



# Natural Environment Research Council

Annual Report and Accounts 2011-2012





# Natural Environment Research Council Annual Report and Accounts 2011-2012

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Some research reported here may not yet have been peer-reviewed or published. For a list of NERC Council members see page 43. For members of our other committees go to [www.nerc.ac.uk](http://www.nerc.ac.uk).

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# Next generation science for planet Earth

The Natural Environment Research Council (NERC) is a publicly funded organisation that delivers independent, world-class environmental research. One of the seven research councils, we are the UK's main agency for funding and strategically directing research, training and knowledge exchange in the environmental sciences.

Our goal is to address the most pressing environmental issues facing society. The scientists we support work in collaboration with industry and policy-makers to ensure that our research directly benefits the people who pay for it.

## NERC strategic goals

To deliver world-leading environmental research at the frontiers of knowledge:

- Enabling society to respond urgently to global climate change and the increasing pressures on natural resources.
- Contributing to UK leadership in predicting the regional and local impacts of environmental change over timescales from days to decades.
- Creating and supporting vibrant, integrated research communities.

With our researchers and stakeholders, we develop the priorities that provide a focus for the marine, polar, atmospheric, geological, terrestrial and freshwater science communities. This research is often multidisciplinary and in collaboration with national and international partners.

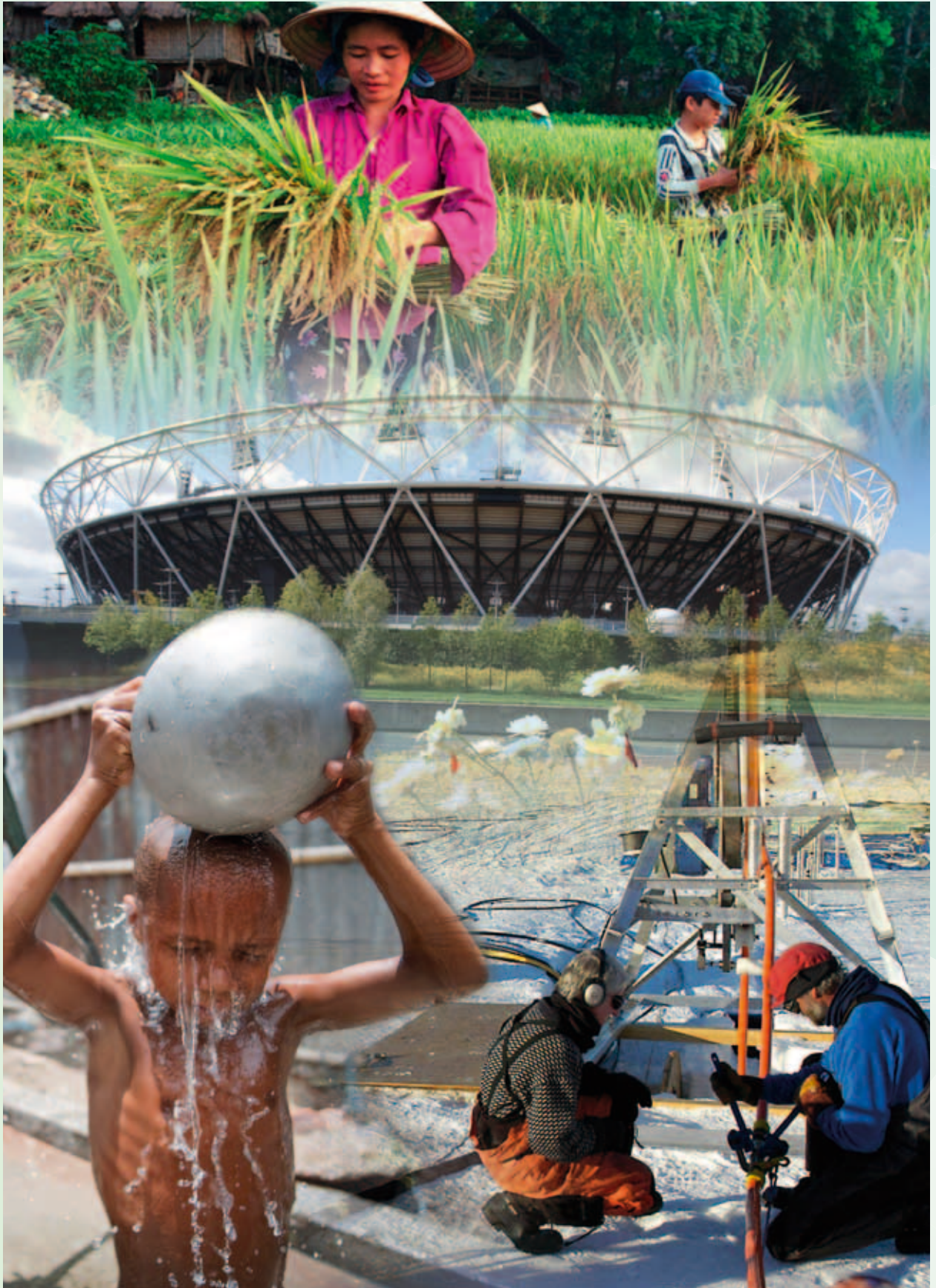
NERC runs a fleet of research ships and scientific aircraft. We have bases in some of the world's most hostile environments and we invest in satellite technology to monitor environmental change on a global scale.

NERC is committed to developing UK and international capability across the environmental sciences. We fund centres and universities to carry out research and to train and support a world-class community of environmental scientists.

NERC has six major environmental research centres:

British Antarctic Survey	BAS
British Geological Survey	BGS
Centre for Ecology & Hydrology	CEH
National Oceanography Centre	NOC
National Centre for Atmospheric Science	NCAS
National Centre for Earth Observation	NCEO

Where their names appear in this report, they have been abbreviated.





# The year in review

Over the last year, NERC's world-class research has continued to push the boundaries of scientific knowledge, to support the UK economy and to improve the wellbeing of people at home and around the globe.

In March we co-hosted Planet Under Pressure (PUP), a major international conference which brought together more than 6000 scientists, policy-makers, business and media delegates from 105 countries, both in person and virtually. PUP channelled the latest research in global environmental change into the United Nations Conference on Sustainable Development – Rio +20. This contribution helped the summit assess the world's progress towards sustainability targets over the last 20 years and identify the fundamental research questions for the future.

These questions concern the grand challenges of climate change; food, water and energy security; poverty alleviation; and the health and wellbeing of societies around the globe.

To meet these challenges, NERC is working across disciplinary boundaries, and joining its sister research councils in major research partnerships like Living With Environmental Change (LWEC), Global Food Security, Global Uncertainty and Energy. This year LWEC's Ecosystem Services for Poverty Alleviation programme brought together natural and social scientists, economists, policy-makers and local communities from the Malaprabha basin in India in an evidence-based dialogue which will lead to more informed choices on how local ecosystems contribute to poverty reduction.

## Pushing the boundaries

NERC brings the UK's unique heritage of scientific exploration and discovery to these collaborations. Our researchers use the latest techniques to gather and analyse data from diverse, often hostile environments stretching from the deepest oceans to beyond Earth's atmosphere.

In 2011 we embarked on a major expedition to collect water and sediment from subglacial Lake Ellsworth. This body of water 3km below the Antarctic ice has been

cut off from the surface for up to a million years, and it contains unique information about past environments. To get so close to reaching and sampling the pristine lake environment without contaminating it has taken years of work by scientists and engineers, and involves equipment designed and built for the purpose.

Meanwhile, from its orbit 703 kilometres above, Cryosat-2 is providing the international science community with ever-more-precise measurements of polar ice thickness. After collecting just two months of data, researchers are already able to produce the most extensive map of Arctic sea-ice thickness yet. With each orbit it contributes to a long-term dataset that will show how these crucial polar regions are changing, and help us understand the implications for ocean circulation patterns, sea levels and global climate.

Other technological developments this year demonstrate the unpredictable nature of scientific impact. For example, NERC-funded research on traces of pigment molecules in fossils, aimed at shedding light on the colour of dinosaurs, has turned out to have practical applications for the assessment of the long-term security of underground storage facilities for radioactive waste.

## Health and wellbeing

With the world's population now past the seven billion mark, NERC's contributions to improving human health and avoiding high treatment costs are more important than ever.

Outbreaks of animal disease in recent months remind us that climate change will affect our lives in many different ways. The geographical range of a number of pests is increasing, for example a species of mosquito capable of transmitting West Nile Virus was recently found in the north Kent marshes.

Our scientists also provided concrete evidence that the first outbreaks of bluetongue disease in the UK, and its spread north across Europe, can be attributed to increasingly warm, wet conditions that favour the midges which carry the virus. Bluetongue doesn't affect humans,



but it has affected millions of farm animals since arriving in Europe in 1998, reducing the productivity of the UK's beef and cattle farms. Another recent project has shown that midges can travel upwind as well as being blown downwind, leading to a new model of infection which Defra is using for contingency planning for future outbreaks. NERC works with the Health Protection Agency, farmers and agricultural bodies to understand more about the conditions these diseases need to thrive, and how we can reduce the risks to our food security, farming economy and animal welfare.

NERC-funded experts are also exploring the potential of the insect-killing fungus *Metarhizium* to transform pest control and give farmers around the world an environmentally-friendly alternative to chemical pesticides. *Metarhizium* strain F52 is especially effective at controlling pests like rootworm and chafers, which cost billions of pounds a year in damage to crops and other important plants; it has been licensed and is already being sold in several countries. In developing countries, the use of natural, integrated pest control with biological agents like this could improve the lives of growers and local communities, reducing human exposure to pesticides and collateral damage to harmless plants and animals.

The health of our ecosystems is a key concern in the 21st century, and understanding the economic value of the benefits they provide is important for political and economic decision-making. Until now this has been difficult to assess, but this year NERC made a critical contribution to LWEC's groundbreaking UK National Ecosystem Assessment (NEA), the first study to put a precise financial value on the benefits the UK gets from the natural environment. It shows they are worth billions of pounds a year. For example, bees, butterflies and other pollinating insects contribute some £430 million to the production of British crops; similarly, healthy inland wetlands provide up to £1.5 billion in benefits like water purification and protecting us from floods each year.

At the NEA launch, Environment Secretary Caroline Spelman acknowledged that 'The UK National

Ecosystem Assessment is a vital step forward in our ability to understand the true value of nature and how to sustain the benefits it gives us.' Studies like these help policy-makers invest limited resources where they will do most good; the report has already helped shape the government's Natural Environment White Paper.

### **Supporting economic growth**

With environmental concerns now firmly on the agenda in boardrooms as much as in government, NERC is supporting UK business to make sure its research can be directly applied to benefit the UK economy. One example is the PURE programme – Probability, Uncertainty and Risk in the Environment – which aims to increase the impact and application of NERC's natural-hazards research by changing the way uncertainty and risk are measured.

The benefits of this approach are clear, when so much of our infrastructure and industry can be affected by events beyond our control; in 2011 natural disasters caused £100 billion of damage around the world. The UK's insurance sector is the third largest in the world, employing around 300,000 people in the UK, and its ability to weather such challenges is crucial for economic growth. The industry's resilience is bolstered by access to the crucial information and advice about the environment that NERC provides, a fact acknowledged by Science Minister David Willetts in his speech to the insurance sector in March this year.

As our society and technology become more complex, the threats from natural hazards grow more diverse. The satellites and power grids we increasingly rely on are at risk from magnetic storms caused by changes in the sun's activity. SPACECAST, an EU-funded project involving NERC scientists, this year launched a new system to predict space weather, giving satellite and power-grid operators time to prepare. One storm in 2003 damaged more than 47 satellites and caused the total loss of one worth \$640m. With more solar flares predicted over the next few years this early-warning system could save millions of pounds and a huge amount of disruption.



Other NERC-funded research is untangling the complex set of challenges around moving to a low-carbon economy. Our scientists have developed the first ever fail-safe test to check for carbon dioxide leaks from carbon capture and storage (CCS) sites deep underground. CCS could be an effective way to reduce man-made CO<sub>2</sub> emissions, but is unlikely to be widely adopted until we are sure of its safety. This pioneering technique can reliably distinguish between CO<sub>2</sub> from natural sources near the Earth's surface and gas that's escaped from a deep storage site, which should help reassure both the public and regulators that geologists could detect leaks quickly and cheaply.

### Long-term legacies

Geologists have also been involved in the preparations for this year's Olympic and Paralympic Games in London, which have drawn on our researchers' expertise in many areas. 3D subsurface geology models helped planners mitigate the effects of industrial soil pollution and unstable ground, and our research on the value of urban gardens for native plants and wildlife lay behind the Olympic Park planting schemes that will transform the biodiversity of London's East End.

These are significant contributions to the Games' sustainability plan, and to ensuring that this major cultural event has an enduring legacy of economic and social benefits.

Elsewhere in the capital, an important new LWEC programme, ClearfLo, is using the Games as a once-in-a-lifetime opportunity to understand how changes in the city's traffic patterns affect its air quality. As well as generating important data, the work will create new infrastructure that will help protect London's residents from the harmful effects of particulates and pollution.

Much of this work happens behind the scenes, but NERC is also committed to engaging with the public, to enable communities to enjoy, debate and take part in environmental science. Using social media, our quarterly magazine and our website, we demonstrate the benefits of environmental science directly to the public in

formats they find easy to access and share. Public trust and engagement with science is important in its own right, but increasingly it is opening up a vast resource in citizen scientists – adults and schoolchildren who are contributing to important national research that would not be possible without them, such as the UK Ladybird Survey and their support for the National Biodiversity Network.

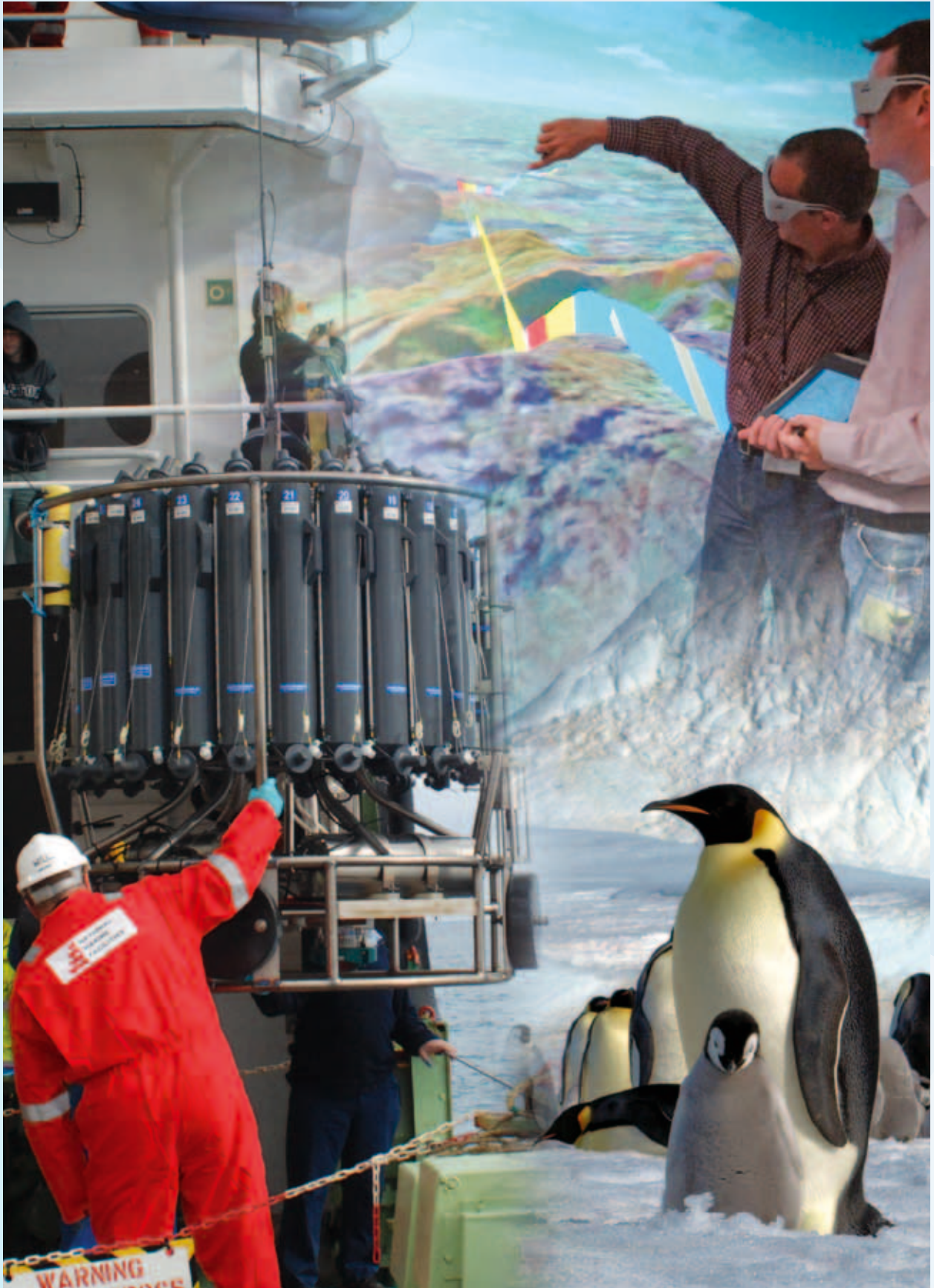
### Investing in people

We invest directly in skilled people throughout our community. NERC has identified, and continues to monitor, skills shortages in the environmental sciences community, through our *Most Wanted* report. To help address these shortages we are reshaping our postgraduate training to include doctorates focused on priority training needs. Partnerships between institutions are also important, and we are concentrating training activities in clusters of excellence and increasing the length of studentship funding to four years. We are also doing more than ever to help our researchers communicate clearly with different audiences, so they will be confident and capable when dealing with the media, the public and politicians alike.

The global expertise, multi-disciplinary partnerships and highly-skilled researchers that NERC has invested in put UK science in a strong position as it looks ahead to the challenges of the coming year. By continuing to improve our links with policy-makers, regulators and industry, we will make sure the research we support achieves maximum impact, directly addressing the grand challenges that people everywhere face.

**Duncan Wingham** Chief Executive 21 June 2012

**Ed Wallis** Chairman



# Delivering the strategy

NERC delivers independent research, survey, training and knowledge transfer in the environmental sciences, to advance knowledge of planet Earth as a complex, interacting system.

Our work covers the full range of atmospheric, Earth, biological, terrestrial and aquatic sciences, from the deep oceans to the upper atmosphere, and from the poles to the equator.

Our mission is to gather and apply knowledge, create understanding and predict the behaviour of the natural environment and its resources, and communicate all aspects of our work.

NERC regularly monitors, evaluates and reports on progress against delivery of our strategy, to inform our decision-making and to demonstrate that we are effectively and efficiently investing public funds to make economic, political and social contributions both in the UK and internationally.

Our planning and performance documents can be found at [www.nerc.ac.uk/about/perform/documents.asp](http://www.nerc.ac.uk/about/perform/documents.asp)

## Summary of progress against Delivery Plan and Scorecard

The NERC Delivery Plan has a total of five actions and 42 priorities. At the end of 2011-12 financial year there had been some deviation from the priorities. These relate to: NERC's greater ambition for knowledge exchange (KE) activities, investment and reporting impact evidence; difficulties in implementing national capability priorities; the transition of grants functionality to the Shared Services Centre; and the need for a new strategy to inform NERC's future direction. However, all off-track objectives have mitigation plans in place to deliver desired outcomes. For further information, the Scorecard for 2012-13 can be found at [www.nerc.ac.uk/about/perform/documents.asp](http://www.nerc.ac.uk/about/perform/documents.asp)

## Summary of research outputs, citations evidence and impacts

The research projects we fund report annually through NERC's Research Outputs Database. The

information provides research highlights for use in NERC publications, indicators of performance for internal and external use, and further evidence for promoting the research base such as the NERC Impact Report 2011.

NERC's performance targets are detailed in our Delivery Plan 2011-2015 with further evidence of our achievements, including research highlights, showcased on our website. The Impact Report can be found in full at [www.nerc.ac.uk/about/perform/documents/impactreport2011.pdf](http://www.nerc.ac.uk/about/perform/documents/impactreport2011.pdf)

Citation impact is one key measure of excellence and health of the research base. The *International Comparative Performance of the UK Research Base 2011* report, published by BIS in 2011, indicates that the UK has consistently led G8 nations in environmental sciences from 2006-2010; it refers to the work of NERC-funded researchers in universities as well as those at CEH. This shows the NERC research community has played a significant role in the UK's success as a global leader for science and research, and that NERC-funded research is internationally significant.

## Summary of evaluations and outputs

Evaluation in NERC is a retrospective assessment of performance and one of the key sources of information for NERC's Strategic Management Tool, which we use to manage our progress with delivering strategy, inform our decision-making and to help identify evidence of achievements.

In 2011-12 this included evaluations of four of our strategic science themes (natural hazards, technologies, environment and human health, and Earth-system science), which gave assurance on their delivery and progress to NERC's Council and NERC's Science and Innovation Strategy Board. The findings will help inform the fourth phase of our Theme Action Plans that are developed to deliver NERC's strategic research programmes. The results will also inform development of NERC's future strategy. The other three science themes (climate systems, biodiversity and sustainable use of natural resources) were evaluated during 2010-11.

An evaluation of NERC's Research Programme commissioning process gave assurance that the process is working well and has been improved. NERC's Science Delivery Team is incorporating the report's proposals into practice, to further strengthen the commissioning process.

### External funding

Funding from outside NERC meets the costs of commissioned and co-funded research carried out by NERC's centres for government departments, other public bodies, industry, the European Commission, and international and overseas organisations. This is a significant funding stream for many of NERC's centres and is an important means of transferring knowledge to users.

### Openness and transparency

NERC is subject to the Freedom of Information Act 2000 and also the Environmental Information Regulations 2004, which provide broadly similar access rights to the Act but relate specifically to information about the environment. We work with the other research councils to ensure a consistent approach to open-access legislation on key business activities.

During 2011 we answered 37 requests for information under the legislation, compared to 35 the previous year. The requests covered a wide range of subjects, from business policy to research outputs. We answered 95 per cent of our requests, some of which were complex and wide ranging, within the statutory time limit or within an agreed extension.

Much of our information is readily available without a specific Freedom of Information Act request. For details see our publication scheme at [foi.nerc.ac.uk](http://foi.nerc.ac.uk).

*More information: David Hyett & Colin Pelton, [informationcompliance@nerc.ac.uk](mailto:informationcompliance@nerc.ac.uk)*

#### Categories of requests made under the Freedom of Information Act/Environmental Information Regulations in 2011

Research policy and operations	16
Business policy and operations	10
Research outputs	5
Funding applications	4
Personal information	2

### Information assurance and security

The government's Security Policy Framework requires departments to submit an annual report to Cabinet Office. NERC has put in place policies and procedures to minimise the risk of data loss, and reports annually on information security, particularly in relation to personal data.

In 2011-12 the RCUK Shared Services Centre reported one incident: the loss of a NERC staff personnel file. A thorough search for the lost data was carried out immediately. The incident reporting process included an assessment of risk from the data loss, reinforcement of staff data-protection responsibilities, and identification of longer-term improvements to processes. The Information Commissioner's Office was notified of the data loss.

*More information: David Hyett & Colin Pelton, [informationcompliance@nerc.ac.uk](mailto:informationcompliance@nerc.ac.uk)*

### Grants, fellowships and studentships

We continue to monitor the success rates of grant and fellowship applications to ensure that we do not discriminate against any applicants. Trend data have shown that the proportion of women applying for research grants, and their subsequent success rate, remains relatively constant. However the number of women in the system remains low.

Although there are yearly fluctuations, on average 50 per cent of studentships are awarded to females. The current PhD stock is 49 per cent female.

To ensure greater consistency with the grants data, the fellowship success rate data is now based on the decision date rather than the closing date. As fellowships are personal awards, a number of applicants withdraw every year at different stages of the process, which subsequently allows applicants on a reserve list to be offered fellowships. Given the relatively small numbers of applicants involved, this can have a significant effect on the success rate data. Withdrawn applications are not included in the table. The success rate of female candidates in the 2011 round was particularly low but was the reverse of the previous two rounds, where female candidates had a higher success rate than male candidates.

### Responsive standard and small grant applications and success rates

	2009-10	2010-11	2011-12
Number of applications	1,211	1,259	1,256
Number of awards	238	221	215
Total £k	51,230	50,626	42,376
% success rate	19.7	17.6	17.1

### Success rates for all grants by gender

	2009-10		2010-11		2011-12	
	Men	Women	Men	Women	Men	Women
Number of applications	1,482	345	1,801	448	1,718	427
Number of successful applicants	390	72	401	84	336	67
% successful applicants	26	21	25	21	20	16

### Success rates for fellowships by gender

	2009-10		2010-11		2011-12	
	Men	Women	Men	Women	Men	Women
Number of applications	122	44	128	59	107	62
Number of successful applicants	20	10	17	13	24	4
% successful applicants	16	23	13	22	22	6

### Trends in publications with industry

Funding type	Number of ISI-listed journals	2010-11		2011-12		
		Number of papers with a private co-author	%	Number of ISI-listed journals	Number of papers with a private co-author	%
Responsive mode	1,750	43	2	1,904	45	2
Research programme	1,971	100	5	1,820	100	5
National capability	923	18	2	1,024	43	4
<b>Total</b>	<b>4,644</b>	<b>161</b>	<b>3</b>	<b>4,748</b>	<b>188</b>	<b>4</b>

### Staff, students and fellows

	2008-09	2009-10	2010-11	2011-12
Directly employed staff	2,459	2,473	2,623	2,509
Staff in research organisations <sup>1</sup>	1,423	1,726	1,864	1,932
Fellows	87	86	88	98 <sup>2</sup>
PhD <sup>3</sup>	988	1017	975	974

#### Notes:

1. Headcount of all academic and research staff named on research grants that were active at the end of the financial year.
2. The number of fellows is back up to pre-2008-09 levels (2007-08 was 100). The reduction was due to fewer good applicants and a number of withdrawals which led to a relatively low number of fellowships being funded in the 2007 round.
3. PhD data is based on number of students directly funded by NERC. These do not include studentships funded through cross-council programmes where another research council administers the award.

NB. Masters data no longer appears as NERC ceased funding for Masters from the October 2011 academic year.

## Staff

NERC embraces diversity and equality. We have introduced a wide range of measures to ensure individuals can contribute their skills, knowledge and experience to the organisation while maintaining a work/life balance.

We actively encourage parents to return to work by providing flexible working arrangements. We continue to monitor all recruitment exercises to ensure demographically fair representation, and all promotion rounds are scrutinised for fairness.

In addition we promote personal development, embracing initiatives such as sabbaticals, secondments, further education and a range of short courses. By investing in individuals, we continue to foster potential across the organisation and ensure that NERC has the necessary skills, knowledge and experience to meet future challenges.

