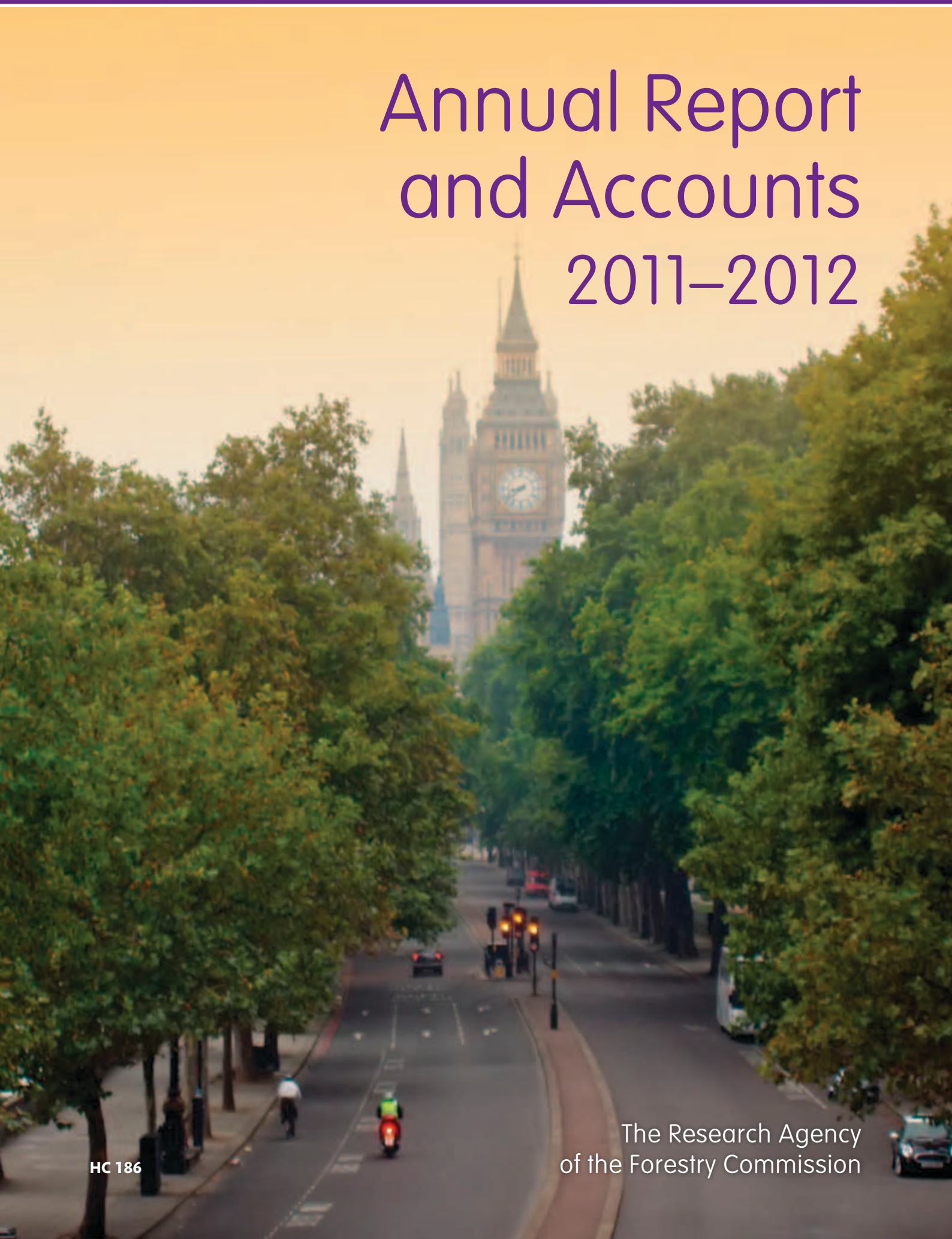
Forest Research

Annual Report and Accounts 2011–2012



The Research Agency of the Forestry Commission

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Any enquiries regarding this publication should be sent to us at **research.info@forestry.gsi.gov.uk**.

This publication is also available for download at **www.official-documents.gov.uk** or from our website at **www.forestry.gov.uk/forestresearch**.

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Chief Executive's Introduction

It has certainly been a busy year for Forest Research. We have been investigating a series of pests and diseases, delivering the Government's spending review requirements and have undergone an independent external review of the quality of our science.

The past year has also demonstrated that our work and expertise continue to be highly valued by our many customers and stakeholders.

Whilst trees and woodlands are an important part of our landscape, to some extent we take them for granted. It is easy to miss the subtle changes that combine over comparatively long timescales to alter our woodlands and it is wrong to assume that the status quo will persist. Pests and diseases continue to have a significant and widespread impact on our trees and forests, and are a cause of concern for many woodland users, the forestry sector and the general public. Forest Research is working with a wide range of institutional, university and private sector partners to investigate, understand and communicate accurate, unbiased information on these pests and diseases.

During the past year Forest Research has:

- successfully delivered against the Key Actions in our 2011–12 Corporate Plan;
- contributed to the Action Plan for Tree Health and Plant Biosecurity that was jointly launched by the Department for Environment, Food and Rural Affairs (Defra) and the Forestry Commission in October 2011;
- led the sector analysis for the UK-wide Climate Change Risk Assessment that directly contributes to targets set under the UK Climate Change Act (2008);
- held a sector-wide workshop to look into future research requirements on behalf of the English Independent Panel on Forestry; the findings have been submitted to the Panel for their deliberation;
- provided hydrological input into the development of Defra guidance for the Natural Improvement Areas;
- produced an operating surplus (before voluntary exit costs were included) and exceeded its external income targets.

We have also provided much of the underpinning evidence for the development of the Forestry Commission's Woodland Carbon Code. This evidence was required in order to make the Carbon Code robust and applicable to the diverse range of forest conditions in the UK. It has allowed detailed and reliable estimates of future carbon storage to be provided for those areas of woodland registered under the code. This evidence and associated tools, such as carbon look-up tables that predict the amount of carbon likely to be

captured by trees, have been warmly welcomed by those promoting investment in woodland expansion.

Further afield, we are particularly proud of our work in India where, using our expertise in landscape ecology, we have furthered partnerships and understanding in forest landscape restoration.

With an eye on the future, we have evaluated the key scientific challenges facing the forestry sector over the next decade to define what research will be needed over coming years. The resulting *Forest Research Science Focus* identifies those issues we think the sector will need to address during the next decade. These include:

- how we should manage and adapt to, rather than eradicate, pests in instances where eradication is or could prove impossible;
- how we can extract value from the ecosystem services that woodlands provide; and
- how we can achieve sustainable intensification – the goal of which is to increase woodland productivity without compromising woodland diversity, health and resilience.

The *Science Focus* will help to shape the direction of our research over the coming years, to ensure that the Government continues to be supplied with timely and robust evidence. It will also help define who we will work with and how our findings will continue to make a difference.

Equally important for shaping our future are the recommendations arising from the recent independent review of Forest Research. The External Review Group, chaired by Professor Sir David Read FRS, considered the quality and delivery of our research. The Group visited our offices at the Northern Research Station (Edinburgh) and Alice Holt (Farnham) in December 2011 and met with our research staff. The review and the questions it posed were rigorous and challenging. It was an authoritative and detailed assessment that noted the commitment of Forest Research staff, the quality of our knowledge exchange, positive stakeholder support and overall importance to both the public and private sectors. The review also produced a detailed commentary on our research programmes and provided Forestry Commissioners with a high degree of assurance on our science quality. It gave a strong steer on how we can improve both the commissioning and management of research. Those recommendations that will clearly improve our performance will be implemented over the coming year.

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The year ended on a particularly exciting note with the launch of the Dyfi Catchment and Woodland Research Platform in Wales by the Welsh Government Minister for the Environment and Sustainable Development, John Griffiths AM. The Dyfi catchment in west Wales is an area of great landscape diversity and ecosystem sensitivity. The new Platform sees a number of partners, including the University of Aberystwyth, the Centre for Catchment and Coastal Research and Forestry Commission Wales, agreeing to focus their research within this special area.

We would not achieve so much without the active support and collaboration of our many partners, both in the UK and overseas, from the private and public sectors, universities and governments. We would like to take this opportunity to thank them all for their help and involvement.

Finally, any organisation is only as good as the people it employs and our staff continue to be exceptional in their approach and commitment to their work. This was noted by the External Review Group and I would like to add my thanks to all my colleagues for their continuing dedication and hard work.

Dr James Pendlebury
Chief Executive

Forest Research Corporate Plan Key Performance Indicators – Progress Report

Key Performance Indicator (KPI)	Commentary
1. Continue collaborative research into the incidence, biology, epidemiology and management strategies for important forest pests and diseases.	**Achieved:** This activity is at the heart of the largest Forestry Commission-funded programme in Forest Research (FR). There is widespread collaboration with a range of partners, including the Food and Environment Research Agency, Imperial College, Edinburgh University, United States Department of Agriculture and European Union partners. FR is also contributing to the delivery of the Defra and Forestry Commission Action Plan on Tree Health and Plant Biosecurity. Technical Support Unit staff are heavily involved in the ground-truthing and sampling of stands suspected of infection all over the UK.
2. Produce a refreshed Disease Diagnostics Advisory Service and launch a new tree health surveillance system.	**Achieved and ongoing:** New IT infrastructure was designed and developed to support a new Tree Health Diagnostic Advisory Service, which is due to be launched in summer 2012. The new tree health surveillance programme was launched during 2011.
3. Incorporate the findings of pathology research into other collaborative areas of activity.	**Achieved:** Pathology knowledge has been formally included in guidance on new tree species (www.forestry.gov.uk/fr/treespecies). The risk of damaging effects from pests and pathogens was also considered and included as a major risk in the forestry sector report for the Defra-led 2012 Climate Change Risk Assessment.
4. Make a significant contribution to an international conference on the importance of trees in the built environment.	**Achieved:** FR presented two papers at the Institute of Chartered Foresters 2011 Conference 'Trees, People and the Built Environment': *Exploring the role of street trees in the improvement and expansion of green networks* by Dr Norman Dandy and *Governance and the Urban Forest* by Dr Anna Lawrence. The conference was attended by 400 delegates from a wide range of professions and included a notable overseas contingent.
5. Produce up-to-date research and information to underpin the UK Forestry Standard.	**Achieved:** FR work was used extensively as the evidence base for the UK Forestry Standard launched in November 2011. Additional FR guidance to support the UKFS can be found in the Forestry Commission (FC) technical publications series.
6. Focus social science and economics research into well-being, governance behaviour change and valuation of goods and services.	**Achieved:** FR has established two programmes: • (i) 'Societal benefits and governance of trees, woods and forests', with four main work areas: Well-being and quality of life, Society, Governance, and Evaluation and appraisal; • (ii) 'Realising the economic value of ecosystem services from woodlands', with two main work areas: Payments for ecosystem services and Ecosystem services valuation. Social research is also a key component of many other research programmes.
7. Develop the science and software to provide the growth and yield models (which underpin the National Forest Inventory, Production Forecast, and contribute to Defra's reporting, arising from the Kyoto Protocol) on greenhouse gas emissions as they relate to land use, land use change and forestry.	**Achieved:** Revised models were incorporated into software to run and present the National Forest Inventory and Production Forecast. This was completed in November 2011. A more-detailed greenhouse gas emission analysis on forests was provided for the UK Government's team attending the United Nations Framework Convention on Climate Change held in Durban, November 2011.
8. Development research in tree breeding, resource quality and disease resistance.	**Achieved and ongoing:** A major programme to evaluate a non-destructive assessment for structural timber properties has started, targeting clonal Sitka spruce field trials. If reliable, this method will allow us to calculate the heritability of timber properties and further improve the quality of breeding stock. Collaboration work has also started with New Zealand scientists through the Tranzfor programme to look for correlations between *in vitro* response rates to *Dothistroma pini* and known field response rates of breeding families of *P. radiata*. This work aims to find a method for early screening for disease resistance.

9. Provide forest management information on tree species selection and silviculture.	**Achieved:** The FR website now provides information on the suitability of seventy-two tree species for planting in the UK and gives details on their native range, provenance choice, site requirements, pests and pathogens, and uses.
10. Develop an agreed timetable and action plan regarding the transformation of the Library to an internet-based resource centre that houses Forestry Commission publications, reports and general literature.	**Achieved and ongoing:** A Library action plan was developed and approved by FR's Executive Board in October 2011. This has refocused and renamed FR's library services as a 'Resource Information Service' for the whole of the Forestry Commission and a programme of online and webinar-based staff training has begun.
11. Publish at least three Forest Research Monographs and maintain publication of peer-review papers in high-impact science journals.	**Partially met:** Monograph 4 was published: *Woodland for Water: Woodland measures for meeting Water Framework Directive objectives.* This paper was peer reviewed by the Environment Agency and used as supporting evidence for the Government's Nature Improvement Areas initiative. Items intended for Monographs 5 and 6 were: (i) The Carbon Review and (ii) Disturbance of wildlife and the recreational use of forests. However, these are now to be published as FC publications instead of FR Monographs. FR's 177 staff published 77 peer-reviewed papers during 2011–12, which certainly compares favourably with many other Defra science agencies on the basis of publications per staff member.
12. Deliver the agreed annual business plan and Spending Review 2010 (SR10) objectives including securing a total of £3.3 million of other external income in 2011–12.	**Achieved:** FR secured £4.17 million of other external income in 2011–2012.
13. Reduce staff numbers and implement other cost saving measures.	**Achieved and ongoing:** Staff numbers have been reduced faster than FR's agreed SR10 implementation plan and as such the agency is well ahead of its target delivery plan. FR has also achieved other significant savings through reducing its vehicle fleet by 27% over the last two years and by reducing its electricity consumption by just under 10.0% in 2011–12.
14. Host an External Review Group, comprising scientists of international repute, to independently assess our research programmes, to make recommendations on future research priorities and to improve science quality and knowledge exchange.	**Achieved:** The Forest Research External Review Group visited Forest Research on 13–15 December. Its report was presented to the Forestry Commissioners in March 2012 and a summary document will be published later in 2012. Those recommendations that improve our performance will be implemented in 2012–13.
15. Work with Forestry Commission and Defra to provide a more integrated and streamlined approach to our functions.	**Achieved and ongoing:** Forest Research continues to work with Defra colleagues on a range of plant health issues and was actively involved in developing the Forestry Commission and Defra Action Plan on Tree Health and Plant Biosecurity. At the request of the Independent Forestry Panel, Forest Research and Defra organised a meeting to examine future priorities for forestry research in England. The findings were submitted to the Panel in November 2011. Forest Research also provided hydrological input into the development of Defra guidance for the Natural Improvement Areas.

