range of official publications, guidance and reports and in industry publications including those from the Institute of Chartered Foresters, Confor and the Royal Forestry Society. We also continue to build our audiences on social media, a key channel for sharing research and publications.

During National Tree Week in November, we hosted Minister for Nature, Rebecca Pow MP, at our Alice Holt (AH) facility, where she announced £16 million Defra funding for 30 separate Nature for Climate Fund research projects.

Lord Douglas-Miller OBE, Parliamentary Under Secretary of State at Defra and Minister for Biosecurity, Animal Health and Welfare, also visited Forest Research's Alice Holt research station in March 2024 to find out more about the work we are doing to protect trees, woodlands and forests from invasive pests and diseases.

Knowledge exchange and impact planning helps to focus our efforts to engage stakeholders. Our scientists advised and interacted with policymakers, forestry professionals and the public at major events in Wales and England, including the Royal Welsh Show and Confor Show. Our theme for these shows was 'technology and innovation' and we demonstrated how we use science to gather evidence to inform action. Visitors got hands-on with our thermal and laser scanning technology, learning about how we use drones and remote sensing to work at landscape scale. We also hosted several knowledge exchange events for policymakers, public sector forest managers and visiting scholars at our recently refurbished facilities at the Northern Research Station (NRS), Roslin.

To celebrate National Plant Health Week in May, we asked members of the public to become 'Citizen Scientists' and help us monitor the health of sweet chestnut trees across the UK. The 'Check a Sweet Chestnut' campaign encouraged people to look out for signs of oriental chestnut gall wasp and sweet chestnut blight, then use our TreeAlert tool to report sightings.

This year we launched a new careers section on our website to showcase the varied opportunities available at Forest Research and highlight the benefits of working in our organisation. We also took

opportunities to promote careers in forestry science more widely with social media campaigns during the International Day of Women and Girls in Science and International Women's Day.

Our science outputs and publications

We continue to provide wide ranging and influential scientific outputs and publications with more than 60 peer-reviewed journal papers, five further additions to our accessible 'Climate Change Factsheets', and several publications which underpin the revised UK Forestry Standard, which was published this year.

Each year, our National Forest Inventory Production Forecast is welcomed by the forestry sector and continues to be commercially influential. As part of our annual cycle of National Statistical outputs, we also published 'Forestry Statistics' and 'Forestry Facts and Figures 2023', 'Woodland Carbon Code Statistics' and the updated 'Timber Price Indices'. The Timber Price Indices remains one of our most viewed statistical outputs and generates many queries.

Thriving trees, woods and forests require a thriving sector. The climate emergency means that there is a growing need for science-based evidence and advice to prompt and promote change. Forest Research provides the research and tools related to the role of trees and forests in mitigating the impacts of climate change. Our efforts also focus on improving the resilience of our trees and forests to the changing climate through adaptive practice. Key to this is our Climate Change Hub, which consolidates our publications, guidance, case studies and tools related to climate change adaptation.

Our work informs the development and delivery of the UK Government and devolved administrations' policies and provides an evidence base to inform and inspire change that benefits society, the economy and the environment. We are working on producing strategies to enhance biodiversity and providing evidence of the positive impacts on mental and physical health, and wellbeing benefits that come from nature.

Forest Research staff continue to drive our business forward. Their expertise, pride and passion are evident in the quality of our work and the impact of our outputs. I would like to thank them for their ongoing enthusiasm, creativity and commitment. We are also part of the international forestry community, and I would also like to acknowledge the support from our stakeholders, partners and customers from across the world. Forest Research commits to working with them in the future to find solutions to tackle some of society's biggest challenges with thriving trees, woods and forests.



Professor James Pendlebury

Chief Executive and Agency Accounting Officer

Purpose and Activities

Forest Research is the research agency of the Forestry Commission and Great Britain's principal organisation for forestry and tree-related research. We are internationally renowned for the provision of science, research, evidence, data and services in support of sustainable forestry.

Our vision

We aim to be a world leader in applied forest science and a trusted and recognised provider of expertise, data, products and services for government and the tree, wood, forest and natural resources sectors.

Key strategic themes



Engaging with customers

Our customers are our primary focus. We will conduct timely, rigorous and independent research to give our customers the quality science, evidence, data, products and services they need to make informed decisions, support policy development, or develop and grow their businesses.



Developing our science and data offer

Using and adapting new technology, techniques and approaches are fundamental to our provision of quality research and data services. Our interdisciplinary science and data provision will offer trusted and quality-assured insight and innovation.



Increasing our value

Through well-established connections across the forestry sector, we understand the issues facing our trees, woods and forests and those involved with them. We will continue to give the best research advice, information and data to our customers and to grow our business.



Working together

Forest Research's staff are fundamental to our success. Their expertise, pride and passion have made us the UK's leading provider of applied forest research. We recognise that our future reputation depends on the work we will do, not just on the work we have done.

As part of the wider Department for Environment, Food and Rural Affairs (Defra) family, and in alignment with the Forestry Commission strategic aims, Forest Research will help to deliver Defra's strategy, ' [A Green Future: Our 25 Year Plan to Improve the Environment](#)', which sets out a shared vision and a set of objectives to improve the environment within a generation. More information on the Strategy is available in Defra's Annual Report and Accounts.

As part of the Forestry Commission, Forest Research has a key role in delivering on the newly published Forestry Commission 5-year strategy '[Thriving for the Future](#)'. The vision is to help tackle some of society's biggest challenges with thriving trees, woods, and forests.

We will support and enable the delivery of this strategy by generating, sharing and applying world-leading science and evidence; working across the sector to prevent and respond to outbreaks of tree pests and diseases; and enabling others to sustainably manage and expand woodland through advice and regulation.

Research Funding

From 1 April 2019, the Cross-Border Memorandum of Understanding between Forest Research and the UK, Welsh and Scottish governments has funded core research and other services. This arrangement supports the Ministerially endorsed '[Science and Innovation Strategy for Forestry in Great Britain](#)' and forestry policies of the UK, Scottish, Welsh and Northern Irish governments. In addition, Forestry England, Forestry and Land Scotland and Natural Resources Wales purchase research, data services and surveys for their respective forest estates. Forest Research is also increasingly successful in securing funding from other government departments, the European Commission, UKRI, commercial organisations, private individuals, and charities. Our non-core income continues to grow and is key in funding our ongoing research. Collaborative bids with other research providers and consortium funding have become increasingly important, placing emphasis on effective partnership working and co-operation.

Activities

Research and development are essential components in delivery of the benefits of sustainable forestry in a multifunctional landscape and in the wise management of trees in urban and rural settings. We focus on providing objective knowledge and practical solutions based on high-quality science, data provision and analysis.

Forest Research's research, surveys and related forestry data and scientific services underpin the social, economic and environmental components of managing trees as part of our national response to the

climate and biodiversity crises. We have always worked collaboratively with other organisations to provide information and analysis on the growing impact of climate change.

Our projects provide understanding, policy advice and best practice guidance on a wide variety of forest and forest related issues as well as production forecasting, forest statistics, surveys and monitoring. Our expanded capacity for laboratory analysis, with the upgrade of our facilities, has meant that we are also providing a greater service in this area.

Resources

Forest Research employed 383 (full-time equivalent) staff during the year 2023 to 2024 (2022 to 2023: 277) at sites across England, Scotland and Wales.

Contact information for our main offices is provided on the back cover of this report.

Issues and risks

The important issues and risks that could affect FR in delivering its objectives are reported within the Governance Statement on page 51, and how we are addressing them.

Performance Overview

Operating Review

Our Forest Research 'Strategy for Growth' has continued to drive the Agency forward and we have secured new funding streams and built on our previous areas of expertise to create a strong and resilient business. Our staff numbers have grown substantially as we have secured new funding and expanded our research and analysis activities. Our scientists continue to produce a wide range of publications, scientific outputs, advice, engagement, and participation in online and in-person events.

Our planned investment in our main corporate estate has continued this year and we are consolidating the work to ensure we are fit for the future with more modern facilities and better infrastructure for our expanding business. We have focused on sustainability for our built estate and have improved our business systems and connectivity to ensure that we operate efficiently as a modern organisation supporting the working requirements of our growing hybrid workforce.

Our work continues to inform the development and delivery of the UK Government and devolved administrations' policies and provides an evidence base to inform and inspire change that benefits society, the economy and the environment.

In particular, Forest Research has:

- continued to implement its Strategy for FR, 'A Strategy for Growth', and increased total operating income over previous years;
- continued to deliver the core programme work relating to the Cross-Border Ministerially endorsed Science and Innovation Strategy, which commenced from April 2019 and is in place for an initial period of five years with an automatic ongoing rolling two-year extension;
- fully delivered or completed in year milestones for 16 out of 18 Key Actions for 2023 to 2024, with two actions substantially complete and a further three with future year milestones ongoing.;
- continued to support Defra and Forest Services colleagues in dealing with biosecurity outbreaks, for example, by responding to recent *Ips typographus* outbreaks;
- produced our research note on 'Carbon balance of two forest stands growing in Great Britain';
- published three adaptation [case studies](#), 'Tentsmuir, A832 and Buccleuch';
- produced a variety of Climate Change fact sheets on subjects including tree species, provenance, carbon, insect pests and risks;
- continued to support the UK's international forest policy work through the provision of technical advice to Defra and the International Forests Unit and representation at international meetings and events including United Nations Forest Forum, FAO, and ForestEurope;
- continued to confirm the Defra Research and Development strategy for the Nature for Climate Fund/England Tree Action Plan;
- published a large range of UK National Statistics and Official Statistics on subjects including woodland carbon code statistics, Timber Price Indices, Forestry Statistics 2023 and analyses from the National Forest Inventory.

The UN Global Goals

The Forest Research Strategy sets out our commitment to achieve net zero and includes actions that support nature recovery, biodiversity, as well as actions specific to climate change adaptation. These priorities are interwoven with the positive impacts on people and the economy that our work leading sustainable forest management delivers.

The UN Sustainable Development Goals (SDGs) are 17 interlinked objectives to deliver global sustainable development by securing the rights and wellbeing of everyone on a healthy planet. Spanning social, economic and environmental objectives, the SDGs are illustrated in the roadmap below.

SUSTAINABLE DEVELOPMENT GOALS



Sustainability

At Forest Research we are providing vital research that will inform forestry practice and provide better guidance and support of sustainability policy. There is a continuing focus on woodland creation and better woodland management in England, Scotland and Wales as part of meeting the UK's net zero targets. Our research helps to support the core principle of delivering valuable, sustainable benefits from the nation's forests and delivering multiple dimensions of sustainability as articulated by the UN Global Goals. The challenges of ensuring our forests remain resilient and meet the changing requirements of today's society and the threats posed by climate change are significant areas of our activity.

Forest Research maintains an environmental management system (EMS) to deliver the organisation's environmental policy and requirements of the 'Greening Government Commitments' (GGC). Our sustainability performance update for this year follows the GGC Framework and is set out within the performance section of this report. Further detail on our commitment to sustainability is articulated in the Sustainability Report on pages 29 to 40.

Financial Review

Forest Research has continued to build on the successes of previous years and delivered positive financial and operational results, meeting our key business plan objectives. The overall business has continued to grow in the 2023 to 2024 financial year with significant increases in staff numbers to deliver services secured through additional funding opportunities.

Forest Research's total funding, including Grant-in-Aid, has increased to around £37.4 million during 2023 to 2024. This equates to a 25% growth from 2022 to 2023 and a cumulative 75% growth in our operational income since 2020. Our expenditure is closely matched to delivering the new contracts with staffing as the largest commitment. Budgets are tightly managed to ensure that we work within our means, details on the different categories of spend are provided below.

Core funding to deliver the objectives of the Science and Innovation Strategy for Forestry in Great Britain is secured under the MOU agreement between the three administrations. In addition, FR has secured other agreed allocations from the 2021 Spending Review particularly in the area of tree health. We have also expanded our income base through successful competitive bids during the year and increased testing and survey works. This has allowed us to expand our services across multiple research areas. In addition, working closely with the Forestry Commission we have secured additional funding via Defra initiatives. We continue to build on core Defra-funded projects such as the Centre for Forest Protection (CFP), the Future Proofing Plant Health (FPPH) Programme, Nature for Climate Funded England Tree Planting Programme (NCF) and new UK Research and Innovation (UKRI) projects as part of Phase 2 of the Future of UK Treescapes programme. This investment has enabled Forest Research to provide better support for the UK Government's Woodland Creation programme, the '[GB Plant Biosecurity Strategy](#)' (published January 2023) and contribute to tree health and plant biosecurity through enhancement of the equipment and facilities, and preparatory studies to develop a robust science and evidence base.

The major refurbishment works at our two main research facilities at Alice Holt (AH) and the Northern Research Station (NRS) have continued in the year. The significant multiyear capital investment in our estate has been possible with the welcome support of Defra via the Forestry Commission, who have provided a further £8.5 million of critical investment in our main facilities and IT infrastructure this year. In addition, we have also received £0.781 million of capital investment from Defra towards scientific equipment to help maintain and enhance the Agency's research capability.

The 2023 to 2024 accounts have been restated for the prior year to reflect how funding from the government is accounted for in accordance with IAS 20 as adapted by the FReM. The impact is that Grant-in-Aid receipts, both capital and revenue, are treated as financing received from a controlling party (the Forestry Commission) giving rise to a residual financial interest and are treated as financing transactions and credited directly to the general fund. Details of the impact on the accounts including the restated values for 2022 to 2023 are disclosed in Note 2.

- A comparison of income and expenditure with the previous year's results shows that: Income from contracts with customers during the year amounted to £17.9 million, which is an increase of around 6% on the level achieved in 2022 to 2023 (£16.9 million).
- Other management costs increased by £1.015 million (12%), mainly due to impairment costs, rising prices and the continued investment in building maintenance costs, computer supply costs and depreciation charges. These cost increases correlate with the planned asset investment and funded capital spend over a number of financial years, as well as routine repairs across the corporate estate.
- Materials and services costs increased by £2.551 million (48%), mainly due to additional research contracts secured which have sub-contracted delivery costs associated with these bids, but also impacted by high inflation and rising costs.

Additions to Property, Plant and Equipment (PPE) and intangible assets during the year amounted to £9.191 million (2022 to 2023: £7.257 million) and included finalisation of the upgrades at the Northern Research Station (NRS) as well as substantial modernisation and sustainability works at our Alice Holt site (AH) and investment in scientific equipment.

Financial Objective – Key Actions

Forest Research's primary financial objective set out in the Framework Document is to recover the full economic costs (i.e. 100%) of its operations from services to customers. In 2023 to 2024 the recovery rate was 101.3%, which reflects a decrease on the 102.1% recovery rate achieved in 2022 to 2023.

Performance against other operational and scientific Key Actions is reported in the Performance Analysis section on page 20.

The Future

Forest Research will continue to concentrate on leading with science and evidence. Our expertise is focused on trees, woods and forests in both rural and urban settings, and ranges in scale from the microscopic to data spanning the whole country. Forest Research will continue to work on increasing our reputation as an outward-orientated, impact-focused agency, engaging and collaborating with our customers and stakeholders to identify, generate and deliver shared solutions.



Our work informs the development and delivery of the UK Government and devolved administrations' policies and provides an evidence base to inform and inspire change that benefits society, the economy and the environment.

We will shape our approach to tailored research and knowledge exchange. It will reinforce Forest Research's place as a world leader for the delivery of applied forestry science.

Some of the activities that Forest Research will be undertaking to support the delivery of the Science and Innovation Strategy for Forestry in Great Britain, and to fulfil our own corporate objectives for 2024 to 2025, are as follows:

- Progress with the finalisation of the Forest Research updated 'Strategy for Sustaining Ambition' building on the success of our previous 'Strategy for Growth' and aligning us to the Forestry Commission's 'Thriving for the Future'.
- Deliver on our seven core science programmes which respond to the 'Science and Innovation Strategy for Forestry in GB', actively engaging with our key stakeholders in co-creation, co-design and in shaping the outcomes of the research.

- Strengthen links with key international partners by hosting the General Assembly of Institut Européen de la Forêt Cultivée (IEFC) and participation in the International Union of Forest Research Organisations (IUFRO) World Congress.
- Deliver Holt Laboratory II build with living tree experimental containment growth chambers to further develop our understanding of known and emerging threats from tree pests and diseases and our response to outbreaks.
- Further develop the phase II of Centre for Forest Protection in partnership with Royal Botanic Gardens Kew and with Defra through a programme of research and development of education and training materials.
- Survey 1,500 hectares of forested land across GB as required by the National Forest Inventory (NFI).
- Contribute to the development and delivery of a substantial part of the work for the Natural Capital and Ecosystem Assessment (NCEA) characterisation of land in England.
- Continue to participate in and support the NCF Programme delivery of 30 projects involving 29 partner organisations with detailed development of phase II of the Strategy.
- Continue to evolve and develop our Environmental Management System and other associated quality management systems.
- Publish UK National Statistics and Official Statistics releases on subjects including forestry statistics, Timber Price Indices, UK wood production and analyses from the NFI.

Performance Analysis

The performance of Forest Research is closely monitored throughout the year by the Forest Research Board and is measured through assessment of our corporate compliance, business growth, finance and science outputs against each of our science and business priorities.

The Board ensures that progress against our Key Actions is appropriately measured and reported, including consideration of risks and uncertainties that potentially have an impact on performance, through our risk management procedures. In addition, regular monitoring of the financial position in comparison to the approved budgetary targets is undertaken. This financial monitoring is critical to the success of our primary financial objective of recovering the full economic costs of our operations from the sale of services to customers.

A financial review and analysis of long-term expenditure trends have been included within the Parliamentary Accountability Disclosures section on page 68. Operating and financial reviews describing our key financial results for the year have been included on pages 12 to 16.

We also recognise the importance of non-financial performance information, and a Fraud Policy Statement is available for staff to access across the organisation. We continue to work closely with the Forestry Commission and Defra in line with the Defra Counter Fraud Policy and Strategy, publicised on our intranet for all staff to access. More detail is provided on page 51.

The review of our science outputs is assessed with independent advice from the Expert Committee on Forest Science. More detail is provided on pages 47 to 48.

The environment is at the heart of our activities and the impact of our business on the environment is measured and reported within the Sustainability Report on pages 29 to 40.