## Health and safety

This report covers the financial year from 1 April 2011 to 31 March 2012. In this period there were six reportable events to NERC staff under the Reporting of Injuries Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) compared to seven in 2010-2011. The total number of injuries reported to staff within NERC and closely related research institutes following our safety management system was 173, which

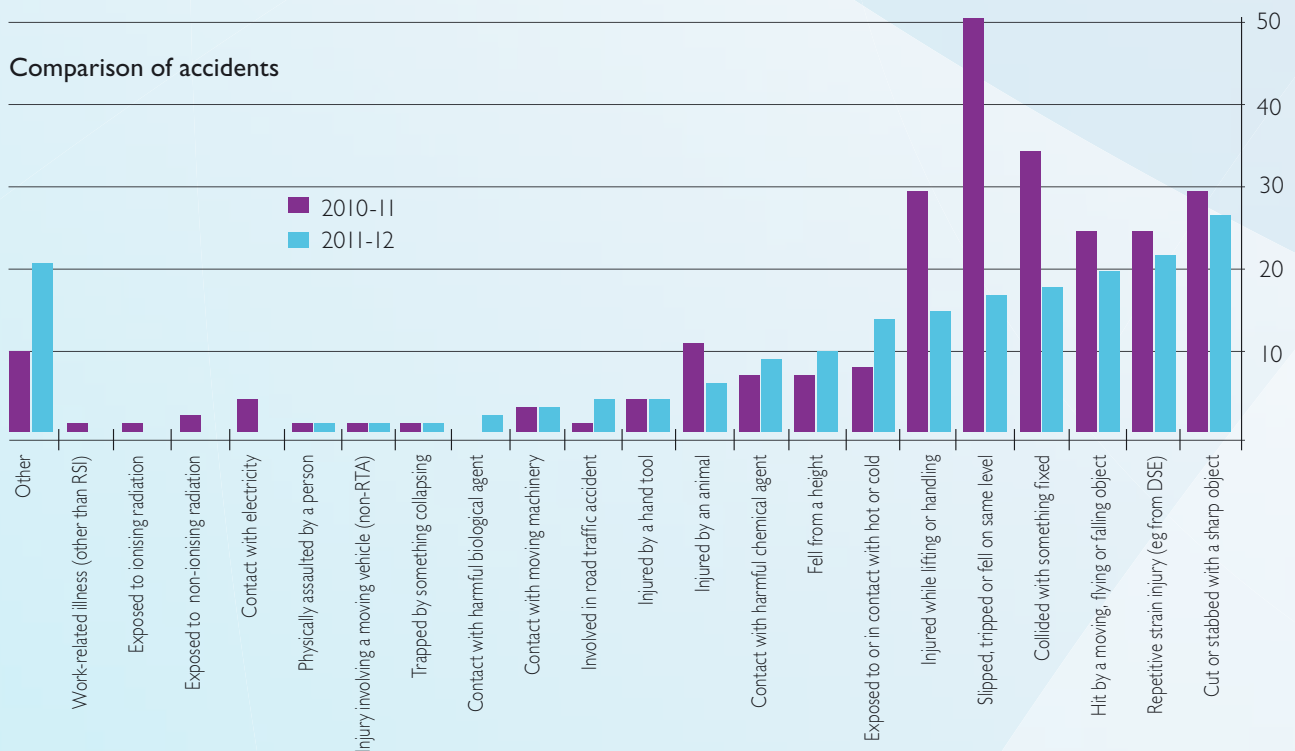
is down from 233 in the previous financial year. There were also 22 cases of work related ill-health reported, compared to 26 the previous year.

Much NERC work is done outside the UK and there were no occurrences overseas that would have been reportable had they occurred in the UK. There were five occurrences on ships that were reportable to the Marine Accident Investigation Branch (MAIB) in 2011-2012 compared to six in the previous financial year.

The most noteworthy achievements are the reduction in overall numbers of injuries by 25 per cent compared to the previous year (down to 173 from 233) and a large reduction in the number of injuries arising from slips, trips and falls on the same level to less than 20 from over 50 in 2010-2011. Also, the number of persons injured while lifting and handling has halved compared to the previous year. The top cause of injury was cuts from a sharp object at 27 with repetitive strain injury the top cause of work-related ill-health at 22. The number of ergonomically related injuries and work-related ill-health remains high at about 1 in 5 of all reported cases.

In 2011-2012 there were 197 incidents and near misses reported. The ratio of the number of reported incidents and near misses to the number of reported injuries was 1.14:1, up from 1:1 in 2010-2011 and 0.8:1 the previous year.

## Comparison of accidents





## Sustainability Report 2011-12

### Overview

NERC continues to promote a sustainability agenda throughout its scientific operations, completing its fourth consecutive year of reporting energy data. In doing so, it has gained the Carbon Trust Standard, and is well-placed to comply with the requirements of the Carbon Reduction Commitment Energy Efficiency Scheme and HM Treasury's Public Sector Sustainability Reporting. NERC also considers biodiversity to be important and actively encourages its promotion throughout its estate in accordance with its own environmental policy.

### Summary of activity

NERC has undertaken a variety of sustainability projects across its estate during the reporting period. These have included LED lighting in corridors and reception areas, new recycling bins, and a NERC-wide energy awareness survey. Future plans will drive further energy efficiencies through improved housekeeping and further awareness campaigns.

NERC is committed to taking part in the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme which began in 2010. NERC was positioned in 41st place in the CRC performance league table out of 2301 organisations for the first year of the scheme. The organisation has reduced its CRC emissions by



Solar panels on the roof of the Southampton Oceanography Centre.

over eight per cent between the start of the scheme in 2010-11 to current year 2011-12.

### Governance

All NERC research centres have obtained ISO 14001 for Environmental Management and use this system to record all sustainability data. The CRC Energy Efficiency Scheme audits the data provided to the Environment Agency, and the Carbon Trust Standard audits the data provided every two years.

Area	2011-12 Actual Performance	2010-11 Baseline Performance
Total carbon dioxide emissions	52,168 tCO <sub>2</sub> e (including travel)	16,213 tCO <sub>2</sub> e (excluding travel)
CRC carbon dioxide emissions	13,794 tCO <sub>2</sub> e	15,029 tCO <sub>2</sub> e
Business travel emissions	38,333 tCO <sub>2</sub> e	Not available
CRC-related expenditure	£165,525	£180,347
Total electricity consumption (UK only)	18,577,080 kWh	19,983,967 kWh
Total gas consumption (UK only)	17,548,857 kWh	24,295,704 kWh
Total water consumption	66,289 m <sup>3</sup>	Not available
Total waste	84,918 tonnes	Not available
Total energy expenditure (UK only)	£2,135,158	£2,088,359
Total business travel expenditure (excluding ships and aircraft)	£2,225,030	Not available
Total water expenditure	£67,294	Not available
Total waste expenditure	£62,673	Not available

## NERC sustainability report for the year ended 31 March 2012

Greenhouse gas emissions		2009-10	2010-11	2011-12
Non-financial indicators (tCO <sub>2</sub> e)	Total gross emissions for scopes 1 & 2	15,201	15,551	13,835
	Total net emissions for scopes 1 & 2 (less green tariff)	12,739	13,112	11,527
	Gross emissions scope 3	771 (cars)	663 (cars)	38,333 (all)
Related energy consumption	Electricity: non-renewable (kWh)	19,796,240	19,983,967	18,472,581
	Electricity: renewable (kWh)			104,499
	Gas (kWh)	22,984,052	24,295,704	17,548,857
	Oil (litres)	65,916	60,933	49,219
	Aviation fuel (litres)	121,127	66,100	689,232
	Marine gas oil (tonnes)			6,543
	Marine gas oil (litres)			2,003,000
Financial indicators (£k)	Expenditure on energy		£2,088,359	£2,135,158
	CRC expenditure (paid from 2012 onwards)	£176,796	£180,347	£165,525
	Expenditure on business travel (Excluding ships and planes)		£202,400	£2,225,030

### PERFORMANCE COMMENTARY

Electricity and gas consumption has significantly decreased this year. Business-travel reporting has expanded to include all official travel and therefore the reported emissions have increased. This includes the fuels used for all NERC aircraft and ships, therefore increasing the amount of fuels reported. Expenditure on energy has increased due to the increased price of electricity and gas per kWh. NERC is also working towards re-certification for the Carbon Trust Standard in 2012 and the continual improvement of our reporting system. The on-going target is to continue to reduce the emissions from NERC operations, especially CRC emissions.

### CONTROLLABLE IMPACTS COMMENTARY

The main impacts from NERC in the UK result from the electricity, gas and other fuels that are used for the offices and official business travel. NERC is working to reduce these direct impacts through energy-efficiency strategies.

Waste		2009-10	2010-11	2011-12
Non-financial indicators (t)	Total waste (tonnes)			84,918
	Non-hazardous waste	Landfill (tonnes)		37,840
		Recycled (tonnes)		47,045
		Incinerated (tonnes)		8
Financial indicators (£k)	Total disposal cost			£62,673
	Non-hazardous waste-disposal cost	Landfill		£25,187
		Recycled		£18,096
		Incinerated		£3,297

### PERFORMANCE COMMENTARY

2011-12 is the baseline for NERC and targets will be to reduce from this baseline in future years.

### Trends in annual capital investment (£m)

	2009-10	2010-11	2011-12
Land, buildings and Antarctic Stations	24.9	14.7	13.5
Plant and Equipment <sup>(i)</sup>	9.8	12.4	4.6
Transport Equipment <sup>(i) &amp; (ii)</sup>	4.2	15.3	37.8
RCUK Shared Services Centre <sup>(iii)</sup>	2.1	1.3	-
(Profit)/Loss on disposal of fixed assets <sup>(iv)</sup>	-0.7	-1.1	0.0
Capital Grants <sup>(v)</sup>	18.5	22.1	4.7
<b>Total</b>	<b>58.8</b>	<b>64.7</b>	<b>60.6</b>

### Patents filed

2009-10	11
2010-11	7
2011-12	4

#### Notes:

(i) Following migration to SSC some Plant & Equipment assets were reclassified as Transport Equipment, the original investment in these assets has been left in Plant & Equipment.

(ii) 2011-12 figures include £36.7m for the RRS Discovery replacement vessel (2010-11 £10m).

(iii) 2010-11 figures include £11.1m for RCUK SSC Ltd shares purchased during the year (2008-09 £1.6m) less the £11.1m received from SSC for NERC's share of the SSC asset.

(iv) From 2007-08 all disposals of fixed assets classified as capital.

(v) 2010-11 figures include £2m paid to RCUK SSC Ltd on behalf of BIS.

### Trends in research council income from the private sector (£m)

	2009-10	2010-11	2011-12
UK private sector	5.1	4.5	4.3
Overseas private sector	12.3	8.3	9.4
<b>Total</b>	<b>17.4</b>	<b>12.8</b>	<b>13.7</b>
Total at 2011-12 prices	18.3	13.1	13.7

UK figures include Integrated Ocean Drilling Program income to BGS.

### Value of earned income (contract research) by research centres (£k)

	2009-10	2010-11	2011-12
British Antarctic Survey	1,819	2,465	2,793
British Geological Survey	21,216	16,651	14,748
Centre for Ecology & Hydrology	9,325	9,882	8,610
National Oceanography Centre	6,405	6,286	6,948
Swindon Office <sup>(i)</sup>	8,357	13,331	11,963
<b>Total</b>	<b>47,122</b>	<b>48,615</b>	<b>45,062</b>

Figures do not include other funding received from BIS (see Note 3).

(i) The Swindon Office income figures for 2009-10 and 2010-11 have been restated in line with FReM changes as outlined in Note 24 of the Annual Accounts.

### Royalties and licence income by research centres (£k)

	2009-10	2010-11	2011-12
British Antarctic Survey	11	5	5
British Geological Survey	1,628	1,941	1,722
Centre for Ecology & Hydrology	177	502	369
Proudman Oceanographic Laboratory/ National Oceanography Centre	113	93	0
Swindon Office	4	0	16
<b>Total</b>	<b>1,933</b>	<b>2,541</b>	<b>2,112</b>

## How we spent the science budget – 2011-12 outturn (£m)\*

### Research Programmes

Aerosol Properties, Processes and Influences	
on the Earth's Climate	0.223
Aerosols & Clouds	0.421
Algal Bioenergy Network	0.048
Analytical Science & Technology PhD Studentships	0.086
Arctic Programme	0.963
BioDIVERSA	0.672
Biodiversity & Ecosystem Service Sustainability	0.135
Carbon Capture & Storage	0.560
Changing Water Cycle	1.899
Coastal Sediment Systems	0.122
Deep Earth Control on the Habitable Planet	0.142
Earth System Modelling Strategy implementation	0.459
Ecology & Hydrology Funding Initiative	0.760
Ecosystem Services for Poverty Alleviation	0.394
Environment & Human Health	0.408
Environmental & Social Ecology of Human	
Infectious Diseases (ESEI)	0.005
Environmental Exposure & Health Initiative (EEHI)	0.422
Environmental Nanotechnology	0.630
E-Science	0.049
Flood Risks from Extreme Events	0.325
Greenhouse Gas Emissions & Feedbacks	0.001
Ice Sheet Stability	0.792
Increasing Resilience to Natural Hazards in	
Earthquake-prone & Volcanic Regions	0.008
Insect Pollinators Initiative	0.602
International Polar Year	0.111
Joint Weather & Climate Research Programme	0.274
Land Based Renewables	0.721
Long Term Co-evolution of Life & the Planet	1.180
Macronutrient Cycles	0.243
Marine Renewable Energy	0.071
Mineral Resources	0.048
Networks of Sensors	1.847
Next Generation Weather & Climate Prediction	0.652
Ocean Acidification	2.792
Ocean Shelf-Edge Exchange	0.358
Other Research Programmes	1.494
Probability, Uncertainty & Risk in the Environment	0.099
Quantifying and Understanding the Earth	
System programme	0.289
Quantifying Uncertainty in Predictions of	
Climate Change & Climate Impacts	0.542

Radioactivity & the Environment	0.020
Rapid Climate Change programme	0.083
RAPIDWATCH	2.933
Shelf Sea Biogeochemistry	0.059
Storm Risk Mitigation through Improved	
Prediction & Impact Modelling	1.491
Strategic Ocean Funding Initiative	0.637
Sustainable Marine Bioresources	-0.334
Taxonomy & Systematics	0.105
Technology Clusters	0.077
Technology Proof of Concept	2.403
Theme Leaders	1.480
UK Energy Research Centre	1.891
UK Integrated Ocean Drilling Programme	0.049
UK Integrated Ocean Drilling Programme Phase II	4.928
UK Surface-Ocean / Lower Atmosphere Study	0.120
Understanding & Predicting the Ocean Surface	
Boundary Layer	1.111
Urban Atmospheric Science	0.664
Valuation Biodiversity & Natural Resources	0.232
Virtual Observatory	0.909
Knowledge Exchange	9.163

### Other Programmes

Earth Observation Programmes	1.342
Living With Environmental Change	0.536

### Research Centres

Marine Biological Association	0.853
National Centre for Atmospheric Science	7.834
National Centre for Earth Observation	6.399
Plymouth Marine Laboratory	4.547
Scottish Association for Marine Science	2.053
Sea Mammal Research Unit	1.095
Sir Alister Hardy Foundation for Ocean Science	0.425
National Capability – Swindon Office	
Airborne Research & Survey Facility	0.817
Facility for Airborne Atmospheric Measurements	2.891
High Performance Computing	3.852
International Activities	1.622
National Marine Biological Library	0.075
NERC Environmental Bioinformatics Centre	0.199
Other National Capability Programmes	0.268
Services and Facilities	9.698
National Capability Capital	0.226

**Responsive Mode Grants**

Antarctic Funding Initiative	2.512
Consortium Grants	12.256
New Investigator	1.123
Small Grants	3.148
Standard Grants	51.491

**Responsive Mode Training**

Fellowships	8.753
Studentships	22.426

**British Antarctic Survey**

National Capability	35.411
Research Programmes	3.208
<i>Halley 6</i>	5.095
<i>Core Capital</i>	2.428

**British Geological Survey**

National Capability	21.923
Research Programmes	2.047
<i>Keyworth Phase II building</i>	6.661
<i>Core Capital</i>	0.452

**Centre for Ecology & Hydrology**

National Capability	16.294
Research Programmes	1.715
<i>Core Capital</i>	0.462
CEH Transition and Integration	0.666

**National Oceanography Centre**

National Capability	25.858
Research Programmes	2.717
<i>Core Capital</i>	3.164
<i>RRS Discovery Replacement Ship</i>	36.673

**Other Infrastructure**

Corporate Activities (including Swindon Office)	13.813
Shared Services Centre Costs	7.806
<i>Capital Income</i>	-0.500
<i>Corporate Capital</i>	0.802
Corporate Restructuring	4.847
Private Funding Initiative Scored Outside DEL	-1.412

Depreciation	26.496
Amortisation	0.128
Loss in joint venture	1.736
Impairment	2.189
Holiday accrual	-0.738
<i>IXO Therapeutics Ltd</i>	-0.025
<i>Asset Disposals</i>	-3.288

<b>Total NERC expenditure</b>	<b>411.937</b>
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Comprises:

<b>Resource**</b>	<b>359.787</b>
<b>Capital</b>	<b>52.150</b>

*Capital expenditure in italics*

\* This table shows how NERC has spent the BIS science allocation. All figures are net of other income received.

\*\* Resource figure differs from the net expenditure for the year by -£0.496m, which is broken down as follows:

	£m
<i>Other funding received from BIS (recorded as financing)</i>	0.047
<i>Asset Disposals (recorded under Capital)</i>	0.025
<i>Capital Income</i>	-0.500
<i>AME change in provisions</i>	0.670
<i>AME change in holiday accrual</i>	-0.738
	-0.496

## Grants awarded in 2011-12

	RESEARCH GRANTS								
	Responsive						Research Programmes		
	Small Grants		Standard Grants		Consortium Grants		Research Programmes		
Number	Value £k	Number	Value £k	Number	Value £k	Number	Value £k		
Aberystwyth University	1	52							
Bangladesh Uni of Engineering and Tech						1	796		
Bangor University	1	78	3	1189			3	1029	
Basque Centre for Climate Change bc3						1	158		
Birkbeck College	2	126	1	95	1	224			
Cardiff University	1	36	5	1082			2	1146	
Centre for Env Fisheries Aqua Sci CEFAS							2	220	
Conservation International Foundation							1	421	
Cranfield University							3	765	
De Montfort University									
Durham University	2	104	4	536	1	464	3	226	
East China Normal University							1	15	
Edge Hill University	1	48							
H R Wallingford Ltd							1	372	
Heriot-Watt University							2	322	
Imperial College London	4	197	6	1345			3	790	
Indian Institute of Technology Rookee							1	240	
Institute of Development Studies							1	1029	
Int Centre for Tropical Agriculture							1	614	
Int Livestock Research Institute							1	471	
Keele University	1	59							
King's College London	1	51			1	303			
Kingston University									
Lancaster University			2	562			2	490	
London Sch of Hygiene and Trop Medicine			1	82					
Loughborough University							2	317	
Marine Biological Association							1	335	
National Oceanography Centre	3	208	2	500	1	353	9	2959	
NERC British Antarctic Survey	1	76	8	2034			4	1253	
NERC British Geological Survey	2	103	2	189			3	368	
NERC Centre for Ecology & Hydrology			2	199			1	450	
Newcastle University			2	314					
Northumbria University			1	148					
Open University	2	104							
Plymouth Marine Laboratory			2	125			4	637	
Queen Mary, University of London							1	511	
Queen's University of Belfast							1	71	
Royal Botanic Gardens – Edinburgh			1	317					
Royal Holloway, Univ of London			2	150			1	471	
Royal Veterinary College	1	52							
RSPB							1	17	
SAHFOS							1	232	
Scottish Association For Marine Science	1	62	1	31			5	1766	

		RESEARCH FELLOWS				RESEARCH STUDENTSHIPS			
Knowledge Exchange		Post-doc Fellow		Advanced Fellow		Responsive		Research Programmes	
Number	Value £k	Number	Value £k	Number	Value £k	Number	Value £k	Number	Value £k
1	16								
1	40					1	286		
						1	143	1	74
								3	202
								1	67
						1	358		
		3	868	1	323	1	786	2	152
2	198					1	236		
1	1					1	434	1	77
								1	68
						1	362		
						1	358	1	79
3	303					1	143		
2	266					1	501		
						1	286	1	67
		1	297			1	215	1	74
						1	143		
						1	157	1	78
						1	157	2	153
						1	143		

## Grants awarded in 2011-12 cont.

	RESEARCH GRANTS								
	Responsive						Research Programmes		
	Small Grants		Standard Grants		Consortium Grants		Research Programmes		
	Number	Value £k	Number	Value £k	Number	Value £k	Number	Value £k	
Scottish Universities Env Research Centre			1	105					
STFC – Laboratories			1	289					
Swansea University			1	137	1	32	1	370	
The Natural History Museum			2	91					
The University of Manchester	2	85	4	822	2	873	8	2973	
University College London	3	152	5	789			5	866	
University of Aberdeen	3	179	4	1384			2	267	
University of Bath							2	344	
University of Birmingham			2	885			1	153	
University of Bradford	1	43							
University of Bristol	3	153	10	3988			3	364	
University of Cambridge	1	52	4	697			9	1796	
University of Dundee							2	550	
University of East Anglia	4	206	3	1177	1	122	5	1210	
University of Edinburgh			9	3262			7	1610	
University of Essex			1	171					
University of Exeter	2	100	8	2208	1	445	9	2203	
University of Glasgow	2	94	1	288					
University of Hertfordshire							2	550	
University of Hull	1	50	2	344					
University of Kent									
University of Leeds	3	176	8	3176	1	599	3	1001	
University of Leicester	2	76					4	635	
University of Lincoln	1	47							
University of Liverpool	1	52	8	1797			2	268	
University of Nottingham	1	78	2	777					
University of Oxford	1	52	5	1038			8	1721	
University of Plymouth			3	579			5	774	
University of Portsmouth	2	74	1	404					
University of Reading	1	51	4	597	1	406	9	3330	
University of Sheffield	1	52	4	1291					
University of Southampton	1	51	4	740			10	3494	
University of St Andrews			5	1551			3	548	
University of Stirling	1	80							
University of Sussex									
University of Ulster			1	35					
University of Warwick			1	333					
University of York			4	901	1	268	3	895	
Zoological Soc London Inst of Zoology							1	942	
<b>GRAND TOTAL</b>	<b>61</b>	<b>3262</b>	<b>153</b>	<b>38757</b>	<b>12</b>	<b>4089</b>	<b>167</b>	<b>45356</b>	

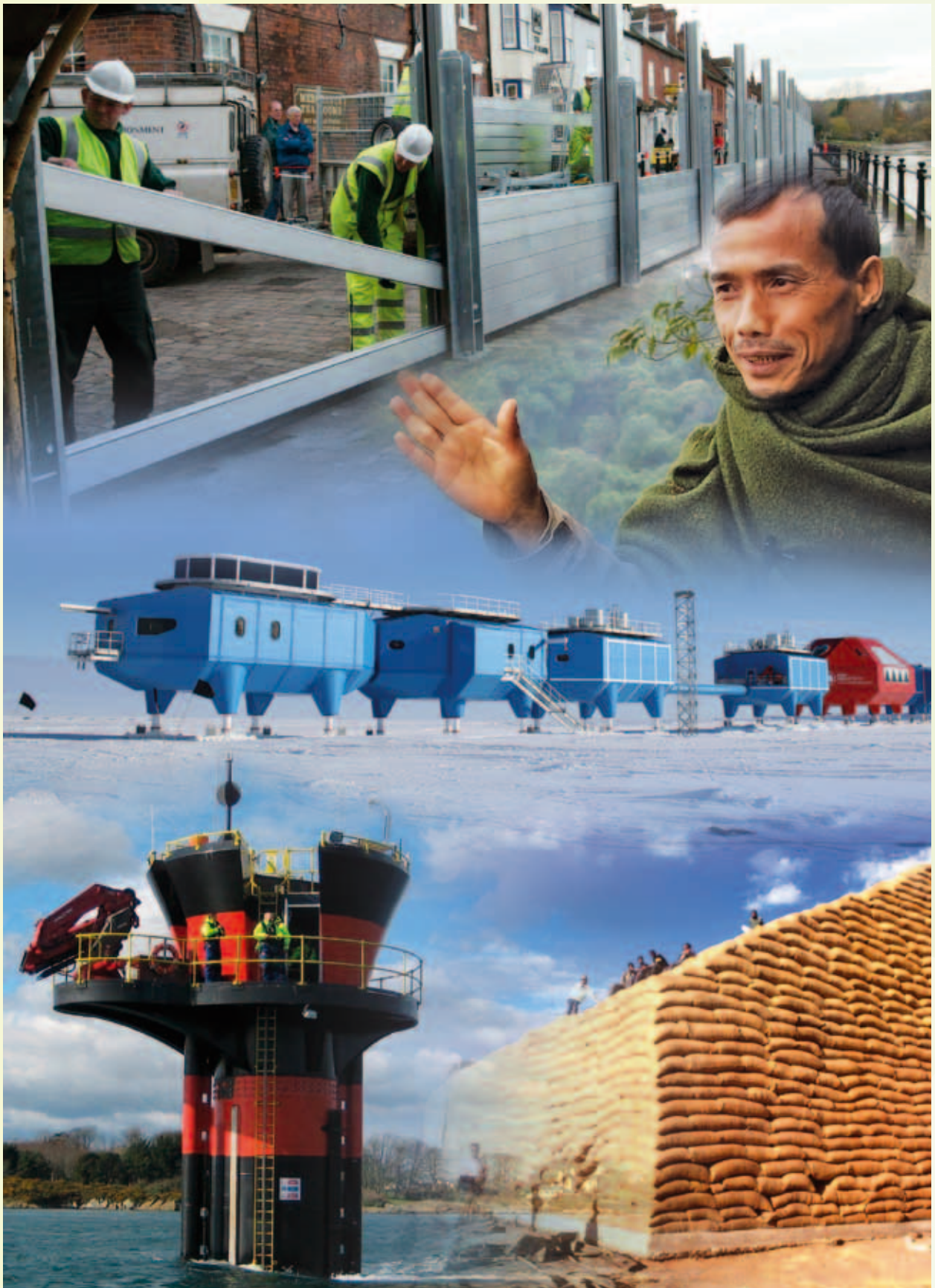


		RESEARCH FELLOWS				RESEARCH STUDENTSHIPS			
Knowledge Exchange		Post-doc Fellow		Advanced Fellow		Responsive		Research Programmes	
Number	Value £k	Number	Value £k	Number	Value £k	Number	Value £k	Number	Value £k
						1	144		
1	100	1	281			1	858	1	79
1	66					1	629	2	142
		1	255			1	501	1	71
		1	305			1	72	1	71
						1	286	1	72
1	105	2	489	1	460	1	1001	5	366
1	66	2	535			1	715	2	158
		1	291	1	463			1	67
4	237	3	963	1	463	1	930	1	74
				1	532	1	1078	2	140
						1	143		
1	357					1	371	1	98
						1	286	1	71
						1	72		
3	129	1	318			1	72	1	74
						1	1373	3	215
						1	286		
1	100					1	429		
		1	310	1	352	1	930	2	157
						1	143		
3	353	1	268	1	453			1	67
		1	283	1	473	1	715	1	67
		2	480			1	572	1	67
						1	572	1	71
1	98					1	286		
						1	143	1	69
						1	72		
						1	143	1	67
						1	429	1	70
						1	157		
<b>27</b>	<b>2435</b>	<b>21</b>	<b>5943</b>	<b>7</b>	<b>3056</b>	<b>45</b>	<b>18112</b>	<b>46</b>	<b>3355</b>