About Forest Research

Forest Research is the Forestry Commission's Research Agency and is the UK's foremost body for forest and tree related research.

Background

The overall objective of the Forestry Commission (FC) is to lead the development and promotion of sustainable forest management and to support its achievement internationally. Forest Research (FR) is the Forestry Commission's research agency and main research provider.

FR's Aim

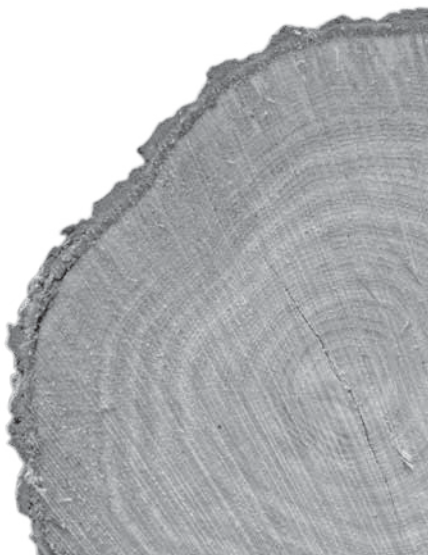
To be a robust, market-relevant and flexible research organisation with a reputation for innovative applied science.

FR's Strategic Objectives

1. To provide robust science to inform the development and delivery of UK Government and devolved administration forest policies.
2. To provide innovative applied research, development and monitoring services to UK, European and international forestry stakeholders.
3. To transfer research knowledge directly, or in partnership with others, to UK and international audiences.

Research funding

Much of FR's work is funded by the FC with Corporate and Forestry Support acting as purchaser of research and other services in support of the forestry policies of the UK Government and the devolved administrations of Scotland, Wales and Northern Ireland. In addition, FC England, Scotland and Wales purchase research, development and surveys specifically related to their respective forest estates. FR has also been increasingly successful in securing funding from other government departments, the European Commission, 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.



Activities

Research and development are essential components in delivery of the benefits of sustainable forestry in a multifunctional landscape. FR's research, surveys and related scientific services address the social, economic and environmental components of sustainability. There is a focus on providing knowledge and practical solutions based on high-quality science. Our projects provide understanding, policy advice and guidelines on the implementation of best practice (on issues such as forest hydrology, continuous cover forestry, timber quality, land reclamation and the restoration of native woodlands). Much of the research is directed at increasing the many benefits of woodlands. The protection of woodlands from pests and diseases, and predicting the impacts of environmental change are also overarching themes. FR works closely with the FC, the European Commission and other international bodies to ensure compliance with international agreements on the sustainable management of forests and the consideration of social and economic issues. The Agency also carries out work on genetic conservation, tree improvement, seed testing, method studies, product evaluation, crop inventory, surveys and monitoring.

Resources

FR currently employs 177 (full-time equivalent) staff at Alice Holt Lodge in Hampshire, the Northern Research Station near Edinburgh, the FC Wales National Office in Aberystwyth and at field stations across England, Scotland and Wales. Contact information is given on the back cover.

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Centre for Forestry and Climate Change

Woodlands and forests are vital in regulating and supporting ecosystem services such as carbon capture, climate mitigation, and soil and water protection.

Our research seeks to expand our understanding of how trees support these functions, in both rural and urban locations. We also work to protect forests from pests and diseases, many of which appear to be spreading, possibly in response to the changing climate. With the need to manage these threats increasing, our research helps the sector face these challenges.

The first Climate Change Risk Assessment

The UK Climate Change Act (2008) provided the world's first national framework for reducing emissions of greenhouse gases. It also required the production of a UK-wide Climate Change Risk Assessment (CCRA) every five years. The first CCRA was published in January 2012 and contained a detailed assessment of the risks to 11 major sectors including forestry. Forest Research led in the production of this analysis for the forestry sector.

The CCRA identified a number of risks over the next seven decades, including pests and pathogens, drought and wildfire, losses to forest biodiversity and amenity, windthrow and landslips. It was also clear that tree species suitability will change substantially in all parts of the UK, especially England, over the same period, while analysis suggested there would be increased opportunities for tree productivity, particularly in Scotland. The review highlighted barriers to adaptation and concluded that the forestry sector is well placed to confront them. For more information visit **www.forestry.gov.uk/fr/ccra**

Fighting the increase in Dothistroma needle blight

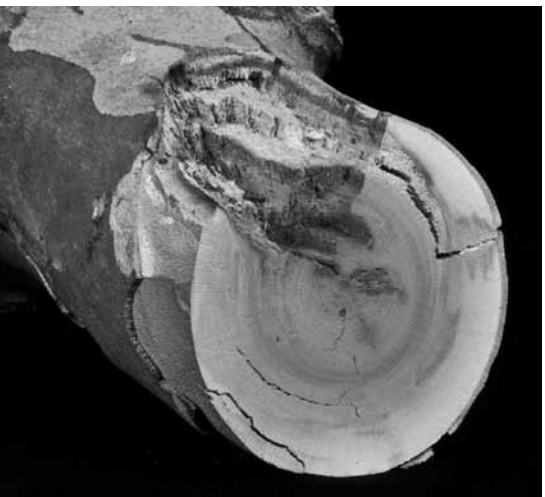
Dothistroma needle blight (*Dothistroma septosporum*, formerly known as red-band needle blight) is an economically important fungal disease whose distribution and intensity has significantly increased in Britain and Europe over recent years. It has had serious impacts on Corsican pine in England over the last decade. More recently, over 7,500 hectares of lodgepole pine and 3,000 hectares of Scots pine have been found to be infected in Scotland, with high levels of death among lodgepole pines (see image top right).

Molecular studies have shown that the two mating types of *D. septosporum* are present in Scotland, and that there

is high genetic diversity within the pathogen population. This may partly explain the increased occurrence and virulence of the disease. A management strategy for Great Britain is currently being drafted. Owing to the upsurge of the disease in Europe, an EU initiative on the biosecurity risk and invasiveness of this disease has been established, and is being chaired by Forest Research. For further details visit **www.forestry.gov.uk/fr/redbandneedleblight**

Massaria disease of plane trees

In 2009, tree experts in London's Royal Parks began noticing long lesions of dying or dead bark on the upper side of plane tree branches. The lesions were associated with dieback and branch drop, causing concern about safety in some of the most popular parks in London. Similar problems have been reported recently in Northern Europe following a series of long hot summers. The cause appears to be the fungus *Splanchnonema platani* (formerly *Massaria platani*), usually a weak parasite, although it does cause widespread damage in the southern United States.



Diagnosis based on the characteristic spores, in combination with molecular analysis, confirmed the presence of the fungus on trees in London and Bristol in 2011. We are undertaking research to see if the fungus is the direct cause of the branch drop, or merely allows the entry of opportunistic decay fungi. It remains uncertain whether the fungus is native, and has become more damaging due to climate change, or if it has entered from mainland Europe on un-sterilised tools, on planting stock, or on the wind. Our research continues. See **www.forestry.gov.uk/fr/massaria** for more details.

The mystery of *Phytophthora lateralis*

Phytophthora lateralis is an aggressive pathogen that infects the roots of Lawson cypress trees (*Chamaecyparis lawsoniana*). The disease has been devastating to Lawson cypress in its native range in Oregon, USA for several decades. However, it is believed to have originated in Taiwan and is thought to have spread though the international trade in ornamental plants.

Europe was free of *P. lateralis* until almost twenty years ago when it was found in France and, more recently, the Netherlands. In 2011, the disease was found at eight locations in England, Scotland and Northern Ireland – the first reported findings of *P. lateralis* in the UK.

Six of the eight UK outbreaks suggest the pathogen has been introduced from Europe or Oregon, but strains from two Scottish sites appear genetically unique and their source is unknown. We are now making genetic comparisons of global *P. lateralis* strains, hoping to solve the mystery of the Scottish outbreaks. For more information, visit **www.forestry.gov.uk/plateralis**

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Centre for Forest Resources and Management

We study the management of forests to ensure that British forests are managed and used in a sustainable way.

This year we have developed two significant management tools: systems to estimate the timber volume, carbon and biomass from measurements of many thousands of sample trees across Britain, and a map-based method of showing the best commercial species to choose for a particular site taking account of its physical constraints. Here are examples of four current projects, each contributing to sustainability at different scales.

Measuring sustainability of forest-based activities

The sustainability of the forestry sector is crucial to its long-term survival, and yet it is very difficult to measure. The EU Northern Periphery Programme project, Northern ToSIA (Tool for Sustainability Impact Assessment) was designed to resolve this problem. This project, which involves four European partners, has made great strides in quantifying the sustainability impacts of various forestry activities. It has also applied the ToSIA approach as a method to facilitate stakeholder engagement in forest policy-making and planning.

Key outputs from the project include four case studies. In Scotland, we assessed the balance between the resources of the Cairngorms National Park (see image left) and the needs of the local timber and recreation industries. Other project partners examined the conflicts between reindeer husbandry and forest conservation in Sweden, sustainable bio-energy production in Finland, and forest-based recreation in Norway. For further information, please visit **www.forestry.gov.uk/fr/northerntosia**

Update on genetic markers

In our annual review six years ago, we reported exciting plans to identify genetic markers linked to important economic traits in Sitka spruce (*Forest Research Annual Report and Accounts 2005–6*). Such technology was expected to allow breeders to identify outstanding individual plants in the laboratory at a very early age, thus vastly increasing the rate with which genetic gain reaches the forest manager.

We have now identified potential DNA-markers associated with early and late bud opening, a trait determined by spring temperatures. This finding is an important milestone in demonstrating the practicability of marker-aided

selection. Next, we intend to develop fast methods for measuring wood quality (e.g. through density), and to then find the associated genetic markers. The work to date, co-funded by the EU, has been a collaborative effort with the University of Quebec, Roslin Institute and GenePool (Edinburgh University). To find out more, see **www.forestry.gov.uk/fr/mas** or **www.noveltree.eu**

Economics of increased forest diversity

Forestry policy encourages the diversification of forest structure, species and layout. In many situations, this leads to continuous cover forestry (CCF) but many forest managers lack experience of this approach. A study by Forest Research has examined the costs and revenues of transformation to CCF and compared them with the conventional British practice of clearfelling (harvesting every tree in an area at once) and then replanting (**www.forestry.gov.uk/fr/ccfcosts**).

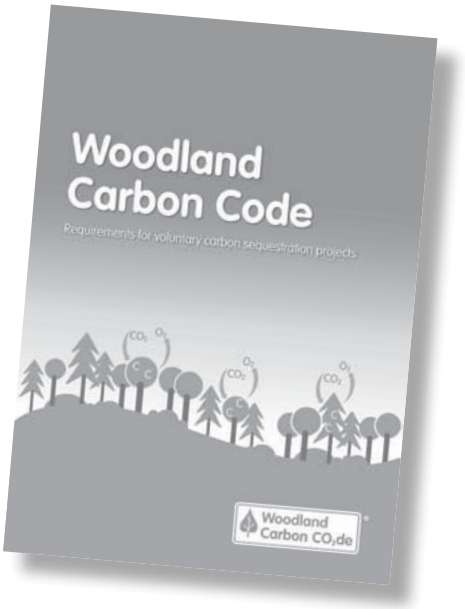
The study shows that, in general, transformation to CCF can be a good economic option. However, this depends on several factors, including costs, product specifications, roadside prices, discount rates and achieving natural regeneration. Therefore Forest Research has developed an analysis spreadsheet for policy-makers and forest managers which enables users to change any of these factors and then see immediately updated results. By quantifying the economic implications of CCF, this spreadsheet will help managers determine when CCF is a cost-effective management option.

Tools for measuring carbon capture

Launched by the Forestry Commission in July 2011, the Woodland Carbon Code is a voluntary standard for UK woodland-creation projects where the woodland owners want to be able to state how much carbon dioxide has been captured by growing trees. Forest Research has developed tools for use with the Code to estimate the amount of atmospheric carbon captured.

The *Carbon Lookup Tables* enable anyone planning to create new woodland to predict the amounts of carbon likely to be captured by the growing trees. We developed the tables using estimates from our growth and yield models and carbon accounting models. The tables cover a wide range of tree species, growth rates and management scenarios, and have been welcomed by those involved in promoting the establishment of new woodlands or carbon offset projects.

