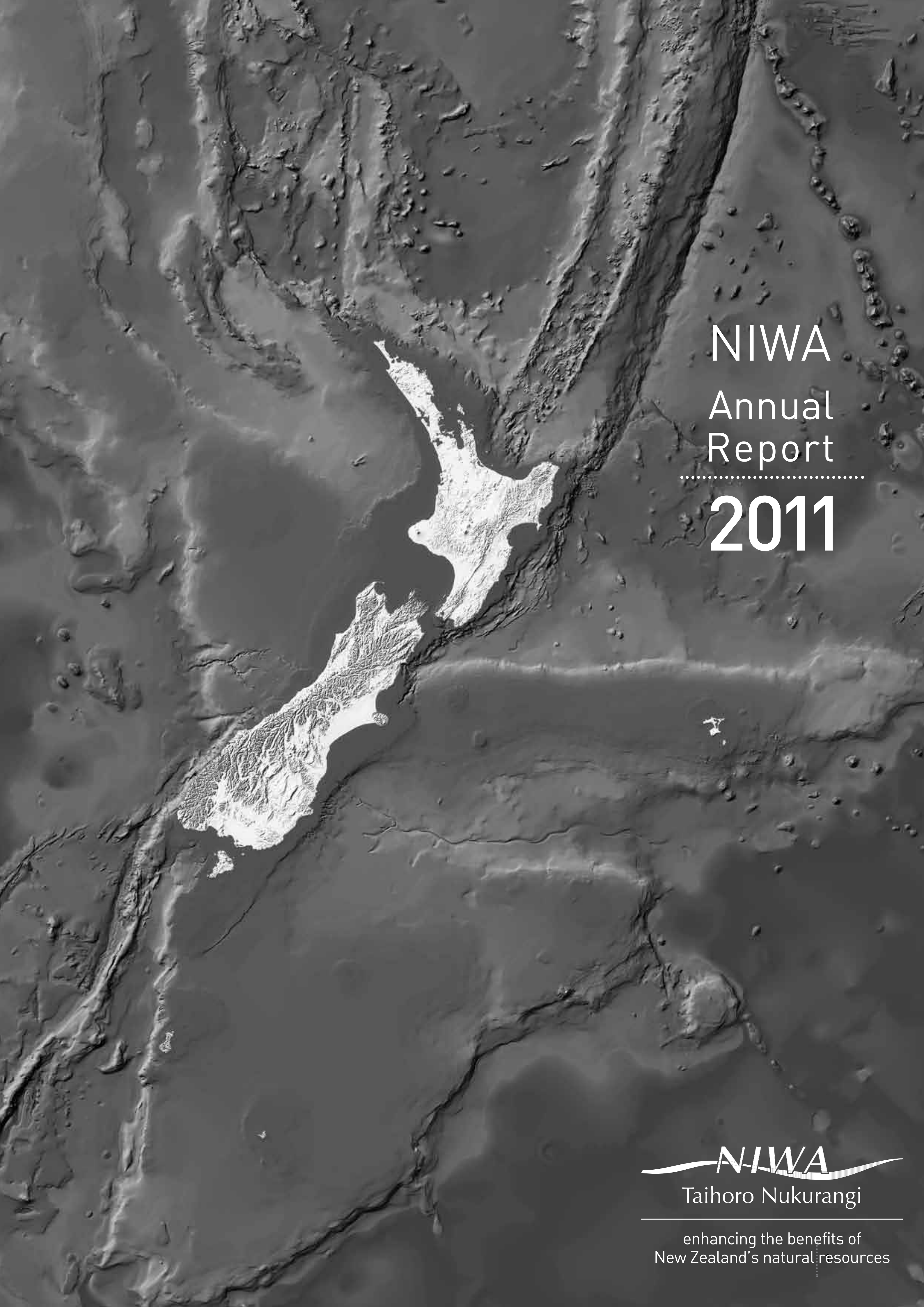


NIWA Annual Report 2011

NIWA
Taihoro Nukurangi

enhancing the benefits of
New Zealand's natural resources

Front cover: NIWA's iconic Undersea New Zealand graphically identifies New Zealand's ocean estate, the fourth largest in the world.

This page: This NIWA chart reveals the shape of the seabed in Cook Strait, uncovering some of the secrets hidden beneath the ocean.

NIWA
Taihoro Nukurangi

NIWA Annual Report for 2011

Contents

From the top of the atmosphere to the bottom of the ocean, NIWA is focused on enhancing the benefits of New Zealand's natural resources

671
staff across 16 sites in New Zealand and Australia

$117.9 million
revenue from research and applied science services

807
current environmental science projects

Enhancing our nation's economic and environmental prosperity

Never before in New Zealand's history has the case for robust, long-term natural resources and environmental research and applied science services been made clearer than in the last financial year.

As a country, we continue to navigate our way through difficult economic times, made worse by unprecedented national disasters, like the Christchurch earthquakes and the Pike River mining tragedy. At the same time, New Zealand faces some very important environmental opportunities and issues which, if not managed effectively, will continue to impact on New Zealand economically. Issues like water quality and water allocation, energy supplies, ocean resource management, the changing climate, how we respond to natural hazards and increasing numbers of extreme weather events, and making greater use of our vast natural resources in a sustainable way.

The Government has recognised the importance that science and innovation will play in New Zealand's future economic and environmental prosperity through the establishment of the new Ministry of Science and Innovation (MSI) – a single agency tasked with driving the science and innovation sector in New Zealand forward. It is a move that the Board of NIWA welcomes, and we are already working closely with MSI to meet our core purpose as New Zealand's leading natural resources and environmental science services provider.

As the Prime Minister's Chief Science Advisor Sir Peter Gluckman noted recently in his discussion paper on policy formation, science creates the platform for effective strategies and wise policy development. The Board of NIWA agrees. NIWA has the skills and expertise to make a significant contribution to how New Zealand tackles the important decisions we will have to make as a country around our natural resources and environment in the coming years.

Despite the challenges of the past year, NIWA has continued to perform positively. Our productivity continues to improve and demand for our services remains high. We continue to invest in essential technology, upgrade existing facilities, and align and strengthen our capabilities to meet the country's science needs, and we are well placed to meet our responsibilities as outlined in our Statement of Core Purpose.

The year ahead will not be without its own challenges, but the Board is confident NIWA is in a good position to face those challenges head on. I would personally like to thank my fellow Directors, CEO John Morgan, his hard working Executive, and all of the NIWA team for their commitment and work this year. In particular I would like to commend the NIWA Christchurch team for their resilience and ongoing commitment.

We can all be truly proud of the contribution NIWA makes to enhancing New Zealand's economic and environmental prosperity through the delivery of outstanding science based services.

Chris Mace
Chairman

$117.9 million
revenue from research and applied science services

$16.3 million
earnings before interest, tax, and depreciation

$1.3 million
profit after tax

$87 million
capital investment over the last 4 years

$139.8 million
total assets

"New Zealand's economic and environmental prosperity depends on robust, long-term science and applied research."

John Morgan, Chief Executive

Chairman Chris Mace (left) and Chief Executive John Morgan.

An unprecedented year

Despite predictions that New Zealand would continue to face significant economic challenges in the 2010–11 financial year, few foresaw the unprecedented economic situation that lay ahead.

Not only did New Zealanders continue to feel the lingering effects of the global economic crisis and our own economic recession, but we also endured some of our nation's greatest tragedies, with significant loss of life. As a result, New Zealand posted its worst-ever deficit in May this year, and the flow-on effects for our economy continue to be felt today.

There is, no doubt, more uncertainty and instability to come before we see a full economic recovery. How quickly and decisively New Zealand responds now will determine our nation's economic prosperity in the years ahead.

The same is true for NIWA. Like other businesses, we have not been immune to the unusually challenging economic environment, and we have had to respond accordingly. Despite the strong demand for NIWA's science based services, we forecast relatively static revenue this year. In reality, it dipped.

We were, however, incredibly fortunate to suffer only very minor damage and disruption to our Christchurch operations after the September and February earthquakes. Although more than half our Christchurch staff suffered damage to their homes, they showed considerable resilience and stoicism. Without their continued dedication to see the job done, our performance this year would certainly have been more significantly affected.