## Science budget expenditure in research organisations

Expenditure £k	Responsive Awards			Research Programme		Knowledge Exchange	Research Programme Contracts	Total
	Fellowships	Grants	Students	Grants	Students			
Aberystwyth University		599	101	47	15	20		782
Bangor University	148	1,062	291	296	40	64		1,900
Biotechnology & Biological Sciences Research Council		1,074					378	1,452
Birkbeck College		90						90
Bolivian Natura Foundation				121				121
Bournemouth University		121						121
British Trust for Ornithology				12				12
Brunel University		60	22					82
Cardiff University	87	862	236	383	32	113		1,713
CEFAS				146				146
City University		7						7
CONDESAN				43				43
Cranfield University		-2	41	275		19		334
Daphne Jackson Trust		149						149
Diamond Light Source		6						6
Durham University	219	1,993	343	130	2	106		2,792
Economic & Social Research Council			556				261	817
Edinburgh Napier University		6		147				153
Engineering & Physical Sciences Research Council		332		18		-40	1,508	1,819
Glasgow Caledonian University			18					18
Global Canopy Foundation				31				31
H R Wallingford Ltd				36				36
Heriot-Watt University		-1	30	210				238
Imperial College London	655	1,271	821	5,588	10	321	21	8,687
Indigo Business Services Ltd				4				4
Institute of Development Studies				86				86
Institute of Urban Environment				2				2
International Food Policy Research Inst				128				128
International Union for Conservation of Nature				12				12
International Institute for Environment and Development				14				14
International Livestock Research Institute				33				33
Int Union for the Conservation of Nature and Natural Resources							10	10
Keele University		188	20					208
King's College London		73	146	595	3	104		922
Kingston University		50						50
Lancaster University	13	586	337	501	72	246		1,755
Liverpool John Moores University			22					22
London School of Hygiene and Tropical Medicine		4		134				138
London School of Economics & Political Science		-3	22	193				212
Loughborough University		415	8	156		19		598
Manchester Metropolitan University		39	18	157		20		233
Marine Biological Association		13		113			853	978
Medical Research Council		76					18	94
Meteorological Office							2,805	2,805
National Museums of Scotland		10						10
NERC British Antarctic Survey	38	3,303	236	557	11			4,146
NERC British Geological Survey	7	626	69	435		277		1,413
NERC Centre for Ecology & Hydrology		513	488	2,207		254		3,463
NERC National Oceanography Centre	138	1,846	100	1,009		98		3,191
Newcastle University	193	574	454	353	19	119		1,712
Northumbria University		68						68
Open University	106	670	140	191	7	87	96	1,299
Oxford Brookes University			42					42
Plymouth Marine Laboratory		225	237	1,177		22	5,192	6,854
Queen Mary University of London	92	698	266	129		79		1,264
Queen's University of Belfast	87	144		12				243
Research into Results Limited							936	936
Roehampton University					5			5
Rothamsted Research		50		234				284
Royal Botanic Gardens – Edinburgh						87		87
Royal Botanic Gardens – Kew		409						409

Expenditure £k	Responsive Awards			Research Programme		Knowledge Exchange	Research Programme Contracts	Total
	Fellowships	Grants	Students	Grants	Students			
Royal Holloway, University of London	190	622	281	177	7	97		1,374
Royal Veterinary College	117	84						201
School of Oriental & African Studies				6				6
Science & Technology Facilities Council		115		188		97	3,654	4,053
Scottish Agricultural College				58				58
Scottish Association For Marine Science		636	65	756	5	20	2,490	3,973
Scottish Universities Environment Research Centre		127	28	23	5		1,212	1,393
SEI Oxford Office Ltd				16				16
Sir Alister Hardy Foundation for Ocean Science		4		33		58	425	519
St George's University of London		-2		141				138
SURRC							789	789
Swansea University		261	187	547				995
Technology Strategy Board						91	599	690
The Linnean Society of London							100	100
The Natural History Museum		840		52			1	893
The Royal Society							50	50
University College London	227	2,395	722	588	16	165	339	4,451
University of Aberdeen	127	1,180	542	379	8	68		2,304
University of Abertay Dundee		16						16
University of Bath	64	365	68	156	10			663
University of Birmingham	183	941	513	1,304	25	168	410	3,544
University of Bradford		7	56	18				81
University of Brighton		116						116
University of Bristol	631	3,447	956	1,017	33	257	223	6,563
University of Cambridge	395	3,024	1,043	585	33	91		5,172
University of Dundee			5	25	14		413	456
University of Durham		59					410	470
University of East Anglia	231	2,270	1,070	1,181	37	265	337	5,391
University of Edinburgh	510	2,950	931	1,109	8	162	1,280	6,950
University of Essex	56	363	185	61		102		766
University of Exeter	405	2,927	355	725	3	152	40	4,605
University of Glasgow	195	589	244	254		186	35	1,503
University of Hertfordshire			20	132		12		164
University of Hull		54	56	95		19		225
University of Kent		-2		48		94		141
University of Lancaster							100	100
University of Leeds	426	4,875	1,391	1,118	4	368	6,878	15,061
University of Leicester	240	856	194	214	188	100	447	2,238
University of Lincoln	76							76
University of Liverpool	296	1,856	534	308	37	72	293	3,396
University of Manchester	198	2,896	969	882	31	54	-24	5,006
University of Nairobi				111				111
University of Nottingham	46	259	104	111	35		219	775
University of Oxford	626	4,464	928	1,495	10	168	593	8,284
University of Plymouth		685	143	568	24	3		1,422
University of Portsmouth		115		27		9		151
University of Reading	302	1,643	1,418	2,885		162	5,903	12,313
University of Salford		53	5	23				80
University of Sheffield	255	2,252	644	428		208	325	4,113
University of Southampton	394	2,317	792	1,858	66	8	96	5,530
University of St Andrews	197	476	331	76	20	125	1,145	2,370
University of Stirling		22	129	41		98		290
University of Strathclyde	116	95	33	72		23		340
University of Surrey		-3	5	190				191
University of Sussex		181	30	120		8		339
University of Teesside				3				3
University of Ulster		334		14				348
University of Warwick	204	870	192	34		28		1,327
University of Westminster		1				49		50
University of York	101	1,023	392	293	32	79	204	2,123
Wildlife Conservation Society				17				17
Zoological Society of London			106	58				163
<b>Grand Total</b>	<b>8,590</b>	<b>66,863</b>	<b>20,731</b>	<b>36,533</b>	<b>866</b>	<b>5,682</b>	<b>41,061</b>	<b>180,326</b>



# Management commentary

## Statutory basis of financial statements

NERC's statutory financial statements have been prepared using accruals accounting in accordance with the UK Government's Financial Reporting Manual (FRoM) for 2011-12 and the accounts direction issued by the Secretary of State.

NERC successfully kept within agreed tolerances for the first year of its four-year spending review settlement, and has an agreed financial plan to continue its existing operations until at least 2015. It is, therefore, appropriate for these financial statements to be prepared on a going-concern basis.

NERC maintains a risk-management strategy that conforms to HM Treasury guidance. NERC's approach to risk is described comprehensively in the Accounting Officer's Governance Statement within the Annual Accounts and is supported by the positive and reasonable assurance provided by the Research Councils Internal Audit Service.

## Financial summary

NERC concludes the accounting period with a balanced financial position of outturn within 1 per cent of estimate. A comparison with the previous accounting period is shown in Table 1.

Table 1. NERC outturn 2011-12 and 2010-11 comparison

	2011-12	2010-11 Restated Comparison <sup>1</sup>
	£000	£000
Science budget	417,168	382,420
Other BIS funding	47	717
Earned income	56,087	62,860
Total funding	473,302	445,997
Expenditure	468,071	449,191
(Deficit) / Surplus	5,231	(3,194)
Variance (%)	1.1%	-0.6%

Note: 1. See Note 24 Tables for breakdown of restatement.

Reconciliation between NERC's outturn with its annual accounts for 2011-12 is shown in Table 2 overleaf.

## Statutory disclosures

In accordance with the Companies Act 2006, the following statutory disclosures are presented for the accounting period 2011-12:

### Pensions

NERC's pension liability is discussed in greater detail at Note 5 to the Annual Accounts.

### Significant interests

Potentially relevant significant interests of NERC's Council members where they are affiliated to other organisations are presented at Table 2 in the Remuneration Report to the main accounts. No issues regarding conflict with their managerial responsibilities have materialised. NERC's Council Secretariat manages a Register of Interests: [www.nerc.ac.uk/about/work/boards/councils/interests.asp](http://www.nerc.ac.uk/about/work/boards/councils/interests.asp)

### Auditors

NERC's accounts are audited by the Comptroller and Auditor General who has been appointed under statute and is responsible to Parliament. The cost of the audit was £80,000. No remuneration was paid to the external auditors in respect of non-audit work in 2011-12. Internal audit was provided independently by the Research Councils' Internal Audit Service (RCIAS). RCIAS reports annually to the Audit Committee. The cost of internal audits undertaken during 2011-12 was £133,505. No remuneration was paid to the internal auditors in respect of non-audit work during 2011-12. The Accounting Officer has taken all reasonable steps to ensure that he is aware of any relevant audit information and to ensure that the Council's auditors are aware of that information. As far as the Accounting Officer is aware, there is no relevant audit information of which the Council's auditors are unaware.

### Sickness absence

NERC's sickness absence rate was 2.8 per cent (2010-11: 2.5 per cent), equivalent to 7.01 days per full-time employee (2010-11: 5.6 days).



Pink glider courtesy North Atlantic Glider Base/SAMS

**Table 2. NERC outturn and annual accounts reconciliation 2011-12**

	Resource £000	Capital £000	Total £000
Net expenditure <sup>1</sup>	359,291	-	359,291
AME change in provisions <sup>2</sup>	(670)	-	(670)
AME change in holiday accrual	738	-	738
Other BIS funding <sup>3</sup>	(47)	-	(47)
Capital grants	(4,650)	4,650	-
Capital <sup>4</sup>	-	55,938	55,938
Capital Income	500	(500)	-
Profit on disposal of fixed assets <sup>1</sup>	(25)	25	-
Net Profit on NBV and revaluation reserve disposals <sup>5</sup>	-	(3,313)	(3,313)
<b>Outturn</b>	<b>355,137</b>	<b>56,800</b>	<b>411,937</b>
Science budget	362,968	54,200	417,168
Reported Surplus / (Deficit) <sup>6,7</sup>	7,831	(2,600)	5,231

**Notes:**

1. Taken from the statement of net expenditure for the year ended 31 March 2012.
2. Provision utilisation, movements, unwinding of discount and change in discount factor score as AME and are outside the scope of DEL; figures taken from Note 8 Other operating costs (allowance for trade receivables) and Note 14 Provisions.
3. Taken from Note 3 Grant-in-aid and other BIS Funding.
4. Taken from Note 9(a) Property, plant and equipment, Note 9(b) Assets Under the Course of Construction and Note 10 Intangible Fixed Assets - Additions.
5. In accordance with Financial Reporting Manual.
6. Resource surplus of £7,831k comprises of £1,969k near cash deficit and £9,800k non-cash surplus.
7. Capital deficit of £2,600k comprises of £250k capital grants deficit and £2,350k direct capital deficit.

**Public Sector Information**

NERC has complied with the cost allocation and charging requirements set out in HM Treasury and Public Sector Information guidance, but is exempt from the requirements of The Re-use of Public Sector Information Regulations 2005.

**Payment policy**

NERC observes the Confederation of British Industry Code of Practice regarding prompt payment, and in accordance with the Government direction, is committed to paying its suppliers within five days of the receipt of a valid invoice or earlier if suppliers terms dictate. During 2011-12, 69 per cent of payments were made within 5 days (46% 2010-11) and 94 per cent

within 30 days (83% 2010-11). In accordance with the guidance of the Statutory Instrument 1997/571, creditor days for the period are 27 days (2010-11: 28 days).

**Information assurance and security**

The Government's Security Policy Framework and the Data Handling Review require departments to submit an annual report to Cabinet Office. NERC has put in place policies and procedures to minimise the risk of data loss and reports annually on information security, particularly in relation to personal data. The number of personal data loss incidents is recorded and in 2011-12, one incident was reported to the Information Commissioner. For more information, please email: [information.security@nerc.ac.uk](mailto:information.security@nerc.ac.uk).



## Developments during the year

### Delivery Plan Action: Increase focus on strategic research

#### Research Programmes highlight 2011-12

NERC is investing £10.5m in a five-year Shelf Sea Biogeochemistry programme, to reduce uncertainty in our understanding of nutrient and carbon cycling in the shelf seas, and their overall role in global biogeochemical cycles. The shelf seas are highly productive compared to the open ocean, and this productivity underpins more than 90 per cent of global fisheries. The societal importance of the shelf seas extends beyond food production to include issues of biodiversity, carbon cycling and storage, waste disposal, nutrient cycling, recreation and renewable energy resources.

Improved knowledge is not only required by marine policy-makers, but could also markedly increase the quality and cost-effectiveness of the management of activities in the shelf seas at local, national and international level under conditions of climate change.

The programme is co-funded by the Department for Environment, Food and Rural Affairs (Defra) and will contribute toward Living With Environmental Change (LWEC) objectives. More information is available on the programme website [www.nerc.ac.uk/research/programmes/shelfsea/](http://www.nerc.ac.uk/research/programmes/shelfsea/)

#### RCUK programmes

To ensure the research base is well placed to address tomorrow's societal and economic challenges, it is vital that we work in partnership as part of RCUK, to foster cross-disciplinary research and nurture national capability. New approaches are needed to solve many of the big research challenges over the next 10-20 years. To achieve this, NERC either leads or has an interest in four cross-council research programmes: Living With Environmental Change (LWEC), Energy, Global Food Security (GFS) and Global Uncertainties (GU). All the work in these areas is being done in partnership with

other research councils and government bodies, with increasing input from the private sector.

NERC has commissioned two research programmes relevant to the Global Uncertainties programme: Probability, Uncertainty and Risk in the Environment and Increasing Resilience to Natural Hazards. Four NERC research programmes under the Research Councils' Energy Programme umbrella have issued awards: Land Based Renewables, Carbon Capture and Storage, Algal Bioenergy Network and Marine Renewable Energy.

A NERC Food Security Leader was appointed to foster research coordination across NERC and strengthen input to GFS and interaction with GFS partners.

Cross-council programmes have made a considerable impact on policy over the past year. LWEC activities, in particular the UK National Ecosystem Assessment, have informed the Water White Paper and the Natural Environment White Paper (see section on Policy Impacts). NERC activities related to GFS have already made an impact through the 'Ozone Pollution: A Hidden Threat to Food Security' report. The report was prepared by CEH on behalf of Defra, and has been widely distributed within the 50 countries that contribute to the UN Convention on Long-Range Transboundary Air Pollution. Its content is being considered by policy-makers who are revising international pollution control policy within the Convention.

#### International

NERC has continued, with the US National Science Foundation, to lead the Belmont Forum, an initiative that brings together international funding agencies and science councils, aligning their resources to accelerate the production of the knowledge that society needs to manage environmental change in the 21st century.

The Forum has developed two collaborative research actions, in conjunction with the G8 Research Councils Initiative on Multilateral Research Funding, which was

announced at the Planet Under Pressure conference. This €18m initiative, involving 11 countries, will invite research proposals in 2012 to address the two priority themes of Freshwater Security and Coastal Vulnerability. Funding will support researchers to cooperate in consortia including partners from at least three of the participating countries, and must bring together natural scientists, social scientists and research users. To support the Fund's interdisciplinary nature we are collaborating with our sister research council, the Economic and Social Research Council, to fund UK researchers.

NERC held the second annual call of its International Opportunities Fund (IOF), which was run in partnership with FAPESP (the research council for the State of São Paulo, Brazil) through the RCUK-FAPESP Lead Agency Agreement. Six awards were made, with £1.3m in total NERC funding and additional co-funding from FAPESP. Further information can be found at [www.nerc.ac.uk/research/international/iof/facts.asp](http://www.nerc.ac.uk/research/international/iof/facts.asp).

### **Planet Under Pressure: new knowledge towards solutions**

In late March 2012, three months in advance of the UN Earth Summit (Rio+20), all international global-change research programmes of the International Council for Science (ICSU) held a major conference – Planet Under Pressure: new knowledge towards solutions ([www.planetunderpressure2012.net](http://www.planetunderpressure2012.net)) in London ExCeL. The conference focused on global sustainability solutions.

The UK hosts for the conference were NERC, the Royal Society and the Living With Environmental Change partnership. NERC led the local organisation on behalf

of the conference co-hosts, and was particularly active in raising funds for participation from the developing world.

The conference was an important platform in advance of Rio+20 to present the latest research on global change, global sustainability, climate, food security, energy, water, poverty, and many other challenges. The conference brought together around 3,000 delegates from 105 countries, with over 3,000 more taking part virtually through live interactive web streaming. Representatives from science, policy, industry and development came together to discuss the urgent need for societal transformation to address these challenges. The conference published the first 'State of the Planet' declaration on global sustainability, covering the natural, social and economic dimensions. Also at Planet Under Pressure, the International Council for Science (ICSU) launched Future Earth: research for global sustainability, a ten-year international research initiative.

### **Delivery Plan Action: Increase economic impact and societal benefit**

#### ***Impact: Knowledge Exchange programmes and collaborations with the Technology Strategy Board***

#### **Current Knowledge Exchange programmes**

NERC-funded research produces knowledge, expertise and skills that can provide significant benefits for the environment, for the economy and for the general wellbeing of society. Knowledge Exchange (KE) plays an important role in delivering these benefits. In particular, the KE programmes focus on specific areas where NERC's investments have produced considerable scientific strengths that meet key needs.

Two new KE Programmes (KEPs) began in April 2011, intended to build working links between scientists and users of research: Water Security, led by CEH, and Marine Renewable Energy, led by NOC.

- The Water Security KEP is supported by the UK Water Research and Innovation Framework (UKWRIF). As of November 2011, the Water Security Programme brought together over 100 potential users and producers of NERC-funded science outputs, and generated 20 partnerships, all with at least one business involved.





- The Marine Renewable Energy KEP joined the Offshore Renewables Research Steering Group (ORRSG). Members include DECC, Defra, Crown Estates and NERC. This KEP has developed strong relationships with the offshore renewable energy test centres EMEC, Wave Hub and Narec, and has supported the TSB with the development of the Offshore Renewables Catapult Centre and the Collaborative Research and Development (CR&D) call.

### Working with the Technology Strategy Board

NERC is collaborating with the Technology Strategy Board (TSB) in many ways, including the co-sponsorship of Knowledge Transfer Partnerships (KTPs) and the co-development of a number of TSB-led CR&D calls, including the Marine Energy CR&D call (£1m NERC co-funding) and the Water Security CR&D call (£0.5m NERC co-funding), to stimulate the uptake and impact of NERC-funded science through business-led projects.

TSB and NERC staff have worked closely over the year to increase the value of what we do by supporting collaborations and exchanging expertise. NERC commercialisation managers were supported by the Electronics, Sensors and Photonics KTN, to help BAS identify suitable companies to license a bird-tracking technology which is now being successfully sold under licence from BAS.

### Economic impacts, enabling growth

Economic opportunities arise from NERC research, whether these are to create and grow new markets and businesses, improve existing businesses, or help the UK government to improve public services. All this supports UK economic growth. Examples of impacts in these areas include:

- NERC science is providing government with essential evidence on validating the potential of shale gas when applied in new locations, and assessing and mitigating the risks of shale gas extraction and the methodologies used. BGS has estimated the volume of UK onshore shale gas to be as high as 150bn cubic metres – 25 times the volume of conventional gas sources.
- NERC's catastrophe weather modelling is being used by insurance companies to assess and manage risk. Unexpected accumulation of risk may lead to large



*The Wave Hub being deployed.*

*Wave Hub Ltd*

losses which could destabilise the insurance industry. A 5 per cent reduction in average insured losses due to storm damage alone would be worth £62-£130m a year to the UK insurance industry. [www.nerc.ac.uk/using/casestudies/documents/climate-reinsurance-report.pdf](http://www.nerc.ac.uk/using/casestudies/documents/climate-reinsurance-report.pdf)

- A Durham University-led collaboration with the petroleum industry has produced a cascade of impacts from investment in the Clair Field, north-west Scotland, the largest hydrocarbon resource in the UK continental shelf. The new technology developed by the project has resulted in a spin-out company (Geospatial Research Ltd), local job creation and further R&D investment.

### Policy impacts – National Ecosystem Assessment, Natural Environment White Paper

2011 saw NERC scientists contributing to a number of high-profile assessments and policies, illustrating the

value of NERC science and in particular of NERC's impact on policy.

NERC-supported scientists played a key role in the two-year long UK National Ecosystem Assessment (published 2011), which revealed nature is worth billions of pounds to the UK economy. Research funded by NERC and partners in LWEC was critical for understanding that ecosystems provide us with a number of essential services which need careful management, for example, peatland stores, regulating soil erosion, and preserving pollinator sanctuaries.

The Defra Natural Environment White Paper adopts many of the recommendations made by the National Ecosystem Assessment and also draws heavily on the CEH Countryside Surveys. NERC research is enabling the UK to deliver a healthy, sustainable and productive natural environment as shown in the Natural Environment White Paper. More specifically:

- NERC research has been crucial to the success of a new tidal energy technology in Strangford Lough by demonstrating that it is benign, even in this environmentally sensitive location.
- Statistical software developed by NERC scientists has been used to inform the environmental impact assessments for 8 out of 17 offshore wind farms and 50 per cent of UK marine aggregate dredging sites.
- Internationally, NERC scientists have led the co-ordination of the first-ever European Nitrogen Assessment report, culminating in the Edinburgh Declaration on Reactive Nitrogen, which

acknowledges the benefits of reducing reactive nitrogen emissions by improving nitrogen-use efficiency.

### **NERC's response to natural disasters**

NERC has continued to fund research into geologically active areas around the world, to better understand what causes natural disasters such as earthquakes and volcanic eruptions, to improve our ability to predict them, and to help people prepare for and mitigate their worst effects. NERC launched the Natural Hazards Network as part of the Probability, Uncertainty and Risks in the Environment (PURE) programme. PURE aims to develop new ways of assessing and quantifying uncertainty and risk of natural hazards and show how this knowledge can inform people's decisions and behaviour.

Complementing the investment in PURE, the Increasing Resilience to Natural Hazards programme aims to increase economic and social resilience to high-impact events in earthquake-prone and volcanic regions. For all communities, from civil society to scientists and policy-makers, the aim is to increase understanding of vulnerability and risk through interdisciplinary research in order to minimise the impact of future events.

NERC has been active not only in investing in research programmes, but also at the forefront of responding to natural disasters as they happen. NERC scientists used the BAe-146 atmospheric research aircraft to measure the atmosphere around the violent storm that crossed Scotland in December 2011.

The data collected, from probes and specially-designed

Atmospheric sensors on the wing of the BAe-146.



instrument packages that were dropped into the heart of the storm, will help improve weather forecasts by giving scientists an unprecedented insight into what happens in these weather systems' turbulent depths.

Within these storms are small areas of particularly vicious weather that are much harder to forecast, particularly more than a day or so ahead. It's crucial we learn to do this, as much of a storm's potential to cause damage is concentrated in these pockets of severe weather. Accurate predictions of where it will strike will help people living there to be better prepared.

### **Delivery Plan Action: Attract and retain top talent for the UK**

For details of NERC's new approach to postgraduate training please see p37.

### **Delivery Plan Action: Transform delivery of national capability**

#### **Transforming National Capability**

At a time when environmental issues are so prominent, and opportunities and challenges cut across disciplines and sectors, NERC is uniquely placed to bring together science of the atmosphere, land and sea in new ways. During 2011 NERC looked for new approaches to working together across the organisation that will transform delivery of the national capability – major platforms, observing and observing systems, analysis interpretation and modelling, data and information, and adding value. Reviews were initiated to look at ways to improve the management and use of large NERC facilities including ships, aircraft, services and facilities, data and estates. Reports on these are expected in early 2012-13.

NERC will continue to work to ensure that we can deliver more integrated science across NERC's research centres and with partners, as we respond to societal challenges. It will also enable us to focus on priority areas of NERC business that will be determined by the new NERC strategy due to be published in early 2013.

#### **Next generation of supercomputing – High Performance Computing investment**

NERC is continuing to invest in two supercomputing partnerships: HECToR, the RCUK national service, and MONSooN, a supercomputer shared between



NERC and the Met Office for collaborating NERC/ Met Office climate scientists – part of the Joint Weather and Climate Research Programme. Work carried out on both services will continue to inform the Intergovernmental Panel on Climate Change. The upgrade to Phase 3 of HECToR was launched in February 2012, access to which will be essential to maintain the UK's global position in cutting edge environmental science and to address societal challenges. As a result of the governments e-Infrastructure capital funding announced in 2011, we have agreed an enhanced specification (one extra supernode) for MONSooN Phase 2, and are implementing plans for a NERC-wide data storage infrastructure, and contributing to the procurement process for the next RCUK national service, ARCHER, due to be delivered in 2013. High Performance Computing is central to the delivery of NERC's high priority science, particularly in the climate, oceanographic and deep Earth research areas.

### **Large Capital Projects**

#### **RRS Discovery replacement**

Construction of the replacement for 50-year-old RRS *Discovery* is now 65 per cent complete and is progressing to plan and budget.

The contract to design and build the leading-edge, multi-role oceanographic research vessel was awarded in March 2010, and February 2011 saw the first major structure placed on the slipway. The hull of the 100m-long, 18m-wide, 6000 tonnes-displacement, 6.5m-draft vessel was launched at the beginning of April 2012.