We developed the *Carbon Assessment Protocol* in parallel to support regular monitoring of woodland carbon projects. The protocol specifies survey methods and the calculations needed to estimate woodland carbon directly. Further details on the Woodland Carbon Code, and copies of the *Carbon Lookup Tables* and the *Carbon Assessment Protocol*, are available from **www.forestry.gov.uk/carboncode**



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Centre for Human and Ecological Sciences

We research the relationships between forestry, ecosystem services of woodlands and society by focusing on the multiple dimensions of sustainable forest management.

Woodlands and their biodiversity are valued by many sectors of society and appreciated in many ways, not least for providing interest and delight for visitors. Our research aims to support and inform management that conserves and enhances these qualities. Our current projects range from studies of local biodiversity – and how to protect it – to the economics of international carbon trading.

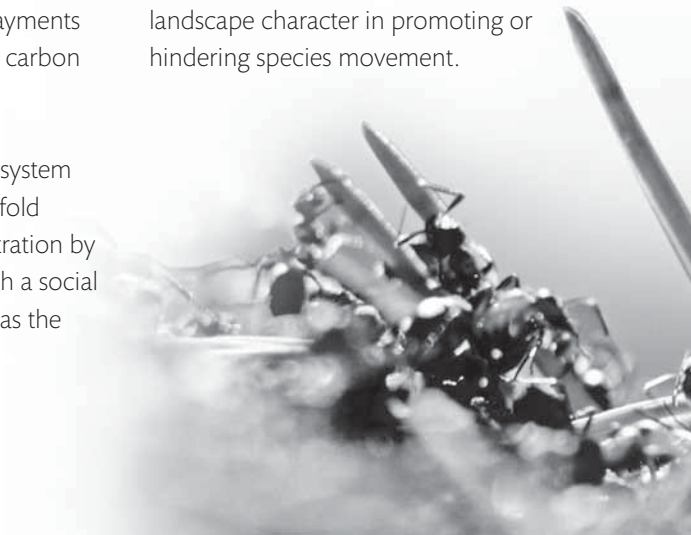
Pricing the ecosystem services of woodlands

There is growing interest in an ecosystem-services approach to making decisions about land use. This acknowledges the multiple benefits to society provided by ecosystems such as woodlands. For example, the 2011 Natural Environment White Paper aims to incorporate the value of natural capital into UK national accounts, and schemes are developing for payments for ecosystem services such as carbon sequestration.

Our work for the National Ecosystem Assessment highlighted a five-fold increase in net carbon sequestration by UK woodlands since 1945, with a social value currently twice as much as the market value of wood production per hectare. Our research on valuation has fed into development of a Woodland Carbon Code to help underpin emerging carbon markets. Ongoing work is considering behavioural economics in valuing ecosystem services and sustainability, and exploring the influence of timber values and biodiversity on choice of felling age. More information is available at **www.forestry.gov.uk/fr/foresteconomics**

Landscape genetics and conservation planning

Scientists at Forest Research are working in the pioneering area of landscape genetics, which combines population genetics with landscape ecology. This type of research helps investigate the impact of habitat loss, fragmentation and land-use change on biodiversity, and aims to quantify the role of the landscape character in promoting or hindering species movement.



We have based our initial work on two representative woodland species – the wood cricket (*Nemobius sylvestris*) and the wood ant (*Formica aquilonia*, pictured below). We have found high genetic differentiation between fragmented populations and very little or no contemporary movement between them. Although these fragmented populations are genetically healthy, their reluctance to move through a non-wooded area may ultimately lead to isolation and genetic bottlenecking. Some landscape features may be more permeable than others to species movement. An improved understanding of the relative permeability of various landscape components can help with conservation and land-use planning, enabling more-informed decisions on the most appropriate choice of conservation measures, such as the planting of wooded corridors.

The results of this work will be vital to underpin informed policy development to combat woodland loss and fragmentation (e.g. in Nature Improvement Areas). They will assist the prioritisation and targeting of steps to protect and develop woodlands, including woodland restoration and creation. For more information, visit **www.forestry.gov.uk/fr/geneticconservation**

Communities and governance

The ownership and governance of forests and woodlands is an increasingly topical debate across the UK. Our scientists are reviewing existing community engagement, governance and ownership arrangements for managing forests. This includes examining different types of ownership (private individual, commercial and joint, and public local and national) and types of engagement (consultative, collaborative and empowering).

Our findings include a wide range of possibilities for ownership and rights, community organisation and business models, participation in decision-making and learning opportunities. Some innovative models already exist in the UK, with woodlands subject to leaseholds, community management agreements, partnership agreements, and community rights-to-buy. Interestingly, opportunities for productive community woodlands are often overlooked in England, where there is currently more attention to conservation, place improvement, protection from planning threats, education and recreation. For more information, see **www.forestry.gov.uk/fr/forestgovernance**

Woodland birds and woodland structure

Trends in bird populations are considered a good reflection of the overall state of wildlife and countryside, and long-term records of bird species and numbers can be an important indicator of biodiversity. Woodland bird populations in the UK have declined since 1970, although not as much as farmland birds.

Our ecologists are collaborating with the British Trust for Ornithology (BTO), the University of Nottingham and the Royal Society for the Protection of Birds (RSPB) on a Defra-funded project to understand the impacts of woodland structure on bird populations. This four-year study focuses on whether it is possible to improve habitat quality for woodland birds through the adoption of particular management practices and silvicultural treatments, or by reducing browsing pressure from wild herbivores, particularly deer.

We are currently establishing study sites in lowland broadleaved and upland conifer forests, assessing breeding bird populations, deer density and woodland structure. More information is available at **www.forestry.gov.uk/fr/woodlandbirds**

Annual Report and Accounts for the year ended 31 March 2012

Annual Report for the year ended 31 March 2012

Management commentary

1. Basis of accounts

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.

2. Status

Forest Research became an Executive Agency of the Forestry Commission on 1 April 1997. It undertakes the major part of the Commission's research and development programmes as well as providing survey, monitoring and scientific services.

Forest Research is part of the Forestry Commission, which is a cross border Government Department responsible for forestry throughout Great Britain. The relationship between Forest Research, the Forestry Commissioners and Forestry Ministers is described in the Framework Document, revised and published in September 2003.

Under the Framework Document, Forest Research is funded from the sale of its services to both the Forestry Commission and external customers. Any annual surplus or deficit is counted in the Forestry Commission's net funding requirement.

3. Strategy

The strategic aims and objectives of Forest Research have been set to assist the Forestry Commission to achieve its objective to take the lead in development and promotion of sustainable forest management and to support its achievement nationally.

These are discussed in detail in Forest Research's corporate plan, which is available on the Forestry Commission website and the Forest Research website (www.forestry.gov.uk and www.forestry.gov.uk/forestresearch, respectively).

4. Relationships with stakeholders

Forest Research has very strong relationships with both its public and private sector stakeholders and is committed to ensuring that our science is available and understandable by all those who need and use it. During the year our Research Liaison Officers continued to provide a series of well-targeted seminars, workshops and continuing professional development (CPD) events, and our scientists produced 77 peer-reviewed papers and a large amount of guidance and other reports for the Forestry Commission.

Most importantly, this year Forest Research was subject to an independent external review by a group of eminent international scientists chaired by Professor Sir David Read FRS. This review was undertaken to provide the Forestry Commissioners with an independent, expert assessment of the quality of the research Forest Research provides and the quality of its knowledge exchange activities.

The review was both rigorous and challenging and the resulting assessment authoritative. It provided the Forestry Commissioners with a high degree of assurance on our science quality, and also gave them a very positive assessment of our stakeholder engagement and relevance to the sector.

The Review Group were "*impressed by the high level of commitment that was demonstrated across the board by FR scientists*" and commended *"the excellence of innovative knowledge exchange processes seen across all Programmes and felt that relationships between the scientists and stakeholders were generally impressive*". This was evidenced by comments received from 25 stakeholder groups which were all positive. Indeed, the review group noted that stakeholders "*drew attention to the uniqueness of Forest Research's knowledge contribution to forestry policy and practice and hence its importance to the Forestry sector overall (both public and private)*".

5. Aims and objectives

The aim of Forest Research is to support and enhance forestry and its role in sustainable development, by providing high-quality research and development in a well-run organisation, as set out in the Framework Document. The objectives of Forest Research are listed on page 8 in the main body of the Annual Report and Accounts.

Current and future development and performance

6. Operating review

It has certainly been a busy year with Forest Research continuing to work on an increasing number of pests and diseases, delivering the Government's spending review requirements and undergoing an independent external review of the quality of our science.

During the past year Forest Research has:

- successfully delivered against the Key Actions in our 2011–12 Corporate Plan;
- undergone an independent external review of the quality of our science;
- continued to work with a range of partners to investigate, understand and communicate accurate, unbiased information on the pests and diseases currently affecting our forests, woodlands and urban trees;
- contributed to the Action Plan for Tree Health and Plant Biosecurity that was jointly launched by the Department for Environment, Food and Rural Affairs (Defra) and the Forestry Commission in October 2011;
- led the sector analysis for the UK-wide Climate Change Risk Assessment that directly contributes to targets set under the UK Climate Change Act (2008);
- held a sector-wide workshop to look into future research requirements on behalf of the English Independent Panel on Forestry; the findings have been submitted to the Panel for their deliberation;
- provided hydrological input into the development of Defra guidance for the Natural Improvement Areas;
- provided much of the underpinning evidence for the development of the Forestry Commission's Woodland Carbon Code;
- hosted, in association with our partners the University of Aberystwyth, the Centre for Catchment and Coastal Research and Forestry Commission Wales, the launch of the Dyfi Catchment and Woodland Research Platform in Wales by the Welsh Government Minister for the Environment and Sustainable Development, John Griffiths AM. This new Platform sees a number of partners agreeing to focus their research within an area of great landscape diversity and ecosystem sensitivity.

7. Financial review

Forest Research produced a net operating surplus of £640,000, however after the inclusion of costs and provisions for Early Severance packages for both 2011–12 and 2012–13, a deficit of £948,000 is recorded on the Statement of Consolidated Net Expenditure. Comparable figures for 2010–11 were a net operating deficit of £278,000 and an overall deficit of £578,000. The Early Severance costs are funded by the Forestry Commission via increased expenditure limits agreed by Defra.

A comparison of income and expenditure with the previous year's results shows that:

- staff costs decreased by £791,000 (8.3%), resulting from a 15.5% net decrease in average staff;
- other management costs increased by £307,000 (15.5%), mainly as a result of payments and provisions for compulsory and voluntary redundancies (33 staff left under the schemes) and costs relating to a compensation claim; these were partially offset by lower depreciation and travel-related expenses;
- materials and services costs decreased by £655,000 (20.4%), resulting from reduced purchases of materials and supplies, Central Service charges, vehicle lease costs, and use of contractors, partially offset by increased commissioned research;
- income from external customers exceeded our Corporate Plan target by £800,000, however it decreased by £751,000 (26.7%) from the 2010–11 income, largely as a result of decreased activity on European Union contracts and minimal Public Sector Research Exploitation (PSRE) income, which was deferred from 2010–11.

After adjusting the total deficit for items not involving the movement of cash and for capital expenditure, bank account movements and income, the net cash inflow for the year was £6,000, which was paid to the Forestry Commission (2010–11: £151,000).

Additions to fixed assets in the year were £341,000 (2010–11: £278,000), on essential scientific and other equipment.

8. Financial objective – Key Performance Indicators (KPIs)

Forest Research's primary financial objective set out in the Framework Document is to recover the full economic costs of its operations from the sale of services to customers. In 2011–12 the recovery rate before allowing for Early Severance Costs was 104.6% compared with 98.3% in 2010–11. After allowing for Early Severance Costs, in 2011–12 the recovery rate was 93.8% compared with 96.5% in 2010–11.

Performance against other operational, scientific and financial KPIs is reported in the main body of the *Annual Report and Accounts*. Forest Research achieved £4.2m of income from non-FC GB customers against the KPI target of £3.3m.

9. Events since the balance sheet date

There were no significant post-balance sheet events to record (see note 26).

10. The future

Over the past year our scientists have evaluated what we believe the key scientific challenges are for the forestry sector over the next decade in order to define what research will be needed. The resulting *Forest Research Science Focus* identifies those issues we think the sector will need to address. These include:

- how we should manage and adapt to, rather than eradicate, pests, in instances where eradication is or could prove impossible;
- how we can extract value from the ecosystem services that woodlands provide; and
- how we can achieve sustainable intensification – the goal of which is to increase woodland productivity without compromising woodland diversity, health and resilience.