Our response to the challenging economic environment included tightly managing our costs, and carrying out an operational review to ensure our capabilities were aligned with the nation's science needs. This included making changes to our staffing levels, and streamlining our internal systems so our business operates more efficiently.

With this careful planning, and by responding with agility to the quickly changing economic environment, NIWA has continued to be a profitable and thriving business in 2010–11. Our final results show revenue of $117.9 million, with earnings before interest, tax, and depreciation (EBITDA) of $16.3 million and profit after tax of $1.3 million – a sound result, albeit lower than budgeted, given the tough operating environment.

At the same time, we are always looking for ways to improve what we do and meet the demand for our services, including upgrading our national environmental monitoring network and a $25 million refit of our largest research vessel, *Tangaroa*. The refit included the installation of a dynamic positioning (DP2) system – making *Tangaroa* an even more valuable New Zealand asset for ocean science, surveying, and exploration.

With continuing investment in essential technology, including purchasing the Southern Hemisphere's most powerful supercomputer, upgrading our finance and project management systems, and investing in new IT hardware and software, NIWA is well placed to provide science based services that will contribute to the prosperity of New Zealand in the years ahead.

NIWA's supercomputer – greatly enhanced business management with new forecasting accuracy. (Dave Allen, NIWA)

Tangaroa – New Zealand's largest single science asset returns after a $25 million upgrade. (Peter Marriott, NIWA)

Science is at the forefront of New Zealand's future

In his speech at the opening of the new Ministry of Science and Innovation (MSI), Dr Wayne Mapp said "creating a Ministry which spans both science and innovation shows the Government's intent to place science at the forefront of New Zealand's future."

At NIWA, we have long held the view that New Zealand's economic and environmental prosperity depends on robust, long-term research and applied science. The need for NIWA's skills and expertise has never been more evident than now.

The establishment of the new Ministry, along with other initiatives to better align the functions of the Crown Research Institutes with the needs of the sectors they serve, provide the foundation NIWA needs to make an even greater contribution to New Zealand's economic growth.

Contributing to New Zealand's economic recovery and growth

Right now, NIWA has more than 1000 science projects on the go through our National Science Centres. NIWA's science will continue to drive New Zealand's economic recovery and growth by:

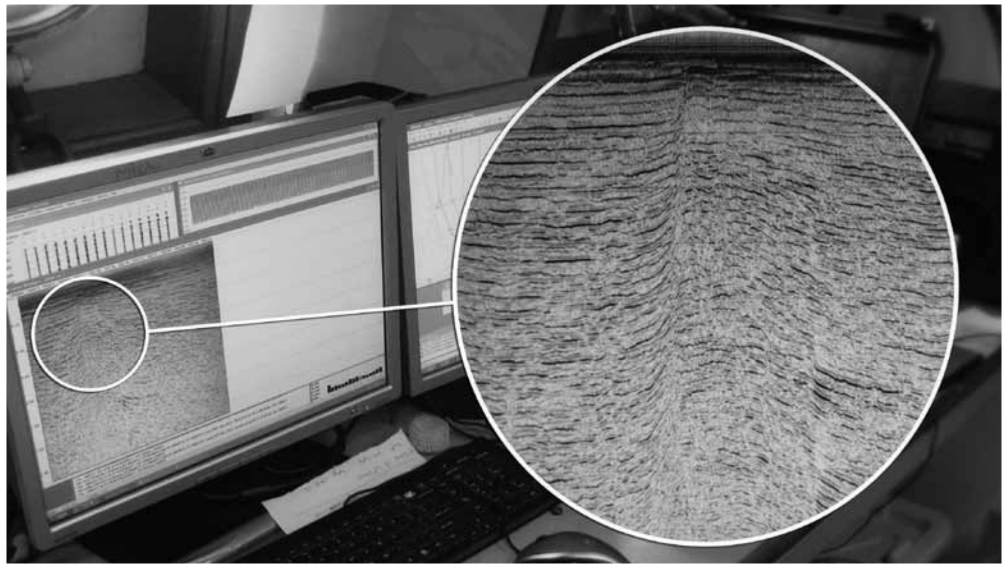
- Identifying ways to make better use of our vast natural resources in a sustainable manner,
- Ensuring New Zealand is better prepared for extreme weather events and natural hazards,
- Seeking to maintain New Zealand's 'clean, green' image, through better management of our natural environment,
- Helping New Zealand contribute to important global environmental issues like the changing climate.

Making greater use of our natural resources

To boost New Zealand's economy, scientists at NIWA are looking at how we can get greater value from our natural resources, in a sustainable way. This year, that research has included quantifying valuable mineral deposits from submarine volcanoes in the Kermadec Arc, and determining how to best protect the unique biological communities of animals which thrive in that hot and chemically rich environment.

We also provide scientific advice to the Ministry of Fisheries on the sustainable harvest of more than 100 fish species, and in July we signed a contract with the Ministry of Fisheries to provide deepwater fisheries research services under the ten year deepwater plan.

We are investigating how New Zealand can grow its renewable energy resources. We have made significant advances in aquaculture research. For example, we are using selective breeding and genomics – the study of gene sequences in DNA – to establish high-performance hāpuku, kingfish, and paua broodstock to help New Zealand's aquaculture industry meet its $1 billion target by 2025.



Science supporting the Christchurch community – showing the largest active fault in Pegasus Bay. (Philip Barnes, NIWA)

Being better prepared for natural hazards

This year we need no reminders of how vulnerable we are to natural hazards. Science not only plays a crucial role in responding to hazards and disasters, but also helps us understand more about their causes, so we can be better prepared for the risks. After the 22 February Christchurch earthquake, NIWA ocean geologists were part of a rapid response effort, managed by the Natural Hazards Research Platform, to undertake a seismic survey in Pegasus Bay, off Banks Peninsula. The survey revealed a previously unknown offshore fault east of Kaiapoi. Combined with onshore geophysical studies by other organisations, this information will help the Government and regional council better understand the future seismic risk for Christchurch and its residents.

When the Chilean volcano Puyehue erupted in June, NIWA scientists were also able to help by providing additional information to aviation authorities about the ash cloud and how it might affect New Zealand's airspace.

Our new $12.7 million supercomputer has also improved our environmental forecasting capabilities, enabling us to work towards providing meteorological forecasts at ultra-high resolution – down to areas as small as 1.5 square kilometres – out to 24 hours in advance, four times daily.

Ensuring our environment is well managed

New Zealand's clean, green image is a drawcard for tourism, and a key ingredient in marketing our produce overseas. We must rise to the challenge of developing the standards to retain our world ranking for environmental management.

This year the Government released two important policy statements to guide the day-to-day management of our coasts and freshwater resources – the New Zealand Coastal Policy Statement and the Freshwater Policy Statement.

NIWA's science is already making an important contribution in these areas. For example, this year we led a ground-breaking study that combined mātauranga Māori with contemporary science to restore the Waikato River. We are also working with the Ministry for the Environment to develop New Zealand's first national-scale environmental monitoring network for our surface waters. Through NIWA's Māori Environmental Research Centre, Te Kūwaha, we are also developing easy-to-use toolkits to help iwi monitor changes in their rohe (region), and empower them to become more involved in resource management processes.

Helping New Zealand fulfil its international obligations

NIWA's science also enhances New Zealand's reputation as a world leader in science and research, helping to understand, and mitigate against, important global issues like climate change and variability.

This year marked the 50th anniversary of NIWA's atmospheric research station at Lauder, in Central Otago. Over the last five decades the research centre has built an international reputation for its work, specialising in measuring levels of chloroflurocarbons (CFC), ozone, ultraviolet (UV) light, and greenhouse gases with an extensive array of world class instruments. International climate experts describe Lauder's work as a vital cog in global climate research.

We are also helping New Zealand fulfil its international science obligations by providing information and scientific advice to international agencies like CCAMLR, the Commission for the Conservation of Antarctic Marine Living Resources, and making lead author contributions to the 5th IPCC Report on Climate Change.

The year ahead

It would be imprudent to suggest that the unusually tough economic conditions we faced in 2010–11 are now behind us, as a company or as a nation. We expect business conditions to remain unsettled over the coming year, and, as a result, we will need to continue to respond with agility, by looking for new ways to improve our efficiency and expand our revenue, and being cautious about our investments.