Most of the major equipment is now installed on the vessel, with mechanical and electrical outfitting advancing apace. All of the key items have required designing, modelling, building and testing in a number of countries but principally Europe. The new vessel will also be named *Discovery* to recognise the UK's heritage and ambition in the marine sciences. The vessel will enable international quality research and collaboration into Earth-system science over future decades.

At £75m, the vessel represents a major investment in infrastructure. It is funded by NERC and an allocation from the RCUK Large Facilities Capital Fund, which is administered by BIS.

### **Halley VI**

The new Halley VI Antarctic research station is now substantially complete, and will be occupied by the BAS wintering staff from March to November 2012.

The final season for the project will be November 2012 to March 2013, when the auxiliary buildings will be constructed, Halley V will be demolished and the internal finishing works on the station will be completed. Most of the science equipment has been reinstated so monitoring can continue through the Antarctic winter,

and there are plans to develop it further from 2012-13 onwards including through international collaboration. Results from the new station will continue to provide a crucial global perspective on ozone, atmospheric pollution, space weather and climate change. The total cost is expected to be less than £50m.

In addition to the new RRS *Discovery* and Halley VI, NERC will invest a further £16m of capital over the remainder of the Delivery Plan period. This investment will fund part of Earthsense, which will provide an integrated air-sea-land sensing and analysis system, and also the planned mid-life refits of the RRS *James Clark Ross* and the Rothera Antarctic research station.

### **Delivery Plan Action: Shift resources into front-line science**

#### **Progress against the Wakeham Report**

As set out as part of the 2010 spending review settlement, the research councils have begun implementation of an efficiency programme to drive down the costs and overheads associated with research. The efficiency savings derived from this programme are being reinvested in research.

In spring 2011 RCUK published *Efficiency 2011-15: Ensuring Excellence with Impact*, describing how the research councils would implement the recommendations in Sir William Wakeham's report *Financial Sustainability and Efficiency in Full Economic Costing of Research in UK Higher Education Institutions*. The efficiency savings are being applied to both research grants and fellowships, awarded via a competitive route to research organisations and research council institutes. The combined savings target of £30.5m were met for the first year (2011-12). Savings are planned to rise over the four year Spending Review period to reach a total of £428 million over the full period. These targets were presented by the RCUK Efficiency and Reform Group and published. The report can be found at [www.rcuk.ac.uk/documents/documents/EfficiencyEnsuringExcellencewithImpact.pdf](http://www.rcuk.ac.uk/documents/documents/EfficiencyEnsuringExcellencewithImpact.pdf).

#### **NERC Demand Management**

The NERC Delivery Plan 2011-2015 includes a target to reduce demand and manage success rates for responsive mode research grants. Following wide consultation with the NERC community, in July 2011 NERC Council approved the introduction of demand-management

*The new Halley VI Antarctic research station.*



measures for responsive mode proposals submitted from 1 April 2012. The measures will be applied to applications submitted to Urgency, Large and Standard grants (including those led by new investigators). The measures will not apply to the NERC Fellowship schemes or outline proposals.

The aim of introducing these measures is to improve success rates, which have fallen below 20 per cent, and to increase efficiency of both the application and assessment process. A reduction in the number of uncompetitive proposals submitted will be the main focus of demand management.

NERC intends to manage demand by working in partnership with research organisations, asking them to self-regulate their submissions and concentrate effort on competitive proposals. All research organisations will be encouraged to put their own internal quality-control systems in place, although decisions as to how demand management is implemented locally will be for individual institutions to decide.

[www.nerc.ac.uk/research/responsive/demand.asp](http://www.nerc.ac.uk/research/responsive/demand.asp)

### Communications

This year, based on the results of a reader survey, *Planet Earth* magazine has been brought back into print and will be distributed four times a year to c.11,000 UK readers. Costs have been minimised by removing subscribers who prefer digital access and by restricting subscriptions to UK only. The e-magazine is an effective way of bringing multi-media resources to our digital and overseas audiences.

NERC this year refreshed Planet Earth Online (PEO) to modernise the look of the site and make it easier for visitors to find and share stories. A redesigned blog section allows us to cover and link to an even wider range of material and maximise the impact of NERC news by linking more closely to news and announcements from our Centres. Growth in our social media audience remains steady, with Facebook fans now around 2000 and Twitter followers over 3000.

Our collaboration with *The Naked Scientists* BBC radio programme and website [www.nakedscientists.com](http://www.nakedscientists.com) continues to attract around 200,000 extra listeners to the Planet Earth Podcast (PEP). Our listeners and an international jury this year voted us UK runner-up in the European Podcast Awards, non-profit section.



The website and podcasts complement press releases and other media interactions to bring NERC science to a wide range of audiences, including directly to the public. Wider media that have picked up NERC stories this year include the *Daily Mail*, *Sunday Telegraph*, *Guardian* and Radio 4, BBC1 and Channel 4.

We have run an extra two 'Engaging the Public with Your Research' courses for scientists this year to meet ongoing high demand. We also launched a new funding scheme to help attending scientists apply their newly acquired skills. In many cases these resources will be made available for other people to use.

NERC-supported public engagement this year has involved schools, community groups, and the wider public through websites, debates, festivals and exhibitions. Just a few examples include: a film about the hidden world of ocean plankton narrated by Sir David Attenborough, showcased at two exhibitions; sponsorship of Geobus to engage secondary-school pupils with Earth sciences; a series of radio clips about the oceans for primary-school children; development of a mobile phone app for the public to report damage to horse chestnut trees by an invasive moth species; and a Royal Society Summer Science exhibit explaining the concept of uncertainty and helping people use their knowledge to interpret climate predictions.

## Forward look

### Appointment of new Chief Executive

Professor Duncan Wingham took up the post of NERC Chief Executive on 1 January 2012. His appointment is for four years. Professor Wingham has been linked closely to NERC for many years. He was founder and director of the NERC Centre for Polar Observation and Modelling (CPOM) from 2000 to 2005, which among other things discovered the widespread mass loss from the West Antarctic Ice Sheet and its role in accelerated ocean melting. He was the previous chairman of NERC's Science and Innovation Strategy Board and, since 2000, lead investigator of the European Space Agency's CryoSat and CryoSat-2 satellite missions.



*Professor Duncan Wingham.*

### Strategy

During 2012, NERC will update its strategy to reflect the changing context of environmental science. It will focus on the excellent, long-term environmental science, technology and skills needed to meet society's needs and to support economic growth. NERC research priorities will address three of the most pressing societal challenges: resource security and supply; environmental hazards; and environmental change. The strategy will emphasise how NERC will work in partnership to address these issues. Stakeholders will be engaged during the process to establish priorities whilst ensuring the strategy is flexible to accommodate the inevitable changes in priorities over the next five years.

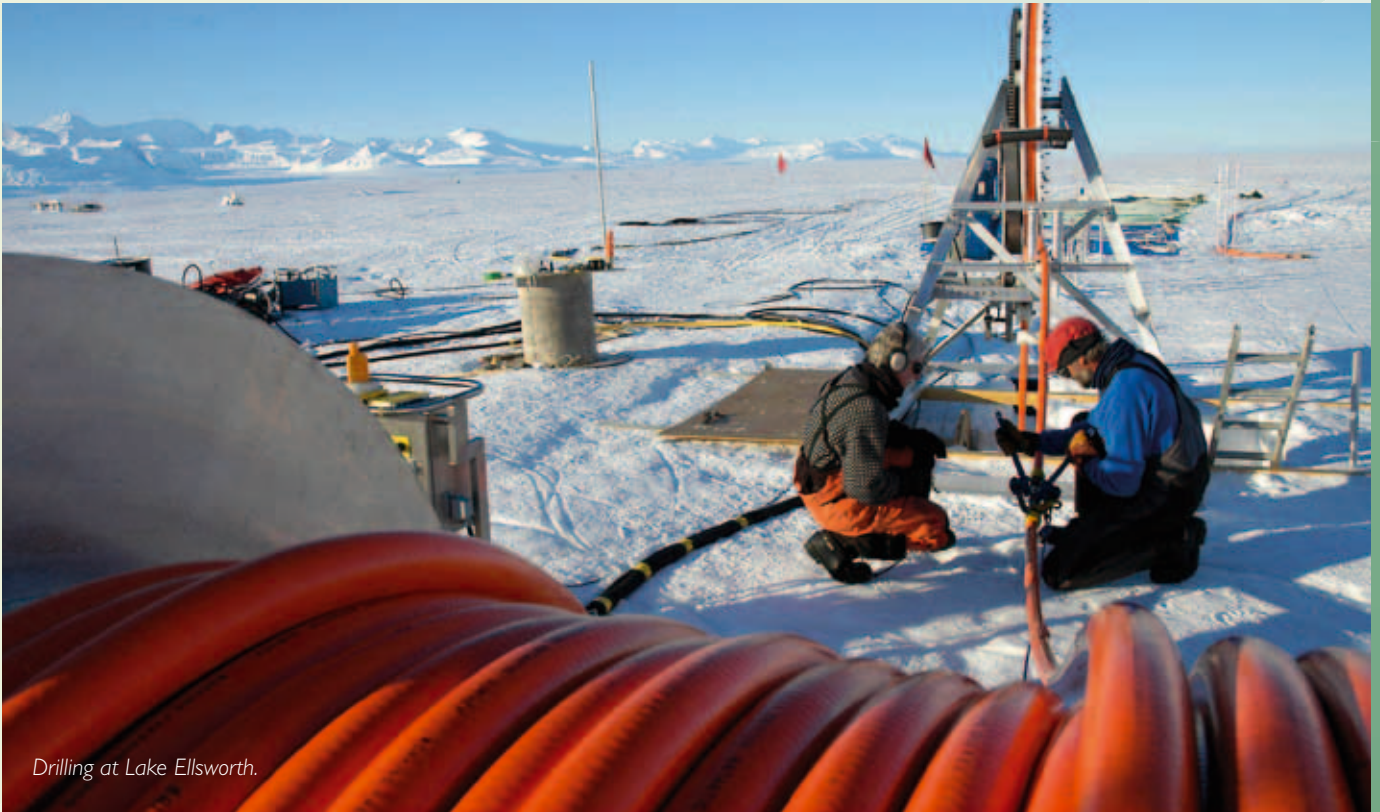
### Lake Ellsworth

In October 2011 a British engineering team visited Antarctica for the first stage of an ambitious scientific mission to collect water and sediment samples from a lake buried beneath 3km of solid ice. This extraordinary research project, at the frontier of exploration, will yield new knowledge about the evolution of life on Earth and other planets, and will provide vital clues about the Earth's past climate.

In October 2012 a team of ten scientists and engineers will use state-of-the-art hot-water drilling technology to make a 3km borehole through the ice. They will then lower a titanium probe to measure and sample the water, followed by a corer to extract sediment from the lake. Lake Ellsworth is likely to be the first of Antarctica's 387 known subglacial lakes to be measured and sampled directly through the design and manufacture of space-industry standard 'clean technology'.

For years, scientists have speculated that new and unique forms of microbial life could have evolved in this cold, pitch black and isolated environment. Sediments on the lake bed are likely to reveal vital clues about the history of life in the lake and the ancient history of the West Antarctic Ice Sheet, including past collapse.

The project has both engineering and technology at the forefront. Scientists and engineers from NERC's research centres BAS and NOC, working in partnership with scientists from eight UK universities, make up the consortium that will search for life in this extreme environment and discover the secrets locked in the sediments.



*Drilling at Lake Ellsworth.*

### **Cross-council harmonisation activities**

NERC is committed to joining the Research Outcomes System (ROS) in partnership with ESRC, EPSRC, BBSRC and AHRC. A single system offers benefits through:

- simpler reporting for universities and other institutions and
- process and system improvements, leading to more accurate data and better evidence on impacts.

From 2013, it is anticipated NERC research grants and centres will use ROS to report on their performance, including knowledge exchange undertaken, research publications produced, scientific breakthroughs and impacts achieved. This information will inform NERC strategic and operational management and demonstrate the benefit of NERC science to government, tax-payers and other stakeholders.

### **New approach to postgraduate training**

During 2011 NERC reviewed the ways in which it supports postgraduate training. The review has led to a number of changes which NERC will be introducing over the next two years. These include: the introduction of success criteria to help ensure training delivers strategic

needs; an increase in the length of studentships; the introduction of a training advisory group; studentship competitions that link training to specific priorities including skills gaps; and the introduction of mechanisms to allocate studentships in a way that will drive collaboration and innovation while strengthening and assuring NERC of the quality of training for the student.

One of the first changes will be to replace the current algorithm allocation approach (whereby studentship allocations are simply scaled to NERC research funding) with allocation through Doctoral Training Partnerships: a smaller number of larger, longer-term grants competitively awarded – multidisciplinary doctoral clusters of excellence. The competition will encourage partnerships between research organisations so that training best meets the success criteria.

**Professor Duncan Wingham**  
 Chief Executive and Accounting Officer  
 21 June 2012

# Accounts 2011-12



# Remuneration report

## Remuneration Policy

The Remuneration Committee is responsible for agreeing the pay and allowances of senior managers, i.e. directors (except for the Chief Executive, see below). The Committee members (as constituted at their last meeting) are listed below:

Mr E Wallis, Chairman NERC

Mr P Hazell, Council Member (Stood down 31 July 2011)

Professor A Halliday, Council Member (Stood down 31 July 2011)

Professor A Thorpe, Chief Executive (Stood down 30 June 2011)

Mrs J Timberlake, Director, People Skills and Communication who attends in an Advisory capacity only. (Stood down 31 October 2011).

The Remuneration Committee works in accordance with its policy on senior staff pay, which is designed to reward senior staff on the basis of individual skills, experience and performance set against the market median for their role. A market-related pay point is determined by survey evidence obtained from relevant comparator organisations in the public, higher education and voluntary sectors and is updated annually.

In accordance with NERC's appraisal system, performance is assessed against pre-set objectives for individual roles with input in the assessment process from individual reviewees, reviewers and the Chief Executive.

From 1 April 2006 all pay movement for senior employees is performance related. Prior to that date only the non-consolidated element of senior pay was performance related.

It should be noted that no senior managers are on a service contract. No awards have been made to senior staff this year.

More information about the remuneration committee can be found at the following website [www.nerc.ac.uk/about/work/boards/intro/#remuneration](http://www.nerc.ac.uk/about/work/boards/intro/#remuneration)

## Employment Contracts

NERC staff are not civil servants but the organisation makes its appointments in accordance with the broad principles set out in the Civil Service Commissioners' Recruitment Code, which requires appointments 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 officers covered by this report, apart from the Chief Executive, hold appointments that are open-ended. All staff may retire after age 50 and draw their pensions on an actuarially reduced basis. Staff appointed before October 2006 may draw full pensions from age 60. Staff who leave during a formal redundancy exercise will be eligible for compensation terms, as defined under the rules of the Research Council's Superannuation Scheme. These payments are in line with those due under the Civil Service Compensation Scheme.

The notice period for all senior employees is three months.

## Remuneration of the Chief Executive

Professor Thorpe started his tenure on 1 April 2005. His initial contract was for a period of four years. In April 2009 it was extended for a further four years; however he stood down as Chief Executive effective 30 June 2011. Dr Steven Wilson acted as Interim Chief Executive from 1 July 2011 until 31 December 2011. From 1 January 2012, a new Chief Executive was appointed, Professor Duncan Wingham. His initial contract is for four years from 1 January 2012. Both the appointment terms and remuneration package are determined by the Department for Business, Innovation & Skills (BIS).

Professor Thorpe's emoluments, including both taxable and non-taxable benefits, were £60,934 (2011: £166,675). This included:

- From 1 April 2011 a basic salary of £121,562 pro-rated as £30,391 (2010-11: £121,562) and a market supplement of £20,000 (2010-11: £20,000) pro-rated as £5,000.
- From 1 October 2009 a non-consolidated allowance of £20,300 p.a. for the RCUK Executive Group Chair (2010-11: £20,300) pro-rated as £5,075.
- 2010-11 performance pay non-consolidated awards:
  - Annual performance bonus of £3,000 (2010-11: £4,813)
  - RCUK performance bonus of £3,750 (2010-11: Nil)
  - Appointment term bonus of £6,000 (2010-11: Nil)
- 2011-12 performance pay non-consolidated awards:
  - Annual performance bonus of £750 pro-rata
  - RCUK performance bonus of £938 pro-rata
  - Appointment term bonus of £1,500 pro-rata
- Appointment term bonus reserve balance relating to 2009-10 of £4,530 (2010-11: Nil)

A charge of £9,202 (2010-11: £36,806) was also incurred in respect of employer's pension contributions. This was assessed as 26% of basic salary (2010-11: 26%). The Cash Equivalent Transfer Value for Professor Thorpe at the 31 March 2012 was £1,468,106. The real increase in the cash equivalent transfer value for the period was £25,823. Professor Thorpe is an ordinary member of the Research Councils' Pension Scheme.

Dr Wilson's emoluments as Interim Chief Executive, including both taxable and non-taxable benefits, were £46,463 entirely relating to a basic salary of £92,926 per annum pro-rata.

A charge of £12,080 was also incurred in respect of employer's pension contributions. This was assessed as 26% of basic salary.

Professor Wingham's emoluments, including both taxable and non-taxable benefits, were £32,500 entirely relating to a basic salary of £130,000 per annum pro-rata.

A charge of £8,450 was also incurred in respect of employer's pension contributions. This was assessed as 26% of basic salary. Pension data is not available due to his short time in post. Professor Wingham is an ordinary member of the Research Councils' Pension Scheme.

## Audited Information

### Remuneration of senior employees

Other members of the council's senior management team received emoluments during the year, including taxable benefits as right; these individuals are all ordinary members of the Research Councils' Pension Scheme.

### Total emoluments

Total emoluments include gross salaries and performance related bonuses. From 1 April 2004 basic pay rates for senior staff incorporate all existing allowances including a supervisory and responsibility allowance and any contribution awards.

### Pension benefits

All senior employees are ordinary members of the Research Councils' Pension Scheme (RCPS) which is a defined benefit scheme funded from annual grant-in-aid on a pay-as-you-go basis.

Further details about the RCPS can be found in Note 5(d) of the Annual Accounts.

**Table 1: Remuneration of senior employees (2011-12)**

Name	Note Ref	Pay 2011-12	Bonus 2011-12	Total emoluments 2011-12	Pay 2010-11	Bonus 2010-11	Total emoluments 2010-11	Pension increase in real terms	Accrued pension at 31/03/12	Lump sum at 31/03/12	Cash equivalent transfer value as at 01/04/11	Cash equivalent transfer value as at 31/03/12	Cash equiv. transfer value increase in real terms
		£000		£000	£000		£000	£000	£000	£000	£000	£000	£000
Professor A Thorpe	2	40 - 45	20 - 25	45 - 50	160 - 165	0 - 5	165 - 170	0 - 2.5	75 - 80	-	1,424	1,468	26
Professor D Wingham	3	30 - 35	0 - 5	30 - 35	-	-	-	-	-	-	-	-	-
Professor A E Hill	4	95 - 100	5 - 10	105 - 110	95 - 100	5 - 10	100 - 105	0 - 2.5	35 - 40	118	664	719	-8
Professor J Ludden		95 - 100	5 - 10	100 - 105	95 - 100	5 - 10	100 - 105	0 - 2.5	10 - 15	-	151	192	25
Professor P Nuttall	5	95 - 100	5 - 10	100 - 105	95 - 100	5 - 10	100 - 105	-2.5 - 0	50 - 55	152	1,044	1,128	-11
Professor M Bailey	6	85 - 90	5 - 10	95 - 100	-	-	-	0 - 5	30 - 35	103	588	688	50
Professor N Owens	7	90 - 95	5 - 10	95 - 100	90 - 95	5 - 10	95 - 100	-2.5 - 0	40 - 45	126	865	916	-23
Mr D Bloomer	8	-	-	-	45 - 50	0 - 5	50 - 55	-	-	-	-	-	-
Mr B Butler	9	-	-	-	15 - 20	-	15 - 20	-	-	-	-	-	-
Mr P Fox	10	95 - 100	0 - 5	95 - 100	35 - 40	0 - 5	40 - 45	5 - 7.5	0 - 5	-	7	46	6
Dr P Newton		75 - 80	0 - 5	75 - 80	75 - 80	0 - 5	75 - 80	0 - 2.5	15 - 20	-	212	239	7
Mrs J Timberlake	11	40 - 45	0 - 5	40 - 45	65 - 70	0 - 5	70 - 75	0 - 2.5	10 - 15	-	104	134	24
Mr J Bates	12	25 - 30	0 - 5	30 - 35	-	-	-	0 - 2.5	30 - 35	91	602	665	31
Dr P Heads	13	50 - 55	0 - 5	55 - 60	-	-	-	0 - 2.5	25 - 30	52	434	491	25
Dr S Wilson	14	85 - 90	0 - 5	90 - 95	80 - 85	0 - 5	85 - 90	0 - 2.5	20 - 25	63	257	286	-5
Band of Highest Paid Director's Total Remuneration	15			130 - 135									
Median Total Remuneration	16			31,979									
Median Total Remuneration Ratio				4.1									

Notes:

1. Pay figures includes salary, overtime, allowances and awards. With the exception of Prof Thorpe, bonus figures shown are actual bonuses paid out for 10-11; Prof Thorpe's early departure allowed his 11-12 bonus to be assessed alongside his 10-11 bonus, accordingly his figures are the amounts paid out during the year in respect of each bonus. Where multiple people have held the same post during the year, the estimated bonus is apportioned according to time in post. Accrued pension figures for 11-12 now include pensions accrued prior to appointment at NERC and transferred into RCPS scheme along with additional pension years purchased, accordingly they are not comparable with previous years figures which were solely based on current salary and NERC service to date.
2. Professor Thorpe stood down as Chief Executive effective 30 June 2011. His total emoluments include an allowance of £5,075 for taking the role of RCUK Executive Group Chair from 1 October 2009.
3. Professor Wingham took up the post of Chief Executive on 1 January 2012. Pensions data is not available for him due to his short time in post.
4. Professor Hill added the post of Interim Director, British Antarctic Survey (BAS) to his existing position of Director, National Oceanography Centre (NOC) effective 20 February 2012.
5. Professor Nuttall temporarily stood down as Director, Centre for Ecology & Hydrology (CEH) to take up the post of Director, National Capability Intergration effective 1 March 2011, this is intended to be a two year posting.
6. Professor Bailey took up the post of Acting Director, Centre for Ecology & Hydrology effective 1 March 2011, this is intended to be a 2 year posting.
7. Professor Owens temporarily stood down as Director, British Antarctic Survey (BAS) effective 6 February 2012 and will finish as a NERC employee on 30 June 2012.
8. Mr Bloomer stood down as Director of Finance and Operations effective 12 September 2010.
9. Mr Butler was Interim Director of Finance and Operations from 13 September to 30 November 2010 (During November he was handing over the role to Mr Fox).
10. Mr Fox took up the post of Director of Finance and Operations on 1 November 2010.
11. Mrs Timberlake stood down as Director, People & Skills effective 31 October 2011. She worked as a 0.8 full time equivalent from 1 April 2008.
12. Mr Bates took up the post of Interim Director, People & Skills effective 1 November 2011.
13. Dr Heads took up the post of Interim Director, Strategy and Partnerships effective 1 July 2011.
14. Dr Wilson stood down as Director, Strategy and Partnership effective 30 June 2011 to take up the post of Interim Chief Executive from 1 July to 31 December 2011. Following his decision to leave NERC at the end of March 2012 he took up the post of Director, Advisor to the Chief Executive effective 9 January 2012.
15. This is the per annum salary of Prof Wingham plus the estimated bonus he would have received if in post for the whole year.
16. Remuneration is the total remuneration per employee for March converted to an annual figure and adjusted for FTE.

### **Cash Equivalent Transfer Value (CETV)**

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 or partner's pension payable from the scheme. A CETV is a payment made by a pension scheme when the member leaves a scheme and chooses to transfer the benefits accrued in the 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 CETV figures include the value of any pension benefit in another scheme which the individual has transferred to the Research Councils' pension arrangement and for which the RCPS has received a transfer payment commensurate with the additional pension liabilities being taken on. They also include any additional pension benefit accrued to the member as a result of their purchasing additional years and additional pension at their own cost.

### **Real increase in the value of the CETV**

The real increase in the value of the CETV reflects the increase effectively funded by the employer. It takes account of the increase in accrued pension due to inflation, contributions paid by the employee (including the value of any benefits transferred from another pension scheme) and uses common market valuation factors for the start and end of the period. The actuarial factors used in the calculation of the CETV rate changed during 2011. The new factors mean that the CETV figures shown for 31 March 2011 will not correspond to the figures shown in the remuneration report in the 2010-11 published accounts.

### **Remuneration of Council Members**

Members of Council receive an Honorarium of £6,850 per annum to cover all work for the Council including membership of Council's Boards, Professor Curran receives an additional £2,260 for being Chair of the NERC Council Audit Committee. The Chairman of Council, Mr Wallis, receives a salary of £16,430 per annum. These rates are effective from 1 October 2009 and are formulated by the Department for Business, Innovation and Skills.

Council members are normally employed on fixed term contracts not exceeding 4 years.

Honoraria are not payable to members who are:

- Civil Servants
- Employees of NERC
- Full time employees of organisations whose funds are derived from Votes of Parliament (eg Government Departments, UK Atomic Energy Authority, British Broadcasting Corporation and other Research Councils)

Members of Council may not receive fees in addition to honoraria. University academic staff and retired Civil Servants are eligible to receive honoraria or fees.