These issues and the current economic climate have helped to shape our priorities over the coming period and as a result we will focus on:

- Ecosystem resilience and climate change
- Sustainable forest management and society
- Knowledge exchange
- Restructuring our business

As part of its Corporate Plan objectives for 2012–13 Forest Research will:

- contribute to the delivery of the Defra and Forestry Commission 'Action Plan for Tree Health and Plant Biosecurity' (October 2011). This will include providing training to improve disease detection and more publications, stakeholder events (including a minimum of six plant health days) and management guidance on tree pests and diseases.
- publish a substantial peer-reviewed report on the importance of forests and their role in carbon management. This will enable us to produce up-to-date guidance on managing forests for carbon capture, climate change resilience and ecosystem service provision.
- extend the Research Forest network and, learning from the experience from across GB, launch a new Research Forest at the Queen Elizabeth Forest Park (in the Trossachs National Park, Scotland).
- establish trials of trees managed on short rotations for bio-energy in Scotland and England as part of our programme to produce up-to-date information on species choice and silvicultural techniques that reflect possible changing climate conditions.
- publish protocols for the somatic embryogenesis and cryopreservation of Sitka spruce.
- provide models and information on community ownership, uses and benefits from woodland, in order to inform the developing agendas in the devolved administrations.
- continue to be effective in knowledge exchange, including hosting webinars, giving all Forestry Commission staff training opportunities regarding the Research Information Service and extending the circulation of *FR News* by 25%.
- host an international conference with the International Union of Forest Research Organisations, entitled 'Managing forests for ecosystem services: can spruce forests show the way?'
- trial and assess additional ways of stakeholder engagement and continuing professional development (CPD) training, such as interactive event casting.
- implement the 2012–13 changes set out in the Forest Research SR10 Implementation Plan and deliver the agreed annual business plan, including securing £2.7 million of other external income.
- identify the recommendations from the External Review Group that will improve our performance, and implement them.
- continue to promote the development of staff through: the implementation of approved recommendations arising from the independent External Review Group; research opportunities identified in the *Forest Research Science Focus* and; ideas from Forest Research staff, arising from the 2011 Staff Survey, regarding ways to improve working practices.

Forest Research will also continue to participate and play its part in the Forestry Commission's corporate programmes, in particular Business Sustainability, Investors in People, and Equality and Diversity.

11. Supplier payment policy

In October 2008, Government organisations committed to improving the cash flow position of their suppliers by settling their accounts within 10 days wherever possible. The Forestry Commission and Forest Research recognise their roles in supporting local, rural economies and have a proven record of meeting their contractual payment terms. Forest Research also works closely with its local suppliers to ensure prompt payment of debt. Management recognised that the general economic climate could potentially have a detrimental effect on small and medium enterprises and considered whether further action could be taken to improve cash flows. However, as Forest Research has a flexible approach to payment terms in contracts and agreed terms that suit the supplier, no special measures were required. It was generally believed that suppliers who faced hardship would discuss the matter with contract managers and agreed solutions developed. While the above would not apply directly to larger companies, Forest Research believed that special measures would not be required because of existing levels of prompt payment.

Forest Research observes the principles of the Late Payment of Commercial Debts (Interest) Act 1998. Unless otherwise stated in the contract, we aim to pay within 30 days from the receipt of goods and services, or the presentation of a valid invoice, whichever is the later. An analysis for 2011–12 indicates that 99.7% of payments to suppliers, including those made using the Government Procurement Card, were paid within the due date. Arrangements for handling complaints on payment performance are notified to suppliers on orders. No interest was paid under the Late Payment of Commercial Debts (Interest) Act 1998.

12. Employment policies

Forest Research adheres to the Forestry Commission's employment policy and values and respects its staff by treating each member with respect and trust, and in doing so recognises that each person is different and can make a unique contribution to the work. The purpose of the employment policy is to demonstrate that it is an equal opportunity employer and the aim is to be fair to everybody. To do this the Forestry Commission and Forest Research ensure that no eligible job applicant or employee receives less favourable treatment on the grounds of their gender or gender re-assignment, ethnic origin, disability, age, nationality, national origin, sexual orientation, marital status, religion and religious or philosophical belief, and social class.

All employees, whether part-time, full-time or temporary, will be treated fairly and equally. Selection for employment, promotion or training or any other benefit will be on the basis of aptitude and ability. All employees will be helped and encouraged to develop their full potential and the talents and resources of the workforce will be fully utilised to maximise the efficiency of the organisation. No person shall be disadvantaged by conditions or requirements which cannot be shown to be justifiable.

The Forestry Commission and Forest Research also follow good employer practices aimed at ensuring that all staff work in an environment free from both illegal and unfair discrimination and harassment. Consolidated statements of the Commission's obligations with regard to equality of opportunity and diversity are shown in the Staff Handbook. Full details of these initiatives arising from our policies are also set out on the Human Resources intranet site.

The Forestry Commission and Forest Research will monitor the success of their policies by:

- collecting and analysing data as appropriate;
- regularly reviewing procedures (recruitment, performance management, promotion and pay) to ensure that they are free of unfair discrimination;
- reporting the results of equality and diversity monitoring to the Human Resources Management Sub-Committee on an annual basis;
- liaising closely with Cabinet Office and other Government Departments to ensure that we are keeping abreast of all changes in legislation and other developments.

Further information on the employment of persons with disabilities, the provision of information to, and consultation with, employees, and the promotion of equal opportunities is available on request from the Human Resources unit of the Forestry Commission.

13. Sickness absence

The Forestry Commission has one common absence management policy which covers Forest Research and provides a consistent framework approach to management. The policy is underpinned by an externally provided occupational health service and an internal employee support programme which is available 24 hours a day. The average number of working days lost to sickness absence in Forest Research in 2011–12 was 6.2 per employee (2010–11: 6.7), compared with the average of 5.8 (2010–11: 6.0) for the Forestry Commission.

14. Management

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

Caroline Spelman MP	*Secretary of State*
Jim Paice MP	*Minister of State for Agriculture and Food (until February 2012)*
Lord Taylor of Holbeach	*Parliamentary Under-Secretary (from February 2012)*

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

James Pendlebury *	*Chief Executive*
Peter Freer-Smith *	*Chief Scientist*
Helen McKay	*Head of Centre for Forest Resources and Management*
Andy Moffat *	*Head of Centre for Forestry and Climate Change*
Chris Quine	*Head of Centre for Human and Ecological Sciences*
Hugh Williams	*Head of Operations*

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 Commissioners' Recruitment Code.

Further details on remuneration are set out in the Remuneration Report (page 24).

* These Board Members have related party interests which are disclosed in note 24.

15. Pensions

Information on pensions is contained in the Remuneration Report and accounting policy note 1.6.

16. Personal data related incidents

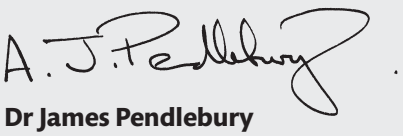
There were no protected personal data related incidents reported for Forest Research in 2011–12 or previous financial years. Forest Research will continue to monitor and assess its information risks in order to identify and address any weaknesses and ensure continued improvement of its systems. Further information on the handling of information risk is contained in the Governance Statement, page 28.

17. Auditors

These accounts are prepared in accordance with a direction given by the Treasury in pursuance of Section 7 of the Government Resources and Accounts Act 2000. They are audited by the Comptroller and Auditor General. The notional fee for statutory audit services in respect of these accounts was £31,000 (2010–11: £31,000 cash cost). No further assurance or other non-audit services were provided.

18. Disclosure of audit information to the auditors

So far as I am aware, there is no relevant audit information of which the Forest Research auditors are unaware. I have taken all the steps that I ought to have taken to make myself aware of any relevant audit information and to establish that the Forest Research auditors are aware of that information.



Dr James Pendlebury
Chief Executive and Accounting Officer
14 June 2012

Remuneration Report

Remuneration policy

Remuneration of board members who hold senior staff group posts is determined by the Forestry Commission's Senior Pay Committee in accordance with guidelines prescribed by the Cabinet Office. Details of membership of the Pay Committee are provided in the Remuneration Report of Forestry Commission Great Britain/England. Other board members' remuneration is determined by the standard processes set out in the Forestry Commission's pay and grading system.

Employment contracts

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 Commissioners' Recruitment Code. Dr James Pendlebury was appointed as Chief Executive with effect from 16 June 2008. His notice period is one week for each year's service up to a maximum of 13 weeks; currently this is 10 weeks.

Civil Service appointments are made in accordance with the Civil Service Commissioners' Recruitment Code, which requires appointment to be on merit on the basis of fair and open competition but also includes the circumstances when appointments may otherwise be made. All senior staff covered in this report hold appointments which are open-ended until they reach the normal retiring age. Peter Freer-Smith's notice period is 13 weeks, and for other senior staff it is three months. Early termination, other than for misconduct, would result in the individual receiving compensation as set out in the Civil Service Compensation Scheme.

The performance of senior staff is monitored and reviewed through the appropriate Performance Management System (PMS) of the Forestry Commission. No element of remuneration is specifically subject to performance conditions, although pay progression can be affected and bonuses, if awarded, are based on performance. Further information about the work of the Civil Service Commissioners can be found at **http://civilservicecommission.independent.gov.uk**

Information subject to audit.

Salary and pension entitlements

The salary (basic salary, overtime and any allowances subject to UK taxation) and pension entitlements of the members of the Forest Research Executive Board were as follows.

Name	**2011–12**			**2010–11**		
	Salary £000	Bonus £000	Benefits in kind to the nearest £100	Salary £000	Bonus £000	Benefits in kind to the nearest £100
James Pendlebury	70–75	–	3,200	70–75	–	3,200
Peter Freer-Smith	70–75	–	8,400	70–75	4	6,900
Helen McKay	65–70	-	-	60–65	-	-
Andy Moffat	65–70	-	-	65–70	-	-
Chris Quine	65–70	-	-	65–70	-	-
Hugh Williams	55–60	-	-	50–55	-	-

Benefits in kind

The monetary value of benefits in kind covers any benefits provided by the employer and treated by the HM Revenue and Customs as taxable income. They refer to the Car Provision for Employees Scheme.

One member of the Executive Board had an outstanding Advance of Salary for a house purchase loan of £25,300 at 31 March 2011. This was repaid by 31 March 2012.

Highest paid Director and median salary cost disclosure

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 2011–12 was £80,000 – £85,000 (2010–11: £80,000 – £85,000). This was 2.59 times (2010–11: 2.79) the median remuneration of the workforce, which was £31,807 (2010–11: £29,546). In 2011–12, no (2010–11: nil) employees received remuneration in excess of the highest-paid director.

Total remuneration includes salary, non-consolidated performance-related pay, benefits-in-kind as well as severance payments. It does not include employer pension contributions and the cash equivalent transfer value of pensions.

Remuneration of non-executives

The non-executive members of the Audit and Risk Committee received the following remuneration for their services during the year ended 31 March 2012.

Name	£000
Victoria M. Edwards	1
David A. Evans	1

Pension benefits 2011–12

Name	Accrued pension at age 60 at 31/3/12 and related lump sum (LS)	Real increase (decrease) in pension and related lump sum (LS)	CETV at 31 March 2012	CETV at 31 March 2011*	Real increase (decrease) in CETV
	£000	£000	£000	£000	£000
James Pendlebury	10–15 plus 30–35 LS	0–2.5 plus 0–2.5 LS	180	159	6
Peter Freer-Smith	25–30 plus 75–80 LS	(0–2.5) plus (0–2.5) LS	539	510	(14)
Helen McKay	25–30 plus 80–85 LS	0–2.5 plus 2.5–5.0 LS	596	527	15
Andy Moffat	25–30 plus 80–85 LS	(0–2.5) plus (0–2.5) LS	587	549	(9)
Chris Quine	25–30 plus 75–80 LS	(0–2.5) plus (0–2.5) LS	466	434	(5)
Hugh Williams	10–15 plus 10–15 LS	0–2.5 plus (0–2.5) LS	182	159	4

*The figure may be different from the closing balance in last year's accounts. This is due to the Cash Equivalent Transfer Value (CETV) factors being updated to comply with the Occupational Pension Scheme (Transfer Values) (Amendment) Regulations 2008.

Civil Service pensions

Pension benefits are provided through the Civil Service pension arrangements. From 30 July 2007, civil servants may be in one of four defined benefit schemes: either a 'final salary' scheme (classic, premium or classic plus), or a 'whole career' scheme (nuvos). These statutory arrangements are unfunded with the cost of benefits met by monies voted by Parliament each year. Pensions payable under classic, premium, classic plus and nuvos are increased annually in line with changes in the Retail Prices Index (RPI). Members joining from October 2002 may opt for the appropriate defined benefit arrangement or a good quality 'money purchase' stakeholder arrangement with a significant employer contribution (partnership pension account).

Employee contributions are set at the rate of 1.5% of pensionable earnings for classic and 3.5% for premium, classic plus and nuvos. Benefits in classic accrue at the rate of 1/80th of final pensionable earnings for each year of service. In addition, a lump sum equivalent to three years' pension is payable on retirement. For premium, benefits accrue at the rate of 1/60th of final pensionable earnings for each year of service. Unlike classic, there is no automatic lump sum (but members may give up (commute) some of their pension to provide a lump sum). Classic plus is essentially a hybrid with benefits in respect of service before 1 October 2002 calculated broadly as for classic and benefits for service from October 2002 calculated as in premium. In nuvos a member builds up a pension based on their pensionable earnings during their period of scheme membership. At the end of the scheme year (31 March) the member's earned pension account is credited with 2.3% of their pensionable earnings in that scheme year and the accrued pension is uprated in line with RPI. In all cases members may opt to give up (commute) pension for lump sum up to the limits set by the Finance Act 2004.

The partnership pension account is a stakeholder pension arrangement. The employer makes a basic contribution of between 3% and 12.5% (depending on the age of the member) into a stakeholder pension product chosen by the employee from a panel of three providers. 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 0.8% of pensionable salary to cover the cost of centrally provided risk benefit cover (death in service and ill health retirement).

The accrued pension quoted is the pension the member is entitled to receive when they reach pension age, or immediately on ceasing to be an active member of the scheme if they are already at or over pension age. Pension age is 60 for members of classic, premium and classic plus and 65 for members of nuvos.