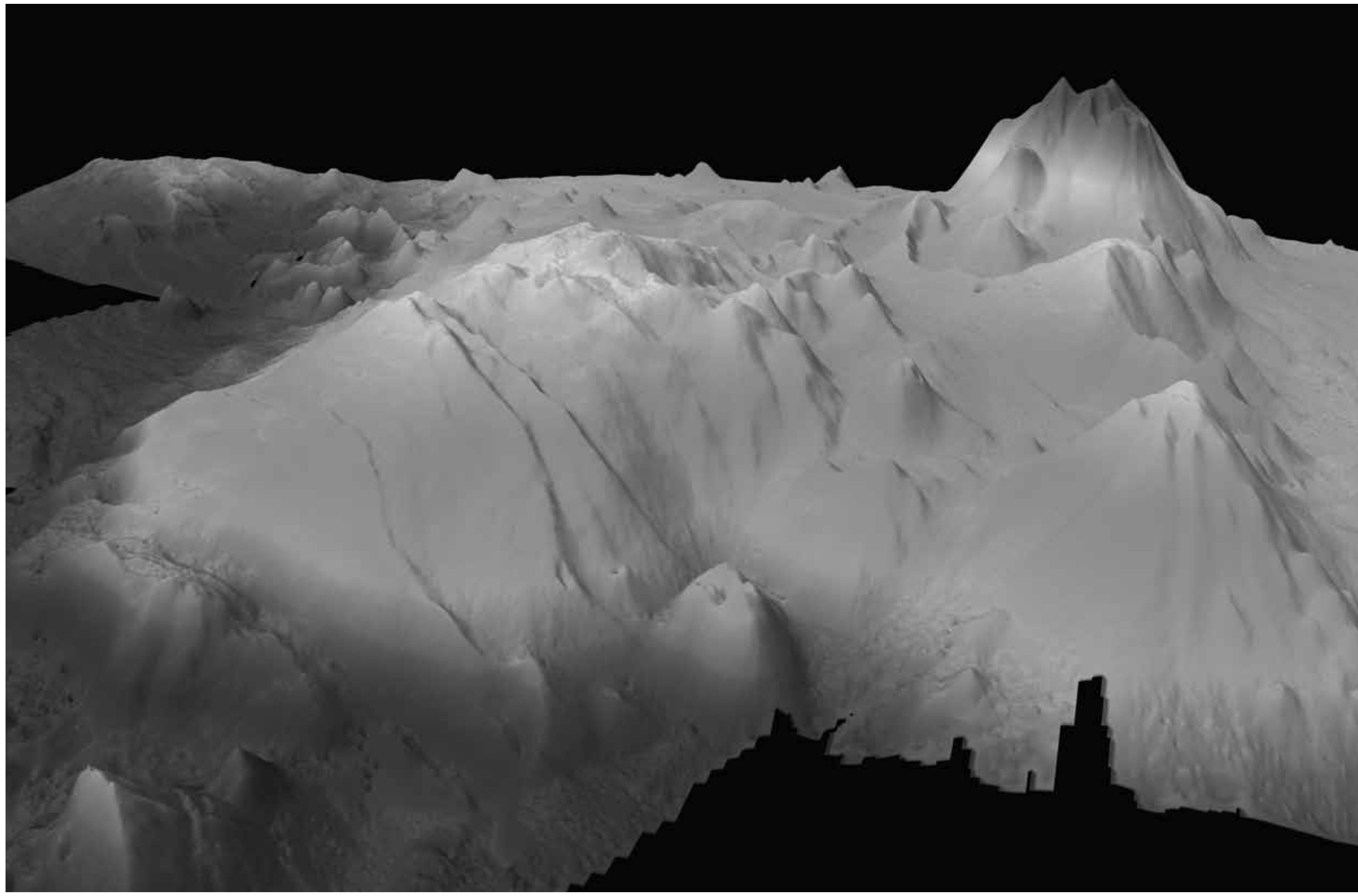
That said, the organisational changes we have made this year, along with our ongoing capital expenditure programme, means NIWA is in a great position to meet the future demand for our science based services. We owe it to our company, our customers, and New Zealand to ensure we maintain the right capabilities to meet the country's science and innovation needs in a cost-effective and competitive way.

I acknowledge that the last year has been an unsettling time for the NIWA team. But I am also very proud of the positive way our staff have responded to the changes. I thank everyone for their continued hard work and commitment to the company.

I also want to personally thank the NIWA Executive Team and the Board for their ongoing support and leadership, through the tough conditions we have faced this year. It has been challenging, but throughout we have proven, time and time again, what an important contribution NIWA is making to New Zealand's future prosperity as the country's leading natural resources and environmental science services provider.

The following pages highlight just a few of our successes this year.

John Morgan
Chief Executive



The Hinepuia Seamount on the Kermedec Arc, as revealed by *Tangaroa*'s seabed mapping technology.

A difficult year

The financial year 2010–11 was a challenging one for many businesses, and NIWA was no exception.

A substantial proportion of revenue comes from government agencies, and revenue from this sector dropped as their spending was constrained or reduced.

In anticipation of the likelihood of a tough year, we began in a cautious mode, focusing on tightly managing costs, while maintaining critical capability for the long haul, and ensuring that our capabilities were closely aligned with demands for NIWA's science based services.

As the year unfolded, and the extent of the reduced demands for NIWA's services became evident, we continuously adjusted our operations and financial planning to ensure we maximised revenue and operated profitability.

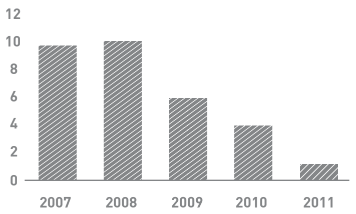
Achieving profitability in such a challenging market required us to respond swiftly to the quickly changing circumstances, leading to a Net Profit after Tax of $1.3 million on revenue of $117.9 million.

Despite the constraints, we maintained our commitment to the completion of NIWA's four year capital investment programme, with the expenditure of a further $22.0 million this year on top of the $30.0 million and $21.2 million in 2009–10 and 2008–09 respectively. This represents a significant commitment to the future of science capability in New Zealand.

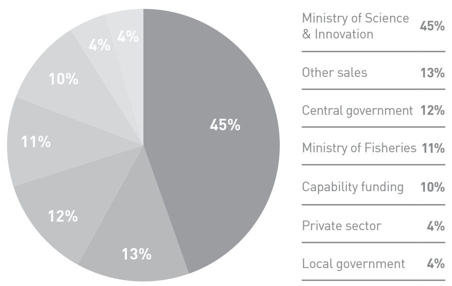
A substantial component of this capital investment was applied to *Tangaroa* and the planned installation of a dynamic positioning system and associated upgrading. With the vessel already in the dry dock in Singapore, we decided to undertake more extensive and expansive upgrade work than was originally envisaged, with the aim of further increasing the vessel's capabilities, its working life, and its revenue generating opportunities. The additional work meant that *Tangaroa* was out of commission for the first half of the year, and this impacted negatively on revenue – a short-term hit for very real long-term gains.

NIWA's cost structure is not elastic, with approximately 50% of costs bound into staff costs.

Net profit after tax
($) in millions



Revenue by source



NIWA is a knowledge-based organisation, and we have a deliberate strategy of continuing to improve remuneration for our highly skilled staff in a very globally competitive marketplace.

Financial Summary

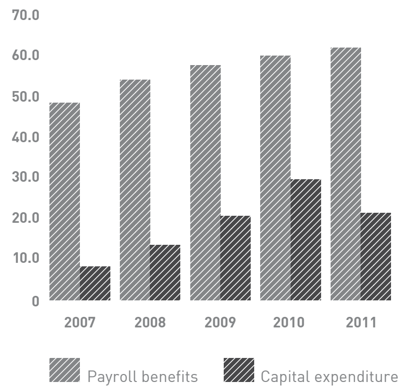
in thousands of New Zealand dollars	2011	2010	2009	2008	2007
Total revenue (includes interest income)	117,861	127,917	120,438	120,671	113,911
– Research	64,624	65,646	58,883	55,536	53,418
– Applied science	53,237	62,271	61,555	65,135	60,493
Net profit before tax	1,860	9,550	9,050	14,309	14,279
Net profit after tax	1,266	4,497	6,011	10,095	9,813
Capital expenditure	21,990	29,985	21,187	13,985	9,107
Adjusted return on average equity (%)	1.9	7.0	9.8	17.9	21.2
Return on average equity (%)	1.4	5.2	7.1	12.8	14.1

The 'adjusted return on average equity' uses a valuation basis comparable to other Crown Research Institutes. This valuation basis arose from the transition to New Zealand international financial reporting standards.