The Board has concluded that our achievements against our corporate 'Key Actions' for 2023 to 2024 are a strong indicator of performance and are listed below. A full commentary with details of our work on each key action is available [on our website](#).

Key actions

Action	Status
Deliver an update of the woodland carbon sequestration estimates for inclusion in the Woodland Carbon Code 'Woodland Carbon Calculation Spreadsheet', incorporating revisions based on new forest yield models.	Complete / ongoing action
Undertake research to investigate alternatives to conventional plastic treeshelters	Complete
Build tree health response capability and capacity in FR working in partnership with the Forestry Commission, Defra and devolved administrations, undertaking contingency planning, and developing and implementing standard operating procedures and a training programme for incident management	Complete / ongoing action
Further develop the Observatree partnership and enhance the volunteer network.	Complete
Carry out surveys and monitoring across the country as required under the EU Plant Health Directive to ensure that the UK retains protected zone status against regulated tree pests and diseases, and provide a report on these activities to the UK and EU statutory bodies	Complete
Continue to expand the use of our Holt Laboratory to support our world-leading research into the known and emerging threats from tree pests and diseases and our response to outbreaks	Complete
Improve baseline characterisation of urban forest cover by data collection, analysis, and publishing on the role of citizen science in urban tree canopy cover measurement at electoral ward scale.	Complete
Complete analyses and publish guidance on minimising the risk of water contamination from the use of the insecticide acetamiprid for protecting trees from Hylobius abietis damage.	Complete
Report on the evaluation of the 5-year main phase of the Active Forests programme	Complete
Produce a report for the Forestry Commission on wood properties and uses of larch in Britain.	Complete
National Forest Inventory Production Forecast published providing key national forestry statistics through the Forestry Statistics and Forestry, Facts and Figures 2022 and the updated Timber Price Indices	Complete
Support Defra and the DESNEZ/FCDO International Forestry Unit through provision of technical advice including around the UK-India Forest Partnership	Complete / ongoing action
Publish UK Forestry Standard (UKFS) Practice Guides: Riparian Woodland; Hazards from trees	Ongoing
Publish FR Report - Biodiversity in commercial forests	Ongoing
Publish UKFS case studies supporting adaptation practice guide	Complete
Ensure financial balance is Complete for the agency	Complete
Improved management accounting and budget reporting and monitoring	Complete
Finalise off network device provisions	Complete
Estate Strategy and site development plans	Complete
Gap analysis for ISO 45001 (OH&S Management System). Including FR resumption system and Fire Risk Assessment and Strategy.	Complete



Research highlights

Research Highlights from the Past Year

Our scientists progress investigations on a remarkably broad range of topics consistent with the requirements of an applied research organisation. The welcome upturn in income signalled elsewhere in this report has enabled new appointments who bring fresh perspectives and new skills. The new science facilities and equipment broaden the research which can be undertaken. Collaboration with research partners and engagement with stakeholders in knowledge exchange also help shape and progress our research. We share progress in these endeavours through participation in research and sector conferences, online and published resources, decision tools and data sharing, and in finished outputs such as published reports, and peer-reviewed papers. The following provides a sample of the mix of research undertaken and the range of scientific disciplines and skills deployed.

Ips Trial – Sitka Spruce vs Norway Spruce

International investigations into the long-distance spread of a tree-killing bark beetle and the susceptibility of a novel host tree

Ips typographus, the eight-toothed spruce bark beetle, is the most destructive forest insect pest in Europe, where it has caused widespread mortality of Norway spruce. Recent outbreaks across the continent have been unprecedented in size and driven by a changing climate, with drought stressed trees becoming susceptible to attack. In late 2018, a breeding population of *I. typographus* was detected in southern England for the first time and



was initially assumed to have arrived with infested timber. FR scientists have been working with European counterparts to investigate the origin of the beetle and the risk it poses to spruce forests in Britain.

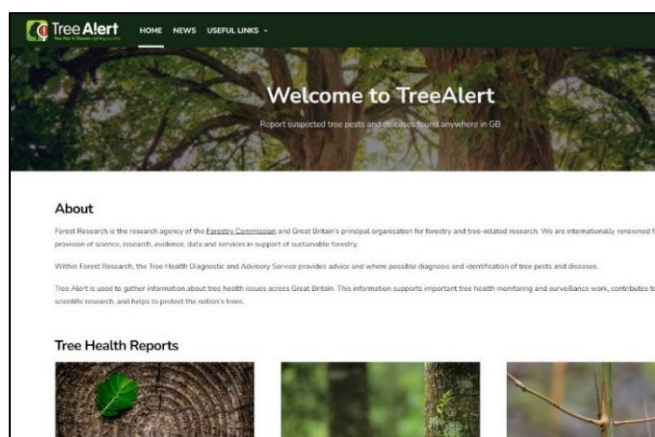
To test the hypothesis that beetles are dispersing naturally across the English Channel, a network of traps was deployed to track flight activity along a 250 kilometres long transect, from an outbreak hotspot in France and Belgium to southern England. During a large-scale dispersal event in 2021, beetles were found to have penetrated more than 160 kilometres into England, leading to the initiation of new localised establishments in the southeast. Analysis of the trap data demonstrates the extraordinary distance *I. typographus* can move under outbreak conditions and is the first evidence of a forest pest dispersing aerially across the Channel.

The impacts of *I. typographus* upon Norway spruce are well understood, but less is known about the susceptibility of Sitka spruce, the most economically important conifer species planted in Britain. Anecdotally, Sitka spruce appears to be more resistant to *I. typographus* attack than Norway spruce, but evidence is very limited. A series of experiments have been developed to explore the beetle's attraction to Sitka spruce and its breeding success on this novel host. Research with live insects in the quarantine labs at Alice Holt have provided an insight into these interactions but does not properly account for the defensive responses of live trees. New collaborative research using forest trees in Denmark, where *I. typographus* is widespread, therefore seeks to understand whether live Sitka spruce trees may have more effective physical and chemical defences against bark beetle attack compared to Norway spruce.

This research supports the UN SDGs 'Good Health and Wellbeing', 'Climate Action' and 'Life on Land' goals.

New Look Tree Alert and Observatree Continued investment to enable early reporting of tree health problems

Early detection of tree health problems is vital to enable rapid responses, and engaging professionals and the public helps increase the surveillance efforts. In 2023, Defra launched its updated '[Plant Biosecurity Strategy for Great Britain](#)'. With an emphasis on a society that values healthy trees, the Strategy helps prevent the introduction of new pests and pathogens and supports management of those that are present. Initiatives such as the citizen science network [Observatree](#) and the online reporting system [TreeAlert](#), both led by Forest Research, were highlighted in the Strategy. Each enables better observation, identification and reporting of tree pests and pathogens to the appropriate authorities. Observatree is a multi-partner project that celebrated its tenth anniversary in the autumn of 2023. The project maintains a network of volunteers who are trained to identify important tree pests and pathogens and report them through TreeAlert, Britain's official tool for collecting tree health information. Over the last ten years, Observatree volunteers have made more than 22,000 tree health observations and the freely available educational resources produced by the project are increasingly valued.



During 2023, TreeAlert was significantly redeveloped to improve its functionality on mobile devices. The tool was designed to capture information on pests and pathogens, but it is now possible for users to provide information on trees that appear to be healthy. Having reports of healthy trees provides important epidemiological information and fills a knowledge gap where previously, for areas with no TreeAlert reports, we were unable to tell whether lack of reporting was because the trees appeared healthy or because no one had checked the area. This new functionality enabled us to support the '[Check a Sweet Chestnut](#)' campaign, as members of the public were able to submit reports on healthy-looking sweet chestnut trees as well as suspected cases of the oriental chestnut gall wasp or sweet chestnut blight.

In the year ahead, further enhancements to TreeAlert are being developed to increase access to the data that has been submitted over the last ten years. We will use these recent and planned new TreeAlert developments, along with the Observatree and other FR tree health resources, to reach wider audiences, increase tree health surveillance and support the health of trees in Britain.

This research supports the UN SDGs 'Good Health and Wellbeing', 'Climate Action' and 'Life on Land' goals.

A New Way to Assess the Biodiversity Potential of Forests

The Forest Biodiversity Index (FOBI) – evidence to support and inform forest biodiversity reporting and management.

Public forestry agencies have a statutory duty of care to safeguard and enhance the biodiversity value of the forests they manage. However, they often lack the information and tools with which to evidence progress towards these obligations and to justify decisions. In response to this, over the past three years, Forest Research has been working with Forestry and Land Scotland and Forestry England to co-develop the '[Forest Biodiversity Index \(FOBI\)](#)', a quantitative, transparent and repeatable approach for assessing the biodiversity potential of publicly owned forests over space and time.

The FOBI method involves the measurement and combination of several metrics associated with woodland biodiversity, such as tree size diversity and woodland connectivity, resulting in separate local and landscape FOBI scores. Results are generated on an annual basis for each individual forest unit to inform locally targeted action and are summarised at regional and national scales for national long-term biodiversity monitoring and reporting.



The FOBI indicates that the biodiversity potential of public forests has generally improved from 2011 (Scotland) or 2014 (England) via increases in diversity, extent, condition and connectivity of woodlands. To support and encourage use of the FOBI, the project team are providing several guides and bespoke online interfaces for data exploration.

The FOBI method and results for 2014, as well as 2019 to 2021, has now been finalised and submitted for peer review in a scientific journal.

This research supports the UN SDGs 'Good Health and Wellbeing', 'Decent Work and Economic Growth' and 'Life on Land' goals.

75 Years of Tree Breeding in Britain

In 1948, the Forestry Commission's Genetics Section was established to 'develop strains of trees showing increased vigour, improved stem form, better adaptation to adverse conditions, increased resistance to pests and diseases and improved timber quality.' This made 2023 the 75th anniversary of tree breeding in Great Britain.

The sustained endeavour has led to the development of improved populations for five conifer species and the transfer of substantial genetic gains to plantations via seed orchards and vegetative propagation programmes. The improved performance of this genetic material is worth tens-to-hundreds of millions of pounds to the British forestry sector each year. Today's planted forests are more productive than those of previous generations.

The 75th anniversary was celebrated with a Forest Science Seminar, an article for the Institute of Chartered Foresters (ICF) Trees magazine and a social media campaign and provided an opportunity to reflect on progress to date. A visit was made to tree breeders in France as a step towards restoring partnerships and we have been working towards the first UK submission to the Food and Agriculture Organization of the United Nations report 'State of the World's Forest Genetic Resources'. This is expected to be published in 2024 and will lay down a marker of domestic progress in forest genetics to date.

Currently, much of our forest genetics work is split across multiple species and new ways of evaluating trait variation. It is organised as short-term projects, with research work in Sitka spruce, Scots pine, Douglas fir, ash, silver birch and larch ongoing. Plans are in place to bring together these innovations into a new system of 'rolling-front' tree breeding to deliver gains more regularly, retain technical capacity and ensure future generations of scientists can benefit from research infrastructures such as established trials and collections as we have benefitted from the work of our predecessors.

The original mission of the genetics section remains relevant and appropriate, 75 years on.

This research supports the UN SDGs 'Good Health and Wellbeing', 'Clean Water and Sanitation', 'Climate Action' and 'Partnerships for the Goals' goals.

England's First Natural Capital Ecosystem Assessment

The Natural Capital Ecosystem Assessment (NCEA) is an England-wide programme involving several Defra Group organisations. The purpose of the terrestrial component is to assess and describe the extent and condition of England's biodiversity, ecosystems, and natural capital assets, both now and into the future.

Forest Research is working in partnership with Natural England, the Environment Agency, the Joint Nature Conservation Committee and Kew to deliver an ambitious range of forest and ecosystem monitoring networks, modelling, innovative measurements, earth observation products, tools and guidance. Ultimately, the information, knowledge and services developed through this programme aim to transform the way policy decisions are made and help ensure that society invests in environmental reforms that achieve maximum benefit. The current programme started in April 2022 and will run through to March 2025.

Within the programme, Forest Research is leading several innovative projects related to trees, woodlands, and forestry. These projects are diverse in nature, from mapping England's trees outside woodlands (TOW), to collecting environmental data on woodland bat populations, recreation, air pollution mitigation, soil health and condition, water quality and forest canopy and soil ecology. Highlights that have emerged already include:

- We have enhanced England's TOW map to include lone trees down to a canopy area of 5 m², significantly improving our estimates of the number of lone trees. The TOW map for the whole of England has been finalised and will be published by Defra in summer 2024.
- We are working with the Bat Conservation Trust to develop an autonomous sensor suitable for long-term bat monitoring in woodlands.
- We are using a range of innovative eDNA techniques to monitor both soil biodiversity and above ground woodland ecology.
- We have identified a rare Alcahoe bat (*Myotis alcathoe*) at three different geographical regions in England.
- We have identified two new soil nematodes Genus records (*Mononchoides* sp and *Stenonchulus* sp) and the first UK recording of the soil oribatid mite *Neotrichoppia confinis* at plots within our UK Biosoil forest and monitoring network.

This research supports the UN SDGs 'Clean Water and Sanitation', 'Climate Action', 'Life on Land' and 'Partnerships for the Goals' goals.

Farmers' Values and Woodland Creation

The 'Farmer values' project is three and a half-year project running until March 2025 and funded by the UK Government through Defra's Nature for Climate Fund programme. With a focus on England, it explores how the values held by farmers may impact their ability or willingness to grow trees. We understand 'values' as being what matters to people or what they consider to be good and



important in life, particularly for social, cultural or moral reasons. Our premise is that by better understanding how trees relate to these values we can identify how, when and where farmers may be willing and able to grow trees. This is of crucial importance if we are to meet tree planting targets.

[Our work](#) has shown that a wide range of values are likely to factor into farmers' considerations about growing trees. Through interviewing farmers, we have identified seven key value areas: farm health, food production, farm business, landscape relationship, environmental values, social influence and farming identity. Following these interviews, we surveyed 393 farmers to understand how important these value areas are to farmers both in general and in relation to tree planting.

One early example that has arisen as an opportunity to increase tree cover on farms relates to cattle. Many of the farmers we interviewed expressed a concern for the health of their cattle. Cattle health is important not only for the success of the farm business, but also for reasons relating to farming identity, how other farmers and the public see them (social influence) and because they value producing food. Because cattle health is valued for multiple reasons, if farmers can be convinced that trees can benefit the health of their cattle, this presents one clear opportunity for increasing trees on dairy farms.

This research supports the UN SDGs 'Climate Action' and 'Partnerships for the Goals' goals.



Sustainability report

Environmental Sustainability

Sustainability is an essential characteristic within the strategic objectives, operations and policy making of Forest Research. The implementation of a systematic approach to environmental management via ISO 14001 demonstrates Forest Research's commitment to contributing to the environmental pillar of sustainability.

As a business we seek to reduce our environmental impact wherever possible and embed our commitment to the environment within our core business processes. We maintain a formal environmental management system (EMS) for our built estate which is externally certified to ISO 14001:2015 standard.

Our operational activities are managed in accordance with the UK Forestry Standard (UKFS) and UK Woodland Assurance Standard (UKWAS) and certified by both the Forestry Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC).

Forest Research maintains an EMS to deliver on the commitments within its environmental policy and manage its significant environmental aspects through implementing an environmental management programme (based on the greening government commitments). Our Senior Management Team, in demonstrating its commitment to environmental sustainability and leading by example.

To support the Defra Climate Change Adaptation Strategy, our EMS represents the mechanism by which we measure and improve our environmental performance in terms of energy use, business travel, waste arising, water consumption and management of hazardous materials.

We report our environmental performance against the HMT Sustainability Reporting Guidance, which incorporates the 'Greening Government Commitments' (GGC) Framework for 2021 to 2025, with 2017 to 2018 being the baseline year against which we will target further improvements. (The base line year data is included in the tables as a benchmark, but not reflected in the associated graphs.) We continue to make good progress in terms of reducing our net carbon emissions in line with the GGC targets and the UK Carbon Budget Orders.

Environmental management is a key commitment for Forest Research, it is a standing item at the Site and Environment Management Committee meetings and is subject to regular top management review. As an organisation, we monitor environmental performance as part of our day-to-day activities and emphasise the need to embed this in our operational planning.

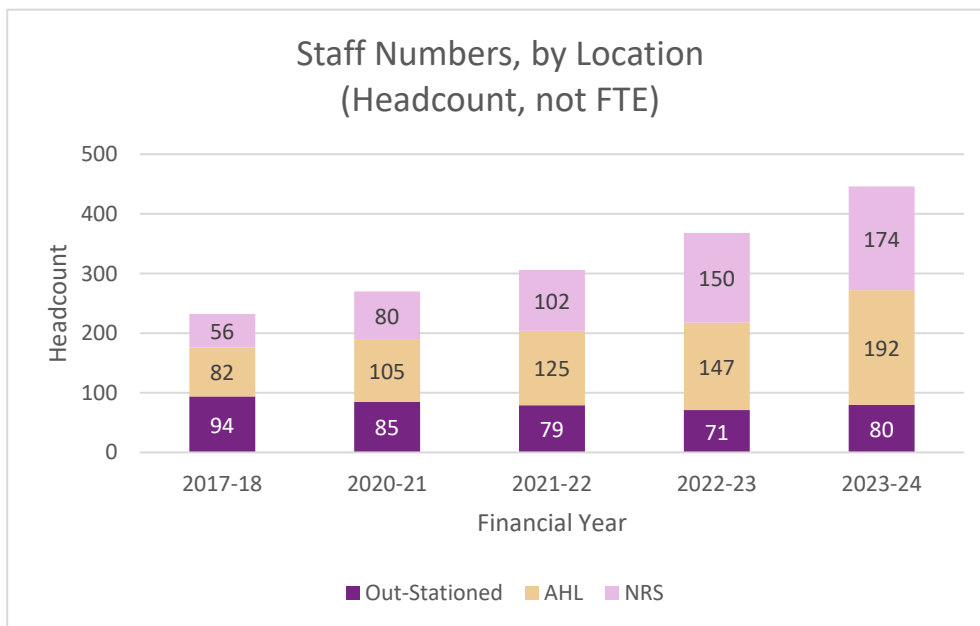
Our sustainability performance update for this year follows the GGC Framework and is set out within the environmental sustainability performance evaluation sections of this report. The consumption figures included in Tables 1 to 8 must be viewed in the context of Forest Research’s changing operating environment and the substantial increase in our on-premises business activities (particularly related to Tree Health and Inventory, Forecasting and Operational Support). Two factors should be noted:

- Increasing staff numbers as the business expands to deliver our additional research contracts.
- The construction and design of the Holt Phase 2 Laboratory should be considered.