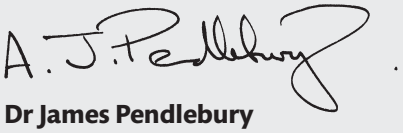
Further details about the Principal Civil Service Pension Scheme can be found at the website **www.civilservice.gov.uk/my-civil-service/pensions/index.aspx**

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 individual has transferred to the Civil Service pension arrangements. They also include any additional pension benefit accrued to the member as a result of their purchasing additional years of pension service in the scheme at their own cost. CETVs are calculated within the guidelines and framework prescribed by the Institute and Faculty of Actuaries.

Real increase (decrease) in CETV

This reflects the increase (decrease) in CETV effectively funded by the employer. It takes account of the increase (decrease) 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.



Dr James Pendlebury
Chief Executive and Accounting Officer
14 June 2012

Statement of Accounting Officer's Responsibilities

Under Section 7 of the Government Resources and Accounts Act 2000 the Treasury has directed the Forestry Commission to prepare for each financial year a statement of accounts for Forest Research 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 state of affairs of Forest Research 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* and in particular to:

- observe the Accounts Direction issued by HM Treasury, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis;
- make judgements and estimates on a reasonable basis;
- state whether applicable accounting standards, as set out in the *Government Financial Reporting Manual*, have been followed, and disclose and explain any material departures in the accounts; and
- prepare the accounts on the going concern basis.

The Director General of the Forestry Commission, as Accounting Officer for the Forestry Commission, has designated the Chief Executive of Forest Research as the Accounting Officer for Forest Research. His 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.

Governance Statement

1. 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 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.

2. 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.

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 for the year ended 31 March 2012 and up to the date of approval of the Annual Report and Accounts, and complies with HM Treasury guidance.

3. 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, normally through the Director General, 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 Minister, and a right to meet them at least once a year.

Forest Research Executive Board (FREB)

The FREB was established to manage the day-to day operations and performance of the Agency, within the policy framework set by Ministers and the Forestry Commissioners.

The members of the Board who served during the year, and their attendance, were:

Member	Apr 2011	May 2011	Jun 2011	Jul 2011	Sept 2011	Oct 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012
James Pendlebury Chief Executive (Chair)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Peter Freer-Smith Chief Scientist	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
Helen McKay Head of Centre for Forest Resources and Management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Andy Moffat Head of Centre for Climate Change	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chris Quine Head of Centre for Human and Ecological Sciences	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hugh Williams Head of Operations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

At each meeting, the Board discussed the Finance and Human Resources reports. They also reviewed Centre reports on Forest Resources and Management, Climate Change, Human and Ecological Sciences, and Operations.

They also discussed a wide range of forest research and related issues during the year, including:

- Science Focus;
- Research Forests;
- Plan Health Strategy;
- Quality Assurance;
- External Review Group;
- Staff Survey;
- SR10 Implementation;
- External income; and,
- Risk Register.

Further information on the FREB is available on our website, **www.forestry.gov.uk**

4. Review of effectiveness

As Agency 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.

I receive Annual Assurance Statements from the each of the Head's of Shared Services for the Forestry Commission, based centrally in Edinburgh, providing me with assurance on the standard of governance and control within their area of responsibility.

The Head of Internal Audit has prepared an annual report and assurance statements 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 substantial assurance that material risks to the achievement of objectives are adequately managed.

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

5. Risk management

The Forest Research Executive Board 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 on-going management review.

The Executive Board ensures the risk management policy is implemented and that they strategically review key risks. Each risk that is identified in the risk register has a corresponding Senior Risk Owner who is a board level officer with the authority to take effective action.

Forest Research has an Audit and Risk Committee (ARC) to support the Accounting Officer and the Agency Executive Board in their responsibilities for the effective management of risk, control and governance.

6. Significant risk and governance issues

Organisational change

During 2011–12, Forest Research took on the significant challenge of reduced funding and the consequences for our organisational structure, staffing levels and activities. Forest Research incurred Early Severance packages costs of £915,000 for the 33 staff leaving under the packages in 2011–12 and £657,000 provision for potential leavers in 2012–13.

Effectively managing the demanding change process, notably the development and consultation on new organisational structures, and ensuring business continuity through a period of significant downsizing, presented a significant challenge throughout 2011–12. This process is nearing completion and new structures will be in place later in 2012–13, providing a sound platform on which to meet the reduced financial settlement across the SR10 period.

The creation of a Single Environmental Body in Wales may impact on the work of Forest Research; this will be kept under review and responded to accordingly.

Information Communication Technology (ICT) infrastructure

There has been significant progress toward the modernisation of the Forestry Commission's ICT infrastructure, but during this transition period Forest Research continues to be dependent on the Forestry Commission's ICT infrastructure that is ageing, complex and difficult to maintain. This represents a risk to the business operations of the Agency which will considerably reduce when the new disaster recovery facility is available in the summer of 2012 and the full business systems migration is completed during 2013–14.

Business continuity management

Forest Research has business continuity plans that have been tested and were found to be effective during bad weather; however they are more 'disaster recovery' than 'business continuity' plans. The plans were refreshed during 2011–12. However, work to develop business continuity plans during 2011–12 has been deferred until 2012–13.

Forest Research is reliant on Shared Services, based in Silvan House in Edinburgh, for many of its Human Resources, Information Services and Finance requirements. Shared Services have agreed a structured approach to the improvement of business continuity management for those services.

Information risk management

Forest Research's approach to information assurance is set by the Forestry Commission, as it manages shared systems and services. The Forestry Commission's approach continues to take account of the fact that we do not handle as much sensitive information as most other departments and our information holdings are relatively small.

As Senior Information Risk Owner, Forest Research's Head of Operations attends quarterly meetings of the Information Security Management Forum (ISMF), chaired by the Forestry Commission's Director of Finance Great Britain, which coordinates and controls the implementation of information security across the Forestry Commission. The work of the ISMF is supported on a day-to-day basis by the Departmental Security Officer and the IT Security Officer.

The Head of Operations provides a direct link on information assurance matters between the ISMF and the Forest Research Executive Board. The ARC has also received updates on information assurance during the year.

A policy on protecting information from loss or disclosure outside the Forestry Commission has been published. A Security Culture Change Plan is also in place. Information Asset Owners (IAOs) are in place for those corporate systems holding business critical information, the loss or compromise of which would cause disruption to business operations. We have also identified local Information Asset Owners and will be working with them to assist in production of local asset registers. Online training on Information Assurance was available to all FC staff up to the end of March 2012. This is now only available to major departments and we will be working with the ISMF to consider how best to keep up awareness. All laptops are now encrypted and memory sticks used to store or transfer personal or other sensitive information must be pre-encrypted.

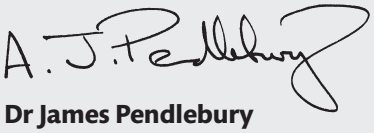
Improvements to systems access controls continue to be implemented to ensure that only the appropriate staff have privileged access to systems and data.

Documentation of processes and procedures is continuing to make us less dependent on key staff.

This ongoing work, and our other actions, are reflected in an improved assessment against the Cabinet Office information assurance maturity model.

There were no lapses of data security during 2011–12.

We propose over the coming year to take steps to address the above matters to further enhance our governance arrangements. We are satisfied that these steps will address the need for improvements that were identified in our review of effectiveness and we will monitor their implementation and operation as part of our next annual review.



Dr James Pendlebury
Chief Executive and Agency Accounting Officer
14 June 2012

Forest Research Agency

The Certificate and Report of the Comptroller and Auditor General to the House of Commons

I certify that I have audited the financial statements of Forest Research for the year ended 31 March 2012 under the Government Resources and Accounts Act 2000. The financial statements comprise: the Statements of Comprehensive Net Expenditure, Financial Position, Cash Flows, Changes in Taxpayers' Equity; and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

Respective responsibilities of the Accounting Officer and auditor
As explained more fully in the Statement of Accounting Officer's Responsibilities, the Accounting Officer is responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. My responsibility is to audit, certify and report on the financial statements in accordance with the Government Resources and Accounts Act 2000. I conducted my audit in accordance with International Standards on Auditing (UK and Ireland). Those standards require me and my staff to comply with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of the audit of the financial statements
An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to Forest Research's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by Forest Research; and the overall presentation of the financial statements. In addition I read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my certificate.

I am required to obtain evidence sufficient 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.

Opinion on regularity
In my opinion, in all material respects 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.

Opinion on financial statements
In my opinion:
- the financial statements give a true and fair view of the state of Forest Research's affairs as at 31 March 2012 and of the net expenditure for the year then ended; and
- the financial statements have been properly prepared in accordance with the Government Resources and Accounts Act 2000 and HM Treasury directions issued thereunder.

Opinion on other matters

In my opinion:

- the part of the Remuneration Report to be audited has been properly prepared in accordance with HM Treasury directions made under the Government Resources and Accounts Act 2000; and
- the information given in Management commentary and Current and future development and performance for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which I report by exception

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 or returns adequate for my audit have not been received from branches not visited by my staff; or
- the financial statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

Report

I have no observations to make on these financial statements.

Amyas C E Morse **21 June 2012**
Comptroller and Auditor General
National Audit Office
157–197 Buckingham Palace Road
Victoria London SW1W 9SP

Statement of Comprehensive Net Expenditure for the year ended 31 March 2012

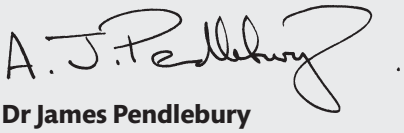
	Notes	2011–12 £000	2010–11 Restated £000
Income			
Income from research, development and survey services			
Forestry Commission customers	3a	**12,227**	12,985
Non-Forestry Commission customers			
European Union		**628**	709
Other	3b	**1,432**	2,102
Total income		**14,287**	15,796
Expenditure			
Staff costs	5	**8,730**	9,521
Other management costs	6	**3,957**	3,650
Materials and services	7	**2,548**	3,203
Total expenditure		**15,235**	16,374
Net operating (cost) / surplus *		**(948)**	(578)
Other comprehensive net expenditure			
Net (loss) / gain on revaluation of property, plant and equipment	17	**289**	(2,513)
Net (loss) / gain on revaluation of intangible assets	17	**-**	(9)
		289	(2,522)
Total comprehensive (expenditure) / income for the year		**(659)**	(3,100)

** Early Severance costs of £1,588,000 are included in 2011–12 and £300,000 included in 2010–11.*

The notes on pages 39 to 64 form part of these accounts.

Statement of Financial Position as at 31 March 2012

	Notes	31 March 2012 £000	31 March 2011 Restated £000
Non-current assets			
Property, Plant and Equipment	8	**10,549**	10,543
Intangible assets	9	**39**	66
Financial assets	10	**25**	25
Trade and other receivables	11	**10**	33
		10,623	10,667
Current assets			
Inventories	12	**3**	3
Trade and other receivables	11	**1,446**	1,136
Cash and cash equivalents	13	**4**	3
		1,453	1,142
Total assets		**12,076**	11,809
Current liabilities			
Provisions	15	**(949)**	(769)
Trade and other payables	14	**(2,364)**	(1,497)
		(3,313)	(2,266)
Non-current assets plus net current assets		**8,763**	9,543
Non-current liabilities			
Provisions	15	**(321)**	(470)
		8,442	9,073
Taxpayers' Equity			
General Fund	16	**2,395**	3,318
Revaluation Reserve	17	**6,047**	5,755
		8,442	9,073



Dr James Pendlebury
Chief Executive and Agency Accounting Officer
14 June 2012

The notes on pages 39 to 64 form part of these accounts.

Statement of Cash Flows for the year ended 31 March 2012

	Notes	2011-12 £000	2010-11 Restated £000
Net cash inflow / (outflow) from operating activities			
Net (deficit) / surplus for the year *		**(948)**	(578)
Adjustments for non-cash transactions			
Depreciation	6	**618**	714
Amortisation	6	**27**	47
Timing between accrual and cash VAT		**(2)**	3
Non-cash inter-country transfers		**4**	1
Loss on disposal of property, plant and equipment	6	**7**	7
Notional audit fee		**31**	-
Movements in provisions	15	**673**	808
Decrease/(increase) in trade and other receivables	11	**(288)**	(213)
(Decrease)/increase in trade and other payables	14	**867**	(215)
Use of provisions	15	**(641)**	(164)
Net cash inflow from operating activities		**348**	410
Cash flows from investing activities			
Purchase of property, plant and equipment	8	**(341)**	(278)
Net cash outflow from investing activities		**(341)**	(278)
Cash flows from financing activities			
Net cash transfer (to)/from Forestry Commission		**(6)**	(151)
Net financing		**(6)**	(151)
Net increase/(decrease) in cash and cash equivalents in the period		**1**	(19)
Cash and cash equivalents at the beginning of the period		**3**	22
Cash and cash equivalents at the end of the period		**4**	3

** Early Severance costs of £1,588,000 are included in 2011–12 and £300,000 included in 2010–11.*

The notes on pages 39 to 64 form part of these accounts.