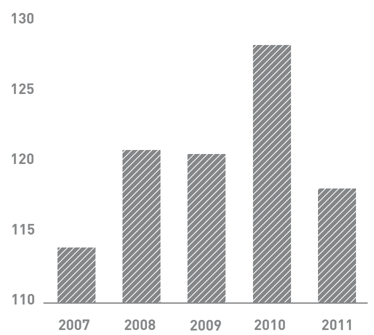
"Responding with agility to the rapidly changing economic environment enabled us to continue to achieve profitability."

Kate Thomson, Chief Financial Officer

Payroll benefits & Capital expenditure
($) in millions



Total revenue (includes interest income)
($) in millions



Although the economic environment remains challenging, NIWA continues to be a high performing Crown Research Institute. Financial strength and flexibility enable us to invest substantially in staff and science capability to ensure we play a leading role in enhancing the benefits of New Zealand's natural resources.

Revenue

After the strong result in the previous financial year, when revenue increased significantly despite the global financial crisis, NIWA's revenue dropped in 2010–11 owing to the impact of the constrained economy on our customers and the unavailability of *Tangaroa* for six months. Total revenue for 2010–11 was $117.9 million (2010: $127.9 million).

The value of NIWA's commercial consultancy to New Zealand was $34.0 million (2010: $36.4); whilst the value of the international consultancy was $6.5 million (2010: $7.4 million).

Expenditure

Personnel Costs

Staff are NIWA's greatest asset, and that is reflected in the deliberate strategy to continue to raise average remuneration. Although this strategy was constrained during 2010–11, total payroll and benefits increased to $62.5 million (from $60.1 million in 2009–10), with average staff remuneration increasing by 3.5%. The realignment of capabilities with the demands for our science and applied research services resulted in one-off termination expenses of $1.2 million.

Earnings before interest, depreciation, and amortisation (EBITDA)

EBITDA was impacted by the reduced revenue; however, it remained strong at $16.3 million (2010: $24.2 million).

Net Profit after tax (NPAT)

NPAT this financial year was $1.3 million (2010: $4.5 million), against a budget of $6.5 million.

Whilst below expectations, the result reflects the determined efforts to generate revenue and constrain costs, despite the difficult economic environment.

Adjusted return on equity (giving a comparative basis with other Crown Research Institutes) was 1.9%.

Financial Position & Cash

Capital

2010–11 was the fourth of a planned multi-year major capital investment programme designed to strengthen infrastructure and equipment to rapidly advance NIWA's science based services, and improve the work environment and facilities for staff.

Despite the tough economic environment this investment continued, taking capital expenditure over the last four years to $87 million. Over that period NIWA's maximum debt has been $19 million, owing to the strong operating cash flows. The most significant elements of this investment were $13 million for the high performance computing facility in Wellington and $25 million for the upgrade to the capability of our flagship research vessel *Tangaroa*. *Tangaroa* now has a market value of $60 million and is one of the most capable research vessels in the world.

Total asset base

Average shareholders' equity at 30 June 2011 was $89.7 million (2010: $86.9 million). NIWA's investment in capital expenditure is reflected in its increased average total assets value, which is now $133.6 million (2010: $121.4 million).

Liquidity

NIWA continues to maintain healthy liquidity and is able to meet all of its obligations as they fall due. The debt balance reached $19 million at its peak during the year, and reduced to a net balance of $13.4 million by 30 June 2011.

Making a positive contribution

NIWA is committed to making a positive contribution to New Zealanders' well-being.

This commitment is reflected in a set of guiding principles that covers our social, economic, and environmental responsibilities. We are dedicated to continual improvement of our policies, practices, and strategies that deliver on these responsibilities.

NIWA is committed to the principles of operation stated in section 5 of the Crown Research Institutes Act 1992, which require:

- that research undertaken by NIWA should be undertaken for the benefit of New Zealand;
- that NIWA should pursue excellence in all its activities;
- that in carrying out its activities NIWA should comply with any applicable ethical standards;
- that NIWA should promote and facilitate the application of the results of research and technological developments;
- that NIWA should be a good employer;
- that NIWA should be an organisation that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates and by endeavouring to accommodate or encourage those interests when able to do so.

Social Responsibility

NIWA is committed to work practices, operations, and science outcomes that support its staff and the wider community. Our approach is one of partnership and inclusion to ensure that we incorporate the interests of others in our activities, communicate our science well, and maximise the benefits our science brings to society.

Caring for our people

We are committed to providing:

- a safe and healthy working environment with zero harm;
- a work-life balance that maintains job satisfaction;
- a working environment, including learning and development opportunities, that enables people to reach their full potential;
- suitable equipment, so that staff can do the job that is asked of them;
- remuneration and rewards that fairly reflect an individual's contribution to the organisation's success;
- a professional, participative, and collegial workplace where people are respected and supported and enjoy being part of.

Working in the community

We are committed to:

- engaging positively with local communities in which we are conducting our science, explaining what we propose to do, respecting local traditions and culture, and keeping them informed of our results;
- supporting science education and knowledge transfer to communities (e.g., Kelly Tarlton's, Science & Technology Fairs, work placements, supervision of postgraduates, educating community environmental groups);
- raising public awareness of the value of science and innovation through public talks, media interviews and releases, our website, and sponsoring local relevant events;
- transferring our knowledge to stakeholders in a way that ensures enduring benefits for communities;
- being an active member of the science community, and collaborating with others to provide a cohesive science system that is effective and efficient;
- contributing to national policy development and decision-making, so our expertise benefits all New Zealanders and helps New Zealand meet its obligations as a global citizen.

Working in partnership with Māori

We are committed to:

- developing and maintaining effective long-term relationships with iwi, hapū, and other Māori organisations throughout New Zealand;
- developing Māori research capability and capacity within NIWA and in our partner Māori organisations;
- sharing our knowledge and skills, so that Māori are better enabled to realise the potential of their resources and exercise kaitiakitanga;
- increasing the capability of our staff to interact with Māori through training in te reo and tikanga.

Working with our customers

We are committed to:

- listening to our customers and understanding their needs and expectations;
- proposing and delivering innovative services and solutions;
- regularly informing customers of progress, and maintaining a 'no surprises' policy;

"We are committed to making a difference."
John Morgan, Chief Executive

407 commissioned reports to users	**23** new jobs created
0.02% lost time from injuries or accidents	**73** PhD students supervised

- providing deliverables on time, to budget, and to agreed specifications;
- maintaining professional and ethical standards;
- developing long-term relationships, so that our customers' success is our success.

Economic Responsibility

NIWA is committed to operating with financial discipline, so we retain our long-term viability and thus meet our core purpose science responsibilities. NIWA's knowledge and expertise provide significant opportunities for generating economic benefit for New Zealand, and we have a responsibility to ensure that they do.

Continuing to be financially viable

We are committed to:

- making fiscally responsible decisions and maintaining NIWA's short- and long-term financial viability;
- on-going investment in capital items that enable us to conduct excellent science and continue to generate revenue.

Generating economic benefit for New Zealand

We are committed to:

- using our knowledge to help others derive economic benefit from the efficient and effective use of New Zealand's natural resources and infrastructure;
- providing solutions that reduce or eliminate risks from natural or human-induced environmental impacts on economic activities;
- conducting technical and market assessments of business opportunities arising from our science, so that investment risk is better understood;
- being open to joint ventures with the private sector, where this encourages start-up of new economic activity;
- working collaboratively with other parts of government to ensure that first adopters are appropriately supported and that government investment is aligned and effective.

Environmental Responsibility

NIWA is committed to ensuring that we take due care of the environment when carrying out our activities. Whilst our science contributes strongly to better environmental outcomes for New Zealand, we do have environmental impacts when conducting that science, and such impacts must be minimised.
We need to encourage others to use our knowledge to improve the environmental outcomes they have responsibility for.