The last year has been one of unprecedented growth for Forest Research and we have increased our staff-count in 2023 to 2024 to 406 (by about 10% within 12 months). We have also invested substantially in new laboratory and office space and have increased our occupied floor area from about 6,400 m² in 2021 to 8,600 m² in 2023, i.e. by around one-third.

Figure 1 shows the increased staff numbers and their main office locations. These factors impact on our overall energy consumption and travel figures.

Figure 1 Staff Numbers, by Location



Greenhouse gas emissions (Scopes 1 to 3)

The total gross greenhouse gas (GHG) emissions associated with our built estate, bought energy, business travel activities and fugitive emissions (F-Gas) for 2023 to 2024 was 951 tonnes CO₂e.

Figures 2 and 3 provide analysis of our total corporate carbon emissions, firstly by sector of our business and then as a segmental breakdown of the various individual sources of these emissions.

Figure 2 FR Corporate GHG Emissions (gross)

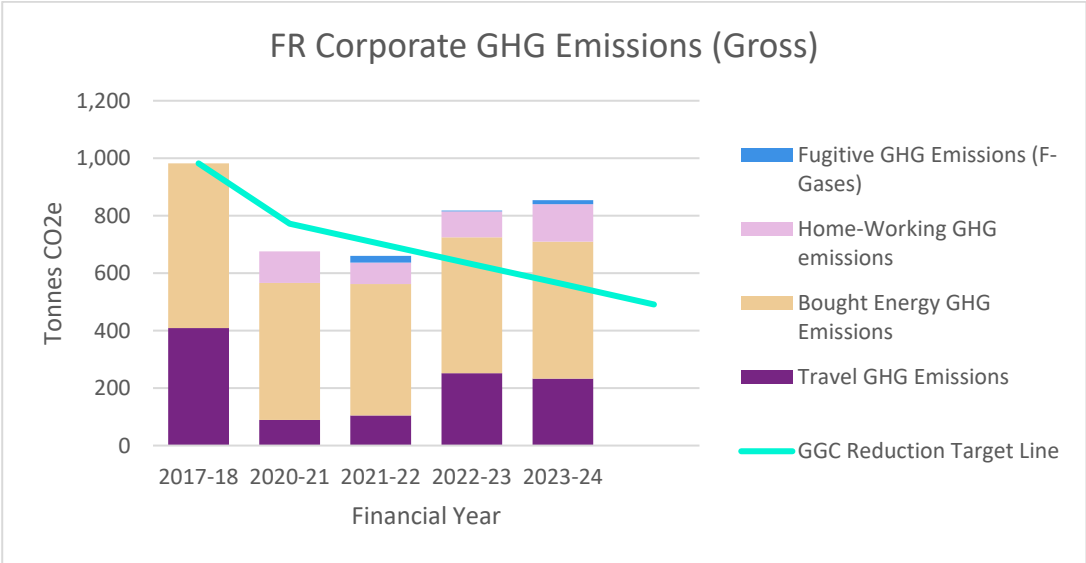
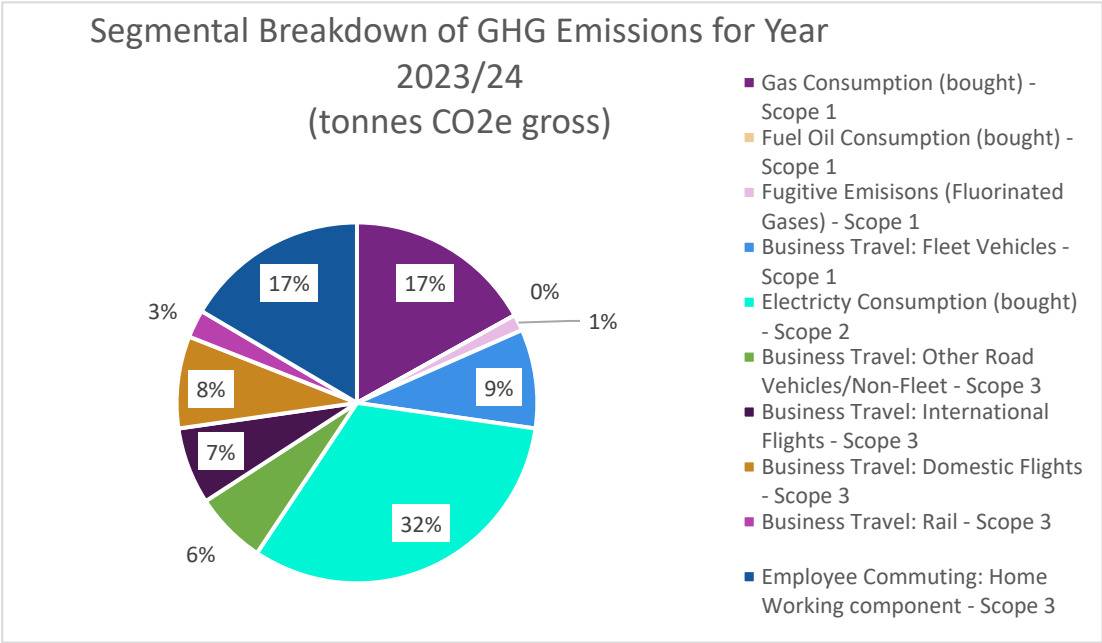


Figure 3 Segmental Breakdown of GHG Emissions for 2023 to 2024 (Tonnes CO₂e gross)



Our environmental performance with respect to fugitive emissions, energy use, business travel, waste arising, water consumption and paper use are detailed below.

Scope 1 (Direct) - Fugitive Emissions

Considering the impact of fugitive gases (F-gases) on climate change and in compliance with legal requirements to reduce this impact, Forest Research has targeted the replacement of equipment containing fluorinated refrigerant gases with a 'very high' global warming potential in excess of 2,500 CO₂e before the 2030 phase out period.

Table 1 provides information on environmental performance measurement for fugitive emissions.

Table 1 Fugitive Emissions

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Refrigeration and air conditioning topped up - Scope 1	Carbon Dioxide equivalent (CO ₂ e) in tonnes	14	3	23	-	-

Scope 2 (Energy Indirect)

Energy Bought and Consumed

Table 2 provides information on environmental performance measurement for energy bought and consumed (after deducting supplies to tenants and including home working).

Table 2 Energy Bought and Consumed

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Electricity - Scope 2 & 3	kWh	1,489,981	1,314,507	1,180,249	981,523	1,101,095
	£	443,553	288,754	197,396	147,613	151,061
	Location-based GHG Emissions in tonnes CO ₂ e	335	277	272	253	528
	Market-based GHG Emissions through use of REGO-certified renewable tariffs in tonnes CO ₂ e	25	24	5	94	-
Gas – Scope 1	kWh	714,662	1,547,913	1,414,920	1,665,175	1,355,120
	£	51,608	66,037	46,736	46,507	39,818
	GHG Emissions in tonnes CO ₂ e	130	283	258.7	306	246
Oil Bought - Scope 1	kWh	Unavailable	10,630	-	-	6,426
	£	Unavailable	1,248	-	-	328
	GHG Emissions in tonnes CO ₂ e	Unavailable	3	-	-	2

Energy Generated from Renewables

Using energy generated from renewables since 2020, we have transferred almost all of our electricity supplies to '100% Clean Renewable' tariffs via EDF Energy. We continue to report the 'gross' GHG emissions associated with our electricity consumption, based on grid average conversion factors, since the avoided emissions are claimed elsewhere within the UK's carbon-budget accounting process. However, we have estimated our avoided GHG emissions associated with the purchase of electricity from REGO-certified, fully renewable sources to be 253 tonnes of CO₂ equivalents. We will be renewing our energy supply contracts in the next 12 months and the procurement exercise will ensure that we continue to deliver on the environmental considerations for the new contract.

We are in the fourth year of our substantial 'Estates Improvement Programme' in our main office sites. One of the key aims of this project is to reduce our environmental impact within our built estate. Investment decisions, both in the long-term building fabric and the construction processes and practices, have been driven by the principles of environmental sustainability in order to improve thermal efficiency and enable the future transition to lower-carbon heating systems. We will continue, in conjunction with the Forestry Commission and Defra Sustainability Leaders, to search out and adopt new practices that will allow us to achieve longer-term environmental benefits in the way we operate.

Table 3 provides information on environmental performance measurement for energy generated from renewables.

Table 3 Energy from Renewables

Area	Units	2023-2024	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Total Generated from Solar PV	kWh	Unavailable	42,915	43,674	42,156	24,115
GHG Emission avoided Scopes 2 and 3	GHG Emissions in tonnes CO ₂ e	Unavailable	9	11.5	10	8

Business Travel

Business travel accounts for one-third of our total GHG emissions. Figures 4 and 5 provide some analyses of the mode and impacts over time of Forest Research business travel.

Figure 4 Business Travel (km), by Mode and Year

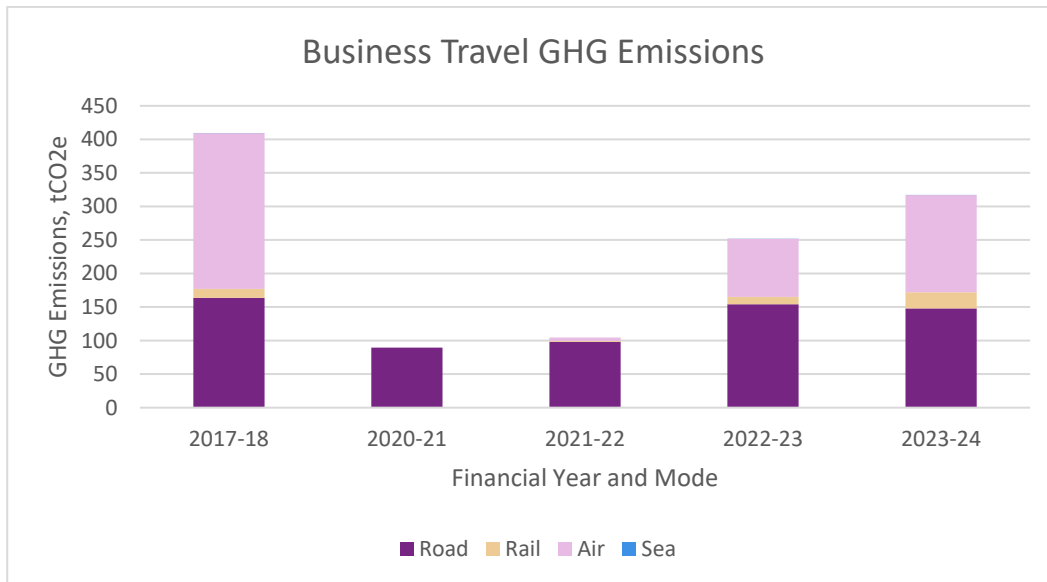
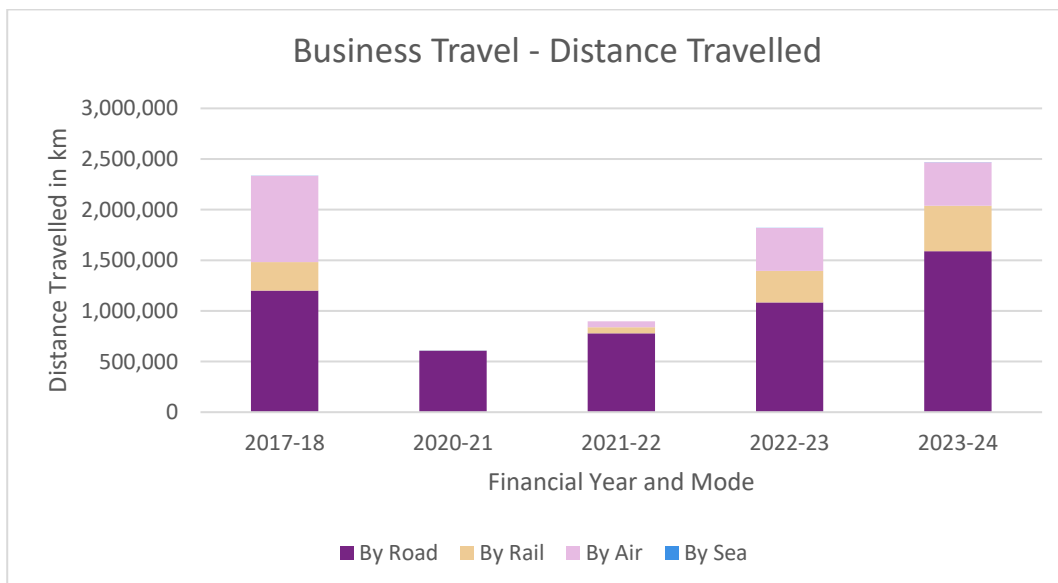


Figure 5 Total GHG Emissions, by Mode and Year



Forest Research’s greenhouse gas emissions from its business travel comes from its owned and leased fleet, non-fleet and public transport.

Owned and leased fleet (Scope 1)

Our current fleet comprises of 17 cars (53% of which are ultra-low emission vehicles, or 'ULEV') and 28 vans (which are currently all diesel-fuelled). We exceeded the GGC target of 25% of the car fleet to be ULEV by the end of 2022.

Table 4 provides information on environmental performance measurement for Travel on Official Business (Scope 1).

Table 4 Travel on Official Business (Scope 1)

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Owned Fleet/Leased Vehicles - Scope 1	km	709,202	750,567	575,549	541,623	869,758
Fleet Vehicles (standard fuels)	km	564,138	674,441	491,598	-	-
Fleet vehicles (ultra-low emission)		145,064	76,126	83,951	-	-
Fleet Vehicles (zero emission)		-	-	-	-	-
Owned Fleet/Leased Vehicles - Scope 1	GHG Emissions in tonnes CO₂e	85	95.6	70.8	79	116
Fleet Vehicles (standard fuels)	GHG Emissions in tonnes CO ₂ e	67	92.3	67.3	-	-
Fleet Vehicles (ultra-low emission)		18	3.4	3.5	-	-
Fleet Vehicles (zero emission)		-	-	-	-	-

Non-fleet and public transport (Scope 3)

Table 5 provides information on environmental performance measurements for Travel on Official Business (Scope 3).

Table 5a Travel on Official Business (Scope 3)

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Air Travel (domestic)	km	189,157	169,399	35,244	-	-
Air Travel (international)		239,195	254,708	22,185	-	-
Rail Travel (domestic)		448,773	310,613	-	-	-
Rail Travel (international)		-	-	-	-	-
All Other Travel		891,640	338,538	263,530	66,645	1,473,152

Table 5b Travel on Official Business (Scope 3)

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Owned Fleet/Leased Vehicles	£	Unavailable ¹	Unavailable ¹	152,919	143,905	288,150
Fleet Vehicles (standard fuels)	£	Unavailable ¹	Unavailable ¹	152,919	-	-
Fleet vehicles (ultra-low emission)		Unavailable ¹	Unavailable ¹	-	-	-
Fleet Vehicles (zero emission)		-	-	-	-	-
Fleet Vehicles (standard fuels)		Unavailable ¹	Unavailable ¹	-	-	-
Air Travel (domestic)		79,240	27,184	-	-	-
Air Travel (international)		66,493	27,547	-	-	-
Rail Travel (domestic)		23,550	58,316	-	-	-
Rail Travel (international)		-	-	-	-	-
All Other Travel		£	64,372	71,954	-	-
Air Travel (domestic)	GHG Emissions in tonnes CO ₂ e	79.2	41.6	8.6	-	-
Air Travel (international)		66.5	45	3.9	-	-
Rail Travel (domestic)		23.5	11	-	-	-
Rail Travel (international)		-	-	-	-	-
All Other Travel		64.4	58.7	30	10	295

¹ Data for business travel on vehicles is unavailable as it cannot be segmented nor is it fully assured

Our business travel is increasing as we return to the post-covid world and continue with international collaborations and more in-person meetings. The increase should also be viewed against the substantial rise in staff numbers as shown in Figure 1.

Our investment in our ICT capability continues to provide the organisation with a strong platform to conduct business remotely for many areas of our work. This approach is now embedded in our operations for senior management and colleagues throughout the business. In addition to the Forest Research Travel Principles, the FC Travel and Expense and FC Low Emission Travel Policies provide information on sustainable travel hierarchy. Our staff are more aware of actions that will enhance our environmental management capacity, support recycling initiatives, turn off unused lighting and are energy aware.

This year we have substantially increased our on-site provision of electric vehicle charging points, with seven twin-pods at AH and three at NRS (two 7kW twin chargers and one 22kW twin charger). Also, NRS boasts six Pod Point electric vehicle chargers available in the main car park for staff and visitor use only.

Waste Minimisation and Management

In terms of our other waste consumption, the total waste arising has increased compared to the previous year, due largely to us having discontinued on-premises composting of green, grounds-keeping waste which is now transferred to a purpose-built local facility. Tankered sewage waste has remained high during the year due to high maintenance required for a minor sewage treatment facility at Alice Holt. This is approaching the end of its expected service-life and is now scheduled for replacement. We continue to work closely with the Forestry Commission and Defra to plan for this.

Substantial development works are ongoing on both main sites but we are unable to get 2023 to 2024 recycled or disposal data of any waste due to ITC (a contractor) undergoing liquidation. Waste totals will be reported for the contracts in the 2024 to 2025 reporting cycle.

All of our Information Technology (IT) equipment is disposed of responsibly through Waste Electrical and Electronic Equipment Directive compliant organisations. During Year 2023 to 2024 Forest Research did not recycle or dispose of any IT waste: we have prioritised the refurbishment and reuse of equipment wherever feasible. The implementation of reuse schemes across FR estate is an agenda during Forest Research's 'Site and Environment' periodic meetings.

Table 6 provides information on environmental performance measurement for waste.