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2012

	Notes	General Fund Restated £000	Revaluation Reserve £000	Government Grant Reserve £000	Total Reserves £000
Balance at 1 April 2010		3,914	8,277	129	12,320
Adjustments Government Grant		129	-	(129)	-
Restated balance at 1 April 2010		**4,043**	**8,277**	**-**	**12,320**
Changes in taxpayers' equity for 2010–11					
Net gain/(loss) on revaluation of property, plant and equipment	17	-	(2,513)	-	(2,513)
Net gain/(loss) on revaluation of intangible assets	17	-	(9)	-	(9)
Non-cash charges: timing between accrual and cash VAT	16	3	-	-	3
Non-cash charges: inter-country transfers	16	1	-	-	1
Net deficit for the year	16	(578)	-	-	(578)
Total recognised income and expense for 2010–11		(574)	(2,522)	-	(3,096)
Cash surplus transferred to Forestry Commission	16	(151)	-	-	(151)
Balance at 31 March 2011		**3,318**	**5,755**	**-**	**9,073**

Continued on page 38

Statement of Changes in Taxpayers' Equity for the year ended 31 March 2012 (continued)

	Notes	General Fund Restated £000	Revaluation Reserve £000	Government Grant Reserve £000	Total Reserves £000
Restated balance at 1 April 2011		**3,318**	**5,755**	**-**	**9,073**
Changes in taxpayers' equity for 2011–12					
Net gain/(loss) on revaluation of property, plant and equipment	17	**-**	**289**	**-**	**289**
Non-cash charges: timing between accrual and cash VAT	16	**(1)**	**-**	**-**	**(1)**
Non-cash charges: inter-country transfers	16	**4**	**-**	**-**	**4**
Realised element of the Revaluation Reserve		**(3)**	**3**	**-**	**-**
Notional audit fee		**31**	**-**	**-**	**31**
Net deficit for the year	16	**(948)**	**-**	**-**	**(948)**
Total recognised income and expense for 2011–12		**(917)**	**292**	**-**	**(625)**
				-	
Cash deficit transferred from Forestry Commission	16	**(6)**	**-**	**-**	**(6)**
Balance at 31 March 2012		**2,395**	**6,047**	**-**	**8,442**

The notes on pages 39 to 64 form part of these accounts.

Notes to the Accounts

Note 1. Statement of Accounting Policies

These financial statements have been prepared in accordance with the 2011–12 *Government Financial Reporting Manual* (FReM) issued by HM Treasury. The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context. 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.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in note 2.

1.1 Accounting convention

These accounts have been prepared under the historical cost convention modified to account for the revaluation of property, plant and equipment, inventories and available-for-sale financial assets, and derivative financial assets and derivative financial liabilities at fair value through profit or loss.

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. The Forestry Commission accounts for VAT on a Great Britain basis with any VAT due to or from HM Revenue and Customs at the year end included in the Forestry Commission Great Britain/England accounts as a debtor or creditor in the Statement of Financial Position. Irrecoverable VAT is charged to the Statement of Comprehensive Net Expenditure in the year in which it is incurred.

1.3 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.

1.4 Revenue recognition

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

Forest Research recognises revenue when the amount of revenue can be reliably measured and it is probable that future economic benefits will flow to it.

1.5 Foreign currency translation

(a) 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 presentational currency of the financial statements is pounds sterling.

(b) 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 re-measured. 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 Principal Civil Service Pension Scheme (PCSPS). The defined benefit schemes are unfunded and are non-contributory except in respect of dependant's benefits. Forest Research accounts for the PCSPS scheme 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.

Performance pay

As at 31 March 2007 and 2008, Forest Research recognised a liability and an expense for performance-related pay. Non-consolidated, non-pensionable bonuses are paid to staff whose work performance was assessed as being a 'Top Performer' in accordance with the Commission's performance management system. The bonus amount is at a standard amount depending on the employee's grade and is prorated for part-time staff. The bonus system ceased with effect from the year ending on 31 March 2009.

The Forestry Commission's Senior Pay Committee determines performance pay for staff in the Senior Staff Grade. The Committee comprises the Chairman, Director General, Director Scotland, Director England and three other non-executive commissioners. Forest Research's Chief Executive and Chief Scientist are Senior Staff Grades. Remaining Forest Research Board members receive annual salaries paid in accordance with the standard Forestry Commission Staff Pay Agreement negotiated through collective bargaining and the recognised Trade Unions. Their performance is monitored and reviewed through the Performance Monitoring System (PMS) of the Forestry Commission. Increases in salary and performance bonus, if awarded, are based on their manager's assessment of their performance.

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. Staff payroll costs and expenditure on materials and consumables related to systems development software, for general use within Forest Research, are recognised as tangible non-current assets. There was no relevant in-house development activity in the year 2011–12.

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

Non-forest land

Non-forest land is shown at fair value. Professionally qualified staff employed by the Forestry Commission undertake a full revaluation of non-forest land at five yearly intervals (1 April). 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. The work of internal staff is reviewed by Bidwells, Chartered Surveyors.

Revaluation gains and losses are recognised in the Statement of Comprehensive Net Expenditure in the year of revaluation.

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

Professionally qualified staff employed by the Forestry Commission undertake a full revaluation of dwellings and other buildings at five-yearly intervals coinciding with that for the non-forest land (1 April). 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. Suitably qualified external valuers review the work of internal professional valuers. A full valuation took place on 1 April 2008 and Bidwells, Chartered Surveyors, reviewed this.

In the intervening years between professional valuations, non-forest land is valued using the Retail Price Index (RPI) and buildings are valued using indices provided by Bidwells, Chartered Surveyors. Indexation was applied as at 31 March 2011 and 2012.

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.

Information technology hardware
Information technology (IT) hardware is shown at fair value less accumulated depreciation. IT values are restated to current value each year using indices provided by the Office for National Statistics.

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 in equity; all other decreases are charged to the Statement of Comprehensive Net Expenditure. Each year the difference between depreciation based on the 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:

Freehold buildings	- over 1 to 80 years
Scientific equipment	- over 5 to 20 years
Information technology – hardware	- over 5 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 their estimated useful lives of 5 to 15 years.

Costs associated with maintaining computer software programmes are recognised as an expense as incurred. Development costs that are directly attributable to the design and testing of identifiable and unique software products controlled by Forest Research are recognised as intangible assets when the following criteria are met:

- it is technically feasible to complete the software product so that it will be available for use;
- management intends to complete the software product and use or sell it;
- there is an ability to use or sell the software product;
- it can be demonstrated how the software product will generate probable future economic benefits;
- adequate technical, financial and other resources to complete the development and to use or sell the software product are available; and
- the expenditure attributable to the software product during its development can be reliably measured.

Directly attributable costs that are capitalised as part of the software product include the software development employee costs and an appropriate portion of relevant overheads.

Other development expenditures that do not meet these criteria are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Computer software development costs recognised as assets are subsequently revalued to depreciated replacement cost and amortised over their estimated useful lives of five to seven years.

1.10 Impairment of non-financial assets

Assets that are 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 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 Subsidiaries, associates and joint ventures

Investments held in subsidiaries, associates or joint ventures that are outside the departmental boundary and where Forest Research does not exercise in-year budgetary control are accounted for in accordance with paragraph 4.2.4 of the FReM. Such investments are reported at historical cost less any impairment in line with paragraph 9.2.7 of the FReM. The investment in C-Cure Solutions Ltd is accounted for as a financial instrument, available-for-sale in line with FReM interpretation of IFRS.

1.12 Financial assets

Classification

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

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

Financial assets at fair value through profit or loss comprise derivatives. Assets in this category are classified as current assets. Forest Research does not trade in derivatives and does not apply hedge accounting.

(b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for maturities greater than 12 months after the reporting date. These are classified as non-current assets. Loans and receivables comprise trade and other receivables and cash and cash equivalents in the Statement of Financial Position.

Recognition and measurement

Financial assets are recognised when Forest Research becomes party to the contractual provisions of the financial instrument.

Financial assets are 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 at fair value through profit or loss

Financial assets carried at fair value through profit or loss are initially recognised at fair value, and transaction costs are expensed in the income statement.

Financial assets carried at fair value through profit or loss are subsequently measured at fair value. Gains or losses arising from changes in the fair value are presented in the Statement of Comprehensive Net Expenditure.

(b) Loans and receivables
Loans and receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. A provision for impairment of loans and receivables is established when there is objective evidence that Forest Research will not be able to collect all amounts due according to the original terms of the receivables. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments are considered indicators that the loan and receivable is impaired. The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the loss is recognised in the Statement of Comprehensive Net Expenditure. When a loan or receivable is uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited in the Statement of Comprehensive Net Expenditure.

(c) Available-for-sale financial assets
Available-for-sale financial assets are initially recognised and subsequently carried at fair value. Changes in the fair value of financial assets classified as available for sale are recognised in equity. When financial assets classified as available for sale are sold or impaired, the accumulated fair value adjustments recognised in equity are included in the Statement of Comprehensive Net Expenditure. Dividends on available-for-sale equity instruments are recognised in the Statement of Comprehensive Net Expenditure when Forest Research's right to receive payments is established.

The fair values of quoted investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), Forest Research establishes fair value by using valuation techniques. These include the use of recent arm's length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models, making maximum use of market inputs and relying as little as possible on entity-specific inputs.

Forest Research assesses at each reporting date whether there is objective evidence that a financial asset or a group of financial assets is impaired. In the case of equity securities classified as available for sale, a significant or prolonged decline in the fair value of the security below its cost is considered as an indicator that the securities are impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss – is removed from equity and recognised in the Statement of Comprehensive Net Expenditure. Impairment losses recognised in the Statement of Comprehensive Net Expenditure on equity instruments are not reversed through the income statement.

1.13 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.

(a) Financial liabilities at fair value through profit or loss
Financial liabilities at fair value through profit or loss comprise derivatives. Liabilities in this category are classified as current liabilities. Forest Research does not trade in derivatives and does not apply hedge accounting.

(b) Other financial liabilities
Other financial liabilities are included in current liabilities, except for maturities greater than 12 months after the reporting date. These are classified as non-current liabilities. Forest Research's other financial liabilities comprise trade and other payables in the Statement of Financial Position.

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 it is extinguished, that is when the obligation is discharged, cancelled or expired.

(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, and transaction costs are expensed in the income statement.

Financial liabilities carried at fair value through profit or loss are subsequently measured at fair value. Gains or losses arising from changes in the fair value are presented in the Statement of Comprehensive Net Expenditure.

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

1.14 Inventories
Consumable materials and supplies are stated at the lower of current cost and net realisable value. Net realisable value is based on estimated selling prices, less further costs expected to be incurred to completion and disposal.

1.15 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.

1.16 Provisions
Forest Research provides for present legal and constructive obligations which are of uncertain timing or amount at the reporting date on the basis of 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.

1.17 Government grants receivable
There has been a change in accounting policy within FReM such that government grants in respect of capital expenditure are no longer credited to a government grant reserve. The impact of the change has been accounted for in the 2010–11 opening balances, which resulted in restatement of the balances as described in Note 27.

1.18 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.

Note 2. Critical Accounting Estimates and Judgements

The preparation of financial statements requires Forest Research to make estimates, assumptions and judgements. These are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Estimates, assumptions and judgements that are deemed to have a significant risk of causing a material adjustment to the carrying amounts of Forest Research's assets and liabilities are as follows:

Intangible assets

Per IAS 38 Intangible Assets: an intangible asset arising from development shall be recognised if all of the following can be demonstrated by the entity:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale.
- Its intention to complete the intangible asset and use or sell it.
- Its ability to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset itself, or if it is to be used internally, the usefulness of the intangible asset.
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
- Its ability to measure the expenditure attributable to the intangible asset during its development.

To date it has been deemed that the development activities undertaken by Forest Research have not met these conditions and therefore no intangible assets relating to development have been recognised. This will continue to be reviewed on an on-going basis.

Note 3. Income

3a. Income from the Forestry Commission

Forest Research undertakes the major proportion of the Forestry Commission's overall annual research programme in the form of specifically commissioned projects to deliver agreed outputs. A separate annual charge is agreed for each project based on full cost recovery. These charges amounted to £9.0 million. In addition to the annual research programme, Forest Research provides other research and survey services for Forestry Commission (GB, England, Scotland and Wales) the majority of which is on a full cost recovery basis.

Income from Forestry Commission customers consisted of:

	2011–12	2010–11
	£000	£000
Research, development and other services to:		
Corporate Forestry Support	9,262	9,316
Inventory, Forecasting and Operational Support	852	865
England	804	1,441
Scotland	949	1,184
Wales	360	179
	12,227	12,985

3b. Other income

The reduction in other income is largely as a result of the cessation of Public Sector Research Exploitation income.

Note 4. Foreign Exchange Gains and Losses

Other income includes losses of £12,000 (2010–11: £4,000 gain) on foreign exchange transactions.

Note 5. Staff Costs and Numbers

5.1 Employee costs during the year amounted to:

	Permanent staff £000	**Other staff £000**	**2011–12 Total £000**	2010–11 £000
Wages and Salaries	**6,578**	**344**	**6,922**	7,612
Social Security Costs	**519**	**26**	**545**	583
Employer's Superannuation Costs	**1,210**	**53**	**1,263**	1,321
Agency Staff Costs	**–**	**-**	**-**	5
	8,307	**423**	**8,730**	9,521

Average number of employees (full-time equivalents)	**2011–12**	2010–11
Permanent staff	**193**	211
Others	**14**	34
Total staff	**207**	245

Staff were covered by the Principal Civil Service Pension Scheme (PCSPS) which 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 2007. Details can be found in the resource accounts of the Cabinet Office: Civil Superannuation (www.civilservice-pensions.gov.uk).