Ensuring our activities are environmentally responsible

We are committed to:

- ensuring that all operational activities and assets comply with resource consents, relevant environmental standards, biosecurity and biodiversity regulations, and permitting requirements;
- ensuring that all sampling and experiments with live animals comply with the Animal Welfare Act 1999;
- ensuring that all material waste production and water use is minimised, and we make maximum practical use of recycling and electronic media;
- ensuring that energy consumption and greenhouse gas emissions are compliant and the most cost-effective and efficient practice for the activities they relate to;
- making use of environmental initiatives introduced and supported by local industries, councils, and community groups;
- encouraging our employees to take positive actions to reduce the effects of their activities on the environment.

Imparting our knowledge to others to improve environmental outcomes

We are committed to:

- helping others meet their environmental responsibilities by providing objective advice on the impacts of their activities and solutions to mitigate those impacts;
- providing appropriate tools and training for community groups and others to implement environmental monitoring and habitat rehabilitation projects;
- providing information on the nation's unique aquatic biodiversity and threats to it, so that wise decisions can be made.

"Capability funding helps us preserve vital research and applied science capability and grow New Zealand's economic future."

Dr Rob Murdoch, General Manager, Research

Capability funding is provided to Crown Research Institutes (CRIs) through the Ministry of Science and Innovation (formerly the Ministry of Research, Science and Technology) to support and enhance long-term research capability.

Each CRI's capability funding is based on its proportion of the total government research investment. In 2010–11, NIWA received $12.06 million (excluding GST) from this source, down from $12.27 million in 2009–10.

Over the past year we have devoted more funds to supporting our existing expertise and programmes, while maintaining or trimming funds in other categories.

Three examples of our capability fund investment are illustrated below.

	2011 $'000 (excl GST)	%	2009 $'000 (excl GST)	%
Support core skill base	2,136	18	4,951	40
Advance new areas of science & innovation	4,432	37	4,312	35
Transfer knowledge to end-users	3,789	31	1,498	12
Build future research capacity	849	7	770	7
Bridge the gap between research & commercialisation of new products	855	7	736	6
Total	**12,061**		**12,267**	

How much snow and ice?

Understanding how much water is locked up in New Zealand's mountains as snow and ice is crucial for assessing future availability of freshwater, as well as assessing snow and flood hazards.

To gather information on this frozen resource, and how it is influenced by changes in climate, NIWA has set up a Snow and Ice Monitoring Network. The network now consists of 17 high-altitude meteorological stations strategically placed along the Southern Alps and at Mount Ruapehu.

The stations gather data on climate, and snow depth and density. From the snow measurements, scientists can calculate the Snow Water Equivalent, an estimate of how much water would result if the snow melted.

Information on potential volumes of melt water is useful for hydro-electricity generators, and for farmers and regional authorities to plan water use and flood protection. Over time, analysis of data produced by the network will help us better understand the nature of seasonal snow throughout New Zealand.

Wind direction influences warming trend

NIWA climate scientists are investigating influences on New Zealand's climate to better predict the effects of global warming. New Zealand temperature variations from year to year are heavily influenced by whether the wind is primarily from the north (warmer) or south (cooler).

Our scientists have found a trend towards more southerlies in the last 50 years, which has slowed the rate of New Zealand warming. The trend occurs because there are now fewer large high pressure systems lying east of New Zealand. These highs block low pressure systems in the Tasman and bring warm northerly winds over the country.

No-one yet knows why these 'blocking highs' have become less common lately, but it may be related to changes in the way El Niño affects the South Pacific. Understanding the reasons for the trend is important for interpreting the output from climate models and for more accurately predicting future warming over New Zealand.

How healthy is the air we breathe?

Although most of us spend at least 80 percent of our time indoors, air quality regulation and management are focused on outdoor sources of air pollution. We know relatively little about air quality in people's homes, including how it's affected by indoor activities such as cooking. International research provides only limited insight into the New Zealand situation, given the unusual construction of our houses and high use of woodburners.

NIWA's urban air quality team are addressing these issues by developing and testing methods of measuring air quality in New Zealand homes. Because homes and their occupants vary greatly, the scientists needed to develop a discrete, yet cheap, instrument for long-term monitoring of a large number of homes.

With capability funding, they have developed and tested a package of instruments that incorporate an optical dust sensor, along with motion and carbon dioxide sensors for monitoring human activity in the home. Although the dust sensors were originally designed for use in industrial environments with high concentrations of suspended particles, they proved surprisingly sensitive in home environments.

Ongoing research is focused on how best to use the instruments in people's homes, such as where to place them, with the view to putting them in volunteers' homes within the next year.

NIWA staff installing the snow station on Castle Mount, Fiordland. (Evan Baddock, NIWA)

Board of Directors

Dr Wendy Lawson
Dr Wendy Lawson is a glaciologist with a particular interest in the impacts of climate change and earth systems. She has more than 25 years of remote field science experience in Arctic, Antarctic, and alpine regions. She is Dean of Science and Professor at the University of Canterbury, and serves on the Board of the Antarctic Research Centre at Victoria University.

Dr Helen Anderson
(from July 2011)
Helen Anderson is a board member of DairyNZ and FulbrightNZ. She was Chief Executive of the Ministry of Research, Science and Technology for six years, preceded by six years as Chief Scientific Adviser. Most recently she has reviewed the Defence Technology Agency and been a member of the Ministerial inquiry into the collapse of Christchurch CBD buildings. She is a seismologist by training and regularly speaks to lay audiences about recent earthquakes.

Ed Johnson
Ed Johnson, FInstD, is Chair of Fulton Hogan Ltd, Goldpine Industries Ltd, Indevin Ltd, and Port Marlborough New Zealand Ltd, and a director of several entities. He retired as Chairman and CFO of Shell New Zealand in 2002. In 2001, Ed became the inaugural Honorary Fellow of Massey University's Centre for Business and Sustainable Development and was made a Fellow of the New Zealand Institute of Directors in 2003.

John Morgan
Chief Executive Officer
John joined NIWA as CEO in April 2007. He has extensive senior executive and governance experience in the science sector, including as CEO of AgriQuality Ltd, Executive Director of Orica New Zealand Ltd, and Chair of New Zealand Pharmaceuticals Ltd. John is passionate about the role science can play in transforming New Zealand's economy, society, and global reputation.

Chris Mace
Chairman
Chris Mace is an Auckland-based businessman. He chaired the Crown Research Institute ESR in the 1990s and later Antarctica New Zealand. He was a founding trustee of the Sir Peter Blake Trust and continues as a trustee of the Antarctic Heritage Trust. Chris was awarded a CNZM for services to Antarctica and the community and was appointed Chairman of NIWA in July 2009.

Craig Ellison
Deputy Chairman
Craig Ellison is a director on several boards, including New Zealand Trade & Enterprise, as well as chairing the New Zealand Seafood Standards Council. Dunedin born and bred, Craig now lives in Wellington, but also has commercial interests in Australia. He was deeply involved in the settlement of Māori commercial fisheries claims, and maintains an interest in Māori governance structures and resource management.

Jason Shoebridge
Jason Shoebridge is the Managing Director of TNS New Zealand. Jason has led consulting assignments across a range of industries and disciplines in New Zealand and overseas. Prior to his consulting career, Jason held number of senior commercial and financial management roles internationally and in New Zealand in large corporates, as well as with an international chartered accounting firm.

Helen Robinson
Helen was the founding CEO of TZ1 Registry, acquired by London-based Markit Group Ltd in June 2009. Helen continued to act as Global Managing Director, Environmental Markets until April 2011. Helen has led many technology companies over the past 20 years, including as CEO of Microsoft, NZ and as Vice President of APAC, Pivotal Corporation. Her directorships include NZ Business Excellence Foundation.

Report of the directors to the shareholders

The directors take pleasure in presenting the National Institute of Water & Atmospheric Research Ltd (NIWA) and Group (NIWA Group) Annual Report for the financial year ended 30 June 2011.

Business activities

The NIWA Group provided scientific research and consultancy services in and overseas during the financial year. In New Zealand, services were provided to the Ministry of Science and Innovation and a range of other public and private sector customers. Internationally, services were provided by NIWA and its subsidiaries to public and private sector customers predominantly in the USA and Australia.