Table 6a Waste

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Waste Minimisation and Management (Non-Sewage)						
Total Waste Arising	Tonnes	175	119	76	84	72
Waste to landfill	Tonnes	1	1.02	1.29	1	12
Waste re-used or recycled		167	111	68.50	81	60
Waste incinerated with energy recovery		3	4.7	0.06	2	-
Waste incinerated without energy recovery		2	-	-	-	-
Total Hazardous Waste		2	1.8	6.5	-	-
Total Waste Arising	£	115,593	64,125	33,012	32,447	22,948
Waste to Landfill	£	6,356	5,188	1,209	3,983	5,563
Waste re-used or recycled		57,111	40,722	23,446	26,616	17,385
Waste incinerated with energy recovery		6,472	3,865	4,861	1,848	-
Waste incinerated without energy recovery		18,592	-	-	-	-
Total Hazardous Waste		27,062	14,350	3,496	-	-

Table 6b Waste

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Waste Minimisation and Management (Sewage)						
Waste re-used or recycled	Tonnes	531	669	451	548	109
Waste re-used or recycled	£	15,024	18,454	14,426	12,782	2,040
Waste recycled, re-used and recovered (externally)	Tonnes	-	-	-	-	-
Waste recycled, re-used and recovered (externally)	£	-	-	-	-	-
Construction Waste Arising from Projects Over 300k						
Waste re-used or recycled	Tonnes	Unavailable	unavailable	-	-	-

Paper use

Table 7 provides information on environmental performance measurement for waste. There has been progressive reduction on paper use against the 2017 to 2018 baseline.

Table 7 Paper use

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Printing and Photocopying Paper Purchased	A4 reams (equivalent)	295	288	200	280	940

Finite Resource Consumption – Water Consumption

We are committed to continually improving our consumption of water and we will investigate and implement alternative water supply systems for the intensive nurseries, e.g. via rainwater harvesting, borehole or store-well systems (non-office activities). Table 8 provides information on environmental performance measurement for water use.

Table 8 Water

Area	Units	2023-24	2022-23	2021-22	2020-21	2017-18 GGC Baseline
Scope 2 - Water purchased from a third-party supplier	m ³	10,313	13,358	7,146	11,626	13,725
Scope 2 - Water purchased from a third-party supplier	£	30,995	30,384	11,249	16,946	18,329
Scope 1 - Water from sources owned or controlled by FR	m ³	-	-	-	-	-
Scope 1 - Water from sources owned or controlled by FR	£	-	-	-	-	-

Sustainable Procurement

Sustainability remains embedded into our procurement practices, through observance of the Government Buying Standards and our own developed comprehensive Environmental Procurement Procedures. The selection of contractors is done according to Government Procurement Standards and Requirements, and we will ensure that sustainable procurement is accounted for when buying goods and services. Forest Research acknowledges that its purchased goods, works and services account for substantial Scope 3 'upstream' emissions (quantification methodology currently in development via FC/FE) and also have a significant influence on Scopes 1 and 2 emissions caused by on-site energy use.

Nature recovery and biodiversity action planning

As Forest Research does not hold or manage any significant natural capital or areas of undeveloped land, we do not publish Nature Recovery or Biodiversity Action Plans.

Climate Change Adaptation

The impact of a changing climate is visible across the globe and to this end, in line with the GGCs, Forest Research is positioned in the near future to develop and implement a Climate Change Adaptation Strategy to enable it to adapt to the effects of our changing climate.

Environmental Impacts from ICT and Digital

FR continues to review our Information and Communications Technology (ICT) and digital estate with the intention that with each new infrastructure upgrade and refinement, we continue to improve performance and efficiency of our systems. While we do not currently actively monitor the environmental impacts from our systems, this is an ambition of ours moving forward.

Forest Research operates a hybrid-cloud infrastructure, which has already led to a significant reduction in our hardware footprint since devolution. Where possible, our services are virtualised or delivered from the Cloud, reducing our dependency on hardware as much as possible and all that entails (such as a reduction in on-premises electricity usage and carbon footprint). Within the year we have completed the move of our data centre to the Cloud, this will see a reduction in our demand for air conditioning and lighting. All of our end-user devices have variable power plans, which can be selected or modified based on user need.

All IT equipment is procured through existing government frameworks, which ensures compliance with all ethical and environmental standards. Sustainable Construction

The reporting on our sustainable construction and refurbishment activities is in development and we will investigate how this can be expanded in future years if resources permit.

Task Force on Climate Related Financial Disclosures

This is the first year that Forest Research has reported on climate-related financial disclosures consistent with HM Treasury's Task Force on Climate-Related Financial Disclosures (TCFD) aligned disclosure application guidance which interprets and adapts the framework for the UK public sector.

We can confirm that Forest Research has complied with the TCFD recommendations and recommended disclosures around:

- governance (all recommended disclosures) – for details of how we are managing our compliance see our Governance Statement pages 46 to 53 and Performance Report pages 12 to 27;
- metrics and targets (disclosures (b)) are included in the tables and graphs of this report.

This is in line with the central government's TCFD-aligned disclosure implementation timetable.

Recognising the urgent nature of responding to the climate crisis, and the impact this could have on our organisation, we are committed to maturing and enhancing our climate risk disclosures. As such, Forest Research plans to make disclosures for Strategy, Risk Management and Metrics and Targets disclosures (a) and (c) in future reporting periods in line with the central government implementation timetable.



Professor James Pendlebury

Chief Executive and Accounting Officer

06 November 2024



2 Accountability report

Corporate Governance



Directors' Report

Relationship with Defra and the wider Defra Network

The Department for Environment, Food and Rural Affairs (Defra) Ministers who had responsibility for the Forestry Commission, including Forest Research (FR), during the year were:

- Thérèse Coffey MP, Secretary of State from 25 October 2022 to 13 November 2023.
- Steve Barclay MP, Secretary of State from 13 November 2023.
- Lord Benyon, Minister of State from 30 October 2022 to 14 November 2023.
- Lord Robbie Douglas-Miller OBE, Parliamentary Under Secretary of State from 1 December 2023.
- Trudy Harrison MP, Parliamentary Under Secretary of State from 7 September 2022 to 13 November 2023.
- Rebecca Pow MP, Parliamentary Under Secretary of State for Nature from 14 November 2023.

Our Board

Members of the Board of Forest Research during the year were:



Dr Matt Perkins*
Chair of Forest Research Board
and Non-Executive Director



Professor Julian Evans OBE*
Forestry Commissioner (to
December 2023),
Non-Executive Director (from
January 2024)



Professor James Pendlebury*
Chief Executive,
Forest Research



Simon Fuller
Scottish Government,
Non-Executive Director



Professor Chris Quine*
Chief Scientist,
Forest Research



Professor Nicola Spence*
UK Government,
Non-Executive Director



Paula Rice
Director of Finance & Corporate
Resources, Forest Research



Ceri Witchard
Welsh Government,
Non-Executive Director (to
July 2023)



Richard Stanford
Forestry Commission
Chief Executive



Nicolas Turner
Welsh Government, Non-
Executive Director (from July
2023)



Sir William Worsley
Forestry Commissioner
and FC Chair



Professor Jo Bradwell*
Forestry Commissioner,
Non-Executive Director (from
February 2024)

The Chief Executive is appointed following public advertising of the post. The term of the appointment and provision for its termination are governed by the Civil Service Commission Recruitment Principles. Further details on remuneration are set out in the Remuneration Report.

*These Board Members have related party interests that are disclosed in Note 15.

The Chief Executive is appointed following public advertising of the post. The term of the appointment and provision for its termination are governed by the Civil Service Commission Recruitment Principles.

Further details on remuneration are set out in the Remuneration Report.

Register of interests

In accordance with paragraph 19.4 of HM Treasury Public Expenditure System (PES (2023) 01) Guidance on the Preparation of Annual Reports and Accounts for 2021 to 2022, the declaration of any conflicts of interest is a standing-order at all Forest Research Board meetings. In the period covering 1 April 2023 to 31 March 2024 there were no actual, or potential, conflicts of interest raised. This is recorded in the Minutes of all Board meetings.

A register of interests of all Board Members is maintained by Forest Research and published on the [structure and governance section](#) of the Forest Research website.

Personal Data Related Incidents

There were no incidents related to protected personal data reported for Forest Research in 2023 to 2024 (2022 to 2023: nil).

Forest Research will continue to monitor and assess its information risks in order to identify and address any weaknesses and ensure continued improvement of its systems. Further information on the handling of information risk is contained in the Governance Statement.

Supplier Payment Policy

Forest Research complies with the 'Government's Better Payment Practice Code'. Unless otherwise stated in the contract, we aim to pay within five days from the receipt of goods and services or the presentation of a valid invoice, whichever is the later. An analysis for 2023 to 2024 indicates that 98.4% were paid within the due date (2022 to 2023: 99.4%). Arrangements for handling complaints on payment performance are notified to suppliers on contracts.

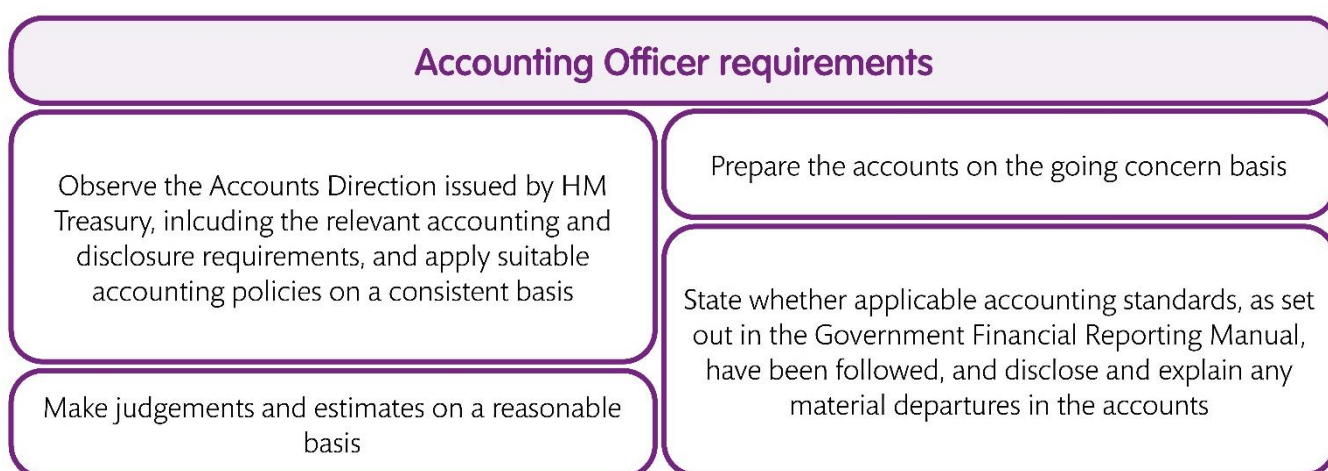
Auditors

These accounts are prepared in accordance with a direction given by HM Treasury in pursuance of Section 7 of the Government Resources and Accounts Act 2000. They are audited by the Comptroller and Auditor General, who is the statutory appointed auditor. The fee for statutory audit services in respect of these accounts was £50,750 (2022 to 2023: £42,000). No further non-audit services were provided in 2023 to 2024 or 2022 to 2023.

Statement of Accounting Officer’s Responsibilities

Under Section 7 of the Government Resources and Accounts Act 2000, HM Treasury has directed Forest Research to prepare for each financial year a statement of accounts in the form and on the basis set out in the Accounts Direction. The accounts are prepared on an accruals basis and must give a true and fair view of the Forest Research state of affairs at the year-end and of its income and expenditure, changes in taxpayers’ equity and cash flows for the financial year.

In preparing the accounts, the Accounting Officer is required to comply with the requirements of the Government Financial Reporting Manual.



The FC Chief Executive Officer, in his role as Accounting Officer for the Forestry Commission, has designated Forest Research’s Chief Executive as Accounting Officer for the Agency. The FR Chief Executive’s responsibilities as Forest Research Accounting Officer (including responsibility for the propriety and regularity of the public finances for which an Accounting Officer is answerable, for keeping proper records, and for safeguarding Forest Research’s assets) are set out in *Managing Public Money* produced by HM Treasury.

As Accounting Officer, I confirm that as far as I am aware there is no relevant audit information of which our auditors are unaware. I have taken all necessary steps to make myself aware of all such information and to establish that our auditors are equally informed. I take personal responsibility for the Annual Report and Accounts and the judgements required for determining that they are fair, balanced and understandable, and that it is appropriate that they are prepared on the going concern basis, which I confirm they are.

Governance Statement

Introduction and scope of responsibility

As Agency Accounting Officer for Forest Research, I have responsibility for ensuring that its business is conducted in accordance with the law and proper standards, and that public money is safeguarded and properly accounted for, and used economically, efficiently and effectively in accordance with 'Managing Public Money'.

In discharging this overall responsibility, I am responsible for putting in place appropriate arrangements for the governance of its affairs, facilitating the effective exercise of its functions, which includes ensuring a sound system of control is maintained through the year and that arrangements are in place for the management of risk.

The purpose of the governance framework

The governance framework comprises the systems and processes, and culture and values, by which Forest Research is directed, controlled and led. It enables the Agency to monitor the achievement of its strategic objectives and to consider whether those objectives have led to the delivery of appropriate, cost-effective outcomes that are also compliant with the law and with policy.

The system of internal control is a significant part of that framework and is designed to manage risk to a reasonable level. It cannot eliminate all risk and can therefore only provide reasonable and not absolute assurance of effectiveness. The system of internal control is based on an ongoing process designed to identify and prioritise the risks to the achievement of the Agency's policies, aims and objectives; to evaluate the likelihood of those risks being realised and the impact should they be realised; and to manage them efficiently, effectively and economically.

The governance framework has been in place at Forest Research throughout 2023 to 2024 and up to the date of approval of the Annual Report and Accounts and complies with HM Treasury guidance.

The Governance Framework

Forest Research is an Executive Agency of the Forestry Commission. The Agency's Framework Document sets out my responsibilities as Agency Accounting Officer. I am a member of the Forestry Commission's Executive Board and am responsible to the Forestry Commissioners for the management of the Agency. I have a right of direct access to the Forestry Commissioners and to the relevant Ministers, and a right to meet them at least once a year.

Forest Research Board

The Forest Research Board (FRB) was established to manage the day-to-day operations and performance of Forest Research, within the policy framework set by Ministers and the Forestry Commissioners. The Board meets regularly and met four times during 2023 to 2024.

The Board discussed a wide range of forest research and related issues as illustrated below.



At each of the meetings during 2023 to 2024 the Board routinely discussed reports from the Chief Executive, Chief Scientist and Director of Finance & Corporate Services. In addition, the Board received various presentations and papers from executive colleagues representing scientific research and corporate service issues. The Chair of the Forestry Commission's Expert Committee on Forest Science (ECFS) provided the Board with a summary of their activities and confirmed that the ECFS were impressed by the quality of the research in all the groups reviewed.

The Forest Research Board convened a sub-committee to discuss the Board Effectiveness review, who reported to the February 2024 board meeting with updated action points from the prior year review. No material control weaknesses have been identified. Further information about the FRB, including membership and attendance, is available on [our website](#).

Expert Committee on Forest Science

The [Expert Committee on Forest Science](#) was established by the Board of Forestry Commissioners to provide independent, expert advice and assurance on the quality of science and evidence provided by

Forest Research (the Forestry Commission’s research agency) and other providers. The Chair of the committee provided a report on activities to the September meeting of the Board. This was presented on the Chair’s behalf at the meeting by Prof Tom Meagher and summarised recent business of the committee, changes to its membership and the completed reviews of two science groups: Urban Forest Research Group and the Land Use and Ecosystem Services science group. Overall, the ECFS were impressed by the quality of the research of both groups and identified several specific opportunities for group development as well as wider issues of long-term funding for long-term assets, and the career development of recently recruited researchers. They have since moved to review the Forest Information and Statistics group and the Society and Environment Research Group.

Audit and Risk Assurance Committee

All Forestry Commission entities are covered by a single Audit and Risk Assurance Committee (ARAC) which advises the Board of Commissioners, the Forestry England, Forest Services and Forest Research Boards, and Accounting Officers for the Forestry Commission, Forestry England and Forest Research.

Through its work, the ARAC provides independent assurance to the FRB on those key activities that support the achievement of the Agency’s objectives. Forest Research has a risk register which is reviewed by the FR Board and is overseen annually by the ARAC. Assurance is also provided through the findings from work carried out by the Government Internal Audit Agency (GIAA). The ARAC operates in accordance with the principles contained in HM Treasury’s Audit and Risk Assurance Committee Handbook.

During the year, the Committee discussed a wide range of issues, detailed in the graphic below.



Table 1 – Audit, Risk and Assurance Committee actions

ARA Review	Risk Management	Governance	Security	Committee Structure & Effectiveness	Internal & External Audit
Review and scrutiny of the ARA	Medium term horizon scanning Review and scrutiny of risk management and controls	Safeguarding Complaints Fraud Whistleblowing	Data protection Department Security Health check	Programme of work Alignment with CO – functional Standards	Review of external audit planning Oversight of internal audit reporting & planning

Forest Research is represented on the ARAC by the Accounting Officer, Director of Finance & Corporate Services and an independent non-executive Board member.

There have been no potential or actual conflicts of interest reported in this year.

The Forestry Commission ARAC met five times during 2023 to 2024. Further information on the Forestry Commission ARAC, including membership and attendance, is available on [GOV.UK](https://www.gov.uk).

Review of effectiveness

As Forest Research Accounting Officer, I have responsibility for conducting, at least annually, a review of the effectiveness of the governance framework. My review is informed by the work of Internal Audit and the executive managers across Forest Research and the Forestry Commission who have responsibility for the development and maintenance of the governance and control framework, and by comments made by the external auditors in their management letter and other reports. Annual Assurance Statements are produced by FR senior executive managers with content supported by the results of the annual programme of Government Internal Audit Agency (GIAA) audit assignments, and effectiveness reviews conducted by boards and the ARAC.

The GIAA Head of Internal Audit has prepared a suite of reports and assurance statements throughout the 2023 to 2024 year. These are summarised in an Annual Opinion and Report to me as Agency Accounting Officer. The report includes an overall assessment of the adequacy and effectiveness of risk management, control and governance within Forest Research. The overall opinion is that internal control within Forest Research continues to provide moderate assurance. Reviews conducted during the year were on budgetary control, research commissioning, GPC and Expenses and review of the NCEA programme. Some improvements are required to enhance the adequacy and effectiveness of the framework of governance, risk management and control.