For 2011–12, employer's contributions of £1,313,265 were payable to the PCSPS (2010–11: £1,228,017) at one of four rates in the range 17.1% to 25.5% (2010–11: 17.1% to 25.5%) 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 2011–12 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 £7,050 were paid to one or more of a panel of three appointed stakeholder pension providers. Employer contributions are age-related and range from 3% to 12.5% of pensionable pay. Employers also match up to 3% of pensionable pay. In addition, employer contributions of £483, 0.8% of pensionable pay, were payable to the PCSPS to cover the cost of the future provision of lump sum benefits on death in service and ill health retirement of these employees. Contributions due to the partnership pension providers at the Statement of Financial Position (SFP) date were £nil.

All salary-related costs for senior staff are disclosed in the Remuneration Report on page 24.

5.2 Benefits in kind are provided under the following schemes:

(i) Advances of Salary for House Purchase
(ii) Advances of Salary for purchase of Season Tickets and Bicycles
(iii) Car Provision for Employees Scheme.

Each scheme is subject to conditions and financial limits.

The Advances of Salary for House Purchase scheme had loans with an outstanding balance of £2,500 or more to one individual member of staff at 31 March 2012 and two individual members of staff at 31 March 2011. The total outstanding value of all loans was £10,000 (2010–11: £35,300). Such loans are unsecured, interest free and typically repayable over 10 years, with an optional two-year deferral period.

5.3 Early departure costs

During 2011–12, 33 staff left under Voluntary Exit and Voluntary Redundancy terms (2010–11: 6). They received a compensation payment of £915,031.

Exit package cost band	Number of compulsory redundancies		Number of other departures agreed		Total number of exit packages by cost band	
	2011–12	2010–11	2011–12	2010–11	2011–12	2010–11
Less than £10,000	nil	nil	7	2	7	2
£10,000 – £25,000	nil	nil	12	-	12	-
£25,000 – £50,000	nil	nil	8	1	8	1
£50,000 – £100,000	nil	nil	6	2	6	2
£100,000 – £150,000	nil	nil	-	1	-	1
£150,000 – £200,000	nil	nil	-	-	-	-
Total number of exit packages	nil	nil	33	6	33	6
Total resource cost £	**nil**	**nil**	**£915,031**	**£299,688**	**£915,031**	**£299,688**

Redundancy and other departure costs have been paid in accordance with the provisions of the Civil Service Compensation Scheme, a statutory scheme made under the Superannuation Act 1972. Exit costs are accounted for in full in the year of departure. Where the department has agreed early retirements, the additional costs are met by the Forestry Commission through additional resources allocated by Defra and not by the Civil Service pension scheme. Ill-health retirement costs are met by the pension scheme and are not included in the table. No senior staff left Forest Research under Voluntary Exit or Voluntary Redundancy terms in either 2010–11 or 2011–12.

Note 6. Other Management Costs

Other management costs are stated after charging:

	Notes	2011–12 £000	2010–11 £000
Travel and subsistence		**421**	516
Building maintenance		**622**	655
Utilities *		**205**	259
Training †		**122**	216
Early departure costs agreed in year		**915**	-
Other expenditure		**271**	282
Auditors' remuneration ~		**-**	31
Computer supplies		**59**	74
Staff transfer expenses		**26**	40
Non-cash costs:			
Provisions – early departure costs:			
Provided in year	15	**668**	284
Unwinding of discount	15	**5**	(43)
Provisions – EU reclaim		**(40)**	567
Depreciation of property, plant and equipment	8	**618**	714
Amortisation of intangible assets	9	**27**	47
Loss on disposal of property, plant and equipment	8	**7**	8
Auditors' remuneration ~		**31**	-
Total		**3,957**	3,650

* The photovoltaic panels at Alice Holt generated 26,411 kWh (2010–11: 26,991 kWh) of electricity, however lower costs in 2011–12 are the result of non-mobile telephone costs being incorporated in the Central Service Charges in note 7.

† The charges for training provided centrally by the Forestry Commission in 2011–12 were more closely aligned to Forest Research use.

~ Auditors' remuneration fees were payable to NAO, however with effect from 2011–12 the costs are notional so are non-cash.

Included within other management costs are charges from the Forestry Commission amounting in total to £103,000 (2010–11: £174,000).

Note 7. Materials and Services

Materials and services are stated after charging:

	2011–12	2010–11
	£000	£000
Materials and supplies ~	**643**	893
Central services provided by Forestry Commission *	**811**	844
Vehicle lease charges from Forestry Commission *	**308**	382
Contractors ~	**487**	671
Commissioned research	**230**	187
Protective clothing	**10**	12
Miscellaneous expenditure	**59**	214
	2,548	3,203

~ The level of spend on materials and supplies and contractors is partially determined by the nature of the research work that Forest Research undertakes; lower expenditure indicates fewer materials and supplies and contractors being used to deliver the contracts.

* Charges are made to Forest Research from the Forestry Commission as appropriate, for assistance with field experiments, hire of vehicles, machinery and equipment and for personnel, business management, financial and other support services at Silvan House, Edinburgh. The total charge from Forestry Commission was £1,120,000 (2010–11: £1,226,000).

Note 8. Tangible Non-Current Assets

	Freehold Land	Buildings	Scientific Equipment	IT Equipment	Other Machinery and Equipment	Total
	£000	£000	£000	£000	£000	£000
Valuation						
At 1 April 2011	1,651	12,817	1,914	298	907	17,587
Additions	-	32	206	-	103	341
Transfers	-	12	-	-	-	12
Disposals *	-	(7)	(216)	(146)	(30)	(399)
Revaluation to current prices	66	362	87	-	(3)	512
At 31 March 2012	**1,717**	**13,216**	**1,991**	**152**	**977**	**18,053**
Depreciation:						
At 1 April 2011	-	5,537	914	228	365	7,044
Provided in year	-	302	199	43	74	618
Transfers	-	12	-	-	-	12
Disposals *	-	-	(215)	(146)	(31)	(392)
Revaluation to current prices	-	191	33	-	(2)	222
At 31 March 2012	**-**	**6,042**	**931**	**125**	**406**	**7,504**
Net book value:						
At 31 March 2012	**1,717**	**7,174**	**1,060**	**27**	**571**	**10,549**
At 31 March 2011	1,651	7,280	1,000	70	542	10,543

Fixed assets were revalued as at 31 March 2012 in accordance with accounting policies. The valuation includes the principal research stations at Alice Holt Lodge near Farnham in Surrey and the Northern Research Station, Roslin near Edinburgh, with net book values (excluding land) of £3.9 million and £2.9 million, respectively, at 31 March 2012.

* During 2011–12 an asset cleansing exercise was undertaken that resulted in assets with a Net Book Value of nil (valuation £392,000 less depreciation £392,000) being removed from the asset register.

Depreciation expenses of £618,000 (2010–11: £714,000) have been charged to other management costs in the Statement of Comprehensive Net Expenditure.

Note 9. Intangible Non-Current Assets

	2011–12	2010–11
	£000	£000
Valuation		
Balance at 1 April	**213**	364
Disposals *	**(108)**	(134)
Revaluation	**-**	(17)
As at 31 March	**105**	213
Amortisation		
Opening balance	**147**	243
Depreciation in year	**27**	47
Disposals *	**(108)**	(134)
Revaluation	**-**	(9)
As at 31 March	**66**	147
Net book value	**39**	66

Intangible non-current assets relate wholly to purchased software.

*During 2011–12 an asset cleansing exercise was undertaken which resulted in assets with a Net Book Value of nil (valuation £108,000 less amortisation £108,000) being removed from the asset register.

Amortisation of £27,000 (2010–11: £47,000) has been charged to other management costs in the Statement of Comprehensive Net Expenditure.

Note 10. Investments

The investment in C-Cure Ltd is stated at historic cost less impairment. At 31 March 2012 the value was £25,000 (2010–11: £25,000).

C-Cure Solutions Ltd is a spin-out company launched with the University of Surrey during 2009–10, in the area of land remediation. Until March 2011, Forest Research and the University of Surrey each owned 33.4% of the company and the inventors own the remaining 33.2%. Genomia Management Ltd invested £100,000 for 107 shares of the company in March 2011. The shareholdings changed at that point; Forest Research now owns 30.93%, the University of Surrey 30.92%, the inventors 28.12% and Genomia 10.03%. C-Cure Solutions Ltd, has its registered office at 25 Wakehurst Place, Rustington, West Sussex, BN18 3NG.

James Pendlebury represents Forest Research as a Director of the Company, for which he receives no personal payments.

In the year ended 31 March 2012, C-Cure Ltd had a turnover of £19,000 and an expenditure of £204,000, resulting in an operating loss of £185,000. In the year ended 31 March 2011, the first year of operation, C-Cure Ltd had no turnover and an expenditure of £50,000.

During 2012–13 it is anticipated that the Genomia loan to C-Cure Ltd will be converted into equity, which will impact the shareholdings.

Note 11. Receivables

11a. Analysis by type

	2011–12	2010–11
	£000	£000
Current		
EU Trade Receivables	**322**	99
Other Trade Receivables	**416**	418
Total Trade Receivables	**738**	517
VAT	**-**	1
House purchase loans to employees	**-**	3
Prepayments and accrued income	**708**	615
Total Current Receivables	**1,446**	1,136
Non-current		
House purchase loans	**10**	32
	1,456	1,168

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

All non-current receivables are due within 11 years from 31 March 2012.

As of 31 March 2012, £467,000 (2010–11: £366,000) were fully performing and not overdue or impaired and provided for.

As of 31 March 2012, trade receivables of £314,000 (2010–11: £142,000) were overdue but not impaired. These relate to a number of customers for whom there is no recent history of default. The ageing analysis of these trade receivables is as follows:

	2011–12	2010–11
	£000	£000
Months overdue		
Less than one month	**45**	17
One to two months	**7**	2
Two to three months	**66**	2
More than three months	**196**	121
	314	142

As of 31 March 2012, trade receivables of £nil (2010–11: £nil) were impaired or provided for.

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:

	2011–12	2010–11
	£000	£000
Current		
UK Pound	**819**	705
Euro	**618**	415
US Dollar	**9**	16
	1,446	1,136
Non-current		
UK Pound	**10**	32
	1,456	1,168

11b. Intra-Government balances

	2011–12	2010–11
	£000	£000
Current		
Balances with other central government bodies	**169**	114
Balances with local authorities	**12**	-
Intra-Government balances	**181**	114
Balances with bodies external to government	**1,265**	1,022
	1,446	1,136
Non-current		
Balances with bodies external to government	**10**	32
	1,456	1,168

Note 12. Inventories

	2011–12	2010–11
	£000	£000
Inventories	**3**	3
	3	3

Note 13. Cash and Cash Equivalents

The following balances at 31 March are held at commercial banks and as cash in hand:

	2011–12	2010–11
	£000	£000
Opening balance at 1 April	**3**	22
Net change in balances	**1**	(19)
Balance at 31 March	**4**	3

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

As part of its normal activities Forest Research maintains Sterling and Euro bank accounts primarily used for the receipt of income from non-Forestry Commission customers. These accounts are cleared to the Commission's main account on a regular basis. Sums held in these accounts on behalf of partners in European Commission projects are treated as third-party assets and not included in the balances shown.

Note 14. Trade and Other Payables

	2011-12	2010–11
	£000	£000
Current		
Payments received on account	**620**	533
Trade payables	**217**	393
Taxation and social security costs	**96**	34
Accrued expenses and deferred income *	**1,431**	537
	2,364	1,497

* £567,000 of this sum relates to Early Departure Costs payable to staff who left on 30 March 2012, but not paid until April 2012.

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

All payables are to bodies external to central or local government as at 31 March 2012 (2010–11: £1,000 payable to other central government bodies). Funds held on behalf of partners in European Commission projects are treated as third-party assets and not recorded on the face of the accounts (see Note 25). At 31 March 2012 the amount held in Forest Research bank accounts on behalf of partners was £94,142.05 (31 March 2011: £48,824.24).

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

	2011–12	2010–11
	£000	£000
Current		
UK Pound	**1,637**	1,464
Euro	**704**	23
US Dollar	**23**	10
	2,364	1,497

Note 15. Provisions for Liabilities and Charges

		2011–12		2010-11
	EU	**Early departure costs**	EU	Early departure costs
	£000	**£000**	£000	£000
Balance brought forward at 1 April	**567**	**672**	-	595
Provided in year	**(9)**	**667**	567	284
Utilised in year	**-**	**(201)**	-	(164)
Unwinding of discount	**-**	**5**	-	(43)
Increase in provision	**-**	**1**	-	-
Exchange gain	**(31)**	**-**	-	-
Transfer to accruals	**(400)**	**-**	-	-
Balance carried forward at 31 March	**127**	**1,144**	567	672

A full provision was made in 2010–11 relating to the potential reclaim of monies from the EU for a research programme undertaken during 2005 to 2008. During 2011–12 the EU agreed a reduction in potential reclaim which is shown as a negative in 'provided in year'. Forest Research accepted that equivalent of £400,000 is repayable to the EU and transferred this amount to accruals. The balance of the provision and the accrual were converted to sterling as at 31 March 2012, resulting in an exchange gain of £31,000.

Analysis of expected timing of discounted cash flows:

	Other provisions	**Early departure costs**
	£000	**£000**
In the remainder of the Spending Review period to 31 March 2015	**127**	**1,026**
Between 1 April 2015 and 31 March 2019	**-**	**109**
Between 1 April 2019 and 31 March 2023	**-**	**9**
Balance at 31 March 2012	**127**	**1,144**

Forest Research meets the additional costs of benefits beyond the normal PCSPS benefits in respect of employees who retire by paying the required amounts annually to the PCSPS over the period between early departure and normal retirement date. Forest Research provides for this in full when the early retirement programme becomes binding on Forest Research by establishing a provision for the estimated payments. In accordance with new procedures, provision has been made for estimated costs of early retirements during 2012–13 (see note 5.3).