Results

This financial year the NIWA Group achieved a net profit of $1.3 million (2010: $4.5 million), against a budgeted net profit of $6.5 million. This was achieved on a turnover of $117.9 million (2010: $127.9 million), against budgeted revenue of $133.5 million.

Average shareholders' equity for the year ending 30 June 2011 totalled $89.7 million (2010: $86.9 million). Total average assets were $133.5 million for the year ending 30 June 2011 (2010: $121.4 million).

Group actual performance versus Statement of Corporate Intent (SCI)

Years ended 30 June in thousands of New Zealand dollars	**Actual 2011**	**SCI 2011**	**Actual 2010**
Total revenue (includes interest income)	117,861	133,523	127,917
Operating expenses, depreciation, and amortisation	115,510	124,401	118,240
Operating profit before tax	1,860	8,869	9,550
Net profit after tax	1,266	6,508	4,497
Average total assets	133,583	130,367	121,374
Average shareholders' funds	89,666	94,554	86,890
Profitability			
EBIT margin (%) (EBIT/revenue)	2.0	6.8	7.4
Adjusted return on average equity after tax (%) (net surplus/adjusted average equity)	1.9	9.1	7.0
Return on average equity after tax (%) (net surplus/average equity)	1.4	6.9	5.2
Return on assets (%) (EBIT/average total assets)	1.7	6.9	7.8
Liquidity and efficiency			
Current ratio	0.8	0.9	0.9
Quick ratio	0.9	1.2	1.1
Financial leverage			
Debt to average equity (%)	55	40	44
Gearing (%)	14	–	6
Proprietorship (%) (shareholders' funds/total assets)	67	73	72

Directors

The retirement of Dennis Cairns on 30 June 2011 was the only change to the Board of Directors for the year ended 30 June 2011. Dr Helen Anderson was appointed to the Board of Directors on 1 July 2011 and Helen Robinson and Ed Johnson were reappointed to the Board of Directors on 1 July 2011.

During the financial year ended 30 June 2011, the Board comprised seven independent non-executive directors (including the Chairman). The director's profiles are presented on page 14. Board meetings are held monthly. The Board formally met ten times during the financial year.

Membership and attendance

Director	Date of appointment	Appointment term expires	Board	Audit Committee	Remuneration Committee
Dennis Cairns	1 July 2008	30 June 2011	9	4	1
Dr Wendy Lawson	1 July 2006	30 June 2012	9		1
Christopher Mace (Chairman)	1 July 2009	30 June 2012	10	3	1
Jason Shoebridge	1 July 2009	30 June 2012	9		1
Craig Ellison (Deputy Chairman)	1 July 2007	30 June 2013	9	4	1
Ed Johnson	9 June 2005	30 June 2014	9	4	1
Helen Robinson	1 July 2008	30 June 2014	8		1

* The Chairman is an ex-officio member of the Audit Committee.

Membership of subsidiary Boards as at June 2011

Director	NIWA Vessel Management Ltd	NIWA Australia Pty Ltd	NIWA Environmental Research Institute	Unidata Pty Ltd
Christopher Mace	√*	√*	√*	
Craig Ellison	√	√	√	
Dennis Cairns	√	√	√	
Ed Johnson	√	√	√	
Helen Robinson	√	√	√	
Jason Shoebridge	√	√	√	
Dr Wendy Lawson	√	√	√	
Bryce Cooper[2]				√
David Saunders[1]				√
Kate Thomson[2]				√*
Matt Saunders[3]				√

* Chair.
[1] Director representing minority interest.
[2] Management members of the parent company.
[3] Management member of Unidata Pty Ltd.

Auditors

In accordance with Section 21(1) of the Crown Research Institutes Act 1992, the auditors, Deloitte on behalf of the Auditor-General, continue in office. Their audit remuneration and fees paid for other services are detailed in note 5 of the 'Notes to the Group Financial Statements'.

Interests register

The following are transactions types recorded in the interests register for the year.

Parent and subsidiary companies

Interested transactions

Any business the NIWA Group has transacted in which a director has an interest has been carried out on a commercial 'arms-length' basis. Any potential conflict is recorded and minuted in Board meetings. An interests register containing all relevant directorships is updated on a monthly basis.

Directors' remuneration

Details of the directors' remuneration are provided in the statutory information on page 47.

Use of company information by directors

Pursuant to section 145 of the Companies Act 1993 there were no recorded notices from directors requesting to use company information received in their capacity as directors that would not otherwise have been available to them.

Share dealings

During the year no director purchased, disposed of, or had recorded dealings of any equity securities of the NIWA Group.

Directors' loans

There were no recorded loans by the NIWA Group to any director.

The directors are pleased with the state of affairs of the NIWA Group.

For and on behalf of the Board:

Christopher Mace
Chairman
1 September 2011

Craig Ellison
Director

Statement of comprehensive income

for the year ended 30 June 2011

in thousands of New Zealand dollars	Notes	Group 2011 Actual	Group 2011 Budget	Group 2010 Actual	Parent 2011 Actual	Parent 2010 Actual
Revenues and other gains	4					
Research						
Contract funding		52,516	55,609	53,379	52,516	53,379
Capability Fund		12,108	12,108	12,267	12,108	12,267
Applied science		53,237	65,693	62,076	46,883	54,323
Other gains		18	–	13	18	13
Total income		**117,829**	**133,410**	**127,735**	**111,525**	**119,982**
Operating expenses	5					
Employee benefits expense		(62,177)	(64,565)	(60,959)	(55,855)	(54,610)
Other expenses		(39,375)	(43,679)	(42,623)	(39,373)	(47,496)
		(101,552)	**(108,244)**	**(103,582)**	**(95,228)**	**(102,106)**
Profit/(loss) before interest, income tax, depreciation, and amortisation		**16,277**	**25,166**	**24,153**	**16,297**	**17,876**
Depreciation and impairment	15	(12,970)	(15,830)	(13,674)	(12,023)	(11,612)
Amortisation	17	(988)	(327)	(984)	(893)	(953)
Profit/(loss) before interest and income tax		**2,319**	**9,009**	**9,495**	**3,381**	**5,311**
Interest income		32	113	182	11	154
Finance expense		(491)	(253)	(127)	(454)	(92)
Net interest and other financing income	6	**(459)**	**(140)**	**55**	**(443)**	**62**
Profit/(loss) before income tax		**1,860**	**8,869**	**9,550**	**2,938**	**5,372**
Income tax credit/(expense)	7	(594)	(2,361)	(2,838)	(874)	(1,660)
Income tax credit/(expense) relating to the 2010 Budget changes	7	–	–	(2,215)	–	(2,319)
Profit/(loss) for the period		**1,266**	**6,508**	**4,497**	**2,064**	**1,394**
Other comprehensive income						
Foreign currency translation differences for foreign operations		(183)	–	(32)	–	–
Total comprehensive income for the period		**1,083**	**6,508**	**4,465**	**2,064**	**1,394**
Profit/(loss) attributable to:						
Parent interest		1,232	6,508	4,470	2,064	1,394
Non-controlling interest		34	–	27	–	–
Profit for the period		**1,266**	**6,508**	**4,497**	**2,064**	**1,394**
Total comprehensive income attributable to:						
Parent interest		1,049	6,508	4,438	2,064	1,394
Non-controlling interest		34	–	27	–	–
Total comprehensive income for the period		**1,083**	**6,508**	**4,465**	**2,064**	**1,394**

The accompanying 'Notes to the financial statements' are an integral part of, and should be read in conjunction with, these financial statements.

Statement of changes in equity

for the year ended 30 June 2011

Group in thousands of New Zealand dollars	Notes	Share capital	Retained earnings	Non-controlling interest	Foreign currency translation reserve	Total equity
Balance at 1 July 2009		**24,799**	**59,743**	**67**	**49**	**84,658**
Profit for the year		–	4,470	27	–	4,497
Translation of foreign operations		–	–	–	(32)	(32)
Total comprehensive income		–	4,470	27	(32)	4,465
Balance at 30 June 2010		**24,799**	**64,213**	**94**	**17**	**89,123**
Balance at 1 July 2010		**24,799**	**64,213**	**94**	**17**	**89,123**
Profit for the year		–	1,232	34	–	1,266
Translation of foreign operations		–	–	–	(183)	(183)
Total comprehensive income		–	1,232	34	(183)	1,083
Balance at 30 June 2011		**24,799**	**65,445**	**128**	**(166)**	**90,206**

Parent in thousands of New Zealand dollars	Notes	Share capital	Retained earnings	Total equity
Balance at 1 July 2009		**24,799**	**49,595**	**74,394**
Profit for the year		–	1,394	1,394
Total comprehensive income		–	1,394	1,394
Balance at 30 June 2010		**24,799**	**50,989**	**75,788**
Balance at 1 July 2010		**24,799**	**50,989**	**75,788**
Profit for the year		–	2,064	2,064
Total comprehensive income		–	2,064	2,064
Balance at 30 June 2011		**24,799**	**53,053**	**77,852**

The accompanying 'Notes to the financial statements' are an integral part of, and should be read in conjunction with, these financial statements.