Management and the ARAC proactively monitor progress with the implementation of all agreed audit actions. As at 31 March 2024, there was one high priority action overdue against its original target implementation date, relating to improvements to the Built Estate Strategy. A revised date has been set for completion by 30 June 2024.

Forest Research applies the principles of HM Treasury's Code of Good Practice for corporate governance in the context of its own circumstances, where relevant and practical.

The Forestry Commission ARAC also reviews its effectiveness in line with the best practice set out in HM Treasury's Audit and Risk Assurance Committee Handbook. The Board undertakes an annual effectiveness review.

Work to date has not identified any significant control weaknesses and has supported findings from financial control visits and the work of internal and external auditors.

Whistleblowing

Forest Research is committed to ensuring a high standard of conduct in all that it does and has a duty to identify and remedy any area of malpractice. This is achieved by encouraging a culture of openness, where employees feel confident and able to raise any matters of concern. Forest Research has a dedicated Whistleblowing Officer.

In 2023 to 2024 there were no significant instances or issues raised.

Risk Management

The Forest Research Board (FRB) recognises that risk must be managed, but management of risk is not the same as risk aversion, i.e. an unwillingness to accept any risk. Resources available for managing risk are finite so the aim is to achieve an optimum response to the risk. Forest Research evaluates the amount of risk that it is prepared to accept before taking action (risk appetite), using a risk-scoring matrix of likelihood and impact for inherent and residual risk. This is subject to ongoing management review.

The Board ensures that the risk management policy is implemented and that it strategically reviews key risks. Each risk identified in the risk register has a corresponding Senior Risk Owner who is a Board-level officer with the authority to take effective action. During 2024, additional guidance was included in this policy on risk appetite and the FRB approved a Risk Appetite Statement, aligned with the wider Forestry Commission statements, which provides a framework to enable the organisation to make informed management decisions. Our risk management policy and processes have been designed to comply with

the requirements of the UK Government's 'Orange Book' which establishes the concept of risk management and the underlying five principles for assessing risk.

Forest Research has no investments, or exposure to any business risks in Russia.

The Forestry Commission ARAC supports the Accounting Officer and the FRB in their responsibilities for the effective management of risk, control and governance (see section above).

Fraud and error

Forest Research complies with the Forestry Commission Counter Fraud, Bribery and Corruption Strategy, Policy and Fraud Response Plan. These documents, along with wider processes, form an effective framework of controls, protecting the organisation from fraud and enabling appropriate responses to fraudulent attempts. In 2023 to 2024 there were no significant instances or issues identified.

Ministerial Direction

No ministerial directions affecting Forest Research were given during the year.

Significant and Principal Active Risks

Key governance and risk issues are as follows:

Recruitment and Retention – Staff

The rapid growth of our business has necessitated increased recruitment of staff to deliver on our contract commitments. We have specialist staff who are sought after in the sector and there is increasing competition to attract and retain their skills. Other parts of the sector, and in particular geographical locations or devolved administrations, are offering more competitive terms and conditions which we are not always able to match. This pressure is increasing with the current economic climate.

A pay case was submitted from the Forestry Commission this year which was unsuccessful, with management attention now focused on the creation of a forward action plan. Without addressing structural pay issues, the risk remains that the Forestry Commission will fail to retain and attract the required expertise and numbers of staff needed to successfully deliver Government commitments. Pay levels are directed by HM Treasury with very limited flexibility to make changes within the Forestry Commission.

We have limited actions and mitigations in place to address these issues, but it remains a key risk for the business and the wider Forestry Commission.

Research Funding Security

Forest Research has several funding streams detailed on page 11. A large portion of the funding is cyclical and tied to the Spending Review or periodic bid funding. There is a risk that changes in devolved administration priorities or variation in research commissioning could result in loss of long-term funding opportunities. These risks are managed on a strategic basis through alignment of research areas to the Science and Innovation Strategy and proactive business development pipeline activities. Identification of new income streams and collaboration and partnership working are also part of the mitigation strategies, and our reviewed Corporate Strategy will focus on sustaining our business.

Response to outbreaks

There is a risk of simultaneous or large-scale outbreaks of pests and disease overwhelming our response capability, resulting in significant damage to trees in the public and private sectors and economic and natural capital losses as well as reputational harm. Forest Research is a key primary response vehicle for the Forestry Commission and continues to work as part of the UK Plant Health Service to manage and mitigate against a number of serious risks highlighted in the UK Plant Health Risk Register, including working to deliver the revised [GB Biosecurity Strategy](#) and [Tree Health Resilience Strategy](#) with Defra and the UK Plant Health Service.

Modelling and quality assurance

A sensible and proportionate approach to quality assurance has been adopted across Forest Research, incorporating a programme of management audits for the application of policy and procedures guidance with summary reports provided for senior management, the Board and the ARAC where appropriate.

Wider circumstances and future challenges

The main challenges for Forest Research during 2023 to 2024 and beyond are:

- consolidating our income position through planning for, securing and delivering the Agency's non-core income requirements;
- securing a good Spending Review settlement and ongoing NCF and NCEA support;
- recruiting and retaining high-quality expert staff across the business, particularly in Scotland;
- enhancing our scientific capability and research offer through effective and strategic partnerships while growing our international profile, activities and business;
- managing the impacts of the cost-of-living crisis both for our business operations and staff;
- maintaining Agency relevance to an increasingly devolved governmental client base and changing evidence-commissioning arrangements;
- delivering the interdisciplinary science programmes which support the Science and Innovation Strategy for Forestry in Great Britain;
- supporting the delivery of the Forestry Commission Strategy [Thriving for the Future](#) and the development of our next FR strategy.



Remuneration and
staff report

Remuneration Report

Employment Contracts

The Constitutional Reform and Governance Act 2010 requires Civil Service appointments to be made on merit on the basis of fair and open competition. The Recruitment Principles published by the Civil Service Commission specify the circumstances when appointments may be made otherwise. All senior staff covered in this report hold appointments that are open-ended until they decide to retire or leave. Professor James Pendlebury's notice period is 13 weeks, and for other senior staff it is three months. Early termination in situations of redundancy would result in the individual receiving compensation as set out in the Civil Service Compensation Scheme. Further information about the work of the Civil Service Commissioners can be found on the [Civil Service Commission website](#).

Remuneration Policy

Remuneration for Forest Research Board Members who hold senior staff group posts, non-executive Commissioners and members who are not Forestry Commission or Defra employees, and remuneration for senior civil servants, are determined in accordance with guidelines prescribed by the Cabinet Office. The Performance Pay reviews for Senior Staff Grades are undertaken by Defra within the stipulated Cabinet Office guidelines.

Remaining Board Members receive annual salaries paid in accordance with the standard Forestry Commission Staff Pay Agreement negotiated through collective bargaining with the recognised trade unions. Their performance is monitored and reviewed through the Performance Management System of the Forestry Commission.

Remuneration (Salary, Benefits in Kind and Pensions) – subject to audit

The following sections provide details of the remuneration and pension interests of the civil servants who are executive members of the Forest Research Board. The full composition of the Forest Research Board is included on page 43.

The value of pension benefits accrued during the year is calculated as (the real increase in pension multiplied by 20) plus (the real increase in any lump sum) less (the contributions made by the individual). The real increases exclude increases due to inflation or any increase or decrease due to a transfer of pension rights.

Under the terms of the Government Financial Reporting Manual 2023 to 2024 (FRM) any Performance Pay or bonuses payable require to be reported separately from salaries, in bands of £5,000. No bonuses or performance pay were payable in 2023 to 2024 (2022 to 2023: nil).

Table 1 – Remuneration (salary, benefits in Kind and Pensions)

		Salary £000	Benefits in kind (to nearest £100)	Pension benefits £000	Total £000
James Pendlebury Chief Executive	2023-24	100-105	-	46	145-150
	2022-23	95-100	-	(1)	95-100
Chris Quine Chief Scientist	2023-24	85-90	-	20	100-105
	2022-23	80-85	-	(28)	80-85
Paula Rice ¹ Finance & Corporate Services Director	2023-24	80-85	-	33	115-120
	2022-23	35-40	-	15	50-55

¹From October 2022. Full year equivalent £75-80k.

All other Board Members are Non-Executive Directors.

Salary

‘Salary’ includes gross salary, overtime and any allowances subject to UK taxation.

Benefits in kind

The monetary value of benefits in kind covers any benefits provided by the employer and treated by HM Revenue and Customs (HMRC) as taxable income. Benefits in kind are given in the form of the private use of a car, house purchase loans or taxable travel and expenses incurred in the performance of duties.

Fair Pay Disclosure – subject to audit

Reporting bodies are required to disclose the relationship between the remuneration of the highest-paid director in their organisation and the median remuneration of the organisation’s workforce.

The banded remuneration of the highest-paid director of Forest Research in the financial year 2023 to 2024 was £100,000 to £105,000 (2022 to 2023: £95,000 to £100,000). This was 3.67 times the 25th percentile of the remuneration of the workforce which was £27,941, 3.36 times (2022 to 2023: 3.23) the median remuneration of the workforce, which was £30,501 (2022 to 2023: £30,168) and 2.53 times the 75th percentile of the remuneration of the workforce which was £40,590. Pay ratios have deteriorated slightly in 2023 to 2024 due to the value of the SCS pay deal exceeding the 2022 to 2023 pay award. In 2023 to 2024 no employees (2022 to 2023: nil) received remuneration in excess of the highest-paid director. The remuneration of the lowest paid employees is £22,000 (2022 to 2023: £20,000).

Table 2 – Fair Pay Disclosure – banded remuneration

		2023-24	2022-23
25 th Percentile	Salary	£ 27,941	£ 27,779
	Pay and Benefits	£ 29,441	£ 27,779
	Pay Ratio	3.67	3.51
Median	Salary	£ 30,501	£ 30,168
	Pay and Benefits	£ 32,001	£ 30,168
	Pay Ratio	3.36	3.23
75 th Percentile	Salary	£ 40,590	£ 38,842
	Pay and Benefits	£42,090	£ 38,842
	Pay Ratio	2.53	2.51

The percentage change in respect of the highest-paid director between 2022 to 2023 and 2023 to 2024 is an increase of 8.2%. (Senior Civil Service pay is determined by Defra not Forestry Commission and changes in levels are applied across the whole department.) The average salary increase in respect of the employees of the entity taken as a whole of 4.2%.

Total remuneration includes salary and benefits in kind. It does not include severance payments, employer pension contributions and the Cash Equivalent Transfer Value (CETV) of pensions.

Pay and benefits includes a £1,500 cost of living payment made to all eligible staff during the year.

Pension Benefits 2023 to 2024 – subject to audit

Table 3 – Pension and Benefits (SCS)

	James Pendlebury	Chris Quine	Paula Rice
Accrued pension at pension age as at 31/3/24 and related lump sum (LS)	30 - 35 plus a lump sum of 80 - 85	45 - 50 plus a lump sum of 130 - 135	0 - 5
Real increase (decrease) in pension and related lump sum (LS)	2.5 - 5 plus a lump sum of 0 - 2.5	0 - 2.5 plus a lump sum of 0	0 - 2.5
CETV at 31 March 2024	733	1,075	41
CETV at 31 March 2023	656	1,010	13
Real increase / (decrease) in CETV	40	17	22

Civil Service Pensions

Pension benefits are provided through the Civil Service pension arrangements. Before 1 April 2015, the only scheme was the Principal Civil Service Pension Scheme (PCSPS), which is divided into a few different sections: classic, premium, and classic plus provide benefits on a final salary basis, whilst nuvos provides benefits on a career average basis. From 1 April 2015 a new pension scheme for civil servants was introduced: the Civil Servants and Others Pension Scheme or alpha, which provides benefits on a career average basis. All newly appointed civil servants, and the majority of those already in service, joined the new scheme.

The PCSPS and alpha are unfunded statutory schemes. Employees and employers make contributions (employee contributions range between 4.6% and 8.05%, depending on salary). The balance of the cost of benefits in payment is met by monies voted by Parliament each year. Pensions in payment are increased annually in line with the Pensions Increase legislation. Instead of the defined benefit arrangements, employees may opt for a defined contribution pension with an employer contribution, the partnership pension account.

In alpha, pension builds up at a rate of 2.32% of pensionable earnings each year, and the total amount accrued is adjusted annually in line with a rate set by HM Treasury. Members may opt to give up (commute) pension for a lump sum up to the limits set by the Finance Act 2004. All members who switched to alpha from the PCSPS had their PCSPS benefits 'banked', with those with earlier benefits in one of the final salary sections of the PCSPS having those benefits based on their final salary when they leave alpha.

The accrued pensions shown in this report are the pension the member is entitled to receive when they reach normal pension age, or immediately on ceasing to be an active member of the scheme if they are already at or over normal pension age. Normal pension age is 60 for members of classic, premium, and classic plus, 65 for members of nuvos, and the higher of 65 or State Pension Age for members of alpha. The pension figures in this report show pension earned in PCSPS or alpha – as appropriate. Where a member has benefits in both the PCSPS and alpha, the figures show the combined value of their benefits in the two schemes but note that the constituent parts of that pension may be payable from different ages.

When the Government introduced new public service pension schemes in 2015, there were transitional arrangements which treated existing scheme members differently based on their age. Older members of the PCSPS remained in that scheme, rather than moving to alpha. In 2018, the Court of Appeal found

that the transitional arrangements in the public service pension schemes unlawfully discriminated against younger members.

As a result, steps are being taken to remedy those 2015 reforms, making the pension scheme provisions fair to all members. The public service pensions remedy^[1] is made up of two parts. The first part closed the PCSPS on 31 March 2022, with all active members becoming members of alpha from 1 April 2022. The second part removes the age discrimination for the remedy period, between 1 April 2015 and 31 March 2022, by moving the membership of eligible members during this period back into the PCSPS on 1 October 2023. This is known as 'rollback'.

For members who are in scope of the public service pension remedy, the calculation of their benefits for the purpose of calculating their Cash Equivalent Transfer Value and their single total figure of remuneration, as of 31 March 2023 and 31 March 2024, reflects the fact that membership between 1 April 2015 and 31 March 2022 has been rolled back into the PCSPS. Although members will in due course get an option to decide whether that period should count towards PCSPS or alpha benefits, the figures show the rolled back position, i.e. PCSPS benefits for that period.

The partnership pension account is an occupational defined contribution pension arrangement which is part of the Legal & General Mastertrust. The employer makes a basic contribution of between 8% and 14.75% (depending on the age of the member). The employee does not have to contribute but, where they do make contributions, the employer will match these up to a limit of 3% of pensionable salary (in addition to the employer's basic contribution). Employers also contribute a further 0.5% of pensionable salary to cover the cost of centrally provided risk benefit cover (death in service and ill health retirement).

Further details about the Civil Service pension arrangements can be found at the website [Civil Service Pension Scheme website](#).

Cash Equivalent Transfer Values

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the member's accrued benefits and any contingent spouse's pension payable from the scheme. A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another pension scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies.

The figures include the value of any pension benefit in another scheme or arrangement which the member has transferred to the Civil Service pension arrangements. They also include any additional pension benefit accrued to the member as a result of their buying additional pension benefits at their own cost.

CETVs are worked out in accordance with The Occupational Pension Schemes (Transfer Values) (Amendment) Regulations 2008 and do not take account of any actual or potential reduction to benefits resulting from Lifetime Allowance Tax which may be due when pension benefits are taken.

Real increase in CETV

This reflects the increase in CETV that is funded by the employer. It does not include the increase in accrued pension due to inflation, contributions paid by the employee (including the value of any benefits transferred from another pension scheme or arrangement) and uses common market valuation factors for the start and end of the period.

Remuneration of non-executives – subject to audit

The non-executive Forest Research directors received the following remuneration for their services during the year ended 31 March 2024. Under the terms of the FReM such remuneration requires to be disclosed in bands of £5,000.

Table 4 – Remuneration of non-executives

	2023-24 £000	2022-23 £000
Matt Perkins (Chair)	£5-10k	£5-10k
Julian Evans	£0-5k	-

Julian Evans served as a Non-Executive Commissioner appointed to the Board to 31 December 2023 and was appointed as a Non-Executive Director in January 2024.

Richard Stanford, Forestry Commission Chief Executive, remuneration is disclosed in the Forestry Commission Annual Report and Accounts.

Staff Report

Number of Senior Civil Servants by Band (Table 5)

Band	Number of Senior Civil Servants
2	1
1	2

Average Number of Persons Employed (FTE) – Totals are subject to audit (Table 6)

	2023–24	2022–23
Permanent staff – male (2 Board Members)	157	142
Permanent staff – female (1 Board Member)	115	101
Total permanent	272	243
Others – male	51	32
Others – female	60	33
Total others	111	65
Total staff	383	308

Staff costs – subject to audit (Table 7)

	Perm. staff £000	Other staff £000	2023–24 Total £000	2022–23 Total £000
Wages and salaries	10,964	3,080	14,044	10,826
Seconded staff	-	84	84	72
Social security costs	1,159	288	1,447	1,150
Employer's superannuation costs	2,824	789	3,613	2,874
Apprenticeship levy	68	-	68	52
Agency staff costs	-	1,109	1,109	770
Total	15,015	5,350	20,365	15,744

The Principal Civil Service Pension Scheme (PCSPS) is an unfunded multi-employer defined benefit pension scheme, but the Forestry Commission is unable to identify its share of the underlying assets and liabilities. The scheme actuary valued the scheme as at 31 March 2020. Details can be found in the resource accounts of the [Cabinet Office: Civil Superannuation](#).

For 2023 to 2024, employer contributions of £3,613,000 were payable to the PCSPS (2022 to 2023: £2,874,000) at one of four rates in the range 26.6% to 30.3% of pensionable pay, based on salary bands. The scheme actuary reviews employer contributions every four years following a full scheme valuation. The contribution rates reflect benefits accruing during 2023 to 2024 to be paid to the member when they retire and not the benefits paid during this period to existing pensioners.

Employees can opt to open a partnership pension account, a stakeholder pension with an employer contribution. Employer contributions of £19,914 (2022 to 2023: £14,142) were paid to one appointed stakeholder pension provider. Employer contributions are age-related and range from 8% to 14.75%. Employers also match employee contributions up to 3% of pensionable pay. In addition, employer contributions of £753, 0.5% of pensionable pay (2022 to 2023: £472, 0.5%), were payable to the PCSPS to cover the cost of the future provision of lump sum benefits on death in service or ill-health retirement of these employees.