**Professor Duncan Wingham**  
Chief Executive and Accounting Officer  
21 June 2012

**Table 2: Membership of the NERC Council (2011-12)<sup>2</sup>**

Name	Affiliation	Period of Appointment	Total Emoluments £'000		Notes
			2011-12	2010-11	
Mr E Wallis	Chairman	01 Jan 2007 - 01 Jan 2014	15 - 20	15 - 20	
Professor A Thorpe	Chief Executive and Deputy Chairman	01 Apr 2005 - 30 June 2011	0	0	1
Dr S Wilson	Interim Chief Executive and Deputy Chairman	01 Jul 2011 - 31 Dec 2011	0	0	1
Professor D Wingham	Chief Executive and Deputy Chairman	01 Jan 2012 - 31 Dec 2015	0	0	1
Professor P Curran	Vice Chancellor and Professor of Physical Geography, City University London and Chair of the NERC Council Audit Committee	01 Aug 2006 - 31 Dec 2013	5 - 10	5 - 10	
Professor H Davies	Institute of Atmospheric & Climate Science, ETH Zürich	01 Aug 2005 - 31 July 2011	0 - 5	5 - 10	
Mr R Douglas	Managing Director, Willis analytics for Willis Re	01 Aug 2008 - 31 July 2015	5 - 10	5 - 10	
Professor A Fitter	Department of Biology, University of York	01 Aug 2005 - 31 July 2011	0 - 5	5 - 10	
Professor A Glover	Chief Scientific Advisor for Scotland	01 Aug 2004 - 31 Dec 2011	0	0	1
Professor C Godfray	Professor of Zoology, University of Oxford	01 Aug 2008 - 31 July 2015	5 - 10	5 - 10	
Professor A Halliday	Department of Earth Sciences, University of Oxford	22 Nov 2004 - 31 July 2011	0 - 5	5 - 10	
Mr P Hazell	Chairman of the Argent Group, Non-executive Director of UK Coal Plc, BRIT Insurance Holdings Plc, and Smith & Williamson, Member of the Competition Commission and Chair of NERC Council Audit Committee	22 Nov 2004 - 31 July 2011	0 - 5	5 - 10	
Professor M Lockwood	Professor of Space Environment Physics in the Department of Meteorology, University of Reading. Individual merit scientist with Rutherford Appleton Laboratory's Space Science & Technology Department.	01 Mar 2010 - 31 July 2013	5 - 10	5 - 10	
Professor G Mace	Professor in Conservation Science at the Centre for Population Biology, Imperial College	01 Aug 2011 - 31 July 2015	0 - 5	-	
Professor T Meagher	Professor and Chair of Plant Biology at the University of St Andrews	31 Aug 2007 - 31 Dec 2013	5 - 10	5 - 10	
Professor P Monks	Professor of Atmospheric Chemistry, University of Leicester	01 Aug 2011 - 31 July 2015	0 - 5	-	
Professor J Slingo OBE	Chief Scientist, Met Office	01 May 2009 - 30 April 2013	0	0	1
Professor A Watson	Professor at the School of Environmental Sciences, University of East Anglia	01 Aug 2008 - 31 July 2015	5 - 10	5 - 10	
Professor R Watson	Chief Scientific Advisor to DEFRA	01 Dec 2007 - 31 June 2012	0	0	1
Lord Willis of Knaresborough	Member of the House of Lords Science & Technology Committee	01 Aug 2011 - 31 July 2015	0 - 5	-	
Ms R Willis	Independent consultant in environmental policy and practice	01 Aug 2011 - 31 July 2015	0 - 5	-	
Professor M Wilson	Professor at the Institute of Geophysics, School of Earth and Environment, Pro-Dean for Research in the Faculty of Environment, University of Leeds	01 Mar 2010 - 31 July 2013	5 - 10	5 - 10	

Notes:

1. Honoraria are not payable to members who are civil servants, employees of NERC or full time employees of organisations whose funds are derived from Votes of Parliament.
2. Paul Williams attends Council as a BIS observer and is not remunerated for his services.

# Statement of Account for the Financial Year 2011-12

## STATEMENT OF CHIEF EXECUTIVE'S RESPONSIBILITIES WITH RESPECT TO THE FINANCIAL STATEMENTS

Under Paragraph 3 of Schedule 1 to the Science and Technology Act 1965, the Secretary of State for the Department for Business, Innovation and Skills has directed the Council to prepare for each financial year a statement of accounts in the form and on the basis set out in the Accounts Direction. The accounts are prepared on an accruals basis and must give a true and fair view of the state of affairs of the Natural Environment Research Council and of its comprehensive net expenditure, recognised gains and losses and cash flows for the financial year.

In preparing the accounts the Chief Executive as 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 the Department for Business, Innovation and Skills, 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* ([www.hm-treasury.gov.uk/frem\\_index.htm](http://www.hm-treasury.gov.uk/frem_index.htm)) have been followed, and disclose and explain any material departures in the financial statements; and
- prepare the financial statements on the going concern basis.

The Department for Business, Innovation and Skills has appointed the Chief Executive as Accounting Officer of the Natural Environment Research Council. The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, for keeping of proper records and for safeguarding the Natural Environment Research Council's assets, are set out in the Non-Departmental Public Bodies' Accounting Officers' Memorandum, issued by HM Treasury and published in 'Managing Public Money' (The Stationery Office).

## Governance statement

### Scope of Responsibility

As Accounting Officer, I have responsibility for maintaining a sound system of internal control that supports the achievement of NERC's policies, aims and objectives, as approved by Council, whilst safeguarding the public funds and NERC assets for which I am personally responsible. This is in accordance with the responsibilities assigned to me in 'Managing Public Money'.

### The purpose of the Governance Statement

The Governance statement, for which I take personal responsibility, gives a clear understanding of the dynamics of NERC and its control structure. It records the stewardship of NERC, providing a sense of NERC's performance during the year and how successfully it has coped with the challenges it has faced. The statement explains how NERC has complied with the principles of Good Governance and reviews the effectiveness of these arrangements.

### Governance Structure

The NERC Council is the senior decision making body and includes members from NERC's academic and user communities. Membership is reviewed annually, appointments are advertised nationally and members are ultimately appointed by the Secretary of State for Business, Innovation and Skills. Details of Council membership can be found at [www.nerc.ac.uk/about/work/boards/council/members.asp](http://www.nerc.ac.uk/about/work/boards/council/members.asp)

The role of NERC Council is to decide on all issues of major importance, principally those concerning corporate strategy, key strategic objectives and targets, major decisions involving the use of resources, and personnel issues including key appointments. Responsibility for carrying out key strategy and responsibilities associated with the day to day management of NERC is delegated to the Chief Executive.

The powers, roles, responsibilities and membership of Council are defined in its Royal Charter. The nature of its relationship with its sponsor department, the Department for Business, Innovation and Skills (BIS), is defined in the Management Statement and Financial Memorandum agreed with DIUS (a predecessor department of BIS) in 2005. These documents are available on the NERC website at [www.nerc.ac.uk/about/work/boards/intro/](http://www.nerc.ac.uk/about/work/boards/intro/)

Council has established three bodies to support it in discharging its responsibilities:

- i. Audit Committee;
- ii. Science & Innovation Strategy Board (SISB); and
- iii. NERC Investment Committee (NIC).

The responsibilities of the Chief Executive, who is also the Accounting Officer of the Council, are set out in the Management Statement and Financial Memorandum. I may delegate the administration of these responsibilities to NERC's employees but may not assign any of the responsibilities absolutely to any other person. I have

Name	Position held	Appointment from/to	Attendance record
Mr Ed Wallis	Chairman	01.01.07 – 01.01.14	5/5
Prof Alan Thorpe	CE NERC	01.04.05 – 30.06.11	1/5
Dr Steven Wilson	Interim CE NERC	01.07.11 – 31.12.11	3/5
Prof Duncan Wingham	CE NERC	01.01.12 – 31.12.15	1/5
Prof Paul Curran	Member	01.08.06 – 31.12.13	3/5
Mr Rowan Douglas	Member	01.08.08 – 31.07.15	4/5
Prof Charles Godfray	Member	01.08.08 – 31.07.15	5/5
Prof Mike Lockwood	Member	01.03.07 - 31.07.13	3/5
Prof Georgina Mace	Member	01.08.11 – 31.07.15	2/5
Prof Thomas Meagher	Member	01.08.07 – 31.12.13	5/5
Prof Paul Monks	Member	01.08.11 – 31.12.15	3/5
Prof Julia Slingo	Member	01.05.09 – 30.04.13	4/5
Prof Andrew Watson	Member	01.08.08 – 31.07.15	5/5
Prof Robert Watson	Member	01.12.07 – 30.06.12	3/5
Prof Marjorie Wilson	Member	01.03.07 – 31.07.13	4/5
Lord Willis of Knaresborough	Member	01.08.11 – 31.07.15	3/5
Ms Rebecca Willis	Member	01.08.11 – 31.07.15	3/5
Prof Alex Halliday	Member	22.11.04 – 31.07.11	1/5
Mr Peter Hazell	Member	22.11.04 – 31.07.11	2/5
Prof Anne Glover	Member	01.08.04 – 31.12.11	4/5
Prof Alistair Fitter	Member	01.08.05 – 31.07.11	2/5
Prof Huw Davies	Member	01.08.05 – 31.07.11	1/5

established the NERC Executive Board (NEB) as an advisory panel; to support me in discharging these responsibilities.

### **Council and Audit Committee: Attendance & Highlights Report for 2011-12**

Council met five times during 2011-12. The membership/attendance record is as follows:

The main topics of discussion during 2011, in addition to the standing items, were as follows:

- NERC Integration Programme (NIP)

NIP is a programme set up by NERC in response to actions outlined in the NERC Delivery Plan 2011-2015. The programme aims to transform the delivery of National Capability and to integrate and reduce the cost of administration. Council advised on the set up of the programme during its initial phases. At subsequent meetings, Council received regular updates on progress. This programme was discussed at each meeting during 2011 and was first brought to Council in March 2011.

- Reducing the Administrative Cost of Board Business

In September 2011, Council considered how it could continue to make savings on the costs of its meetings. Council made significant savings during 2010/11 by reducing the length of meetings and thus the number of overnight stays. This item provided Council with the opportunity to discuss how to get the most out of its meetings and how its time could be used more effectively.

- Recommendations from the NERC Science & Innovation Strategy Board (SISB)

Council is supported by the Science & Innovation Strategy Board (SISB). SISB is the key source of advice to Council on science and innovation matters. Council receives a report of each SISB meeting and during 2011-12, Council considered recommendations from SISB on the following matters:

- Grant proposal demand management and research concentration
- 2011 Theme Action Plans
- Evaluation of NERC's Responsive Mode
- Planning and commissioning strategy research programmes
- NERC postgraduate training allocation and delivery mechanism review

The Audit Committee (AC) is a subcommittee of Council and reports throughout the year on its activity to Council through access to its minutes and orally by the Chairman of the AC who is a member of Council. The AC met five times during the course of 2011 with full meetings in January, April, June and October and at its annual members' meeting in December 2011. The membership/attendance record is as follows:

### **Audit Committee membership and attendance record**

Name	Position held	Appointment from/to	Attendance record
Mr Peter Hazel	Chairman	22.11.04 – 31.07.11	2/5
Prof Paul Curran	Chairman	01.08.11 – 31.07.13	3/5
Mr Rowan Douglas	Member	01.08.11 – 31.07.15	1/5
Mr David Hyde	Member	01.09.08 – 31.08.13	5/5
Mr Bryan Thompson	Member	01.09.09 – 31.08.14	5/5

The key items of discussion this year have been:

- The NERC Annual Report and Statutory Accounts 2010-11

AC carried out a full review of the NERC financial statements to ensure they reflected best practice and was informed in this task by the National Audit Office reporting on its audit and matters arising.



- The RCUK Shared Services Centre Ltd

AC noted the plan for BIS and its partners to use SSC Ltd to deliver its core administrative functions. The AC recommended that stabilisation of the SSC would be essential before it could take on new customers.

The Audit Committee is an advisory body with no executive powers. However, it is authorised by Council to investigate any activity within its terms of reference, which include the review of NERC's internal and external financial statements/reports and to review NERC's internal control systems in matters such as risk, security, health and safety.

### **Remuneration Committee**

Under the remit of Council's Remuneration Committee, the Senior Staff Salaries Review Committee (SSSRC) determines base pay movement and annual performance bonuses for NERC's staff at Band 1 and 2 levels. This category of staff includes all Directors and NEB level appointments.

The Committee, chaired by the Chairman of Council includes two Council members and the Chief Executive with the Director of People and Skills as an adviser. It normally meets twice a year in the margins of the June and September Council meetings.

### **Corporate Governance Code**

Council and the Audit Committee intend to benchmark themselves against the Corporate Governance Code during 2012-13.

### **Risk and Internal Control Framework**

#### **The purpose of the system of internal control**

The system of internal control is designed to manage risk to a reasonable level rather than to eliminate all risk of failure to achieve policies, aims and objectives; and can therefore only provide reasonable but not absolute assurance of effectiveness. The system of internal control is based on an on-going process designed to identify and prioritise the risks to the achievement of organisational policies, aims and objectives, to evaluate the likelihood of those risks being realised, the impact should they occur, and to manage them efficiently, effectively and economically. The system of internal control has been in place in NERC for the year ended 31 March 2012 and up to the date of approval of the annual report and accounts, and accords with HM Treasury guidance.

#### **Capacity to handle risk**

Overall responsibility for risk management in NERC lies with the Chief Executive, who as the NERC Accounting Officer signs this annual Governance Statement as part of the audited Annual Accounts. Currently the task of implementing and maintaining the risk management policy and strategy is delegated to NERC's Director of Finance and Operations, who fulfils the role of Director Responsible for Risk. The Director Responsible for Risk's responsibilities include overseeing the activities of the Risk Management Network and reporting on risk management to NEB. NERC Directors have a responsibility to ensure the effective application of NERC's risk management strategy and policy. These arrangements ensure risk management is an integral part of NERC's management style and is tied to core activities reflected in the NERC Strategic Management Tool and BIS scorecard.

NEB is the owner of the NERC Risk Management Strategy and is responsible for reporting issues relating to risks and their management to Council, and for receiving assurance from NERC staff that risks are managed appropriately and passing this assurance to Council.

In executing these responsibilities the role of NEB can be characterised as follows:

- Monitor:
  - i. overseeing the process
  - ii. noting business critical risks
  - iii. noting mitigation strategies
  - iv. reviewing audit output
  - v. annual review of risk and the risk management systems in place;

- Decide:
  - i. setting and communicating the NERC level risk appetite
- Direct:
  - i. setting delegated authority levels
  - ii. solving risk management dilemmas (when asked to do so)

NEB will review specific, high risk, matters at each meeting together with issues relating to any risks that are referred upwards by Research Centre Directors and others via agreed escalation procedures.

NEB encourages sound and properly managed risk taking. It recognises that effective risk management, rather than risk avoidance, is an essential ingredient for successful business operations.

NEB Directors appoint 'owners' for all risk threats as they emerge. These risk owners are most likely to be middle and senior managers within NERC Head Office and Research Centres. Risk owners have responsibility for the practical day to day management of risks and are responsible for ensuring that appropriate management plans are prepared and that risk response actions are carried out effectively. Responsibility for managing key business risks is retained at a senior level.

Risks are managed by trained and experienced people. All staff in NERC participate in an annual appraisal, where individual training needs and personal development requirements are identified and assessed. The Risk Management Network, supported by the Risk and Assurance Manager, will be responsible for identifying specific risk management training needs and making proposals to management at appropriate levels about how such training should be provided. The Network will periodically review the delivery and take-up of such training and include a commentary in the annual report to NEB.

The NERC Risk Management Network, which currently meets at least once each year, helps promote best practice in risk management across NERC by sharing lessons learnt and monitoring compliance with (and continued relevance of) the NERC Risk Management Strategy and Policy (which are available to all staff via the NERC extranet).

### **The risk and control framework**

The purpose of the NERC Risk Management Strategy is to describe at a high level how NERC will implement its Risk Management Policy, setting out the necessary organisation, roles and responsibilities, along with the framework and underlying principles of the control system.

NEC Directors have a responsibility to ensure the effective application of NERC's risk management strategy and policy. Directors must satisfy themselves that the following issues have been adequately addressed within their areas of responsibility:

- the requirements of corporate governance. These include developing more focused and open ways of managing risk and ensuring that all NEB decisions on managing risk are implemented.
- the need to identify appropriate 'risk owners' at a sufficiently senior level for all identified risks.
- the adequacy of reporting arrangements that ensure the timely escalation of major risk issues internally within their area of responsibility; and where appropriate, externally to NEB.
- that these arrangements are in line with delegated authority levels and the provisions of Research Centre Management Statements (where these apply).
- the need to ensure a shared understanding of risk management principles, thereby ensuring a consistent approach to the treatment of risks at all levels.
- deciding the overall risk tolerance level, or 'risk appetite' for areas that they have a responsibility for (mindful of the NERC level risk appetite determined by NEB).

NEC has a web-based database to host the NERC risk register. The system is known as STAR (System for Targets and Risks). STAR is the cornerstone of NERC risk management and provides a single system for recording Business Risks, Business Critical Projects and activities reflected in the NERC Strategic Management Tool and BIS scorecard. In addition to attaching scores to risks and identifying mitigation tactics, STAR also records information concerning quarterly progress against plan by way of a 'traffic light system'. Reports from STAR are considered by Council (NEC Top Risks), NEB (NEC Top Risks /NEC Strategic Management Tool and BIS scorecard activities progress report) and the NERC Audit Committee (NEC Top Risks / Business Critical Projects status report). STAR also provides the quarterly report to BIS that details progress towards completing activities that feature in the BIS scorecard.

## Review of Effectiveness

As Accounting Officer, I have responsibility for conducting an annual review of the effectiveness of the system of the organisation's governance, risk management and internal control. This review is informed by the work of executive managers within the organisation who have responsibility for the development and maintenance of the governance structures and internal control framework; and comments made by internal and external auditors in their management letter and reports. The Governance Statement represents the end product of the review of the effectiveness of the governance framework, risk management and internal control.

The system of internal control can provide only reasonable and not absolute assurance that NERC's internal control framework is operating as intended. My review of the effectiveness of the internal control framework is informed by this year's Director's Annual Statements on Internal Control (DASICs), the work of the Research Councils Internal Audit Service (RCIAS), comments made by the National Audit Office (NAO) in their management letter and other reports, and the advice of the Director Responsible for Risk concerning the progress made on risk management and related matters.

### DASIC Exercise

NERC Directors are required to provide a Director's Annual Statement on Internal Control, (DASIC) concerning the effectiveness of internal control within their area of responsibility. The following internal control weaknesses were identified by the 2011-12 DASIC exercise:

- The continuing need for improvements to the SSC purchase to pay process to address legacy issues and create a more efficient and effective process going forward. All those with material accounting impact as at 31 March 2012 have been cleared, and new more rigorous purchase to pay processes have been implemented from March 2012.
- The need for system improvements to enhance the control environment within the RCUK SSC. This referred specifically to the need for more rigorous SSC checks as part of the iExpenses and GPC processes. These have been in place since May 2012.
- Inadequate financial management information. The MI Improvement Project is programmed to deliver a full suite of financial reports by August 2012.
- Accounting for fixed assets. The fixed asset accounting system is not yet fit for purpose, and many additional tasks to provide viable workarounds are performed by retained finance staff. This situation is likely to persist throughout the next financial year whilst alternative solutions are investigated and implemented.
- A lack of robust and accessible HR and payroll MI. These requirements are captured in the MI Improvement Project which will deliver a suite of reports by August 2012.

Notwithstanding the above RCUK SSC related weaknesses, NERC has substantially improved its financial management by revamping the Centre Activity and Resource Plans (CARP) process, such that business plans for all parts of NERC for the remainder of the CSR period have now been signed off on the basis of revised financial allocations approved by Council in May 2012.

It is expected that work currently underway across the Research Councils and with RCUK SSC Ltd will address the problems highlighted. As a consequence, I have decided not to classify these as significant internal control weaknesses at the end of this statement.

### Advice from Internal Audit

We have been advised that the Director of Internal Audit's (DIA's) annual assurance opinion will be delivered shortly. The DIA has indicated that NERC will be awarded an overall 'substantial assurance'.

The DIA has advised all Research Councils about a number of issues arising out of the RCUK SSC assurance programme audit work that should be mentioned in Councils' Governance Statements, along with details of corrective actions underway to address each concern. The issues that impact on NERC, together with details of the actions being taken to address them and timescales are as follows:

- The need to improve exception reporting and MI related to duplicate payments. A full suite of MI tools will be available to NERC by end August 2012 which should satisfy this requirement.

- The need to improve the auditing of claims/GPC within the SSC and to agree responsibilities for follow-up. More rigorous SSC checks as part of the i-expense and GPC processes have been in place since May 2012.
- The need to reduce the number of reconciling items in cash reconciliations. The SSC 'Bad Bank Plan' and review of new Business as Usual processes has reduced legacy items and the new A2R processes are expected to reduce the number of items to manageable levels.
- The need to introduce an annual independent Security IT health check, including penetration testing to assure system security. This recommendation is included within the scope of work for FY 2012-13 and, if possible, will be explicitly identified as a service deliverable in any new contract negotiations.
- The need to introduce exception reporting and processes for ensuring the integrity of user provisioning across E2E processes. User provisioning is currently being considered jointly by HR and IT Practitioner Service Groups (PSGs), including the development of a system change proposal. A joint user provisioning plan is being prepared.
- The need to enable audit trail functionality for sensitive master data changes and review audit trail outputs to assure data integrity. Councils will continue to stress the need for action on the introduction during FY 2012-13 of thorough audit trails as part of the master data maintenance.

#### **Activity of the Research Councils' UK Assurance Unit**

The Research Councils' UK Assurance Unit is hosted by BBSRC and acts on behalf of all the Research Councils by reviewing the regularity of expenditure on Research Council grants at all eligible Research Organisations. The programme is an important element of the risk management framework for NERC with an annual report produced for me, as the Accounting Officer, which reports on activities undertaken in the year as well as proposed activities for the following year. Assurance activities focus on the control environment and its effectiveness in ensuring compliance with the Research Councils' terms and conditions which accompany grant funding, with a further strand of work focusing on the scrutiny of the costing methodology used in research organisations, which for universities is the Transparent Approach to Costing (TRAC). This year's programme successfully undertook 17 visits and performed 15 desk-based reviews and has provided me with a satisfactory level of assurance.

#### **Client Assurance Service Group (CSG)**

CSG represents all seven Research Councils in their relationship with the SSC as clients. The RCUK Shared Services Centre (SSC) project ended on 31 March 2011. Since that date, and therefore for the whole of the 2011-12 financial year, the body responsible for co-ordinating the Councils' collective engagement with the SSC as clients has been the CSG. The CSG has taken responsibility for, inter alia, the negotiation of annual service charges and development funding; the development of business improvement activities in each of the main functional areas covered by SSC service delivery; and oversight of an end to end audit assurance programme. Formal approval of funding is, however, made by the Efficiency and Reform Group, advised by CSG. It is expected that during the course of 2012-13 other bodies will start to receive a range of services from the SSC at which point the Councils will no longer be the principal clients and the continued role of the CSG and its ability to fulfil an assurance role will require further consideration.

Looking ahead, the expansion of the SSC's client base presents the Councils with both threats and opportunities. It is expected that greater economies of scale will lead to reductions in unit costs and therefore service charges. There is, however, some concern around the potential disruption to the current level of service over the coming year and potentially beyond as a diverse range of new clients come on board. There is also some concern that a lack of immediate interest in taking up grants services on the part of new customers may lead to a downgrading of its relative importance. It will be important, therefore, that appropriate new governance arrangements are put in place to protect the Research Councils during this period of transition.

In respect of 2011-12, CSG have produced an Assurance Statement which reiterates the key areas of concern identified by RCIAS audits. From January 2012, a joint SSC/CSG assurance report has been agreed and submitted to the BIS Assurance Board. The current level of assurance is amber in recognition of the large number of end to end process audits with only limited assurance at this stage. A programme of priority development work for the first quarter of 2012-13 has also been agreed and funded so that it is currently expected that it will be possible to achieve the necessary stabilisation in all functional areas by the end of June 2012.

### **Managing the Risk of Financial Loss**

The Managing the Risk of Financial Loss (MRoFL) initiative was introduced by BIS/HM Treasury during 2011-12 and applies to all transaction processing systems that result in payments or receipts. It represents an annual review of six core financial systems:

- Procurement
- Payroll
- Expenses
- Funding
- Grants
- Taxation receipts (relates to commercial income in the Research Councils context)

A cross Research Council project was set up to deliver this requirement in a consistent and coordinated manner. Within each Council, End to End Process Owners were appointed to produce Financial Process Assessments (FPAs) for each system listed above. The FPAs have drawn their evidence from work conducted by RCIAS in their audit programme which covered end-to-end processes including SSC elements. In addition, a NERC Organisational Capability Assessment (OCA) was undertaken (a self-assessment against a number of characteristics set by HM Treasury that determined the maturity of NERC's MRoFL capability). The findings were consolidated into a report that was sent to BIS in December 2011.

The cross Research Council Group that co-ordinated the first year's work will continue, but in the second pass we will be looking for opportunities to reduce the administrative burden this exercise presents by streamlining the process, in particular by eliminating the elements that were felt to be less helpful (i.e. replacing the HM Treasury Financial Process Assessment tool with something less cumbersome and reducing the scale of the report writing requirement). The establishment of functional end-to-end process owners within Councils and the ability to utilise the RCUK SSC Practitioner Service Groups (PSGs) to gain collective agreement on required remedial actions has been a notable success.

### **Fraud investigations**

There were two events that triggered investigations into suspected fraud during the 2011-12. Both involved Government Procurement Card (GPC) misuse. Internal control improvements have been introduced as a result of these experiences. The Audit Committee are provided with a report at each meeting advising them of the status of fraud investigations, together with details of any changes to internal control made as a result.

### **Losses and write-offs**

Two significant losses of marine scientific equipment were reported during 2011-12. We expect to be reimbursed for the full value of these losses, negating the need to seek write-off approval from BIS. Neither loss appears to be related to an internal control weakness and I am satisfied that the actions taken to improve control following each incident have been appropriate and proportionate.

### **Project Management and Gateway Reviews**

There were three Gateway Reviews during 2011-12, each of which returned satisfactory assessments of progress and performance:

- Halley VI Antarctic Base (to replace Halley V)
- NERC Integration Programme (response to actions outlined in the NERC Delivery Plan 2011-2015)
- RRS *Discovery* Replacement

### **Information Assurance**

During 2011-12, the NERC Information Assurance Group (IAG) continued to formally meet and coordinate NERC Information and Technology risks. The RCIAS audit of RCUK cross-Council Freedom of Information practices delivered substantial assurance. Policies and personal responsibility statements for the use of smartphones and tablets are being introduced. No incidents of personal data loss have occurred within NERC, but the RCUK Shared Service Centre reported one personal data loss, specifically that of a loss of a NERC staff personnel file. A thorough search for the lost file was carried out immediately. The incident reporting process included an assessment of risk from the data loss, reinforcement of staff data protection

responsibilities, and identification of longer term improvements to processes within the SSC. NERC, as the Data Controller, notified the Information Commissioner's Office of the data loss on 27 January 2012.

### **Risk Management**

It is my judgement that NERC fully satisfies the 'six elements of risk management that organisations must have in place' as set out in Annex 2 of DAO(GEN)09/03. I am satisfied with the performance of our risk management system, and this view is supported by the 'substantial assurance' provided by RCIAS in their last audit of this system in 2010.

### **Disclosure of significant internal control problems**

My review has identified the following significant internal control weaknesses and improvements that NERC will address during the next accounting period:

- improve exception reporting and MI related to duplicate payments
- improve the verification of claims/GPC within the SSC and agree responsibilities for follow-up
- reduce the number of reconciling items in cash reconciliations
- introduce annual independent Security IT Health check, including penetration testing, to assure system security
- introduce exception reporting and processes for ensuring the integrity of user provisioning across E2E processes
- enable audit trail functionality for sensitive master data changes and review audit trail outputs to assure data integrity

### **Conclusion**

I have been advised on the implications of the result of my review of the effectiveness of the system of internal control by NEB, the Audit Committee and the Director Responsible for Risk. Plans to address all weaknesses identified and measures to ensure continuous improvement of the system of internal control are in place.