Statement of financial position
as at 30 June 2011

in thousands of New Zealand dollars	Notes	Group 2011 Actual	Group 2011 Budget	Group 2010 Actual	Parent 2011 Actual	Parent 2010 Actual
EQUITY AND LIABILITIES						
Equity						
Share capital	8	24,799	24,799	24,799	24,799	24,799
Equity reserves		65,279	72,935	64,230	53,053	50,989
Shareholders' interest		**90,078**	**97,734**	**89,029**	**77,852**	**75,788**
Non-controlling interest		128	82	94	–	–
Total equity		**90,206**	**97,816**	**89,123**	**77,852**	**75,788**
Non-current liabilities						
Unsecured loans	9	344	310	279	–	–
Provision for employee entitlements	10	646	746	727	539	625
Deferred tax liability	11	6,176	3,283	5,026	4,519	3,732
Total non-current liabilities		**7,166**	**4,339**	**6,032**	**5,058**	**4,357**
Current liabilities						
Payables and accruals	12	13,041	13,625	10,493	11,760	8,874
Revenue in advance	12	5,872	11,053	5,513	3,124	5,528
Borrowings	13	14,830	–	5,905	14,830	5,905
Overdraft		–	9	–	–	–
Provision for employee entitlements	10	1,259	10,575	1,333	1,190	1,277
Accrued employee entitlements	10	7,451	–	7,328	6,810	6,668
Taxation payable		–	64	1,525	–	643
Intercompany	14	–	–	–	–	6,303
Forward exchange derivatives		20	–	98	20	98
Total current liabilities		**42,473**	**35,326**	**32,195**	**37,734**	**35,296**
Total equity and liabilities		**139,845**	**137,481**	**127,350**	**120,644**	**115,441**

The accompanying 'Notes to the financial statements' are an integral part of, and should be read in conjunction with, these financial statements.

Statement of financial position
as at 30 June 2011

in thousands of New Zealand dollars	Notes	Group 2011 Actual	Group 2011 Budget	Group 2010 Actual	Parent 2011 Actual	Parent 2010 Actual
ASSETS						
Non-current assets						
Property, plant, & equipment	15	107,171	104,887	99,552	71,361	76,193
Identifiable intangibles	17	–	–	6	–	–
Investments	18	–	–	–	12,709	12,709
Receivables	20	221	–	803	221	803
Prepayments		85	–	69	85	69
Forward exchange derivatives		–	–	1	–	1
Intercompany	14	–	–	–	1,186	703
Total non-current assets		**107,477**	**104,887**	**100,431**	**85,562**	**90,478**
Current assets						
Cash and cash equivalents		1,447	–	2,396	477	1,401
Receivables	20	20,078	25,446	16,510	18,352	16,309
Prepayments		1,560	–	1,299	1,482	1,194
Taxation receivable		1,550	–	–	626	–
Uninvoiced receivables	21	4,937	4,866	4,138	4,927	4,048
Inventory	22	2,796	2,282	2,549	1,629	1,578
Intercompany	14	–	–	–	7,589	406
Forward exchange derivatives		–	–	27	–	27
Total current assets		**32,368**	**32,594**	**26,919**	**35,082**	**24,963**
Total assets		**139,845**	**137,481**	**127,350**	**120,644**	**115,441**

The accompanying 'Notes to the financial statements' are an integral part of, and should be read in conjunction with, these financial statements.

For and on behalf of the Board:

Christopher Mace
Chairman
1 September 2011

Craig Ellison
Director

Cash flow statement

for the year ended 30 June 2011

in thousands of New Zealand dollars	Notes	Group 2011 Actual	Group 2011 Budget	Group 2010 Actual	Parent 2011 Actual	Parent 2010 Actual
Cash flows from operating activities						
Cash was provided from:						
Receipts from customers		114,378	132,760	128,158	106,789	120,437
Dividends received		4	–	6	4	6
Interest received		32	113	182	11	154
Cash was disbursed to:						
Payments to employees and suppliers		(99,334)	(104,198)	(103,006)	(92,631)	(101,780)
Interest paid		(491)	(253)	(127)	(454)	(92)
Taxation paid		(2,523)	(1,762)	(1,158)	(1,357)	(795)
Net cash inflow from operating activities	23	**12,066**	**26,660**	**24,055**	**12,362**	**17,930**
Cash flows from investing activities						
Cash was provided from:						
Sale of property, plant, & equipment		37	–	110	20	110
Cash was applied to:						
Purchase of property, plant, & equipment	15	(21,045)	(22,163)	(29,032)	(7,343)	(19,271)
Purchase of intangible assets	17	(982)	–	(953)	(893)	(953)
Net cash (outflow) in investing activities		**(21,990)**	**(22,163)**	**(29,875)**	**(8,216)**	**(20,114)**
Cash flows from financing activities						
Cash was applied to:						
Borrowing proceeds	13	8,924	(4,506)	5,255	8,925	5,255
Subsidiary loan proceeds		–	–	–	15,643	19,010
Subsidiary loan (repaid)		–	–	–	(29,612)	(22,692)
Net cash inflow/(outflow) from financing activities		**8,924**	**(4,506)**	**5,255**	**(5,044)**	**1,573**
Net increase/(decrease) in cash and cash equivalents		**(1,000)**	**(9)**	**(565)**	**(898)**	**(611)**
Effects of exchange rate changes on the balance of cash held in foreign currency		51	–	(138)	(26)	(82)
Opening balance of cash and cash equivalents		2,396	–	3,099	1,401	2,094
Closing cash and cash equivalents balance		**1,447**	**(9)**	**2,396**	**477**	**1,401**
Made up of:						
Cash at bank		1,447	(9)	2,396	477	1,401
Short-term deposits		–	–	–	–	–
Closing cash and cash equivalents balance		**1,447**	**(9)**	**2,396**	**477**	**1,401**

The accompanying 'Notes to the financial statements' are an integral part of, and should be read in conjunction with, these financial statements.

Notes to the financial statements

for the year ended 30 June 2011

1. Reporting entity

The National Institute of Water & Atmospheric Research Ltd (NIWA) and Group are profit-oriented. NIWA is a registered company in New Zealand under the Companies Act 1993.

The consolidated (or 'Group') financial statements comprise NIWA (the 'parent company'), its subsidiaries, and the Group's interest in associates and joint ventures. The financial statements for NIWA and the Group are presented in accordance with the requirements of the Crown Research Institutes Act 1992, the Crown Entities Act 2004, the Public Finance Act 1989, the Companies Act 1993, and the Financial Reporting Act 1993. The NIWA financial statements are for the parent company as a separate entity.

2. Nature of activities

The NIWA Group conducts research in water and atmospheric sciences in New Zealand and internationally.

3. Statement of accounting policies

Statement of compliance

The financial statements have been prepared in accordance with New Zealand generally accepted accounting practice (NZ GAAP). They comply with New Zealand equivalents to international financial reporting standards (NZ IFRS) and other applicable financial reporting standards appropriate for profit-oriented entities.

The financial statements comply with international financial reporting standards (IFRS). The financial statements were authorised for issue by the directors on 1 September 2011.

Basis of preparation

The measurement basis adopted in the preparation of these financial statements is historical cost, except for financial instruments as identified in specific accounting policies below. Cost is based on the fair value of consideration given in exchange for assets.

The presentation and functional currency used in the preparation of these financial statements is New Zealand dollars.

Accounting policies are selected and applied in a manner to ensure that the resulting financial information meets the concepts of relevance and reliability, ensuring that the substance of the underlying transaction or event is reported.