Contributions due to the partnership pension providers at the Statement of Financial Position date were £3,416 (2022 to 2023: £nil). Contributions prepaid at that date were £nil.

Sickness Absence

The Forestry Commission has one common sickness absence management policy that covers Forest Research and provides a consistent framework approach to management. The policy is underpinned by an externally provided occupational health service and employee support programme that is available 24 hours a day. The average number of working days lost to sickness absence in Forest Research in 2023 to 2024 was 6.15 per employee (2022 to 2023: 5.7).

Staff Turnover

During the year, Forest Research had 81 leavers relevant to the staff turnover calculations with a closing staff turnover ratio of 21.84%. Recruitment and retention has been identified as a key risk area across FR and activities, as noted on page 51, have been targeted to reduce turnover where possible. The Board continue to monitor the effectiveness of these actions.

Early departure costs – subject to audit

During 2023 to 2024, no one left under Compulsory or Voluntary Redundancy terms (2022 to 2023: nil). They received a total compensation payment of £nil (2022 to 2023: £nil).

Expenditure on consultancy

During the year, Forest Research incurred £nil on consultancy services (2022 to 2023: £nil).

Off-payroll engagements

Forest Research, as part of the Defra group, is required to disclose information in its Annual Report and Accounts relating to the review of tax arrangements for public sector employees. Please see tables reported below for consistency with Defra's Annual Report and Accounts.

Table 8 For all off-payroll worker engagements as at 31 March 2024, earning £245 per day or greater.

Number of existing engagements as of 31 March 2024	12
Of which...	
Number that have existed for less than one year at time of reporting	7
Number that have existed for between one and two years at time of reporting	3
Number that have existed for between two and three years at time of reporting	2
Number that have existed for between three and four years at time of reporting	Nil

Table 9 For all new off-payroll engagements between 1 April 2023 and 31 March 2024, for more than £245 per day.

Number of off-payroll workers engaged during the year ended 31 March 2024	12
Of which...	
Not subject to off-payroll legislation	Nil
Subject to off-payroll legislation and determined as in-scope of IR35	Nil
Subject to off-payroll legislation and determined as out-of-scope of IR35	Nil
Number of engagements reassessed for compliance or assurance purposes in the year	Nil

Table 10 For any off-payroll engagements of Board Members, and/or senior officials with significant financial responsibility between 1 April 2023 and 31 March 2024.

Number of off-payroll engagements of Board Members, and/or, senior officials with significant financial responsibility, during the financial year	Nil
Total number of individuals on-payroll and off-payroll that have been deemed 'Board Members, and/or senior officials with significant financial responsibility', during the financial year. This figure should include both on-payroll and off-payroll engagements	5

People

In 2022 the Forestry Commission published the FC People Strategy 2021 to 2025, outlining the strategic themes and the annual deliverables for each theme.

Strategic themes



Inspiring leadership – what makes us great

We will create a collaborative culture of compassion, ambition and trust. Our people will speak up, get involved and challenge the status quo so that both organisation and people thrive. Leaders at all levels will lead with our values and use them to develop and inspire others.

Wellbeing and engagement – people really matter

We will work tirelessly in supporting our people to be happy and safe. We will create conditions whereby people may balance their home and working lives and we will offer help when inevitable life challenges occur. In return, our people will give their best in pursuit of the Forestry Commission's priorities.

Diversity and inclusion – if not now, when?

We will listen attentively to the stories we are told. We will challenge and change in order to improve. Our goal is to create an organisation with diversity of thought, one where everyone belongs and feel comfortable being themselves.

Resourcing and developing – discovering what is possible

We will attract, deploy and retain the finest, by offering inspiring development and job opportunities to learn and progress which will foster learning and progression, supporting the strategic ambitions of our organisation.

Changing the way we work – future thinking now

We will collaborate with our people to design interesting work content that is meaningful and adds value to the organisation. We will develop the way in which we work, where we work and our patterns of working over the longer-term taking lessons from the pandemic and applying them to contemporary work patterns and culture.

Reward and recognition

We will strive to offer competitive, fair and transparent reward and recognition. People will be valued for their contributions and all will understand their total reward package.

Within Forest Research we have had a successful year in delivering actions in each of the key Forestry Commission People Strategy strategic themes, progress is detailed in the table below.

Inspiring leadership What makes us great

- 44 new managers have completed the FC Professional Managers Programme (PMP) this year
- Additional cohorts are in planning, as is a senior PMP
- We have delivered internal performance management training to 170 staff members

Wellbeing and engagement People really matter

- The quarterly wellbeing newsletter provides information and updates on the workplace activities and resources available to staff
- An FR wellbeing monthly seminar series launched in January 2024 with online sessions on 13 different topics throughout the year
- Health kiosks were available at sites across the country, offering advice on how to improve health and fitness
- The Sports and Social clubs at NRS and AH also provide a range of social activities as well as an employee-led menopause group

Diversity and inclusion If not now, when?

- We deliver a monthly Equally Yours training session, which 77% of our managers have completed
- We celebrated the UN's International Day of Women and Girls in Science and female colleague in Forest Research shared their stories
- We continue to support and promote staff networks such as the Rainbow Canopy Network, the Women in Forestry Network, and gender balance, LGBT, ethnicity and religion groups

Resourcing and developing Discovering what is possible

- Recruitment activity is high with an average of 37 live campaigns each month. Our headcount has continued to increase to resource major new programmes of work
- We launched our FR careers page and we are working on a Forest Research page on the Civil Service Careers website
- We delivered an improved induction pack for new starters and now offer a welcome meeting
- We delivered a Recruitment Workflow FAQ and escalation routes to supplement the Recruitment Hub

Changing the way we work Future thinking now

- We invested in digital communications systems as part of the facilities upgrades to facilitate agile working
- We adapted our office spaces to accommodate a blended working environment and increased staff numbers
- We contributed to assessments on impacts and delivery of changes to the Flexible Working legislation
- We successfully implemented all key principles related to the Changing the Way we Work project

Reward and recognition

- We contributed to the Forestry Commission 'Your Offer' pay flexibility case and Trade Union discussions
- We implemented the £1,500 Government non-consolidated pay award in year
- We contributed to the development and negotiation of the Pay Remit Offer

Pay

While staff were provided a minimum of a 4.5% salary uplift in line with the annual Civil Service pay guidance, pay continues to be a contentious and challenging issue. Qualifying staff were also awarded a Civil Service wide non-consolidated pay award of £1,500 during the year. The Forestry Commission was unsuccessful in gaining final approval in time to implement the ‘Your Offer’ business case in 2023 to 2024. Against a challenging economic backdrop, management will now take stock and examine options, building on the work achieved thus far and working in concert with Defra, the Cabinet Office, Treasury and Forestry Commission Trade Unions.

Leading on health and safety

Forest Research puts Health and Safety at the core of all our staff policies and practices. We have refocused efforts and made positive improvements across a range of H&S systems and reporting commitments led through our Health and Safety Committee. We have maintained certification on ISO 14001 and implemented our Environmental Management System action plan as well as a new COSHH system in year. We continue to move towards an improved H&S environment with initiatives such as ongoing work in our Field Team Welfare Steering Group, preliminary Health Risk Profiling, and gap analysis towards certification on ISO45001 and 9001.

There were no RIDDOR reports for the current year (2022 to 2023 - nil).

Equality and diversity

We continue to strive towards building a diverse and inclusive environment for all our staff. FR have implemented a number of workstreams under the Diversity and Inclusion theme of the Forestry Commission People Strategy, such as the Rainbow Canopy Network, the Women in Forestry network, and gender balance, Disability, Neurodiversity and Carers Staff Network, LGBT, ethnicity and religion groups. The FC Diversity and Inclusion strategy guides what we do, making sure we fulfil our requirements under the Public Sector Duty and the Equality Act 2010. More information can be found at [Equality and diversity at the Forestry Commission](#).

Table 11 Ethnicity

Ethnicity		
Ethnicity	%	England & Wales: ONS Nov 22
White – English, Welsh, Scottish, Northern Irish	75%	74.40%
Any other white background	8%	6.20%
White all categories	82%	81.70%
Other ethnicities & those that preferred not to say are represented but by less than ten individuals within any group	13%	18.30%
Did not complete the Ethnicity field	4%	-

Employee Relations

The Forestry Commission continues to have a productive and respectful relationship with the Forestry Commission trade unions with a Tier 1 Forestry Commission Trade Unions staff council meeting held twice each year for the whole Forestry Commission. Tier 2 staff council meetings are held at least twice yearly for Forestry England, Forest Services and Forest Research.

Key issues discussed include Your Offer, workforce policies, organisational design and organisational restructuring, wellbeing, mental health, and health and safety issues.

Parliamentary Accountability Disclosures

Financial Review

From April 2019, Forest Research is part funded through a Cross-Border Memorandum of Understanding between Forest Research and the UK, Welsh and Scottish governments to provide core research and other services. This new arrangement supports the Ministerially endorsed Science and Innovation Strategy for Forestry in Great Britain and forestry policies of the UK, Scottish, Welsh and Northern Irish governments.

In addition, Forestry Commission England, Forest and Land Scotland and Natural Resources Wales purchase research, development and surveys specifically related to their respective forest estates. Forest Research has also been increasingly successful in securing funding from other government departments, UK research councils, commercial organisations, private individuals and charities. Collaborative bids with other research providers and consortium funding have become increasingly important, placing emphasis on effective partnership working.

Losses and special payments and gifts – subject to audit

There were 20 losses during 2023 to 2024 with a total cost of £7,700 (2022 to 2023: 32 with total cost of £19,000). The losses in 2023 to 2024 were a result of a road traffic accident, a write down of obsolete stock, and a small number of late payment charges.

No special payments or gifts were made during the year (2022 to 2023: £nil).

Fees and Charges – subject to audit

Forest Research's primary financial objective is to recover full economic costs of operations from the sale of services to customers. It has complied with the principles of cost allocation and charging requirements in HM Treasury and Office of Public Sector Information guidance.

Remote Contingent Liabilities – subject to audit

In addition to contingent liabilities reported within the meaning of IAS 37, FR also reports liabilities for which the likelihood of a transfer of economic benefit in settlement is too remote to meet the definition of contingent liability. There are currently no remote contingent liabilities.

Functional Standards

UK Government Functional Standards set expectations for the management of functional work and the functional model across government. During 2023 to 2024 Forest Research contributed to the Forestry Commission assurance mapping process, and functional standard assessments, which has identified plans for improvement. This action will ensure compliance with the UK Government Functional Standards with the aim of embedding the standards into ways of working, ultimately driving coherence, consistency and continuous improvement.

Long-Term Expenditure Trends (Table 12)

	2023-24 ¹ £000	2022-23 ² £000	2021-22 ³ £000	2020-21 ⁴ £000	2019-20 £000
Staff costs	20,365	15,744	13,852	12,540	11,641
Other management costs	9,424	8,158	7,363	5,501	5,721
Materials and services	7,865	5,314	3,132	2,890	2,094
Total expenditure	37,654	29,216	24,347	20,931	19,456

¹ 2023 to 2024 Other management costs includes the £759,000 impairment of NRS Main Building.

² 2022 to 2023 Other management costs excludes the impairment adjustment of the NRS Growth House, NRS Glasshouse and NRS Lab 28 increasing the costs by £252,000 in totality. The increase in expenditure relates to the additional funding secured under NCF and the NCEA work and increased staff requirements to deliver these programmes.

³ 2021 to 2022 Other management costs excludes the impairment adjustment of the Holt Laboratory and NRS, increasing the costs by £1,604,000 and £730,000 respectively.

⁴ The increase in expenditure in 2020 to 2021 primarily relates to the additional funding secured under the NCF and the Natural Capital Ecosystems Assessment (NCEA) Pilot work. Additional staff were required to deliver these programmes, increasing overall staff costs alongside an annual Civil Service pay award.



Professor James Pendlebury

Chief Executive and Accounting Officer

06 November 2024

THE CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO THE HOUSE OF COMMONS

Opinion on Financial Statements

I certify that I have audited the financial statements of Forest Research for the year ended 31 March 2024 under the Government Resources and Accounts Act 2000.

The financial statements comprise Forest Research's

- Statement of Financial Position as at 31 March 2024;
- Statement of Comprehensive Net Expenditure, Statement of Cash Flows and Statement of Changes in Taxpayers' Equity for the year then ended; and
- the related notes including the significant accounting policies.

The financial reporting framework that has been applied in the preparation of the financial statements is applicable law and UK adopted international accounting standards.

In my opinion, the financial statements:

- give a true and fair view of the state of Forest Research's affairs as at 31 March 2024 and its net operating income for the year then ended; and
- have been properly prepared in accordance with the Government Resources and Accounts Act 2000 and HM Treasury directions issued thereunder.

Opinion on regularity

In my opinion, in all material respects, the income and expenditure recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Basis for opinions

I conducted my audit in accordance with International Standards on Auditing (UK) (ISAs UK), applicable law and Practice Note 10 *Audit of Financial Statements and Regularity of Public Sector Bodies in the United Kingdom (2022)*. My responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of my certificate.

Those standards require me and my staff to comply with the Financial Reporting Council's *Revised Ethical Standard 2019*. I am independent of Forest Research in accordance with the ethical requirements that are relevant to my audit of the financial statements in the UK. My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Accounting Statements

Conclusions relating to going concern

In auditing the financial statements, I have concluded that Forest Research's use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work I have performed, I have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on Forest Research's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

My responsibilities and the responsibilities of the Accounting Officer with respect to going concern are described in the relevant sections of this certificate.

The going concern basis of accounting for Forest Research is adopted in consideration of the requirements set out in HM Treasury's Government Financial Reporting Manual, which requires entities to adopt the going concern basis of accounting in the preparation of the financial statements where it is anticipated that the services which they provide will continue into the future.

Other information

The other information comprises information included in the Annual Report but does not include the financial statements and my auditor's certificate and report thereon. The Accounting Officer is responsible for the other information.

My opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in my certificate, I do not express any form of assurance conclusion thereon.

My responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements, or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

If I identify such material inconsistencies or apparent material misstatements, I am required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact.

I have nothing to report in this regard.

Opinion on other matters

In my opinion the part of the Remuneration and Staff Report to be audited has been properly prepared in accordance with HM Treasury directions issued under the Government Resources and Accounts Act 2000.

Accounting Statements

In my opinion, based on the work undertaken in the course of the audit:

- the parts of the Accountability Report subject to audit have been properly prepared in accordance with HM Treasury directions issued under the Government Resources and Accounts Act 2000;
- the information given in the Performance and Accountability Reports for the financial year for which the financial statements are prepared is consistent with the financial statements and is in accordance with the applicable legal requirements.

Matters on which I report by exception

In the light of the knowledge and understanding of Forest Research and its environment obtained in the course of the audit, I have not identified material misstatements in the Performance and Accountability Reports.

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept by Forest Research or returns adequate for my audit have not been received from branches not visited by my staff; or
- I have not received all of the information and explanations I require for my audit; or
- the financial statements and the parts of the Accountability Report subject to audit are not in agreement with the accounting records and returns; or
- certain disclosures of remuneration specified by HM Treasury's Government Financial Reporting Manual have not been made or parts of the Remuneration and Staff Report to be audited is not in agreement with the accounting records and returns; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

Responsibilities of the Accounting Officer for the financial statements

As explained more fully in the Statement of Accounting Officer's Responsibilities, the Chief Executive as Accounting Officer is responsible for:

- maintaining proper accounting records;
- providing the C&AG with access to all information of which management is aware that is relevant to the preparation of the financial statements such as records, documentation and other matters;
- providing the C&AG with additional information and explanations needed for his audit;
- providing the C&AG with unrestricted access to persons within Forest Research from whom the auditor determines it necessary to obtain audit evidence;
- ensuring such internal controls are in place as deemed necessary to enable the preparation of financial statements to be free from material misstatement, whether due to fraud or error;
- preparing financial statements which give a true and fair view and are in accordance with HM Treasury directions issued under the Government Resources and Accounts Act 2000;
- preparing the annual report, which includes the Remuneration and Staff Report, in accordance with HM Treasury directions issued under the Government Resources and Accounts Act 2000; and
- assessing Forest Research's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Accounting Officer anticipates that the services provided by Forest Research will not continue to be provided in the future.

Accounting Statements

Auditor's responsibilities for the audit of the financial statements

My responsibility is to audit, certify and report on the financial statements in accordance with the Government Resources and Accounts Act 2000.

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue a certificate that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Extent to which the audit was considered capable of detecting non-compliance with laws and regulations, including fraud

I design procedures in line with my responsibilities, outlined above, to detect material misstatements in respect of non-compliance with laws and regulations, including fraud. The extent to which my procedures are capable of detecting non-compliance with laws and regulations, including fraud is detailed below.

Identifying and assessing potential risks related to non-compliance with laws and regulations, including fraud

In identifying and assessing risks of material misstatement in respect of non-compliance with laws and regulations, including fraud, I:

- considered the nature of the sector, control environment and operational performance including the design of Forest Research's accounting policies and key performance indicators.
- inquired of management, Forest Research's head of internal audit and those charged with governance, including obtaining and reviewing supporting documentation relating to Forest Research's policies and procedures on:
 - identifying, evaluating and complying with laws and regulations;
 - detecting and responding to the risks of fraud; and
- the internal controls established to mitigate risks related to fraud or non-compliance with laws and regulations including Forest Research's controls relating to Forest Research's compliance with the Government Resources and Accounts Act 2000 and Managing Public Money. inquired of management, Forest Research's head of internal audit and those charged with governance whether:
 - they were aware of any instances of non-compliance with laws and regulations;
 - they had knowledge of any actual, suspected, or alleged fraud,
- discussed with the engagement team how and where fraud might occur in the financial statements and any potential indicators of fraud.

Accounting Statements

As a result of these procedures, I considered the opportunities and incentives that may exist within Forest Research for fraud and identified the greatest potential for fraud in the following areas: revenue recognition, posting of unusual journals, complex transactions and bias in management estimates. In common with all audits under ISAs (UK), I am required to perform specific procedures to respond to the risk of management override.