I have considered the evidence provided with regards to the production of the Annual Governance Statement. The conclusion of the review is that the Organisation's overall governance and internal control structures are satisfactory.

**Professor Duncan Wingham**  
Chief Executive and Accounting Officer

*21 June 2012*

## THE CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO HOUSE OF PARLIAMENT

I certify that I have audited the financial statements of the Natural Environment Research Council for the year ended 31 March 2012 under the Science and Technology Act 1965. These comprise the Statement of Comprehensive Net Expenditure, the Statement of Financial Position, the Statement of Cash Flows, the Statement of 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 Council, Accounting Officer and auditor

As explained more fully in the Statement of Chief Executive Responsibilities, the Chief Executive 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 Science and Technology Act 1965. 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 the Natural Environment Research Council's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Natural Environment Research Council; 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.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the expenditure and income reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities who govern them.

### Opinion on Regularity

In my opinion, in all material respects the expenditure and income have been applied to the purposes intended by Parliament and the financial transactions 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 the Natural Environment Research Council's affairs as at 31 March 2012 and of its net expenditure for the year then ended; and
- the financial statements have been properly prepared in accordance with the Science and Technology Act 1965 and Secretary of State 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 the Secretary of State directions issued under by the Science and Technology Act 1965; and
- the information given in the Delivering the Strategy section of the Annual Report 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
- the financial statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records or 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**  
**Comptroller and Auditor General**  
*National Audit Office*  
*157-197 Buckingham Palace Road*  
*Victoria, London, SW1W 9SP*  
*Date: 2 July 2012*



## STATEMENT OF COMPREHENSIVE NET EXPENDITURE FOR THE PERIOD ENDED 31 MARCH 2012

	Notes	2012 £000	2011 £000 Restated
<b>Expenditure</b>			
Staff costs	5(b)	109,426	114,132
Staff early retirements	6	5,163	1,514
Grants and training	7	169,808	158,350
Other operating costs	8	99,181	112,291
Depreciation	9(a)	26,496	23,895
Amortisation	10	128	548
Loss on joint venture	9(c)	1,736	786
Impairment of property, plant and equipment	9(a),11	2,189	-
<b>Total expenditure</b>		<b>414,127</b>	<b>411,516</b>
<b>Income</b>	4	<b>(56,087)</b>	<b>(62,860)</b>
<b>Net expenditure</b>		<b>358,040</b>	<b>348,656</b>
Finance lease interest		922	942
Interest receivable		(6)	(1)
<b>Net expenditure after interest</b>		<b>358,956</b>	<b>349,597</b>
CEH restructuring	14	51	46
Unwinding of discount	14	250	269
Change in discount rate	14	9	(137)
Loss on disposal of fixed assets		25	(1,060)
<b>Total net expenditure for the year</b>		<b>359,291</b>	<b>348,715</b>
<b>Other comprehensive expenditure</b>			
Net gain on revaluation of property, plant and equipment		(20,705)	(1,329)
Net gain on revaluation of intangible assets		(132)	(17)
Net loss on revaluation of investment property		-	-
Net loss on revaluation of assets held for sale		-	1,900
<b>TOTAL COMPREHENSIVE EXPENDITURE FOR THE YEAR ENDED 31 MARCH 2012</b>		<b>338,454</b>	<b>349,269</b>

All activities are continuing.

The notes on page 59 to 90 form part of these accounts.

## STATEMENT OF FINANCIAL POSITION AS AT 31 MARCH 2012

	Notes	£000	31 March 2012 £000	£000	31 March 2011 Restated £000	£000	1 April 2010 Restated £000
<b>Non-current assets</b>							
Property, plant and equipment	9(a)(b)	401,613		355,433		346,480	
Intangible assets	10	172		174		666	
Non-current receivables	12(b)	122		167		162	
Jointly controlled entities and unconsolidated investments	9(c)	10,258		12,019		1,239	
<b>Total non-current assets</b>			<b>412,165</b>		<b>367,793</b>		<b>348,547</b>
<b>Current assets</b>							
Assets classified as held for sale	11	69		224		3,861	
Trade and other receivables	12(a)	24,088		39,570		38,221	
Cash and cash equivalents	15	19,541		16,695		12,761	
<b>Total current assets</b>			<b>43,698</b>		<b>56,489</b>		<b>54,843</b>
<b>Total assets</b>			<b>455,863</b>		<b>424,282</b>		<b>403,390</b>
<b>Current liabilities</b>							
Trade and other payables	13(a)	(71,197)		(82,303)		(65,130)	
Provisions	14	(4,805)		(2,924)		(3,319)	
<b>Total current liabilities</b>			<b>(76,002)</b>		<b>(85,227)</b>		<b>(68,449)</b>
<b>Non-current assets plus current assets less current liabilities</b>			<b>379,861</b>		<b>339,055</b>		<b>334,941</b>
<b>Non-current liabilities</b>							
Provisions	14	(6,418)		(7,490)		(8,951)	
Trade and other payables	13(b)	(8,764)		(10,299)		(11,712)	
<b>Total non-current liabilities</b>			<b>(15,182)</b>		<b>(17,789)</b>		<b>(20,663)</b>
<b>Assets less liabilities</b>			<b>364,679</b>		<b>321,266</b>		<b>314,278</b>
<b>Taxpayers' Equity</b>							
Revaluation reserve			100,746		86,863		97,230
Income and expenditure reserve			263,933		234,403		217,048
<b>TOTAL GOVERNMENT FUNDS</b>			<b>364,679</b>		<b>321,266</b>		<b>314,278</b>

The notes on page 59 to 90 form part of these accounts.

**Professor Duncan Wingham**  
Chief Executive and Accounting Officer  
21 June 2012

## STATEMENT OF CASH FLOWS FOR THE PERIOD ENDED 31 MARCH 2012

	Notes	2012	2011
		£000	Restated £000
<b>Cash flows from operating activities</b>			
Net expenditure after interest		(358,956)	(349,597)
Depreciation charge	9(a)	26,496	23,895
Amortisation charge	10	128	548
Loss on joint venture	9(c)	1,736	786
Impairment charged to net expenditure account	9(a)	2,189	-
Increase / (decrease) in provisions	14	500	(2,035)
(Increase) / decrease in trade and other receivables	12	15,528	(1,354)
Increase / (decrease) in trade and other payables	13	(11,229)	17,053
<b>Net cash outflow from operating activities</b>		<b>(323,608)</b>	<b>(310,704)</b>
<b>Cash flows from investing activities</b>			
Payments to acquire property, plant and equipment	9(a),(b)	(55,936)	(43,916)
Payments to acquire intangible assets	10	(2)	(39)
Payments to acquire financial assets			(11,566)
Receipts from disposal of property, plant and equipment, intangible assets and investments		1,938	15,194
<b>Net cash outflow from investing activities</b>		<b>(54,000)</b>	<b>(40,327)</b>
<b>Cash flows from financing activities</b>			
Grant-in-aid and other BIS funding	3	381,866	356,257
Capital element of finance lease payments	17	(1,412)	(1,292)
<b>Net cash inflow from financing activities</b>		<b>380,454</b>	<b>354,965</b>
<b>Net increase / (decrease) in cash and cash equivalents in the period</b>		<b>2,846</b>	<b>3,934</b>
<b>Cash and cash equivalents at the beginning of the period</b>		<b>16,695</b>	<b>12,761</b>
<b>Cash and cash equivalents at the end of the period</b>		<b>19,541</b>	<b>16,695</b>

The notes on page 59 to 90 form part of these accounts.

## STATEMENT OF CHANGES IN TAXPAYERS' EQUITY FOR THE PERIOD ENDED 31 MARCH 2012

	Notes	Accumulated income & expenditure reserve £000	Revaluation reserve <sup>(i)</sup> £000	Total government funds £000
Restated at 1 April 2010		217,048	97,230	314,278
<b>Changes in taxpayers' equity for 2010-11</b>				
Grant-in-aid and other BIS funding	3	355,540	-	355,540
Revaluation in year		-	(554)	(554)
Change of Reserve Usage		(13)	13	-
Net expenditure for the year		(347,998)	-	(347,998)
Transfer between reserves		9,826	(9,826)	-
<b>Balance at 31 March 2011</b>		<b>234,403</b>	<b>86,863</b>	<b>321,266</b>
<b>Changes in taxpayers' equity for 2011-12</b>				
Grant-in-aid and other BIS funding	3	381,866	-	381,866
Revaluation in year		-	20,838	20,838
Change of Reserve Usage				
Net expenditure for the year		(359,291)	-	(359,291)
Transfer between reserves				
Release to net expenditure		6,955	(6,955)	-
<b>Balance at 31 March 2012</b>		<b>263,933</b>	<b>100,746</b>	<b>364,679</b>

Note:

(i) Following the inclusion of the requirements of IAS 20 Accounting for Government Grants and Disclosure of Government Assistance into the FReM, Government Grant and Donated Asset Reserves are no longer required. Accordingly, the brought forward balances in these accounts have been included within those shown for the Revaluation Reserve. All Government Grant and Donated Assets are treated in the same manner as other Property, Plant & Equipment with the reserve being released to the Accumulated Income & Expenditure Reserve to offset depreciation expense.

## NOTES TO THE ACCOUNTS

### I. Statement of accounting policies

#### a. Basis of accounting

- (i) The accounts have been prepared under the historical cost convention, modified to include revaluation of property, plant and equipment, intangible assets and inventories in accordance with the Financial Reporting Manual (FRoM). The accounting policies contained in the FRoM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context. The accounts, which give a true and fair view, have been prepared in accordance with The Science and Technology Act 1965 and with directions made by the Secretary of State.
- (ii) The accounts meet the accounting and disclosure requirements of the Companies Act 1985 and accounting standards issued or adopted by the Accounting Standards Board in as far as these requirements are appropriate in accordance with the FRoM.
- (iii) The accounts of all NERC owned research centres have been incorporated into these accounts.
- (iv) These financial statements are presented in sterling, NERC's functional currency, and all amounts have been rounded to the nearest thousand.

#### Adoption of standards and changes in policy

All International Reporting Standards, Interpretations and Amendments to published standards, effective at 31 March 2012, have been adopted in these financial statements, taking into account the specific interpretations and adaptations included in the FRoM.

IFRS 3 Business Combinations is pertinent to Machinery of Government changes, which involve the merger or the transfer of functions or responsibility of one part of the public sector service to another, and are accounted for using merger accounting in accordance with the FRoM. They are outside the scope of IFRS 3 Business Combinations as Government bodies are deemed to be under common control.

Merger accounting requires the restatement of the opening Statement of Financial Position and the prior year's Statement of Comprehensive Net Expenditure, the Statement of Cash Flows and the associated Note to the Accounts. Where appropriate, the presentation of the Notes to the Accounts has also changed to reflect a consistent approach to the disclosures.

2011-12 FRoM treatment of IAS 20 Accounting for Government Grants and Disclosure of Government Assistance, the income accounting treatment has been revised. Only grant in aid and any other grants from the parent department are now recognised as financing, so funding from other bodies is now recognised as income. Prior year figures have been restated, see Note 24 for details. The option to defer income under IAS 20, unless repayment conditions have been agreed with the funder, has been removed. This change has no material impact on the current or prior year accounts. Where public and private sector bodies have agreed to fund or co-fund some NERC research expenditure, such income is recognised when NERC is entitled to the income. Income is deferred where there are conditions in the co-funding agreement that have not been met by NERC as at the year end.

An additional amendment to the FRoM, effective from 1 April 2010, has been made in respect of IAS 36 Impairment of Assets. This requires impairments of property, plant and equipment that arise from a clear consumption of economic benefits to be taken direct to the statement of comprehensive net expenditure.

#### Investments

Where an investment is classified as an interest in a jointly controlled entity, it has been accounted for using the equity method in accordance with IAS 31 *Interests in Joint Ventures* and IAS 28 *Investments in Associates*.

If material and with controlling interest, NERC would consolidate its investments into its financial statements in accordance with IAS 27 *Consolidated and Separate Financial Statements*. Where immaterial or without controlling interest, the investment will not be consolidated, but where possible its fair value will be reported in accordance with IAS 39 *Financial Instruments: Recognition and Measurement*.

## Effective for future financial years

The IASB and IFRIC issued certain standards and interpretations with an effective date after these financial statements. Where these changes are relevant to NERC's circumstances they are listed below and will be adopted at the effective date. They have not been adopted early and their adoption is not expected to have a material impact on NERC's reported income or net assets in the period of adoption.

IFRS 7 Financial Instruments: Disclosures (effective for period beginning on or after 1 July 2011) – Detailed disclosures are required for financial assets transferred to another entity but not derecognised in their entirety and financial assets derecognised in their entirety but in which the reporting entity has an involvement. NERC does not expect there to be any transactions requiring disclosure but will assess further as appropriate for the 2012-13 financial statements.

IFRS 9 Financial Instruments: Classification and Measurement (effective from periods beginning on or after 1 January 2013) – IFRS 9 is a replacement for IAS 39 and introduced new requirements for the classification and measurement of financial assets, together with the elimination of two categories. Further proposals were introduced in October 2010 in respect of the de-recognition of the financial assets and liabilities. IFRS 9 is due to be expanded further in June 2011 with regard to the impairment of financial assets measured at amortised costs. NERC will undertake an assessment of the impact of IFRS 9 once the full requirements are known.

### b. Going Concern

These accounts have been prepared on the basis of a Going Concern. Any deficit shown on the income and expenditure reserve will be extinguished over time, having regard to the resource and capital budgets to which NERC can be expected to have access.

### c. Assets

#### *Property, plant and equipment*

Expenditure on property, plant and equipment includes the purchase of land and buildings, construction and services projects, and equipment valued at £10,000 or above (2010-11: £5,000). The impact of this change in 2011-12 has been a £702,532 increase in non-capital resource charges.

Property, plant and equipment are stated at the lower of depreciated historical cost or valuation. Costs of acquisition, comprising only those costs that are directly attributable to bringing the asset into working condition for its intended use, are capitalised. Land, buildings, ice stations in Antarctica, ships and aircraft are independently and professionally revalued every five years. These assets are subject to annual indexation when a full revaluation is not completed.

All UK land and buildings were valued by Powis Hughes & Associates in 2009-10 in accordance with the Statements of Asset Valuation Practice and Guidance prepared by The Royal Institution of Chartered Surveyors. The basis of valuation was open market value for either existing or alternative use where this could be established or depreciated replacement cost in the case of specialised scientific buildings. The British Antarctic Survey (BAS) Antarctic Research Stations were valued in 2011-12 via a desk-based valuation by Rafe Staples BSc (Hons), MRICS (member of The Royal Institution of Chartered Surveyors) and Kirstie Wheeler BSc (Econ), MRICS acting as an external valuer; on the basis of Existing Use Value calculated by reference to Depreciated Replacement Costs. The Estimated Replacement Costs were calculated by BAS and adjusted by BAS and Powis Hughes in accordance with the RICS Valuation Standards.

The four research ships, RRS *Discovery*, RRS *James Clark Ross*, RRS *Ernest Shackleton* and RRS *James Cook*, were revalued in 2008-09 by E.A. Gibson Shipbrokers Ltd. All aircraft were also revalued in 2008-09 by the International Bureau of Aviation Group Limited.

Two large value assets transferred from Southampton University in 2006-07 were valued by Hydroid Europe in 2007-08. All other plant & equipment and transport are revalued using relevant indices.

Any surplus or deficit on revaluation is taken to a revaluation reserve, except that any permanent diminution in value is charged to the statement of comprehensive net expenditure in the year in which it is recognised.

Increased depreciation charges arising from the revaluation are matched by annual transfers from the revaluation reserve to the income and expenditure reserve. On the disposal of a revalued asset, that element of the revaluation reserve which becomes realised as a result is transferred directly to the income and expenditure reserve.

Freehold land is not depreciated. All other tangible fixed assets are depreciated in order to write off the value of the asset less its estimated residual value over their estimated useful economic lives using modified reducing balance depreciation methodology. These lie within the following ranges:

Leasehold land	-	over the terms of the lease
Freehold buildings	-	up to 50 years or valuer's estimates of economic life
Long leasehold buildings	-	up to 50 years (or the length of the lease if less)
Short leasehold buildings	-	over the length of the lease
Antarctic ice stations	-	up to 35 years or valuer's estimates of remaining useful life
Plant and machinery	-	10 to 15 years
Ships and aircraft	-	minimum of 20 years for ships, 15 years for aircraft
Scientific, office and major computing equipment	-	5 to 10 years
Motor vehicles	-	3 to 7 years
Assets under construction	-	not depreciated until brought into use

Property, plant and equipment are depreciated from date when they are available for use. The residual values of assets are reviewed on an annual basis.

#### **Component accounting**

Property, plant and equipment may have parts with different useful lives. In accordance with the provisions of IAS 16 each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

#### **d. Investments**

NERC has acquired shareholdings in two unlisted undertakings: IXO Therapeutics Ltd, in which NERC holds a controlling interest of 67.8%, and IGS Ltd, in which NERC holds a non-controlling interest of 49.99% (2010-11: 66.7%). Although controlling interests would normally require consolidation into the NERC financial statements in accordance with IAS 27, NERC has not consolidated this investment as it is immaterial to NERC and holds the small investments at fair value in accordance with IAS 39.

Investments in joint ventures are accounted for using the equity method in accordance with IAS 31 and are carried at cost less any provision for impairment. The profit or loss for the year is credited or charged to the statement of comprehensive net expenditure in the year that it arises.

NERC holds a 20.5% shareholding in the joint venture company RCUK Shared Services Centre Ltd. Under the terms of the joint venture, control is shared jointly by virtue of holding an 'A' share along with the six other Research Councils. From 4 October 2011, control was extended to an 8th member, the Secretary of State for the Department of Business, Innovation and Skills, who was also allotted a single 'A' share. This supplementary agreement confirmed the covenants of the original shareholders' agreement, signed 8 August 2007, remain extant. On that basis, the Council retains the same level of investment in RCUK SSC Ltd at 20.54% of the Company's B shares.

#### **e. Intangible assets**

Intangible assets comprise purchased or developed computer software and websites and are stated at the lower of historical cost less accumulated amortisation or valuation. Intangibles are given definite useful lives and are amortised over a period not exceeding ten years on a straight line basis over the useful life of the asset from the date of use based on nil residual value.

#### **f. Investment property**

In accordance with IAS 40, any property (land or building) held by the Council mainly to earn rental income and/or for capital appreciation is recognised as an investment property in the statement of financial position. Investment properties are measured at fair values which reflect market conditions existing at the balance sheet date.

#### **g. Impairment**

The carrying amounts of the Council's property, plant and equipment, intangible assets and financial assets are reviewed at each statement of financial position date to determine whether there is any indication of impairment: property, plant and equipment, intangible assets and financial assets are considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of the assets. If any such indication exists, the assets' recoverable amounts are estimated.

An impairment loss is recognised whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. To the extent the asset has not previously been revalued, impairment losses are recognised in the statement of comprehensive net expenditure.

#### **h. Assets held for sale**

Where a non-current asset, whose value will be recovered principally through sale rather than through continuing use, is available for its immediate sale in its present condition and its sale is highly probable, it is classified as 'held for sale' and presented separately on the face of the statement of financial position. A sale is highly probable where: there is evidence of management commitment; there is an active programme to locate a buyer and complete the plan; the asset is actively marketed for sale at a reasonable price; and the sale will normally be completed within 12 months from the date of classification.

Assets held for sale are stated at the lower of net book value (carrying amount) and fair value less costs to sell. These assets are not depreciated. Depreciation ceases at the date an item of property, plant and equipment is classified as an asset held for sale.

#### **i. Employee benefits**

Under IAS 19 'Employee Benefits' an entity is required to recognise short term employee benefits when an employee has rendered service in exchange for those benefits. Included in the financial statements is an accrual for the outstanding employee holiday entitlement at 31 March 2012 on an undiscounted basis.

#### **j. Ownership of equipment purchased with NERC research grants**

Equipment purchased by an Institution with research grant funds supplied by the NERC, belong to the Institution and are not included in NERC's property, plant and equipment. Through the Conditions of Grant applied to funded Institutions, NERC reserves the right to determine the disposal of such equipment and how any disposal proceeds are to be utilised.

#### **k. Government grants receivable and other income**

Grant-in-aid for revenue and general capital purposes is credited to the income and expenditure reserve. Grant-in-aid for the purchase of specific assets is credited to the revaluation reserve and released to the statement of comprehensive net expenditure over the useful life of the asset in amounts equal to the annual depreciation charge.

Other operating income is shown net of trade discounts, value added tax and other taxes.

#### **l. Research and development**

As an organisation wholly engaged in research, NERC does not classify research and development expenditure separately in the accounts. It is reported under operating costs in the statement of comprehensive net expenditure.

Intellectual property rights arising from the Council's research and development have not been included in these accounts as their market value cannot be readily estimated. The anticipated annual income generated from such rights is not material in value and is credited to the statement of comprehensive net expenditure on receipt.

#### **m. Research and training grants**

The majority of research grants and fellowships are paid by the Council on an instalment basis in arrears in accordance with an agreed payment profile. The majority of studentship payments are paid on a quarterly instalment basis in advance directly to the research institute.

Payments made in advance or in arrears are accounted for on an accruals basis in the financial statements. Future commitments at the balance sheet date are disclosed in Note 16 of the financial statements.



#### **n. Insurance**

In line with government policy, NERC carries its own risks in respect of employment of staff and assets, except where there exists a statutory requirement to insure or where commercial insurance represents better value for money.

#### **o. Foreign currencies**

Foreign currency balances representing cash or amounts to be received or paid in cash ('monetary items') are expressed in pound sterling at the rate(s) of exchange ruling at the statement of financial position date. Non-monetary items that are measured at fair value in a foreign currency are translated using the spot exchange rate at the date the value is determined. Non-monetary items that are measured at historical cost are translated using the spot exchange rate at the time of the transaction. Transactions in foreign currencies are recorded at the rate ruling at the time of the transaction. All exchange differences are taken to the statement of comprehensive net expenditure.

#### **p. Value Added Tax**

As NERC is partially exempt for VAT purposes, irrecoverable VAT is charged to the relevant expenditure category or included in the capitalised purchase cost of property, plant and equipment. Where output tax is charged or input tax is recoverable the amounts are stated net of VAT. NERC has charitable status for VAT purposes.

#### **q. Pension and early retirement costs**

Payments are made to the Research Councils' Pension Scheme in respect of superannuation benefits for Council staff. The costs of early retirements are charged to NERC's accounts in the year in which the binding decision is taken to release staff and liabilities recognised.

Payments by the Council of early retirement lump sums are recoverable from the Research Councils' Pension Scheme when recipients achieve normal retirement age. Recoverable amounts are recognised as receivables in these accounts and offset against annual staff restructuring costs.

#### **r. Cash and cash equivalents**

Cash and cash equivalents comprise cash balances and deposits which are repayable on demand.

#### **s. Derivatives and other financial instruments**

Due to the non-trading nature of its activities and the way in which NERC is financed, NERC is not exposed to the degree of financial risk faced by non-public sector entities. Moreover, financial instruments play a much more limited role in creating or changing risk that would be typical of the listed companies to which IAS 32, 39 and IFRS7 mainly apply. NERC has very limited powers to borrow or invest surplus funds and financial assets and liabilities are generated by day to day operational activities and are not held to change the risks facing NERC in undertaking its activities.

#### ***Foreign currency risk***

The Council's exposure to foreign currency risk is not currently significant.

#### ***Trade receivables***

Trade receivables are not interest bearing and are carried at original invoice amount less allowance for impairment. Provision for impairment is established when there is objective evidence that the Council will not be able to collect all amounts due according to the original terms of the receivable. The amount of provision is the difference between the carrying amount and recoverable amount and is recognised in the statement of comprehensive net expenditure.

#### ***Trade and other payables***

Trade and other payables are recognised in the period in which related money, goods or services are received or when a legally enforceable claim against NERC is established or when the corresponding assets or expenses are recognised.

#### **t. Provisions**

Provisions are recognised when it is probable that NERC will be required to settle a present obligation and

a reliable estimate can be made of that obligation. The obligation is normally the amount that NERC would rationally pay to settle the obligation at the statement of financial position date or to transfer it to a third party at that time.

This may require estimating the future cash flows in current-year prices (i.e. at the price level prevailing in the year covered by the accounts) and, where the time value of money is material, discounting them at the standard public sector real rate set by HM Treasury - currently 2.8% for pension provisions and 2.2% for all other provisions.

#### **u. Decommissioning costs**

Decommissioning costs are recognised as soon as the obligation exists. For Antarctic stations and other assets in the course of construction the percentage completion method will be used to determine the current obligation.

A specific provision is established to cover the current value of the expected future costs of decommissioning the asset.

#### **v. Finance lease**

NERC has the use of a ship for which substantially all risks and rewards of the asset are transferred to the Council. The asset is capitalised and is subject to the same revaluation policy as other property, plant and equipment and is depreciated over the shorter of its estimated useful economic life or the lease period, with the outstanding lease obligations (net of interest) shown in payables. Finance charges are charged to the statement of comprehensive net expenditure over the period of the agreement in accordance with the interest rate within the contract.

#### **w. Operating leases**

Operating lease rentals are charged to the statement of comprehensive net expenditure on a straight line basis over the period of the lease.

#### **x. Key judgements and decisions**

In accordance with the requirements of the Government Financial Reporting Manual the key judgements and estimates included in the accounts are on a reasonable basis. Specific policies for judgemental areas such as decommissioning costs and provisions are shown above.

## **2. Analysis of net expenditure by business units for 2011-12**

NERC's primary operating segments are business units, which correspond with the way NERC is organised and managed.

NERC's assets and liabilities are shared across all business units and consequently it is not necessary to separately identify which segment they relate to to permit disclosure of this information.