Note 16. General Fund

	2011–12	2010–11 Restated
	£000	£000
Balance brought forward	**3,318**	3,914
Opening Balance adjustment	**-**	129
Adjusted Opening Balance	**3,318**	4,043
Movement in year		
Net (deficit) for year	**(948)**	(578)
Realised element of the revaluation reserve	**(3)**	-
Transfer of fixed assets to (-)/from other Forestry Bodies	**-**	-
Cash surplus to (-)/deficit from Forestry Commission	**(6)**	(151)
Non-cash inter-country transfers	**4**	1
Timing between accrual and cash VAT	**(1)**	3
Notional audit fee	**31**	-
Balance carried forward	**2,395**	3,318

Note 17. Revaluation Reserve

	2011–12	2010–11 Restated
	£000	£000
Balance brought forward	**5,755**	8,277
Revaluation surplus/(deficit) for the year		
Land and Buildings	**236**	(2,536)
Scientific equipment	**55**	7
IT	**-**	(11)
Other machinery and equipment	**(2)**	27
Intangible assets	**-**	(9)
	289	(2,522)
Realised element of Revaluation Reserve	**3**	-
Balance carried forward	**6,047**	5,755

Note 18. Financial Instruments

18.1 Financial Instruments by category

	2011–12		2010–11	
	Loans and receivables	**Available for sale**	Loans and receivables	Available for sale
	£000	**£000**	£000	£000
Assets as per Statement of Financial Position				
Available-for-sale financial assets	**-**	**25**	-	25
Trade and other receivables (excluding prepayments)	**1,306**	**-**	1,014	-
Cash and cash equivalents	**4**	**-**	3	-
Total	**1,310**	**25**	1,017	25

	2011–12	2010–11
	Other financial liabilities	
	£000	£000
Liabilities as per Statement of Financial Position		
Trade and other payables excluding statutory liabilities (excluding payments received on account)	**1,648**	930
Total	**1,648**	930

18.2 Exposure to risk

Forest Research's activities expose it to a variety of financial risks:

- Credit risk – the possibility that other parties might fail to pay amounts due.
- Liquidity risk – the possibility that Forest Research might not have funds available to meet its commitments to make payments.

Because of the largely non-trading nature of its activities and the way in which government departments are financed, Forest Research is not exposed to the degree of financial risk faced by business entities.

Credit risk

Credit risk arises from cash and cash equivalents, deposits with banks and other institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions.

Liquidity risk

Each financial year, the Forestry Commission makes provision for the use of resources by Forest Research for revenue and capital purposes. Each financial year, the Westminster Parliament makes provision for the use of resources by the Forestry Commission for revenue and capital purposes in the Consolidated Fund Act via the Department for Environment, Food and Rural Affairs (Defra) vote. Resources and accruing resources may be used only for the purposes specified and up to the amounts specified in the Consolidated Fund Act. The Act also specifies an overall cash authorisation to operate for the financial year. Forest Research is not therefore exposed to significant liquidity risks.

The table below analyses the financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet to contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

	2011–12		2010–11	
	Less than 1 year	**More than 1 year**	Less than 1 year	More than 1 year
	£000	**£000**	£000	£000
Trade and other payables excluding statutory liabilities (excluding payments received on account)	**1,648**	**-**	930	-
	1,648	**-**	930	-

Market risk

The Agency has no powers to borrow or invest surplus funds. Financial assets and liabilities are generated by day-to-day operational activities and are not held to manage the risks facing Forest Research in undertaking its activities. However, under the Regulatory Reform (Forestry) Order 2006, with Treasury approval, Forest Research may form or participate in the forming of a body corporate, invest in a body corporate and provide loans. The Agency may also exploit any intellectual property arising from research.

During 2009–10, Forest Research made an investment of £25,000 in C-Cure Solutions Ltd, a spin-out company jointly launched with the University of Surrey. The investment is recorded at historical cost less impairment.

(i) Cash flow and fair value 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.

(ii) 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 US Dollars and a payment of monies to be reclaimed by EU on a project.

EU contract income denominated in Euros and US Dollars and the repayment of the claim denominated in Euros forms only 8% of Forest Research's total income. Therefore fluctuations in exchange rates do not have a significant impact on Forest Research's financial position.

18.3 Capital risk management

The Agency's objectives when managing its capital structure are to maintain its ability to continue to provide benefits for stakeholders and to maintain an optimal capital structure to safeguard Taxpayers' Equity.

18.4 Fair value estimation

The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair value.

Note 19. Capital Commitments

There were £nil contracted capital commitments as at 31 March 2012 (2010–11: £14,000).

Note 20. Commitments 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:

	2011–12 £000	2010–11 £000
Land:		
Not later than one year	**2**	2
Later than one year and not later than five years	**8**	10
Later than five years	**-**	-
Total	**10**	12

	2011–12 £000	2010–11 £000
Buildings:		
Not later than one year	**1**	1
Later than one year and not later than five years	**5**	6
Later than five years	**-**	-
Total	**6**	7

	2011–12 £000	2010–11 £000
Equipment:		
Not later than one year	**8**	-
Later than one year and not later than five years	**13**	-
Later than five years	**-**	-
Total	**21**	-

Note 21. Other Financial Commitments

There were no other financial commitments at 31 March 2012 (2010–11: £nil).

Note 22. Contingent Liabilities Disclosed under IAS 37

There were no contingent liabilities at 31 March 2012 in respect of actions brought by employees (2010–11: two).

Note 23. Losses and Special Payments

	2011–12		2010–11	
	Number	**£000**	Number	£000
Losses total	**-**	**-**	1	7
Special payments total	**1**	**34**	1	153

Special payments relate to a claim made by an employee against Forest Research. The individual has received an element of the payments but the majority relates to the individual's legal costs.

Note 24. Related Party Transactions

During the year, Forest Research has had a significant number of material transactions with the Forestry Commission, Forest Enterprise country agencies and with the Department for Environment, Food and Rural Affairs, who are regarded as related parties. In addition, Forest Research has had operational transactions with other Government Departments and other central Government bodies.

24a. Purchases of goods and services:

	2011–12	2010–11
	£000	£000
The University of Reading	**21**	7
The University of Southampton	**1**	2
Total	**22**	9

The above transactions, for course fees, student stipends and samples, occurred on an arm's length basis. These transactions are disclosed as Andy Moffat holds a visiting professorship at the University of Reading and Peter Freer-Smith holds a visiting professorship at the University of Southampton. There were £2,540 outstanding balances at 31 March 2012 (2010–11: £nil).

24b. Key management compensation

Key management personnel are deemed to be the members of the Executive Board of Forest Research. The compensation of such individuals whilst serving on the Executive Board was as follows:

	2011–12	2010–11
	£000	£000
Salaries and other short-term employee benefits	**398**	398
Post-employment benefits	**86**	87
Total	**484**	485

At 31 March 2012 there were no amounts owing to key management personnel (2010–11: £nil).

Refer to the Remuneration Report (page 24) for further details of remuneration of Executive Board members.

24c. Loans to related parties

	2011–12 £000	2010–11 £000
Loans to key management personnel		
Balance at 1 April	**25**	28
Loans repaid during year	**(25)**	(3)
Balance at 31 March	**-**	25

The above balance related to one member of key management personnel. House purchase loans to key management personnel are provided on the same terms and conditions as other Forestry Commission staff members. Such advances of salary are unsecured, interest free and typically repayable over 10 years, with an optional two-year deferral period. However, the loan was repaid during 2011–12.

24d. Transactions with C-Cure Solutions Ltd

	2011–12 £000	2010–11 £000
C-Cure Solutions Ltd	**10**	-

The above relates to charges to C-Cure in respect of accommodation used at Alice Holt and water samples undertaken in the Forest Research laboratories. £3,600 of this amount was outstanding as at 31 March 2012. This is disclosed as under the Agreement to form the company, James Pendlebury was appointed as the Forest Research Director of the company. See note 10 for more details.

	2011–12 £000	2010–11 £000
Loans to other related parties		
Balance at 1 April	**-**	6
Loans advanced during year	**-**	-
Loans repaid during year	**-**	(6)
Balance at 31 March	**-**	-

The loan balance at 1 April 2010 related to a payment made by Forest Research on behalf of C-Cure Solutions Ltd for materials before the company had received funding from Forest Research and Surrey University. The balance was repaid during the first quarter of 2010–11.

Note 25. Third-Party Assets

As a co-ordinator 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.

	2010–11 £000	Gross inflows £000	Gross outflows £000	2011–12 £000
Monetary third-party assets – bank balances	49	1,433	(1,388)	**94**

Note 26. Events After 31 March 2012

These financial statements were authorised for issue on 21 June 2012 by Forest Research Accounting Officer.

Note 27. Reconciliation of Prior Year Restatement

Forest Research previously accounted for investments in associates under IAS 28 using the equity method of accounting. However, such investments are now accounted for at historical cost less any impairment, in line with paragraph 9.2.7 of the FReM.

From 2011–12, Forest Research is no longer required to account for Government Grants as a Reserve from which funds are transferred to income annually to offset the depreciation charge for the relevant asset. This is one of the changes in accounting policy required by the 2011–12 FReM.

2010–11 balances have been restated in accordance with IAS 8. A reconciliation of the restated balances is provided below.

	Per 2010–11 Published Accounts	**Adjustment**	**Restated Balance**
	£000	**£000**	**£000**
Statement of Consolidated Net Expenditure			
Income - Other	**2,107**	**(5)**	**2,102**
Total Income	**15,801**	**(5)**	**15,796**
Share of results of associate	**(17)**	**17**	**-**
Net surplus / (deficit) for the year	**(590)**	**12**	**(578)**
Statement of Financial Position			
General Fund	**3,177**	**141**	**3,318**
Revaluation Reserve	**5,761**	**(6)**	**5,755**
Government Grant Reserve	**124**	**(124)**	**-**
Total Taxpayers' Equity	**9,062**	**11**	**9,073**
Statement of Cash Flows			
Net surplus / (deficit) for the year	**(590)**	**12**	**(578)**
Share of loss of associate	**17**	**(17)**	**-**
Release of government grant reserve	**(5)**	**5**	**-**
Net cash inflow from operating activities	**410**	**-**	**410**
Statement of Changes in Taxpayers' Equity and General Fund			
General Fund balance at 31 March 2010	**3,914**	**129**	**4,043**
Net surplus / (deficit) for the year	**(590)**	**12**	**(578)**
General Fund balance at 31 March 2011	**3,177**	**141**	**3,318**

Annex: Sustainability Report

This Annex does not form part of the auditors' opinion on the Accounts

Sustainability Report

Introduction

Forest Research carries out sustainability reporting in line with the Greening Government Commitments and the FReM reporting requirements. The Agency manages its support activities through the Environmental Management System (EMS) to meet the requirements of BS EN ISO 14001 2004. Forest Research achieved ISO 14001 status for its sites at Alice Holt and Northern Research Station in June 2010.

Summary of Performance

The environmental impacts of Forest Research's activity are managed through the Environmental Management System (EMS) which is designed to deliver the environmental policy. The implementation of the EMS has established baseline data against energy, travel, water and waste and includes sustainable procurement requirements as part of the improvement targets following the government buying standards.

A number of successful programmes are already showing improvement:

- Strategic travel plans.
- The installation of photovoltaic panels at Alice Holt.
- Low-energy lighting.
- Increased recycling and reduced waste to landfill.
- Sustainable procurement of materials and equipment.
- Office sharing with other government departments.
- Increased use of video conferencing and Skype to reduce the need to travel to meetings.

Forest Research is committed to meeting the government's Greening Government Commitments. The data gathering process is now finalised and will continue to improve as the performance management system is embedded in normal business monitoring and reporting processes.

The main targets and measures are CO_2 emissions from energy use and travel and the use of natural and other resources. Whilst the quality of information gleaned from this available data is improving, there is still some way to go before we can reap the benefits from the system. The indications are that there may be substantial cost savings through targeting energy saving and reduced travel, reduced waste and procurement of more sustainable products and services.

Reporting Requirements

Performance measurement		2011–12 Performance	
Area		Actual (qty/cost)	Target
Greenhouse gas emissions (scopes 1, 2 and 3 business travel including national and international air/rail travel) and energy used by built estate (tonnes CO_2e)		341	• 10% reduction on baseline (actual: 16% reduction)
Electricity, gas and other heating fuels (Estate)	Consumption (KWh)	2,595,419	• 12% reduction on baseline
	Expenditure	£154,088	
Total energy [1]	Expenditure	£591,123	
Estate and office waste [2]	Amount (tonnes)	436	• < 20% landfill (actual: 9%) • ≥ 80% recycling (actual: 91%) • 10% overall reduction in weight
	Expenditure	£32,534	
Estate and office water	Quantity used (m^3)	7,029	• 8% reduction on baseline
	Expenditure	£7,391	

[1] Total energy is the fossil fuel consumption of the built estate (heating and lighting etc.) and the CO_2 from travel.
[2] Waste includes sewage and Waste Electrical and Electronic Equipment (WEEE).

Summary of Future Strategy

This is managed through the EMS and the associated guidance for delivering our environmental policy commitments.

The main improvements in performance will come from continuing to embed ISO 14001 at our two main sites, extend it to our fieldstations and to maintain staff awareness and support of these programmes.

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