I obtained an understanding of Forest Research's framework of authority and other legal and regulatory frameworks in which Forest Research operates. I focused on those laws and regulations that had a direct effect on material amounts and disclosures in the financial statements or that had a fundamental effect on the operations of Forest Research. The key laws and regulations I considered in this context included the Government Resources and Accounts Act 2000, Managing Public Money, employment law and pensions legislation and tax legislation.

Audit response to identified risk

To respond to the identified risks resulting from the above procedures:

- I reviewed the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described above as having direct effect on the financial statements;
- I enquired of management, the Audit and Risk Committee and in-house legal counsel concerning actual and potential litigation and claims;
- I reviewed minutes of meetings of those charged with governance and the Board; and internal audit reports; and
- I addressed the risk of fraud through management override of controls by testing the appropriateness of journal entries and other adjustments; assessing whether the judgements on estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business;

I communicated relevant identified laws and regulations and potential risks of fraud to all engagement team members including internal specialists and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

A further description of my responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of my certificate.

Other auditor's responsibilities

I am required to obtain sufficient appropriate audit evidence to give reasonable assurance that the expenditure and income recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Accounting Statements

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control I identify during my audit.

Report

I have no observations to make on these financial statements.

Gareth Davies

12 November 2024

Comptroller and Auditor General

National Audit Office
157-197 Buckingham Palace Road
Victoria
London
SW1W 9SP



3 Financial statements

Financial Statements

Statement of Comprehensive Net Expenditure for the year ended 31 March 2024

	Notes	2023–24 £000	2022–23 Restated £000
Income			
Revenue from contracts with customers	6	(17,931)	(16,916)
Total operating income		(17,931)	(16,916)
Expenditure			
Staff costs	3	20,365	15,744
Other management costs	4	9,424	8,410
Materials and services	5	7,865	5,314
Total operating expenditure		37,654	29,468
Net operating expenditure		19,723	12,552
Other comprehensive net expenditure/(income)			
Net gain on revaluation of property, plant and equipment	7	(667)	(7,676)
Total comprehensive net expenditure for the year		19,056	4,876

All income and expenditure are derived from continuing operations.

Resources received from the Forestry Commission to fund activities are now credited directly to our reserves, in accordance with the Financial Reporting Manual, and have been restated accordingly as explained in note 2.

The notes on pages 80 to 100 form part of these accounts.

Statement of Financial Position as at 31 March 2024

		31 March 2024	31 March 2023
	Notes	£000	£000
Non-current assets			
Property, plant and equipment	7	42,610	35,588
Right-of-Use assets		9	17
Intangible assets		45	65
Assets classified as held for sale	8	75	75
Trade and other receivables	9	28	40
Total non-current assets		42,767	35,785
Current assets			
Inventories		10	15
Trade and other receivables	9	6,638	9,278
Cash and cash equivalents	10	5,292	1,884
Total current assets		11,940	11,177
Total assets		54,707	46,962
Current liabilities			
Provisions		-	-
Trade and other payables	11	(5,196)	(5,105)
Total current liabilities		(5,196)	(5,105)
Total assets less current liabilities		49,511	41,857
Non-current liabilities			
Trade and other payables	11	(1)	(9)
Total assets less total liabilities		49,510	41,848
Taxpayers' equity			
General Fund		33,382	26,367
Revaluation Reserve		16,128	15,481
Total equity		49,510	41,848

The notes on pages 80 to 100 form part of these accounts.



Professor James Pendlebury

Chief Executive and Accounting Officer

06 November 2024

Statement of Cash Flows for the year ended 31 March 2024

		2023–24	2022–23
	Notes	£000	Restated £000
Net cash from operating activities			
Net operating expenditure		(19,723)	(12,552)
Adjustments for non-cash transactions			
Depreciation	4	2,049	1,564
Amortisation	4	27	19
Impairment of property, plant and equipment	4	759	252
Loss on disposal of property, plant and equipment	4	27	44
Property, plant and equipment write-off		-	-
Notional audit fee	4	51	42
Movement in provisions		-	(8)
Decrease in inventories		5	18
(Increase) in trade and other receivables	9	2,652	(3,324)
Increase in trade and other payables	11	(435)	1,545
Use of provisions		-	-
Net cash outflow from operating activities		(14,588)	(12,400)
Cash flows from investing activities			
Purchase of property, plant and equipment		(8,664)	(7,257)
Purchase of intangible assets		-	(49)
Net cash (outflow) from investing activities		(8,664)	(7,306)
Cash flows from financing activities			
Funding received from the Forestry Commission		26,667	17,989
Payment of finance lease line in Financing activities		(7)	(7)
Net financing		26,660	17,982
Net increase/ (decrease) in cash and cash equivalents in the period		3,408	(1,724)
Cash and cash equivalents at the beginning of the period		1,884	3,608
Cash and cash equivalents at the end of the period		5,292	1,884

The 2022-23 figures restated are due to the Prior Period Adjustment explained at Note 2.

The notes on pages 80 to 100 form part of these accounts.

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2024

	Notes	General Fund £000	Revaluation Reserve £000	Total Reserves £000
Balance at 1 April 2023		26,367	15,481	41,848
Changes in taxpayers' equity for 2023–24				
Net gain on revaluation of property, plant and equipment	7	–	667	667
Net gain on foreign currency receivable		-	-	-
Transfer from Revaluation Reserve		20	(20)	-
Notional audit fee	4	51	–	51
Comprehensive net expenditure		(19,723)	–	(19,723)
Funding received from the Forestry Commission		26,667	–	26,667
Balance at 31 March 2024		33,382	16,128	49,510

The 2022 to 2023 values below are included for comparison purposes

Restated	Notes	General Fund £000	Revaluation Reserve £000	Total Reserves £000
Balance at 1 April 2022		20,851	7,842	28,693
Changes in taxpayers' equity for 2022–23				
Net gain on revaluation of property, plant and equipment	7	–	7,676	7,676
Net gain on foreign currency receivable		-	-	-
Transfer from Revaluation Reserve		37	(37)	-
Notional audit fee	4	42	–	42
Comprehensive net expenditure		(12,552)	–	(12,552)
Funding received from the Forestry Commission		17,989	–	17,989
Balance at 31 March 2023		26,367	15,481	41,848

The 2022-23 figures restated are due to the Prior Period Adjustment explained at Note 2.

The notes on pages 80 to 100 form part of these accounts.

Notes to the Accounts

Note 1. Statement of Accounting Policies

The strength of the Agency's Statement of Financial Position as at 31 March 2024, with taxpayers' equity of £49.5 million, coupled with ongoing growing external research contracts and a robust future Business Development pipeline, provides a compelling platform for future delivery of scientific research and data services to stakeholders.

Forest Research is an agency of the Forestry Commission and is included as part of the FC 2024 to 2025 funding within the Defra estimates which have already been approved by Parliament. A three-year government Spending Review (SR21) to determine future funding for government departments including Defra for the period 2022 to 2023 to 2024 to 2025 is ongoing. Continued support of FR within the FC from 2024 to 2025 onwards will be considered and reviewed as part of this Spending Review.

Based on the above information it has therefore been considered appropriate to adopt a going concern basis for the preparation of these Financial Statements.

Going Concern

Management do not view the going concern of the entity as a risk, based on the assumption that FR will continue to provide existing services in the future. This position is underpinned by the Westminster, Scottish and Welsh Governments with Ministerial endorsement of a five plus ongoing rolling two-year Science and Innovation Strategy for Forestry in Great Britain, covering the period 1 April 2019 to 31 March 2026. This important milestone for Forest Research underpins the financial commitment in the Ministerially endorsed Cross-Border Memorandum of Understanding, amounting annually to around £9 million.

These accounts are prepared in accordance with a direction given by HM Treasury in pursuance of Section 7 of the Government Resources and Accounts Act 2000.

These Financial Statements have been prepared on a going concern basis and in accordance with International Financial Reporting Standards (IFRS) as adapted and interpreted by the 2023 to 2024 FReM issued by HM Treasury. Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the particular circumstances of Forest Research for the purpose of giving a true and fair view has been selected. The particular policies selected by Forest Research are described below. They have been applied consistently in dealing with items considered material in relation to the accounts.

FR is an Agency of the Forestry Commission, which receives supply funding to enable it to provide resources to Forest Research for it to conduct its planned activities and to fund its operations. There is no indication that the Commission will make changes to its status or to the approach to funding Forest Research's activities. The

Accounting Statements

Financial Reporting Manual presumes that services provided by the Forestry Commission and Forest Research under statute will meet the requirement of going concern, and there are no circumstances which indicate that there will be changes to these arrangements.

1.1 Significant Judgements and estimation uncertainty

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and the reported amount of income and expenditure. All estimates are based on knowledge of current facts and circumstances, assumptions concerning past events, and forecasts of future events and actions. Where appropriate, the relevant notes to the accounts provide further detail on estimation techniques.

Non-current assets are valued at depreciated replacement cost as described in notes 1.7. Scientific equipment and OME revalued using indices. An appropriate ONS indicia is applied to the gross book and depreciation amounts to arrive at the indexed carrying value.

The NRS Main Building and externals were revalued by Savills, Chartered Surveyors, in March 2024 following completion of the major refurbishment works. The significant assumptions used in the valuation was a design fee of 10%, a LF adjustment factor of 0.95, build costs based on build rates taken from BCIS, adjusted for Tender Price Index (TPI) and a Location Factor (LF) adjustment of 0.95, to reflect the Modern Equivalent Asset (MEA) and an adjustment for obsolescence. A desktop valuation was carried out for the remainder of the buildings (Alice Holt and the remainder of NRS) as using the BCIS index at 31 March 2024. Future revaluations of property may result in further material changes to the carrying value of non-current assets

1.2 Accounting Convention.

These accounts have been prepared under the historical cost convention modified to account for the revaluation of property, plant and equipment, and available-for-sale financial assets.1.2 Value Added Tax (VAT)

Forest Research is covered under the Forestry Commission's registration for VAT. In order to comply with the government accounting regulations and normal commercial practice, income and expenditure shown in the Statement of Comprehensive Net Expenditure is net of VAT. Irrecoverable VAT is charged to the Statement of Comprehensive Net Expenditure in the year in which it is incurred.

1.3 Revenue Recognition

Income comprises the fair value of the consideration received or receivable from forestry and related activities. Revenue is shown net of VAT, returns, rebates and discounts.

Accounting Statements

Income is accounted for in accordance with the five-stage model set out in IFRS 15, Revenue from Contracts with Customers, and is recognised when performance obligations are satisfied.

1.4 Funding from the Forestry Commission

The funding from the Forestry Commission are accounted for in accordance with IAS 20 as adapted by the FReM. Grant-in-Aid is provided to match the recipient's cash needs and is to be accounted for on a cash basis.

1.5 Foreign Currency Translation

Functional and presentation currency

Items included in the Financial Statements are measured using the currency of the primary economic environment in which Forest Research operates ('the functional currency'). The functional currency and the presentation currency of the Financial Statements is pounds sterling.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the Statement of Comprehensive Net Expenditure.

1.6 Employee Benefits

Pensions

Past and present employees are covered by the provisions of the PCSPS. PCSPS is an unfunded, defined benefit, contributory, public service occupational pension scheme. Forest Research accounts for the PCSPS as a defined contribution plan and recognises the expected cost of these elements on a systematic and rational basis over the period during which it benefits from an employee's services by payment to the PCSPS of amounts calculated on an accruing basis. Liability for payment of future benefits is a charge on the PCSPS. In respect of the defined contribution schemes, Forest Research recognises the contributions payable for the year. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Short-Term Employee Benefits

Liabilities and expenses are recognised for holiday entitlements earned to 31 March but not yet taken.

1.7 Property, plant and equipment

Where Forest Research is the principal beneficial user of assets of the Forestry Commission estate, they are treated as a non-current asset of Forest Research although legal ownership is vested in the Forestry Ministers.

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The normal threshold for the capitalisation of assets is £2,000.

Dwellings and other buildings

Dwellings and other buildings are shown at fair value less accumulated depreciation.

External valuers undertake a full revaluation of dwellings and other buildings at five-yearly intervals coinciding with that for the non-forest land. They follow the principles set out in the RICS Red Book and value on the basis of Open Market Value, Existing Use Value, Depreciated Replacement Cost or Discounted Cash Flow, as appropriate under the RICS Standards for determining fair value. A full valuation took place on 31 March 2023 by Savills, Chartered Surveyors. In the intervening years, the assets are revalued using the indices. NRS Main Building and externals were revalued by Savills, Chartered Surveyors, in March 2024 following completion of the major refurbishment works.

Subsequent Expenditure

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to Forest Research and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the Statement of Comprehensive Net Expenditure during the financial period in which they are incurred.

Plant and machinery

Forestry vehicles, machinery and equipment are shown at fair value less accumulated depreciation. Plant and machinery values are restated to current value each year using indices provided by the Office for National Statistics.

Assets Under Construction

Assets under construction are carried at the costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Assets under construction are transferred to the appropriate property, plant and equipment category when completed and ready for use.

Revaluation Reserve

Increases in the carrying amount arising on revaluation of property, plant, equipment and intangible assets are credited to the Revaluation Reserve in taxpayers' equity. Decreases that offset previous increases of the same asset are charged against the Revaluation Reserve directly; all other decreases are charged to the Statement of Comprehensive Net Expenditure. Each year the difference between depreciation based on the

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revalued carrying amount of the asset charged to the Statement of Comprehensive Net Expenditure and depreciation based on the asset's original cost is transferred from the Revaluation Reserve to the General Fund.

1.8 Depreciation

Depreciation is provided on all tangible non-current assets (except land) at rates calculated to write-off the valuation, less estimated residual values, of each asset evenly over its expected useful life. Asset lives are as follows:

Asset Category	Period
Freehold buildings	up to 60 years
Scientific equipment	over 5 to 20 years
Other machinery and equipment	over 5 to 20 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each reporting date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within the Statement of Comprehensive Net Expenditure. When revalued assets are sold, the amounts included in the Revaluation Reserve are transferred to the General Fund.

1.9 Intangible Assets

Intangible assets are valued initially at cost and subsequently at fair value using the revaluation model.

Where an active market does not exist, income-generating assets are valued at the lower of depreciated replacement cost and value in use. Non-income-generating assets are carried at depreciated replacement cost. These valuation methods are considered to be a proxy for fair value.

Computer software

Acquired computer software licences are initially capitalised on the basis of the costs incurred to acquire and bring to use the specific software and subsequently revalued to depreciated replacement cost. Acquired computer software licences are amortised over the life of their licence.

1.10 Impairment of non-financial assets

Assets subject to depreciation and amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is

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the higher of an asset's fair value less costs to sell and value in use. Where an asset is not held for the purpose of generating cash flows, value in use is assumed to equal the cost of replacing the service potential provided by the asset, unless there has been a reduction in service potential. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets that suffer impairment are reviewed for possible reversal of the impairment at each reporting date.

1.11 Financial Assets

Classification

Forest Research classifies its financial assets in the following categories: Amortised Costs or Fair Value through Other Comprehensive Income (FVOCI). The classification depends on the business model for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

Recognition and measurement

Financial assets are recognised when Forest Research becomes party to the contractual provisions of the financial instrument and derecognised when the rights to receive cash flows from the asset have expired or have been transferred and Forest Research has transferred substantially all risks and rewards of ownership.

(a) Financial assets held to collect contractual cash flow only are measured at Amortised Costs, initially recognised at fair value. Any subsequent gains or losses arising from changes in the fair value are presented in the Statement of Comprehensive Net Expenditure. Where necessary, receivables have been impaired in accordance with the IFRS 9 lifetime expected credit losses model.

(b) Financial assets held to collect contractual cash flow and to sell are measured at Fair Value through Other Comprehensive Income.

1.12 Financial Liabilities

Classification

Forest Research classifies its financial liabilities in the following categories: at fair value through profit or loss, and other financial liabilities. The classification depends on the purpose for which the financial liabilities were issued. Management determines the classification of its financial liabilities at initial recognition.

Recognition and measurement

Financial liabilities are recognised when Forest Research becomes party to the contractual provisions of the financial instrument. A financial liability is removed from the Statement of Financial Position when the obligation is discharged, cancelled or expired.

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(a) Financial liabilities at fair value through profit or loss

Financial liabilities carried at fair value through profit or loss are initially recognised at fair value. Any subsequent changes in the fair value are presented in the Statement of Comprehensive Net Expenditure.

(b) Other financial liabilities

Other financial liabilities are initially recognised at fair value and subsequently measured at amortised cost using the effective interest method.

1.13 Cash and cash equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks, cash balances held by the Government Banking Service and other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the Statement of Financial Position.

1.14 Provisions

Forest Research provides for present legal and constructive obligations which are of uncertain timing or amount at the reporting date based on the best estimate of the expenditure required to settle the obligation. Where the effect of the time value of money is significant, the estimated risk-adjusted cash flows are discounted using the real rate set by HM Treasury. The increase in the provision due to passage of time is recognised in the Statement of Comprehensive Net Expenditure.

1.15 Contingent Liabilities

Where the time value of money is material, contingent liabilities which are required to be disclosed under IAS 37 are stated at discounted amounts.

1.16 Effective in these Financial Statements

All International Financial Reporting Standards, interpretations and amendments effective at 31 March 2024 have been adopted in these statements, taking account of the specific interpretations and adaptations included within the FRM.

1.17 Leases

Forest Research has elected not to recognise right-of-use assets and lease liabilities for short-term lease that have a lease term of 12 months or less and leases of low-value assets. Forest Research recognises the payments associated with these leases as an expense on a straight-line basis over the lease term.

The weighted average incremental borrowing rate applied on transition to IFRS 16 was 0.95%.

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1.18 Segmental Reporting

Forest Research's aim is to support and enhance the role of trees, woodlands and forests in sustainable development, by providing high-quality research, development and knowledge transfer. Management has determined that Forest Research operates as one operating segment, with results reviewed by the Chief Executive, as the chief operating decision-maker for Forest Research as a whole.

1.19 Effective for future financial years

New standards, amendments and interpretations issued but not effective for the financial year beginning 1 April 2023 and not early adopted.

IFRS Insurance Contracts

IFRS 17 will be applied upon formal adoption in the FReM:

This standard will apply to all types of insurance contract and proposes a building blocks approach based on the expected present value of future cash flows to measuring insurance contract liabilities. IFRS 17 is not expected to have a material impact. This will be assessed when further guidance is forthcoming from HM Treasury.