	British Antarctic Survey £000	British Geological Survey £000	Centre for Ecology & Hydrology £000	National Oceanography Centre £000	Science and Innovation £000	Responsive Mode £000	Other £000	Total £000
<b>Expenditure</b>								
Staff costs	21,995	30,041	20,428	24,906	4	313	11,739	109,426
Staff early retirements	-	-	-	-	-	-	5,163	5,163
Grants and training	271	265	475	78	81,002	87,163	554	169,808
Other operating costs	27,222	13,753	11,602	22,183	5,791	88	18,542	99,181
Depreciation	-	-	-	-	-	-	26,496	26,496
Amortisation	-	-	-	-	-	-	128	128
Loss in joint ventures	-	-	-	-	-	-	1,736	1,736
Internal transfers <sup>(i)</sup>	(5,090)	(2,106)	(4,607)	(8,733)	13,496	13,489	(6,449)	
Impairment of property, plant and equipment							2,189	2,189
<b>Total expenditure</b>	<b>44,398</b>	<b>41,953</b>	<b>27,898</b>	<b>38,434</b>	<b>100,293</b>	<b>101,053</b>	<b>60,098</b>	<b>414,127</b>
Income <sup>(ii)</sup>	(5,779)	(17,983)	(9,889)	(9,859)	(11,027)	(378)	(1,172)	(56,087)
<b>Net operating costs</b>	<b>38,619</b>	<b>23,970</b>	<b>18,009</b>	<b>28,575</b>	<b>89,266</b>	<b>100,675</b>	<b>58,926</b>	<b>358,040</b>

Notes:

(i) Internal transfers result from sharing of resources, internal trading and internal awards between business units. The overall net impact on the organisation is zero.

(ii) Business units receive external funding for research from the UK public sector, European Commission and private sector. In addition they receive other operating income, such as software and data sales and royalties and license fees from intellectual property.

### Analysis of net expenditure by business units for 2010-11 Restated <sup>(i)</sup>

	British Antarctic Survey £000	British Geological Survey £000	Centre for Ecology & Hydrology £000	National Oceanography Centre £000	Science and Innovation £000	Responsive Mode £000	Other £000	Total £000
<b>Expenditure</b>								
Staff costs	21,539	31,884	20,945	25,735	316	92	13,621	114,132
Staff early retirements	47	-	-	53	-	-	1,414	1,514
Grants and training	183	370	667	521	67,136	89,450	23	158,350
Other operating costs	24,717	13,225	13,023	19,562	17,413	783	23,568	112,291
Depreciation	-	-	-	-	-	-	23,895	23,895
Amortisation	-	-	-	-	-	-	548	548
Loss in joint ventures	-	-	-	-	-	-	786	786
Internal transfers	(4,993)	(1,398)	(3,261)	(7,703)	10,095	13,225	(5,965)	-
<b>Total expenditure</b>	<b>41,493</b>	<b>44,081</b>	<b>31,374</b>	<b>38,168</b>	<b>94,960</b>	<b>103,550</b>	<b>57,890</b>	<b>411,516</b>
Income	(3,935)	(20,195)	(11,393)	(10,506)	(10,198)	(1,353)	(5,280)	(62,860)
<b>Net operating costs</b>	<b>37,558</b>	<b>23,886</b>	<b>19,981</b>	<b>27,662</b>	<b>84,762</b>	<b>102,197</b>	<b>52,610</b>	<b>348,656</b>

Note:

(i) See Note 24 tables for breakdown of reinstatement.

### 3. Grant-in aid and other BIS Funding

Under the FReM, NDPBs regard grants and grant-in-aid received as contributions from controlling parties giving rise to a financial interest in the body. As a result, grants and grant-in-aid received by controlling parties is credited to the income and expenditure reserve rather than being recognised as income in the statement of comprehensive net expenditure.

The table below shows a summary of the grants and grant-in-aid, which have been transferred to the income and expenditure reserve during 2011-12:

	2012	2011
	£000	Restated <sup>(i)</sup> £000
Grant-in-aid received	381,819	355,540
Other BIS Funding <sup>(ii)</sup>	47	717
	<b>381,866</b>	<b>356,257</b>

Notes:

(i) See Note 24 Tables for breakdown of restatement.

(ii) This relates to other non-GIA funding received from BIS for specific services  
e.g. the secondment of staff from NERC to BIS.

#### 4. Income

	2012	2011
	£000	Restated <sup>(i)</sup> £000
<b>a. Income from government departments</b>		
Department for Environment Food and Rural Affairs	6,121	6,166
Ministry of Defence	300	541
Department for Energy and Climate Change	726	620
Department for International Development	3,178	1,678
Environment Agency	855	1,301
Department of Enterprise, Trade and Investment Northern Ireland	1,307	1,499
Foreign and Commonwealth Office	119	587
Department for Communities and Local Government	179	1,215
<b>Total income from government departments</b>	<b>12,785</b>	<b>13,607</b>
<b>b. Income from other bodies</b>		
European Community <sup>(ii)</sup>	7,920	6,321
Other Research Councils	5,561	8,027
Other Public Sector	5,128	7,906
Private Sector	13,668	12,753
<b>Total income from other bodies</b>	<b>32,277</b>	<b>35,007</b>
<b>c. Other operating income<sup>(iii)</sup></b>		
Software and data sales	283	290
Scientific publications	697	316
Property and equipment rentals	1,835	1,205
Lecture fees, seminars and training courses	23	46
Royalties and licence fees from intellectual property	2,112	2,541
Other income	6,075	9,848
<b>Total other operating income</b>	<b>11,025</b>	<b>14,246</b>
<b>TOTAL INCOME</b>	<b>56,087</b>	<b>62,860</b>

Notes:

(i) See Note 24 tables for breakdown of restatement.

(ii) Income from the European Community consists of cash receipts of £7,085,063 and accruals of £834,937.

(iii) This includes £411,316 of income relating to the establishment of a Dutch Research Facility at Rothera, £164,843 of non-grant related income from Research Council and Collaborative bodies (2010-11 £1,159,844) and £1,996,709 (2010-11 £1,942,132) of monies from the University of Southampton paid to the National Oceanography Centre concerning their joint occupation of the Waterfront Campus.

## 5. Salaries and wages

### a. Staff numbers

The average number of FTEs (Full Time Equivalent) of staff employed during the year was:

	2012 No.	2011 No.
Permanent Staff	2,178	2,441
Temporary and Contract Staff	216	65
Staff on inward secondment/loan	2	3
Agency	11	12
	<b>2,407</b>	<b>2,521</b>

The total number of staff reported in the Annual Report is based on head count as at the 31 March 2012, whereas the above figures are average FTE's for the year. Improvements in MI have led to a more accurate split between Permanent Staff and Temporary & Contract Staff figures than was available in previous years making the 2012 figures not comparable with those for 2011.

Staff numbers above include 136 staff (2010-11: 168) transferred under TUPE Regulations from the University of Southampton to the National Oceanography Centre for which the payroll was administered by Capita Business Services Ltd until July 2011, at which point they were transferred to the NERC payroll.

### b. Staff costs

	2012 £'000	2011 Restated <sup>(i)</sup> £'000
Salaries and wages	83,579	86,624
Social Security Costs	7,014	6,872
Other pension costs (note 5d)	18,833	20,636
	<b>109,426</b>	<b>114,132</b>

Note (i) – See Note 24 for breakdown of restatement.

Salary for April to June 2011 paid by Capita Business Services Ltd in respect of staff transferred under TUPE Regulations from the University of Southampton to the National Oceanography Centre of £1,511,063 (2010-11: £6,591,137), has been included in the figures above.

Temporary staff costs total £365,929 (2010-11: £550,549) and are also included in the figures above.

Agency costs of £762,531 (2010-11: £512,080) have been included in operating costs.

The total amount capitalised for staff costs in 2011-12 is £384,083 (2010-11: £620,745). This relates to an estimated 6.6 full time equivalents for those staff employed by NERC that are adding value to assets such as those engaged in project managing or building of assets.

### c. Remuneration to Council and Committee Members/Peer Review College

The following are included in staff costs, note 5(b); other operating costs, note 8 and staff costs, note 5(d) pensions.

	2012 £000	2011 £000
Council Members' fees	96	102
Committee Members/Peer Review	345	348
Other emoluments	44	80
	<b>485</b>	<b>530</b>

Committee members may receive £170 per day (2010-11: £170).

Committee Chairs may receive £230 per day (2010-11: £230).

British Geological Survey Programme Board members received £857 (pro rata £3,430 per annum, 2010-11: £3,430). This board held its final meeting 1st April 2011.

British Geological Survey Programme Board Chair received £1,144 (pro rata £4,575 per annum, 2010-11: £4,575). This board held its final meeting 1st April 2011.

The Chair of the Science & Innovation Strategy Board receives £9,110 per annum (2010-11: £9,110).

The Chair of the Living with Environmental Change Programme Board received £4,275 (pro rata £5,130 per annum, 2010-11: £5,130). This post has been vacant since January 2012, the next appointee will be an Executive Chairman rather than Non-Executive as previously, the emoluments for this new position have yet to be determined.

Members of the NERC Executive Board (NEB) who are not also employed by NERC receive £3,760 per annum (2010-11 £3,760).

All emoluments are non-pensionable.

Council Members are normally employed on fixed term contracts not exceeding 4 years.

Peer Review College members receive honoraria of £1,000 per annum (2010-11: £1,000). The Peer Review College Associate members receive honoraria of £500 per annum (2010-11: £500).

Peer Review College Members and Associate Members are initially employed for 1 year commencing 1 June.

#### Number of Council, Committee and Board Members as at 31 March

	2012 No.	2011 No.
Council Members*	15	16
Committee/Peer Review College and Board Members	396	445
	<b>411</b>	<b>461</b>

\* includes Chief Executive and Chairman

Council\* / Committee and Peer Review College Members' emoluments fell into the following bands:

	2012 No.	2011 No.
£0 to £5,000	395	443
£5,001 to £10,000	12	13
£10,001 to £15,000	-	-
£15,001 to £20,000	1	1
	<b>408</b>	<b>457</b>

\* Neither the Chief Executive nor the members of Council who are also Civil Servants receive any remuneration for their work on NERC Council and are therefore excluded from this table. The Chief Executive's emoluments are disclosed separately in the remuneration report.

#### d. Superannuation

##### Pension scheme payments

	2012 £000	2011 £000
Payments in respect of the Research Councils' Pension Scheme (RCPS)	18,652	20,462
Payments to pension schemes other than the RCPS:		
Merchant Navy Officers' Pension Fund	32	40
Merchant Navy Officers' Pension Plan	-	-
Merchant Navy Ratings' Pension Fund	2	14
Merchant Navy Ratings' Pension Plan	3	3
Partnership Pensions	144	147
	<b>18,833</b>	<b>20,666</b>

Most employees of NERC are members of the Research Councils' Pension Scheme (RCPS) which is a defined benefit scheme funded from annual grant-in-aid on a pay-as-you-go basis. The RCPS is in all respects 'by-analogy' with the Principal Civil Service Pension Scheme, except that the employer's contribution is determined separately. The scheme provides retirement and related benefits based on final or average emoluments. Redundancy and injury benefits are administered and funded by the Council. The scheme is administered by the Research Councils' Joint Superannuation Service with the associated grant-in-aid managed by BBSRC.

Employees may be in one of four defined benefit scheme arrangements; either a 'final salary' scheme (classic, classic plus or premium); or a career average scheme (nuvos). Pensions payable are increased annually in line with changes in the Consumer Prices Index (CPI). The employer contribution rate is agreed by the RCPS Board of Management on the recommendation of the Government Actuary's Department (GAD) and is set at 26 per cent of pensionable pay. Employee contribution rates have varied between 1.5 per cent and 3.5 per cent depending on scheme. NERC paid costs in the year of £18,652,187 (2010-11: £20,462,217).

In order that the defined benefit obligations recognised in the financial statements do not differ materially from those that would be determined at the reporting date by a formal actuarial valuation, the FReM requires that the period between formal actuarial valuations shall be four years, with approximate assessments in intervening years.

The last formal actuarial valuation undertaken for the RCPS as at 31 March 2006 was completed in 2008-09. Consequently, a formal actuarial valuation as at 31 March 2010 was initiated but was not expected to be completed at 31 March 2011.

Subsequently however, formal actuarial valuations for unfunded public service pension schemes have been suspended by HM Treasury on value for money grounds while consideration is given to recent changes to public service pensions and while future scheme terms are developed as part of the reforms to public service pension provision. The primary purpose of the formal actuarial valuations is to set employer and employee contribution rates, and these are currently being determined under the new scheme design.

From 1 April 2012 employee contribution rates have been increased and the new rates are as follows:

Annual pensionable earnings (full time equivalent basis)	1 April 2012 Classic scheme contribution %	1 April 2012 Classic Plus, Premium & NUVOS scheme contribution %
Up to £15,000	1.5	3.5
£15,001 - £21,000	2.1	4.1
£21,001 - £30,000	2.7	4.7
£30,001 - £50,000	3.1	5.1
£50,001 - £60,000	3.5	5.5
Over £60,000	3.9	5.9



As an alternative to the RCPS a Partnership Pension Account was made available to new recruits from 1 October 2002. It is based on the portable Stakeholder Pension introduced by the Government in 2001. This is a defined contribution scheme. The employers pay the RCPS 0.8 per cent of pensionable pay to cover death in service and ill health benefits. The employers pay an age related contribution to the employee's private pension provider.

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 pensionable age. Pensionable age is 60 for members of the classic, classic plus and premium scheme arrangements and 65 for members of Nuvos.

For further details about the Research Councils Pension Scheme pension arrangements can be found at the website <http://jsspensions.nerc.ac.uk/>.

The Council also paid contributions during the year to a number of other multi-employer pension schemes for specific groups of employees, details of these schemes are shown below:-

Scheme	Rate of contribution	Year of last valuation
Merchant Navy Officers' Pension Fund <sup>^</sup>	11.9%	2009
Merchant Navy Officers' Pension Plan	5.1%	n/a
Merchant Navy Ratings' Pension Fund*	2.0%	2008
Merchant Navy Ratings' Pension Plan	5.1%	n/a

<sup>^</sup> The Merchant Navy Officers' Pension Fund (New Section) was subject to an actuarial valuation as at 31 March 2009 and showed a deficit overall. In 2009-10 NERC made a one off payment of £2,817,513 in full settlement of our share of the deficit. The NERC element of the scheme is now fully funded and no liability in respect of the 31 March 2009 valuation is outstanding at 31 March 2012.

\* The Merchant Navy Ratings' Pension Fund closed on 31 May 2001. On closure of the fund members transferred to the RCPS or the new Merchant Navy Ratings' Pension plan which is a money purchase scheme.

An actuarial valuation was undertaken on 31 March 2008. Although a new actuarial valuation was undertaken on 31 March 2011, we are awaiting the results of the consultation process between the Trustee and the current employers and the details of the proposed Schedule of Contributions and Recovery Plan. MNRPF Trustees confirmed that until the updated Recovery Plan is agreed, the existing Recovery Plan based on the 2008 actuarial valuation remains in place.

NERC held a provision for our share of the deficit amounting to £2,449,582 in 2008-09 and made a one off payment in 2009-10 in full settlement of £2,724,138. At 31 March 2012 the NERC element of the scheme in respect of the 31 March 2008 valuation was fully funded and no current liabilities existed.

Any potential future liabilities that may result from the 2011 actuarial valuation will be agreed in 2012-13 and provided for accordingly.

## 6. Staff restructuring / early retirements <sup>(i)</sup>

Resource costs packages agreed	2012 £000	2011 £000
Annual compensation payments		141
Redundancy compensation payments	2,660	626
Early retirement lump sums	918	497
Resource costs packages agreed <sup>(ii)</sup>	3,578	1,264
Increase early retirement liability	1,585	250
<b>TOTAL COSTS</b>	<b>5,163</b>	<b>1,514</b>

Exit package cost band	Band	Number of compulsory redundancies	Number of other departures	Total number of exit packages by cost band
<£10k	1	-	17	17
£10k-£25k	2	-	36	36
£25k-50k	3	-	31	31
£50k-£100k	4	-	22	22
£100k-£150k	5	-	2	2
£150k-£200k	6	-	-	-
>£200k	7	-	-	-
<b>Total packages agreed</b>		<b>-</b>	<b>108</b>	<b>108</b>
		<b>£000</b>	<b>£000</b>	<b>£000</b>
<b>Total resource costs packages agreed <sup>(iii)</sup></b>			<b>3,578</b>	<b>3,578</b>

Notes:

(i) All payments were within contracted entitlement.

(ii) Resource costs packages agreed net of release of provisions as per Note 14.

(iii) Full costs of all exit packages agreed during the year, including those costs that are covered by the release of provisions as per Note 15. These costs will therefore differ from the totals shown in note (ii).

## 7. Grants and training

	2012 £000	2011 £000
<b>Research grants</b>	<b>95,348</b>	90,315
<b>Research contracts</b>	<b>41,690</b>	33,955
<b>Post Graduate training awards</b>		
Research students	22,180	24,349
Research masters	1,446	2,907
Research fellows	9,144	6,824
	<b>32,770</b>	34,080
<b>TOTAL GRANTS AND TRAINING AWARDS</b>	<b>169,808</b>	158,350

Note:

Payments were made to various bodies within the public sector, public corporations, higher education institutions and other government agencies. A full list of all awards made during the year is available in the Annual Report section on pages 20-23. From October 2011 NERC discontinued funding for masters awards.

## 8. Other operating costs

	2012	2011
	£000	Restated £000
Rent and rates	851	1,318
Maintenance, cleaning, heating and lighting	9,309	10,050
Office supplies, printing and stationery	3,346	3,011
Laboratory supplies, computing and field equipment	17,973	18,400
Postage, telephone and other telecommunications	1,545	1,537
Hospitality <sup>(i)</sup>	413	549
Audit fees <sup>(ii)</sup>	96	99
Travel and subsistence	7,689	8,511
Ships and aircraft operations	22,329	16,923
External training	1,726	1,567
SSC operating costs <sup>(iii)</sup>	7,806	7,793
Professional and research services by outside bodies <sup>(iv)</sup>	26,237	42,775
Operating leases		18
(Decrease)/increase in allowance for trade receivables	(139)	(261)
	<b>99,181</b>	<b>112,290</b>

### Notes:

(i) Hospitality costs include room hire, accommodation and catering costs for meetings, workshops and conferences.

(ii) The costs for audit fees include external statutory audit fee of £80k (2010-11: £89k).

(iii) SSC operating costs include the costs for services such as procurement, information technology, finance, payroll, grants and recruitment.

(iv) The cost for professional and research services by outside bodies includes bought in services of £15.4m (2010-11: £30.9m) and other services, including consultancy, advertising, waste disposal and medical/legal costs.

## 9a. Property, plant and equipment

Cost or valuation	Land, buildings and Antarctic stations (i) & (v) £000	Plant and equipment (iv) £000	Transport (ii), (iii) & (v) £000	Total £000
At 1 April 2011	255,061	85,088	236,490	576,639
Additions	10,888	4,940	1,050	16,878
Revaluation	25,853	4,190	3,390	33,433
Disposals (vi), (vii) & (viii)	(5,315)	(30,392)	(2,123)	(37,830)
Impairment (ix)	(2,228)	-	-	(2,228)
At 31 March 2012	284,259	63,826	238,807	586,892
<b>Depreciation</b>				
At 1 April 2011	91,676	51,469	145,599	288,744
Charge for the year	8,043	9,920	8,533	26,496
Revaluation	8,537	1,709	1,093	11,339
Disposals (vi) & (vii)	(2,439)	(30,207)	(2,058)	(34,704)
At 31 March 2012	105,817	32,891	153,167	291,875
<b>NET BOOK VALUE</b>				
<b>AT 31 MARCH 2012</b>	<b>178,442</b>	<b>30,935</b>	<b>85,640</b>	<b>295,017</b>
At 1 April 2011	163,385	33,619	90,891	287,895

### Notes:

- (i) Cost / Valuation includes £18,471,548 in respect of Freehold Land which is not depreciated (31 March 2011: £18,842,130).
- (ii) Including specialised Antarctic Vehicles.
- (iii) The NBV of the leased ship is £18,509,906 (2010-11: £19,001,147). The annual depreciation charge on this asset held under the finance lease was £2,447,926 (2010-11: £2,671,648).
- (iv) Includes assets previously offset by the donated and government grant asset reserves and which are now offset by the revaluation reserve (per IAS 20). There is no restriction on the use of these assets.
- (v) There has been no effect on the depreciation charge as a result of the application of component depreciation (IAS 16). Assets have historically been split between land and buildings and sites; ships have also been accounted for based on the component accounting rules. It has been decided not to apply component depreciation for the aircraft based on the advice given by our professional valuers, IBA Group. Furthermore, Polaris House is solely occupied as a standard office building with no requirement for any part or element to be replaced at any set intervals or for any major regular inspections. There are therefore no component parts in Polaris House based on the principles of IAS 16. Day to day servicing is deemed repair and maintenance.
- (vi) During the year an exercise to clear Zero Net book Value assets from the Fixed Asset Register resulted in the removal of 554 assets to inventory and 24 to scrap, which amounted for £22,868,762 of the disposals of both cost and depreciation. This included 508 assets under the plant & equipment category (£21,431,337 disposed) and 70 assets under the transport category (£1,437,425 disposed).
- (vii) During the year an exercise to clear Zero Net book Value assets from the Fixed Asset Register required the the removal of 15 assets and their recreation as new assets which were then revalued, which amounted for £4,591,625 of the disposals of both costs and depreciation. This included 11 assets under the plant & equipment category (£4,267,131 disposed) and 4 assets under the transport category (£324,494 disposed).
- (viii) During the year an exercise to validate the existence and usage of assets with a remaining useful life of less than 1 year resulted in the removal from the Fixed Asset Register of 124 assets to inventory and 18 to scrap, which amounted for £4,145,192 of the disposals of cost and £4,126,739 of depreciation. This included 129 assets under the plant & equipment category (£3,930,333 of cost and £3,913,826 of depreciation disposed) and 13 assets under the transport category (£214,559 of cost and £212,913 of depreciation disposed).
- (ix) The net impairment costs of £2,189,069 as shown in the statement of comprehensive net expenditure consist of impairment costs of £2,228,315 less £39,246 released from the revaluation reserve. The impairment relates to the demolition of old buildings on the BGS Keyworth site, the impairment costs are the year-end adjusted values of the demolished buildings with the revaluation reserve release being the portion of the net revaluation reserve that related to these buildings.

Cost or valuation	Land, buildings and Antarctic stations £000	Plant and equipment £000	Transport £000	Total £000
At 1 April 2010	274,168	100,359	192,708	567,235
Additions	11,868	8,425	4,723	25,016
Revaluation	(1,164)	2,420	3,268	4,524
Revaluation Adjustment	(29,811)	(25,003)	37,412	(17,402)
Reclassification	-	(271)	271	-
Disposals	-	(842)	(1,892)	(2,734)
At 31 March 2011	255,061	85,088	236,490	576,639

#### Depreciation

At 1 April 2010	115,738	65,677	99,093	280,508
Charge for the year	6,160	10,341	7,394	23,895
Revaluation	(411)	1,288	1,863	2,740
Revaluation Adjustment	(29,811)	(25,003)	37,412	(17,402)
Reclassification	-	(159)	159	-
Disposals	-	(675)	(322)	(997)
At 31 March 2011	91,676	51,469	145,599	288,744

NET BOOK VALUE AT 31 MARCH 2011	163,385	33,619	90,891	287,895
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At 1 April 2010	158,430	34,682	93,615	286,727
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#### 9b. Assets under the course of construction

Cost or valuation	Land, buildings and Antarctic stations (i) £000	Plant and equipment £000	Transport (ii) £000	Total £000
At 1 April 2011	47,423	7,156	12,959	67,538
Additions & Capitalisation	2,647	(319)	36,730	39,058
At 31 March 2012	50,070	6,837	49,689	106,596
At 1 April 2011	47,423	7,156	12,959	67,538

#### Notes:

(i) Includes £41,068,517 for the Halley VI Antarctic Base (2010-11 £35,836,601).

(ii) Includes £48,803,139 for the Discovery Research Ship Replacement (2010-11 £12,130,098).

Cost or valuation	Land, buildings and Antarctic stations £000	Plant and equipment £000	Transport £000	Total £000
At 1 April 2010	44,365	13,503	1,885	59,753
Additions & Capitalisation	3,058	5,229	10,613	18,900
Reclassification <sup>(iv)</sup>	-	(461)	461	-
Disposals	-	(11,115)	-	(11,115)
Impairments	-	-	-	-
<b>At 31 March 2011</b>	<b>47,423</b>	<b>7,156</b>	<b>12,959</b>	<b>67,538</b>

### 9c. Jointly controlled entities and unconsolidated investments

Cost or valuation	'A' share RCUK Shared Services Centre £	'B' shares RCUK Shared Services Centre £	IXO Therapeutics Ltd Shares £	IGS Ltd Shares £	Total £
At 1 April 2010	1	1,239,263	-	-	1,239,264
Shares acquired	-	11,115,500	300,000	150,000	11,565,500
Losses	-	(786,000)	-	-	(786,000)
<b>At 31 March 2011</b>	<b>1</b>	<b>11,568,763</b>	<b>300,000</b>	<b>150,000</b>	<b>12,018,764</b>
Losses	-	(1,736,000)	-	-	(1,736,000)
Shares sold	-	-	-	(25,031)	(25,031)
<b>At 31 March 2012</b>	<b>1</b>	<b>9,832,763</b>	<b>300,000</b>	<b>124,969</b>	<b>10,257,733</b>

### Unconsolidated Investments

NERC holds shares or membership status in the following unlisted ventures whose accounts, by virtue of NERC's non-controlling interest or the relative financial immateriality of these entities, are not consolidated into NERC's financial statements.

Venture	Market Sector	Equity	Remarks
IXO Therapeutics Ltd	Biotechnology research to develop immunotherapeutics .	67.80%	NERC regards IXO Therapeutics as a subsidiary and exerts control over its operations. However, the operations are not sufficiently financially material for their accounts to be consolidated into NERC's. NERC's initial investment of £300,000 is recognised as fair value for this entity.
International Geosciences (IGS) Ltd	International geoscience and geothematic surveys.	49.99%	During the accounting period, NERC disposed of 751 of its shares in IGS Ltd. NERC no longer regards IGS Ltd as a subsidiary and does not exert control over its operations. Its reduced investment of £124,969 is recognised as fair value for this entity.
Wallingford Hydrosolutions Ltd	Consultancy and environmental software systems.	24.90%	
Microbial Solutions Ltd	Wastewater treatment technology.	23.49%	
Spectrum (General Partner) Ltd	Advisory board to Rainbow Seed Fund which provides early stage funding for commercialisation of technology and services.	18.75%	
Oxford Expression Technologies Ltd	Products and services to pharmaceutical and biotechnology industries.	13.50%	
Gordons I Ltd	Environmental analytical tools and services.	0.05%	
International Space Innovation Centre Ltd	A Company Limited by Guarantee partnership between industry, academia and government to create new technologies and develop applications.	0%	NERC one of 14 members.