Note 2. Prior Period Adjustment

In relation to the disclosure of funding from the Forestry Commission.

In prior years, funding received from the Forestry Commission has been incorrectly accounted for as income and included within the Statement of Comprehensive Net Expenditure for the year. This funding should be accounted for as Funding from Forestry Commission within the Statement of Comprehensive Taxpayers Equity, as required by IAS 20 and interpreted by the Financial Reporting Manual. In accordance with the requirements of IAS 8, the prior year financial statements have been restated. The adjustment has no overall impact to reserves held at year end. Forestry Commission funding is now disclosed as a movement in the General Fund and disclosed in Net Financing within the Statement of Cash Flows instead of within Net cash flow from operating activities.

The following extracts from the primary financial statements have been prepared to illustrate the impact of this presentation adjustment for the year ending 31 March 2023.

2.1 Statement of Comprehensive Net Expenditure for the year ended 31 March 2023

	As previously reported £000	Adjustments £000	As restated £000
Income			
Core income	(17,904)	17,904	-
Non-core income	(11,930)	11,930	-
Revenue from contracts with customers	-	(16,916)	(16,916)
Total operating income	(29,834)	12,918	(16,916)
Net operating (income)/ expenditure	(366)	12,918	12,552
Total comprehensive net (income)/ expenditure for the year	(8,042)	12,918	4,876

2.2 Statement of Cash Flow for the year ended 31 March 2023

	As previously reported £000	Adjustments £000	As restated £000
Statement of Cash Flows for the year ended 31 March 2023			
Net cash from operating activities			
Net operating income/(expenditure)	366	(12,918)	(12,552)
Net cash outflow from operating activities	518	(12,918)	(12,400)
Funding received from the Forestry Commission ¹	5,071	12,918	17,989
Net financing	5,064	12,918	17,982

1 - Previously reported as 'Net cash funding from the Forestry Commission'

2.3 Statement of Changes in Taxpayers' Equity (General Fund) for the year ended 31 March 2023

	As previously reported £000	Adjustments £000	As restated £000
Net operating income	366	(366)	-
Comprehensive net expenditure	-	(12,552)	(12,552)
Funding received from the Forestry Commission	5,071	12,918	17,989
Balance at 31 March 2023	26,367	-	26,367

Note 3. Staff Costs

	2023–24	2022–23
	£000	£000
Wages and salaries	14,128	10,898
Social security costs	1,447	1,150
Employer’s superannuation costs	3,613	2,874
Apprenticeship levy	68	52
Agency staff costs	1,109	770
Total	20,365	15,744

More details on staff costs can be found in the Remuneration and Staff Reports.

Note 4. Other Management Costs

	2023-24	2022–23
Notes	£000	£000
Travel and subsistence	912	648
Building maintenance	1,670	1,664
Utilities	643	524
Training	155	308
Other expenditure	288	339
Computer supplies	2,838	3,013
Staff transfer expenses	12	-
Non-cash costs:		
Depreciation of property, plant and equipment	2,049	1,564
Impairment charges	759	252
Amortisation of intangible assets	20	12
Loss on Disposal of property, plant and equipment	27	44
Auditors’ remuneration – notional cost	51	42
Total	9,424	8,410

Note 4.1 Impairment Charge

2023 to 2024: The impairment charge noted on page 78 for the year ended 31 March 2024 relates to the difference between the costs incurred and the formal valuations in respect of the NRS Main Building, as in accordance with the FReM the properties/capital improvements require to be valued on a Depreciated Replacement Cost (DRC).

Note 5. Materials and services

	2023-24	2022-23
	£000	£000
Materials and supplies	1,751	1,073
Central service from Forestry Commission	18	-
Vehicle charges from the Forestry Commission	415	344
Contracted research services	5,227	3,631
Publications	128	44
Protective clothing	92	62
Miscellaneous expenditure	234	160
Total	7,865	5,314

Note 6. Income

Revenue from contracts with customers

	2023-24	2022-23
	£000	Restated £000
Scottish Government	4,079	4,079
Welsh Government	907	907
European Union	400	250
Forestry Commission	1,240	829
Forestry England	1,563	1,677
Welsh Government	896	1,019
Scottish Government	1,294	1,113
Forestry and Land Scotland	1,265	1,491
Contracts for research and services	6,165	5,396
Ad hoc – analysis, supply of seeds, conferences, advisory	122	155
Total	17,931	16,916

The 2022-23 figures restated are due to the Prior Period Adjustment explained at Note 2.

Forestry Commission income stated in this note relates to recharges and miscellaneous invoices and is not classified as Grant-in-Aid funding.

Note 7. Tangible Non-Current Assets

	Freehold land £000	Buildings £000	Scientific equipment £000	Other machinery & equipment £000	Assets under construction £000	Total £000
Valuation:						
At 1 April 2023	1,640	36,615	8,374	2,187	6,762	55,578
Additions	–	72	600	185	8,334	9,191
Transfers	–	4,654	8	460	(5,122)	–
Disposals	–	–	(140)	–	–	(140)
Impairments	–	(760)	–	–	–	(760)
Revaluation	71	694	267	(1)	–	1,031
At 31 Mar 2024	1,711	41,275	9,109	2,831	9,974	64,900
Depreciation:						
At 1 April 2023	–	14,937	3,432	1,621	-	19,990
Provided in year	–	937	860	252	–	2,049
Disposals	–	–	(113)	–	–	(113)
Revaluation	–	260	104	–	–	364
At 31 Mar 2024	–	16,134	4,283	1,873	–	22,290
Net book value:						
At 31 Mar 2024	1,711	25,141	4,826	958	9,974	42,610
At 31 Mar 2023	1,640	21,678	4,942	566	6,762	35,588

Fixed assets were revalued as at 31 March 2024, using indexation alongside professional review by Savills, Chartered Surveyors, on one building project, under our policy detailed in 1.6. This valuation was undertaken for the Northern Research Station, Roslin, near Edinburgh, with a net book value (excluding land) of £7 million, at 31 March 2024. Any assessed changes in the remaining useful life of specific assets have been recorded in the Fixed Asset Register and will result in amended depreciation charges in future years.

Capital estates project within assets under construction classification includes the work in progress at Alice Holt.

Prior year values disclosed below for comparison purpose.

	Freehold land £000	Buildings £000	Scientific equipment £000	Other machinery & equipment £000	Assets under construction £000	Total £000
Valuation:						
At 1 April 2022	1,561	24,726	7,066	1,988	3,493	38,834
Additions	–	–	965	46	6,246	7,257
Transfers	–	2,937	–	40	(2,977)	–
Disposals	–	(70)	(77)	–	–	(147)
Impairments	–	(252)	–	–	–	(252)
Revaluation	79	9,274	420	113	–	9,886
At 31 Mar 2023	1,640	36,615	8,374	2,187	6,762	55,578
Depreciation:						
At 1 April 2022	–	12,295	2,620	1,403	–	16,318
Provided in year	–	678	736	150	–	1,564
Disposals	–	(34)	(68)	–	–	(102)
Revaluation	–	1,998	144	68	–	2,210
At 31 Mar 2023	–	14,937	3,432	1,621	–	19,990
Net book value:						
At 31 Mar 2023	1,640	21,678	4,942	566	6,762	35,588
At 31 Mar 2022	1,561	12,431	4,446	585	3,493	22,516

Note 8. Financial Instruments

8.1 Financial instruments by category

All financial assets on the Statement of Financial Position are assets held at Amortised Costs, except for £75,000 (31 March 2023: £75,000) which is classified as Fair Value through Other Comprehensive Income (FVOCI) and is available for sale. The available-for-sale asset is Forest Research's share of C-Cure Solutions Ltd.

All financial liabilities on the Statement of Financial Position are classified as other financial liabilities, except for £467,000 (31 March 2023: £62,000) taxation and social security costs and £616,000 (31 March 2023: £302,000) deferred income.

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8.2 Exposure to risk

Credit Risk

Forest Research is exposed to credit risk to the extent of non-payment by its counterparties in respect of financial assets receivable. The majority of assets relate to services provided to other public sector bodies and the risk of non-payment is considered low.

Liquidity Risk

As the cash requirements of Forest Research are met primarily through funding from the Forestry Commission and devolved forestry bodies, it is not exposed to significant liquidity risks.

Interest Rate Risk

Forest Research has no significant interest-bearing assets or liabilities and as such income and expenditure cash flows are substantially independent of changes in market interest rates.

Foreign Currency Risk

Forest Research's only exposures to foreign exchange rates are through a bank account denominated in Euros and through receipt of EU funding for contracts which are denominated in Euros and New Zealand Dollars.

Contracts denominated in foreign currency form less than 1% of Forest Research's total income. Therefore, fluctuations in exchange rates do not have a significant impact on Forest Research.

Note 9. Receivables

9.1 Analysis by Type

	2023–24 £000	2022–23 £000
EU trade receivables	-	10
Other trade receivables	4,604	7,874
Total trade receivables	4,604	7,884
Other receivables	-	1
House purchase loans to employees	3	5
Prepayments and accrued income – EU	3	-
Prepayments and accrued income – non-EU	2,056	1,428
Total receivables	6,666	9,318

The carrying amounts of trade and other receivables are a reasonable approximation of their fair value. Values have been received post year-end.

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As of 31 March 2024, £4,555,085 (31 March 2023: £7,743,000) were fully performing and not overdue or impaired and provided for.

As of 31 March 2024, trade receivables of £49,615 (31 March 2023: £141,000) were overdue and regular exercises to assess recoverability have been undertaken post 31 March, resulting in the majority of the balance either being settled or where outstanding determined low risk, as due from public sector customers or the EU.

The age analysis of these trade receivables is as follows:

	2023–24 £000	2022–23 £000
Months overdue		
Less than one month	49	78
One to two months	-	15
Two to three months	-	-
More than three months	-	48
Total	49	141

The other classes within trade and other receivables do not contain impaired assets.

The maximum exposure to credit risk at the reporting date is the carrying value of each class of receivable mentioned above. Forest Research does not hold any collateral as security.

The carrying amounts of trade and other receivables are denominated in the following currencies:

	2023–24 £000	2022–23 £000
Current		
Pounds sterling	6,656	9,295
NOK Kr	-	13
Euros	10	10
Total	6,666	9,318

Note 10. Cash and cash equivalents

The following balances at 31 March are held at Government Banking Service banks and as cash in hand:

	2023–24 £000	2022–23 £000
Opening balance at 1 April	1,884	3,608
Net change in balances	3,408	(1,724)
Balance at 31 March	5,292	1,884

Forest Research had neither bank overdraft nor short-term investments as at 31 March for either of the two years.

Forest Research maintains Euro bank accounts for sums held on behalf of partners in European Commission projects, which are treated as third-party assets and not included in the balances shown (see Note 16).

Note 11. Trade and Other Payables

	2023–24 £000	2022–23 £000
Current		
Payments received on account	228	603
Trade payables	1,140	1,921
Taxation and social security costs	467	62
Other payables	987	676
Current part of finance leases	7	8
Accrued expenses	1,834	1,533
Contract liabilities	533	302
Non-Current		
Finance lease	2	9
Total	5,198	5,114

The carrying amounts of trade and other payables are a reasonable approximation of their fair value.

All payables are to bodies external to central government and local authorities as at 31 March 2024 and 31 March 2023, with the exception of £291,000 (31 March 2023: £257,000) due to central government bodies. Funds held on behalf of partners in European Commission projects are treated as third-party assets (see Note 16). At 31 March 2024 the amount held in Forest Research bank accounts on behalf of partners was £14,000 (31 March 2023: £27,000).

The carrying amounts of trade and other payables are denominated in the following currencies:

	2023–24 £000	2022–23 £000
Current		
Pounds sterling	5,064	4,749
Euros	132	310
US Dollars	-	39
New Zealand Dollars	-	7
Total	5,196	5,105

Note 12. Capital Commitments

There were £1,212,697 contracted capital commitments as at 31 March 2024 (31 March 2023: £1,879,224).

Note 13. Commitments and Receivables under Operating Leases

Total future minimum lease payments under operating leases are given in the tables below for each of the following periods.

Obligations under operating leases comprise:

	2023–24 £000	2022–23 £000
Land and buildings:		
Not later than one year	7	7
Later than one year and not later than five years	–	8
More than five years	–	–
Total	7	15

Total minimum lease payments under operating leases for land due to Forest Research are:

	2023–24 £000	2022–23 £000
Not later than one year	5	5
Later than one year and not later than five years	20	20
Later than five years	43	48
Total	68	73

During 2012–13, the Environment Agency had a building constructed at Alice Holt and under the Memorandum of Terms of Occupancy has an obligation to pay Forest Research an annual capital allowance for occupation of the land for the 25-year term.

Note 14. Other Financial Commitments

There were no other financial commitments at 31 March 2024 (31 March 2023: £nil).

Note 15. Related party transactions

During the year, Forest Research has had a significant number of material transactions with the Forestry Commission and Defra who are regarded as related parties. In addition, Forest Research has had operational transactions with other government departments and other central government bodies. On 17 May 2023 James Pendlebury ceased powers as a Director of C-Cure Ltd, which is held as an investment of £75,000 by Forest Research and detailed at Note 8.1 to the Financial Statements.

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15.1 Transactions with the University of Stirling

	2023–24	2022–23
	£000	£000
Sales	159	107
Purchases	35	99

The above transactions, for student stipend and a collaboration agreement, occurred on an arm's length basis. These transactions are disclosed as Chris Quine holds a visiting professorship at the University of Stirling.

There were balances outstanding of sales £26,000 (31 March 2023: £10,000) and purchase £nil at 31 March 2024 (31 March 2023: £nil).

15.2 Transactions with the Institut Européen de la Forêt Cultivée (IEFC)

	2023–24	2022–23
	£000	£000
Sales	5	-
Purchases	-	18

The above transactions, for European networking support, occurred on an arm's length basis. These transactions are disclosed as James Pendlebury is a member of the Board of IEFC and received no remuneration for this role. There was a £nil balance outstanding at 31 March 2024 (31 March 2023: £nil).

15.3 Transactions with the University of Oxford

	2023–24	2022–23
	£000	£000
Sales		1
Purchases	22	4

The above transaction, for a research project, occurred on an arm's length basis. These transactions are disclosed as Matthew Perkins is on the board of three wholly owned subsidiaries of the University of Oxford. Forest Research had no direct transactions with the subsidiary but for transparency all transactions with the University of Oxford are disclosed. There was an outstanding balance of £nil as at 31 March 2024 (31 March 2023: £nil).

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15.4 Transactions with Bangor University

	2023–24	2022–23
	£000	£000
Sales	31	8
Purchases	43	91

The above transactions, for project-based research work, occurred on an arm's length basis. These transactions were disclosed as Julian Evans is an Honorary Fellow of Bangor University and received no remuneration for this role. There was an outstanding balance of £nil as at 31 March 2024 (31 March 2023: £nil).

15.5 Transactions with the Scottish Forestry Trust (SFT)

	2023–24	2022–23
	£000	£000
Sales	2	12
Purchases	–	–

The above transactions, for project-based research work, occurred on an arm's length basis. These transactions were disclosed as James Pendlebury was a trustee of the Scottish Forestry Trust from January 2022 and received no remuneration for this role. There was an outstanding balance of £nil as at 31 March 2024 (31 March 2023: £nil).

15.6 Transactions with the Institute of Chartered Foresters

	2023–24	2022–23
	£000	£000
Sales	1	–
Purchases	–	1

The above transactions, for conference and membership fees, occurred on an arm's length basis. These transactions were disclosed as Julian Evans is a Fellow and past president, and Jo Bradwell and Chris Quine are Fellows and James Pendlebury is a Member, of the Institute of Chartered Foresters. None of them received any remuneration for these roles. There was an outstanding balance of £nil as at 31 March 2024 (31 March 2023: £nil).

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15.7 Transactions with the University of Birmingham

	2023–24 £000	2022–23 £000
Sales	1	-
Purchases	33	-

The above transactions, for project-based research work, occurred on an arm's length basis. These transactions were disclosed as Nicola Spence is a Director for the Birmingham Institute of Forest Research (BIFoR) and received no remuneration for this role. Jo Bradwell also forms part of the advisory group for BIFoR and is a retired professor of Immunology at the University of Birmingham. There was an outstanding balance of £nil as at 31 March 2024. Jo Bradwell and Nicola Spence joined Forest Research in 2023 to 2024 therefore the figures for 2022 to 2023 are £nil.

15.8 Department for Environment, Food & Rural Affairs (Defra)

	2023–24 £000	2022–23 £000
Sales	3,602	-
Purchases	3	-

The above transactions, for project-based research work, occurred on an arm's length basis. These transactions were disclosed as Jo Bradwell he has been in a receipt of woodland and farming grants from Defra totalling £77,000. There was an outstanding balance of £562,000 as at 31 March 2024. Jo Bradwell joined Forest Research in 2023 to 2024 therefore the figures for 2022 to 2023 are £nil.

15.9 Transactions with the Royal Forestry Society

	2023–24 £000	2022–23 £000
Sales	-	-
Purchases	1	-

The above transactions, for overseas study, occurred on an arm's length basis. These transactions were disclosed as Julian Evans is a council member of the Royal Forestry Society and Jo Bradwell is a member. Neither of them received any remuneration for these roles. There was an outstanding balance of £nil as at 31 March 2024.

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15.10 Transactions with the Hovingham Farms

William Worsley received a total of £123,000 in Defra grants for Countryside Stewardship, Farming in Protected Landscapes and Basic Payment Scheme, in relation to Hovingham Farms. There are no transactions between Forest Research and Hovingham Farms to declare

Note 16. Third-Party Assets

As a coordinator for a number of projects partially funded by the European Commission in Euros, Forest Research receives funds on behalf of partners for onward transmission once work programmes have been approved. These third-party assets are not recognised in the accounts.

	2022–23	Gross inflows	Gross outflows	2023–24
	£000	£000	£000	£000
Monetary third-party assets – Government Banking Service balances	27	–	–	27

Note 17. Events After the Reporting Date

In accordance with the requirements of IAS 10, events after 31 March 2024 are considered up to the date on which the accounts are authorised for issue by the Accounting Officer. This is interpreted as the date of the Comptroller and Auditor General's Audit Certificate.

There were no reportable events after the end of the reporting period.

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