## 10. Intangible Fixed Assets

Cost or Valuation	Software Licenses £000	Website Costs £000	Total £000
At 1 April 2011	7,571	211	7,782
Additions	2	-	2
Revaluation	357	-	357
Disposals (i)(ii) & (iii)	(7,572)	(211)	(7,783)
At 31 March 2012	358	-	358
<b>Amortisation</b>			
At 1 April 2011	7,397	211	7,608
Amortisation for the year	128	-	128
Revaluation	225	-	225
Disposals (i)(ii) & (iii)	(7,564)	(211)	(7,775)
At 31 March 2012	186	-	186
<b>NET BOOK VALUE AT 31 MARCH 2012</b>	<b>172</b>	<b>-</b>	<b>172</b>
At 1 April 2011	174	-	174

*Notes:*

The intangible assets were revalued on an annual basis using the HM Treasury GDP deflator figures.

- (i) During the year an exercise to clear Zero Net book Value assets from the Fixed Asset Register resulted in the removal of 13 assets to inventory and 2 to scrap, which amounted for £7,530,873 of the disposals of both cost and depreciation.
- (ii) During the year an exercise to clear Zero Net book Value assets from the Fixed Asset Register required the removal of 1 asset and its recreation as a new asset which was then revalued, this amounted for £158,561 of the disposals of both costs and depreciation.
- (iii) During the year an exercise to validate the existence and usage of assets with a remaining useful life of less than 1 year resulted in the removal from the Fixed Asset Register of 3 assets to inventory and 1 to scrap, which amounted for £94,055 of the disposals of cost and £86,094 of depreciation.



Cost or Valuation	Software Licenses £000	Website Costs £000	Total £000
At 1 April 2010	8,003	211	8,214
Additions	39	-	39
Revaluation	233	-	233
Revaluation adjustment	(690)	-	(690)
Disposals	(14)	-	(14)
At 31 March 2011	7,571	211	7,782
<b>Amortisation</b>			
At 1 April 2010	7,337	211	7,548
Amortisation for the year	548	-	548
Revaluation	216	-	216
Revaluation adjustment	(690)	-	(690)
Disposals	(14)	-	(14)
At 31 March 2011	7,397	211	7,608
<b>NET BOOK VALUE AT 31 MARCH 2011</b>	<b>174</b>	<b>-</b>	<b>174</b>
At 1 April 2010	666	-	666

## II. Assets held for sale

Net cost or valuation	£000
At 1 April 2011	224
Disposals	(155)
<b>NET BOOK VALUE AT 31 MARCH 2012</b>	<b>69</b>
At 1 April 2010	3,861
Disposals	(3,637)
<b>NET BOOK VALUE AT 31 MARCH 2011</b>	<b>224</b>
Net Book Value at 1 April 2010	3,861

### Notes:

The assets held for sale comprise:

– Buildings and land owned at the Bidston site.

These assets were re-classified from the property, plant and equipment category to held for sale at 31 March 2008. During the year part of the site's Land & Buildings were sold, the remaining buildings will be razed and the site cleared. Management is committed to sale of the remainder of this property. The remaining site consists of 3 plots of land, which have been impaired down to their fair value, £24k for Brae Head Cottage plot and £45k for the Proudman plots. The fair value for the Proudman plots have been calculated as a reasonable proportion of the maximum value of the plots following a successful grant of a planning permission (estimated at 30% possibility resulting in plots becoming worth £150k).

## 12. Receivables

	2012	2011	2010
		Restated <sup>(i)</sup>	Restated <sup>(i)</sup>
	£000	£000	£000
<b>(a) Current assets: trade and other receivables</b>			
Trade receivables	6,390	11,057	4,223
Intra Government			
Central Government bodies	5,407	3,145	2,093
Local Authorities	42	25	3
	5,449	3,170	2,096
Other receivables	625	1,687	5,644
Prepayments <sup>(ii)</sup>	5,334	17,416	22,862
Accrued income	6,635	6,724	4,149
Provision for trade receivables	(345)	(484)	(753)
	24,088	39,570	38,221
<b>(b) Non-current receivables: trade and other receivables</b>			
Other receivables	122	167	162
<b>TOTAL RECEIVABLES</b>	<b>24,210</b>	<b>39,737</b>	<b>38,383</b>

Notes:

(i) See Note 24 Tables for breakdown of restatement.

(ii) Prepayments include IST Subscriptions, Licenses & Maintenance Costs of £859,108, Research Grants paid in advance of need of £817,787 and IODP of £1,763,446.

## 13. Payables

	2012	2011	2010
		Restated <sup>(i)</sup>	Restated <sup>(i)</sup>
	£000	£000	£000
<b>(a) Current liabilities: trade and other payables</b>			
Trade payables	10,679	12,640	-
Intra Government			
Central Government bodies	3,223	2,589	-
Local Authorities	-	24	-
	3,223	2,613	-
Taxation & Social Security	10	2,287	161
VAT	718	854	656
Other payables	1,084	1,609	20,992
Accruals & deferred income	48,779	56,554	36,410
Obligation under finance leases	1,535	1,412	1,292
Monies held on behalf of EU			
Programme Collaborators	5,169	4,334	4,961
Monies held on behalf of the Integrated			
Ocean Drilling Programme Collaborators	-	-	658
	71,197	82,303	65,130
<b>(b) Non-current liabilities: trade and other payables</b>			
Obligation under finance leases	8,764	10,299	11,712
<b>TOTAL PAYABLES</b>	<b>79,961</b>	<b>92,602</b>	<b>76,842</b>

Note: (i) See Note 24 Tables for breakdown of restatement.

#### 14. Provisions for liabilities and charges<sup>(i)</sup>

	Antarctic Treaty costs <sup>(ii)</sup> £000	Shared Services Centre <sup>(iv)</sup> £000	Early Retirements £000	Other liabilities <sup>(iii)</sup> £000	CEH restructuring <sup>(v)</sup> £000	Total £000
Provision at 31 March 2010	5,225	584	2,046	502	3,913	12,270
Changes in provisions for 2010-11:						
Change in discount rate	-	-	(51)	-	(86)	(137)
Write back of provisions not required	-	(118)	-	-	(213)	(331)
Amounts provided in year	173	115	250	644	259	1,441
Unwinding of discount	115	-	37	11	106	269
Provision utilised in year	-	(581)	(1,105)	(244)	(1,168)	(3,098)
<b>Provision at 31 March 2011</b>	<b>5,513</b>	<b>-</b>	<b>1,177</b>	<b>913</b>	<b>2,811</b>	<b>10,414</b>
Changes in provisions for 2011-12:						
Change in discount rate	-	-	3	-	6	9
Write back of provisions not required	-	-	-	(52)	(16)	(68)
Amounts provided in year	368	-	1,585	-	67	2,020
Unwinding of discount	121	-	34	20	75	250
Provision utilised in year	-	-	(589)	(170)	(643)	(1,402)
<b>Provision at 31 March 2012</b>	<b>6,002</b>	<b>-</b>	<b>2,210</b>	<b>711</b>	<b>2,300</b>	<b>11,223</b>

Notes:

- (i) The discount rate used is 2.8% for pension provisions (2010-11: 2.9%) and 2.2% for all other provisions (2010-11: 2.2%).
- (ii) Antarctic Treaty costs represent the Council's liability to remove any items from the Antarctic no longer used.
- (iii) Other liabilities include claims made against NERC and commitments to onerous operating lease payments. These have been estimated on the likelihood of the leases being assigned during the remainder of their term.
- (iv) The Research Councils and RCUK Shared Services Ltd have developed a Shared Services Centre to carry out the central functions of human resources, finance, procurement and information technology across the Councils. As a result some Research Councils have incurred redundancy costs and/or termination costs for their existing systems. The Research Councils have collectively agreed that they will be jointly liable for these costs. The provision was fully utilised during last financial year.
- (v) CEH restructuring costs include NERC's liability for CEH staff restructuring, staff removal, decommissioning and removal costs.

#### Analysis of expected timing of discounted cashflows

	Antarctic Treaty costs £000	Shared Services Centre £000	Early Retirements £000	Other liabilities £000	CEH restructuring £000	Total £000
Provision due within one year	1,823	-	1,658	701	623	4,805
Between one and five years	871	-	428	10	1,532	2,841
Between five and ten years	588	-	124	-	118	830
Thereafter	2,720	-	-	-	27	2,747
<b>Provision at 31 March 2012</b>	<b>6,002</b>	<b>-</b>	<b>2,210</b>	<b>711</b>	<b>2,300</b>	<b>11,223</b>
Provision due within one year	1,096	-	503	710	615	2,924
Between one and five years	1,454	-	488	203	1,858	4,003
Between five and ten years	417	-	186	-	313	916
Thereafter	2,546	-	-	-	25	2,571
<b>Provision at 31 March 2011</b>	<b>5,513</b>	<b>-</b>	<b>1,177</b>	<b>913</b>	<b>2,811</b>	<b>10,414</b>

## 15. Cash and cash equivalents

	2012 £000	2011 £000
The following balances were held at 31 March:		
<b>Government Banking Service</b>		
National Westminster clearing accounts <sup>(i)</sup>	(2,215)	-
Citibank	11,998	104
	<b>9,783</b>	<b>104</b>
<b>Commercial bank accounts</b>		
Lloyds TSB	8,827	15,877
National Bank of Abu Dhabi	494	598
Other local commercial accounts	437	116
	<b>9,758</b>	<b>16,591</b>
<b>Balance at 31 March 2012</b>	<b>19,541</b>	<b>16,695</b>

Note:

(i) Includes BACS payments submitted at the end of March 2012 that will not clear the NERC bank account until April 2012 and which will be covered by transfer of funds from Citibank.

## 16. Forward commitments on approved research grants, research contracts and studentships

	Research Grants £000	Postgraduate Training £000	Fellowships £000	Contracts £000	Total 2012 £000
2012-2013	113,055	15,303	9,592	33,830	171,780
2013-2014	68,467	11,804	6,410	9,219	95,900
2014-2015	33,576	5,700	2,687	4,014	45,977
2015-2016	10,998	207	742	2,582	14,529
2016-2017	939	-	339	2,299	3,577
2017-2018	21	-	-	-	21
	<b>227,056</b>	<b>33,014</b>	<b>19,770</b>	<b>51,944</b>	<b>331,784</b>

## 17. Amounts payable under finance lease obligations

	Payments £000	Interest £000	Net payments £000
<b>As at 31 March 2012</b>			
Within one year	2,334	799	1,535
Between one and five years	7,368	1,978	5,390
Thereafter	3,724	350	3,374
	<b>13,426</b>	<b>3,127</b>	<b>10,299</b>
<b>As at 31 March 2011</b>			
Within one year	2,334	922	1,412
Between one and five years	8,106	2,439	5,667
Thereafter	5,320	688	4,632
	<b>15,760</b>	<b>4,049</b>	<b>11,711</b>

## 18. Related party transactions

The Natural Environment Research Council (NERC) is a Non-Departmental Public Body (NDPB) sponsored by the Department for Business, Innovation and Skills (BIS).

BIS is regarded as a related party. During the year, NERC has had various material transactions with BIS and with other entities for which BIS is regarded as the parent Department, viz: Engineering and Physical Sciences Research Council, Biotechnology and Biological Sciences Research Council, Science and Technology Facilities Council, Medical Research Council, Economic and Social Research Council, the Arts and Humanities Research Council, the Technology Strategy Board, the Higher Education Funding Council for England and the UK Space Agency.

NERC has had various material transactions with other Government departments and other central Government bodies. NERC has also entered into various material transactions with the RCUK Shared Services Centre Ltd.

During the year, NERC entered into the following material transactions with Council members in respect of payments under awards or contracts funded by NERC.

Council Member	Number of Awards or Contracts	Amount £
Professor C Godfray	2	346,175
Professor A Halliday	1	23,386
Professor J Slingo OBE	2	82,430
Professor A Watson	5	423,354
Professor G Mace	2	319,120
Professor P Monks	5	254,055

None of the above mentioned related parties were involved in the approval of awards to the Institution where he/she is a senior member of the staff.

In addition, NERC made the following aggregated payments in respect of NERC funded awards or contracts to Institutions where Council members are also senior members of staff.

Related Party	Institution	Amount £000
Professor A Glover	University of Aberdeen	2,304
Professor M Wilson	University of Leeds	15,061
Professor A Halliday Professor C Godfray	University of Oxford	8,284
Professor A Thorpe Professor J Slingo OBE Professor M Lockwood	University of Reading	12,313
Professor M Lockwood	Science and Technology Facilities Council	4,053
Professor M Lockwood Professor Slingo OBE	Meteorological Office	2,805
Professor T Meagher	University of St Andrews	2,370
Professor A Watson Professor R Watson	University of East Anglia	5,391
Professor A Fitter	University of York	2,123
Professor G Mace	Imperial College	8,687
Professor P Monks	University of Leicester	2,238
Professor P Curran	City University London	7

## 19. Losses and special payments

During the year there were 30 losses totalling £35,281 as follows

Type	Number	Amount £
Cash losses <sup>(i)</sup>	4	449
Stores losses <sup>(ii)</sup>	24	29,290
Claims abandoned <sup>(iii)</sup>	2	5,542
	<b>30</b>	<b>35,281</b>

Notes:

(i) Cash losses consists of petty cash write offs.

(ii) Store losses consist of 16 assets scrapped for £19,586, damage to a vehicle totalling £9,285 and 7 other small losses. A further 29 zero net book value assets were scrapped during the year resulting in no losses.

(iii) Special payments includes £5,359 written off due to liquidation of a customer.

During the 2010-11 financial year there were 33 losses totalling £86,671 as follows:

Type	Number	Amount £
Stores losses	19	78,998
Constructive losses	1	8,797
Claims abandoned	13	(1,124)
	<b>33</b>	<b>86,671</b>

## 20. Capital and lease commitments

### *Lease commitments*

	2012 £000	2011 £000
Within one year	17	23
Between one and five years	17	17
	34	40

### *Capital commitments*

As at the date of these accounts, NERC is committed to a sum of £22m in respect of capital contracts. This includes £19.7m for the building of the RRS Discovery replacement ship due to be completed in 2014-15, £1.7m for the Antarctic base Halley VI due to be completed in 2012-13 and £0.6m for the BGS Keyworth Phase 2 Development due to be completed in 2013-14.

### *Bonds and guarantees*

The Council has a number of bonds and guarantees that are lodged with Lloyds Bank and relate to overseas contracts, amounting to £872,006 at 31 March 2012 (2010-11: £1,092,609).

## 21. Contingent liabilities

The value of contingent liabilities at 31 March 2012 of legal claims made against NERC where based on legal advice sought it is not deemed probable that these will lead to future outflows of resources, is estimated at £Nil (2010-11 £47k).

## 22. Events after the reporting period

In accordance with the requirements of IAS 10 'Events After the Reporting Period', post Statement of Financial Position events are considered up to the date on which the Accounts are authorised for issue. This is interpreted as the same date as the date of Certificate Report of the Comptroller and Auditor General. There are no post Statement of Financial Position events between the balance sheet date and this date.

## 23. Derivatives and other financial instruments

IFRS 7 Financial Instruments – Disclosures, IFRS 32 Financial Instruments – Presentation and IFRS 39 Financial Instruments – Recognition and Measurement require disclosure of the role which financial instruments have had during the period in creating or changing the risks an entity faces in undertaking its activities. Due to the largely non-trading nature of its activities and the way it is financed, the Council is not exposed to the degree of financial risk faced by non-public sector entities. Moreover, financial instruments play a much more limited role in creating or changing risk than would be typical of the listed companies to which IFRS 7, 32 and 39 mainly apply. The Council has limited powers to borrow or invest funds and except for the finance lease contract (details of which are given in notes 1(v), 9(a) and 17), financial assets and liabilities are generated by day-to-day operational activities and are not held to change the risks facing the Council in undertaking its activities.

### *Liquidity risk*

The Council's net revenue resource requirements are financed by grant-in-aid from its sponsor department, the Department for Business, Innovation and Skills. The capital expenditure, with the exception of the ship financed under the finance lease referred to above, is also financed through grant-in-aid. The Council is therefore not exposed to significant liquidity risks.

### *Interest rate risk*

The Council is not exposed to significant interest rate risk.

### *Foreign currency risk*

The Council's exposure to foreign currency risk is not currently significant.

## 24. Restatement of prior periods

The Machinery of Government change included in the 2011-12 Financial Statements relates to the transfer of responsibility for activities relating to scientific research in outer space to the United Kingdom Space Agency (UKSA), a newly created agency of BIS as at 1 April 2011. The FReM changes relate to the change in IAS 20 as outlined in Note 1(a).

### 24. Explanation of Machinery of Government and FReM changes

Analysis of Machinery of Government Change and FReM changes to the statement of financial position at 1 April 2010

	31 March 2010 Published £000	MOG UKSA £000	FReM Revenue £000	FReM Reserves £000	1 April 2010 Restated £000
<b>Non-current assets</b>					
Property, plant and equipment	346,480	-	-	-	346,480
Intangible assets	666	-	-	-	666
Non-current receivables	162	-	-	-	162
Investment in Joint venture	1,239	-	-	-	1,239
<b>Total non-current assets</b>	<b>348,547</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>348,547</b>
<b>Current assets</b>					
Assets classified as held for sale	3,861	-	-	-	3,861
Trade and other receivables	41,529	(3,308)	-	-	38,221
Cash and cash equivalents	12,761	-	-	-	12,761
<b>Total current assets</b>	<b>58,151</b>	<b>(3,308)</b>	<b>-</b>	<b>-</b>	<b>54,843</b>
<b>Total assets</b>	<b>406,698</b>	<b>(3,308)</b>			<b>403,390</b>
<b>Current liabilities</b>					
Trade and other payables	(70,483)	5,353	-	-	(65,130)
Provisions	(3,319)	-	-	-	(3,319)
<b>Total current liabilities</b>	<b>(73,802)</b>	<b>5,353</b>	<b>-</b>	<b>-</b>	<b>(68,449)</b>
<b>Non-current assets plus current assets less current liabilities</b>	<b>332,896</b>	<b>2,045</b>	<b>-</b>	<b>-</b>	<b>334,941</b>
<b>Non-current liabilities</b>					
Provisions	(8,951)	-	-	-	(8,951)
Trade and other payables	(11,712)	-	-	-	(11,712)
<b>Total non-current liabilities</b>	<b>(20,663)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(20,663)</b>
<b>Assets less liabilities</b>	<b>312,233</b>	<b>2,045</b>	<b>-</b>	<b>-</b>	<b>314,278</b>
<b>Taxpayers' Equity</b>					
Government grant reserve	2,540	-	-	(2,540)	-
Revaluation reserve	94,488	-	-	2,742	97,230
Income and expenditure reserve	215,003	2,045	-	-	217,048
Donated asset reserve	202	-	-	(202)	-
<b>TOTAL GOVERNMENT FUNDS</b>	<b>312,233</b>	<b>2,045</b>	<b>-</b>	<b>-</b>	<b>314,278</b>



## 24. Explanation of Machinery of Government and FReM changes cont.

Analysis of Machinery of Government and FReM changes to the statement of comprehensive net expenditure for the year ended 31 March 2011

	31 March 2011 Published £000	MOG UKSA £000	FReM Revenue £000	FReM Reserves £000	31 March 2011 Restated £000
<b>Expenditure</b>					
Staff costs	114,304	(172)	-	-	114,132
Staff early retirements	1,514	-	-	-	1,514
Grants and training	158,350	-	-	-	158,350
Other operating costs	168,762	(56,471)	-	-	112,291
Depreciation	23,895	-	-	-	23,895
Amortisation	548	-	-	-	548
Loss on joint venture	786	-	-	-	786
Impairment of property, plant and equipment	-	-	-	-	-
<b>Total expenditure</b>	<b>468,159</b>	<b>(56,643)</b>	<b>-</b>	<b>-</b>	<b>411,516</b>
<b>Income</b>	<b>(51,465)</b>	<b>-</b>	<b>(11,868)</b>	<b>473</b>	<b>(62,860)</b>
<b>Net expenditure</b>	<b>416,694</b>	<b>(56,643)</b>	<b>(11,868)</b>	<b>473</b>	<b>348,656</b>
Finance lease interest	942	-	-	-	942
Interest receivable	(1)	-	-	-	(1)
<b>Net expenditure after interest</b>	<b>417,635</b>	<b>(56,643)</b>	<b>(11,868)</b>	<b>473</b>	<b>349,597</b>
CEH restructuring	46	-	-	-	46
Unwinding of discount	269	-	-	-	269
Change in discount rate	(137)	-	-	-	(137)
Profit on disposal of fixed assets	(1,060)	-	-	-	(1,060)
<b>Total net expenditure for the year</b>	<b>416,753</b>	<b>(56,643)</b>	<b>(11,868)</b>	<b>473</b>	<b>348,715</b>
<b>Other comprehensive expenditure</b>					
Net gain on revaluation of property, plant and equipment	(1,329)	-	-	-	(1,329)
Net gain on revaluation of intangible assets	(17)	-	-	-	(17)
Net loss on revaluation of investment property	-	-	-	-	-
Net loss on revaluation of assets held for sale	1,900	-	-	-	1,900
<b>TOTAL COMPREHENSIVE EXPENDITURE FOR THE YEAR ENDED 31 MARCH 2011</b>	<b>417,307</b>	<b>(56,643)</b>	<b>(11,868)</b>	<b>473</b>	<b>349,269</b>

## 24. Explanation of Machinery of Government and FReM changes cont.

Analysis of Machinery of Government and FReM changes to the statement of financial position at 31 March 2011

	31 March 2011 Published £000	MOG UKSA £000	FReM Revenue £000	FReM Reserves £000	31 March 2011 Restated £000
<b>Non-current assets</b>					
Property, plant and equipment	355,433	-	-	-	355,433
Intangible assets	174	-	-	-	174
Non-current receivables	167	-	-	-	167
Investment in Joint venture	12,019	-	-	-	12,019
<b>Total non-current assets</b>	<b>367,793</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>367,793</b>
<b>Current assets</b>					
Assets classified as held for sale	224	-	-	-	224
Trade and other receivables	42,342	(2,772)	-	-	39,570
Cash and cash equivalents	16,695	-	-	-	16,695
<b>Total current assets</b>	<b>59,261</b>	<b>(2,772)</b>	<b>-</b>	<b>-</b>	<b>56,489</b>
<b>Total assets</b>	<b>427,054</b>	<b>(2,772)</b>	<b>-</b>	<b>-</b>	<b>424,282</b>
<b>Current liabilities</b>					
Trade and other payables	(82,303)	-	-	-	(82,303)
Provisions	(2,924)	-	-	-	(2,924)
<b>Total current liabilities</b>	<b>(85,227)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(85,227)</b>
<b>Non-current assets plus current assets less current liabilities</b>	<b>341,827</b>	<b>(2,772)</b>	<b>-</b>	<b>-</b>	<b>339,055</b>
<b>Non-current liabilities</b>					
Provisions	(7,490)	-	-	-	(7,490)
Trade and other payables	(10,299)	-	-	-	(10,299)
<b>Total non-current liabilities</b>	<b>(17,789)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(17,789)</b>
<b>Assets less liabilities</b>	<b>324,038</b>	<b>(2,772)</b>	<b>-</b>	<b>-</b>	<b>321,266</b>
<b>Taxpayers' Equity</b>					
Government grant reserve	2,186	-	-	(2,186)	-
Revaluation reserve	84,502	-	-	2,361	86,863
Income and expenditure reserve	237,175	(2,772)	-	-	234,403
Donated asset reserve	175	-	-	(175)	-
<b>TOTAL GOVERNMENT FUNDS</b>	<b>324,038</b>	<b>(2,772)</b>	<b>-</b>	<b>-</b>	<b>321,266</b>

## 24. Explanation of Machinery of Government and FReM changes cont.

Analysis of Machinery of Government and FReM changes to the statement of cash flows as at 31 March 2011

	31 March 2011 Published £000	MOG UKSA £000	FReM Revenue £000	FReM Reserves £000	31 March 2011 Restated £000
<b>Cash flows from operating activities</b>					
Net expenditure after interest	(417,635)	56,643	11,868	(473)	(349,597)
Depreciation charge	23,895	-	-	-	23,895
Amortisation charge	548	-	-	-	548
Release from government grant and donated asset reserves	(473)	-	-	473	-
Loss on joint venture	786	-	-	-	786
Decrease in provisions	(2,035)	-	-	-	(2,035)
(Increase) / decrease in trade and other receivables	(818)	(536)	-	-	(1,354)
Increase / (decrease) in trade and other payables	11,700	5,353	-	-	17,053
<b>Net cash outflow from operating activities</b>	<b>(384,032)</b>	<b>61,460</b>	<b>11,868</b>	<b>-</b>	<b>(310,704)</b>
<b>Cash flows from investing activities</b>					
Payments to acquire property, plant and equipment	(43,916)	-	-	-	(43,916)
Payments to acquire intangible assets	(39)	-	-	-	(39)
Payments to acquire financial assets	(11,566)	-	-	-	(11,566)
Receipts from disposal of property, plant and equipment, intangible assets and investments	15,194	-	-	-	15,194
<b>Net cash outflow from investing activities</b>	<b>(40,327)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(40,327)</b>
<b>Cash flows from financing activities</b>					
Grant-in-aid and other BIS funding	417,000	(61,460)	717	-	356,257
Funding received from other bodies	12,585	-	(12,585)	-	-
Capital element of finance lease payments	(1,292)	-	-	-	(1,292)
<b>Net cash inflow from financing activities</b>	<b>428,293</b>	<b>(61,460)</b>	<b>(11,868)</b>	<b>-</b>	<b>354,965</b>
<b>Net increase / (decrease) in cash and cash equivalents in the period</b>	<b>3,934</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,934</b>
<b>Cash and cash equivalents at the beginning of the period</b>	<b>12,761</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,761</b>
<b>Cash and cash equivalents at the end of the period</b>	<b>16,695</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16,695</b>

## 24. Explanation of Machinery of Government and FReM changes cont.

Analysis of Machinery of Government and FReM changes to the statement of taxpayers' equity as at 31 March 2011

	Government grant reserve	Accumulated income & expenditure reserve	Revaluation reserve	Donated asset reserves	Total government funds
	£000	£000	£000	£000	£000
Balance at 31 March 2010	2,540	215,003	94,488	202	312,233
MOG and FReM changes	(2,540)	2,045	2,742	(202)	2,045
<b>Restated at 1 April 2010</b>	<b>-</b>	<b>217,048</b>	<b>97,230</b>	<b>-</b>	<b>314,278</b>
<b>Changes in taxpayers' equity for 2010-11</b>					
Grant-in-aid and other BIS funding	-	356,257	-	-	356,257
Revaluation in year	-	-	(554)	-	(554)
Change of reserve usage	-	(13)	13	-	-
Net expenditure for the year	-	(348,715)	-	-	(348,715)
Transfer between reserves	-	9,826	(9,826)	-	-
<b>BALANCE AT 31 MARCH 2011</b>	<b>-</b>	<b>234,403</b>	<b>86,863</b>	<b>-</b>	<b>321,266</b>





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