The accounting policies have been applied in preparing the financial statements for the year ended 30 June 2011 and the comparative information for the year ended 30 June 2010.

Adoption of new and revised standards

Standards and interpretations effective in the current period.

There are no new standards and interpretations effective in the current period with a material impact.

Standards and interpretations approved but not yet effective.

New or revised standards and Interpretations that have been approved but are not yet effective, have not been adopted for the annual reporting period ended 30 June 2011. The adoption of these Standards and Interpretations is not expected to have a material recognition or measurement impact on the financial statements. These will be applied when they become mandatory.

Accounting judgements and major sources of estimation uncertainty

In the application of the Group's accounting policies, the directors are required to make judgements, estimates, and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

Judgements in applying accounting policies

The following are the judgements, apart from those involving estimations that the directors have made in the process of applying the entity's accounting policies and that have the most significant effect on the amounts recognised in these financial statements:

Revenue recognition

In determining the revenue to be recognised in the year from the rendering of services the directors have exercised their judgement in respect of the percentage of completion of contracts as outlined in policy (b).

In making their judgement, the directors considered:

- whether total contract revenue could be measured reliably;
- the probability that economic benefits associated with the contract will flow to the Group;
- whether the contract costs to complete the contract and the stage of contract completion at balance date could be reliably measured; and
- whether contract costs attributable to the contract can be clearly identified and measured reliably so that the actual contract costs incurred can be compared with prior estimates.

Following review of the Group's contract transactions the directors are satisfied that the above criteria have been met and the recognition of the revenue in the current year is appropriate, in conjunction with the recognition of an appropriate uninvoiced receivables/revenue in advance.

Major sources of estimation uncertainty

The following are the key assumptions concerning the future, and other major sources of estimation uncertainty at 30 June 2011, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

Useful lives of property, plant, and equipment

As described in policy (l) and note 15, the Group reviews the estimated useful lives of property, plant, and equipment at the end of each annual reporting period.

Significant accounting policies

The following significant accounting policies have been adopted in the preparation and presentation of the financial reports and have been applied consistently to all periods, unless otherwise stated.

(a) **Basis of consolidation**

The Group financial statements incorporate the financial statements of the company and entities (including special purpose entities) controlled by the Company (its subsidiaries). Control is achieved where the Company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

Non-controlling interests in the net assets of the consolidated subsidiaries may be initially measured either at fair value or at the non-controlling interest's proportionate share of the fair value of the acquirer's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis. Subsequent to acquisition, non-controlling interests consist of the amount attributed to such interests at initial recognition and the non-controlling interest's share of changes in equity since the date of the combination. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

The results of subsidiaries acquired or disposed of during the year are included in profit or loss from the effective date of acquisition or up to the effective date of disposal, as appropriate. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by other members of the Group.

All intra-group transactions, balances, income, and expenses are eliminated in full on consolidation.

Changes in the Group's interests in a subsidiary that do not result in a loss of control are accounted for as equity transactions. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, the profit or loss on disposal is calculated as the difference between:

1. the aggregate of the fair value of the consideration received and the fair value of any retained interest; and
2. the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests.

Amounts previously recognised in other comprehensive income in relation to the subsidiary are accounted for (i.e., reclassified to profit or loss or transferred directly to retained earnings) in the same manner as would be required if the relevant assets or liabilities were disposed of. The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under NZ IAS 39 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or jointly controlled entity.

Investments in subsidiaries are recorded at cost less any impairment in the parent company's financial statements.

i) *Accounting for jointly controlled operations*

Where the Group has joint control in a jointly controlled operation, the Group recognises the assets that it controls and the liabilities that it incurs, along with expenses that it incurs and the Group's share of income it earns from the sale of goods and services by the joint venture.

ii) *Accounting for goodwill*

Goodwill arising on the acquisition of a subsidiary or jointly controlled entity is recognised as an asset at the date that control is acquired (the acquisition date). Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the fair value of the acquirer's previously-held equity interest (if any) in the acquiree over the fair value of the identifiable net assets recognised.

If, after reassessment, the Group's interest in the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously-held equity interest (if any) in the acquiree, the excess is recognised immediately in profit or loss as a bargain purchase gain.

Goodwill is not amortised, but is reviewed for impairment at least annually. For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units expected to benefit from the synergies of the combination. Cash-generating units to which goodwill has been allocated are tested for impairment annually, or more frequently when there is an indication that the unit may be impaired. The recoverable amount is the higher of fair value less cost to sell and value in use. If the recoverable amount of the cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata on the basis of the carrying amount of each asset in the unit. Any impairment loss is recognised immediately in profit or loss and is not subsequently reversed.

On disposal of a subsidiary or jointly controlled entity, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

(b) Revenue recognition

Rendering of services

Revenue from services rendered is recognised in profit or loss in proportion to the stage of completion of the transaction at reporting date. The amount of revenue unbilled is represented by 'uninvoiced receivables', which is stated at the proportion to the stage of completion in the statement of financial position. Revenue received but not earned is recognised as revenue in advance on the face of the statement of financial position.

Goods sold

Revenue from the sale of goods is measured at the fair value of the consideration received or receivable, net of returns and allowances. Revenue is recognised when the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, and there is no continuing management involvement with the goods.

Transfers of risks and rewards vary depending on the individual terms of the contract sale. For sales of instruments, transfer occurs upon receipt by the customer.

Dividend revenue

Dividend revenue from investments is recognised when the shareholders' right to receive payment has been established.

(c) Government grants

Government grants are assistance by the government in the form of transfers of resources to the Group in return for past or future compliance with certain conditions relating to the operating activities of the Group. The primary condition is that the Group should undertake research activities as defined under the contractual agreements which award the funding.

Government grants relating to this funding are recognised as income in the profit or loss on a systematic basis in the equivalent period in which the expense is recognised.

There were no government grants received during the year (2010: Nil).

(d) Finance costs

Interest expense is accrued on a time basis using the effective interest method.

(e) Goods and services tax (GST)

These financial statements are prepared on a GST-exclusive basis, except for receivables and payables, which are stated GST inclusive.

(f) Employee benefits

Liabilities for wages and salaries, including non-monetary benefits and annual leave, long service leave, retirement leave, and training leave are recognised when it is probable that settlement will be required and they are capable of being measured reliably. Provisions, in respect of employee benefits, are measured at their nominal values using the remuneration rate expected to apply at settlement. Employee benefits are separated into current and non-current liabilities. Current liabilities are those benefits that are expected to be settled within 12 months of balance date.

Provisions made in respect of employee benefits which are not expected to be settled within 12 months are measured at the present value of the estimated future cash outflows to be made by the Group in respect of services provided by employees up to the reporting date.

(g) Impairment of tangible and intangible assets (excluding goodwill)

Intangible assets that have an indefinite life are not subject to amortisation and are tested annually for impairment. Other assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If such an indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. The recoverable amount is the higher of fair value less cost to sell and value in use.

If the recoverable amount of the asset is estimated to be less than its carrying value, the carrying value is reduced to its recoverable amount. An impairment loss is recognised in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised recoverable amount, but only to the extent that the increased carrying value does not exceed the carrying amount that would have been recognised if the asset had no impairment loss recognised in the past. This reversal is recognised in profit or loss.

(h) Income tax

The income tax expense for the period is the tax payable on the current period's taxable income, based on the income tax rate for each jurisdiction. This is then adjusted by changes in deferred tax assets and liabilities attributable to temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements, and changes in unused tax losses.

Deferred tax is accounted for using the balance sheet liability method in respect of temporary differences arising from the carrying amount of assets and liabilities in the financial statements and the corresponding tax base of those items. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that sufficient taxable amount will be available against which those deductible temporary differences can be utilised.

Deferred tax liabilities are recognised for the taxable temporary differences arising on investment in subsidiaries, associates, and joint ventures, except where the consolidated entity is able to control the reversal of the temporary differences and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary difference from these investments are only recognised to the extent that it is probable there will be sufficient taxable profits against which to utilise the asset and they are expected to reverse in the foreseeable future.

Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset and liability giving rise to them are realised or settled, based on the tax laws that have been enacted or substantively enacted at balance date.

Current and deferred tax is recognised in profit or loss, except when it relates to items recognised in other comprehensive income or directly in equity, in which case the deferred or current tax is also recognised in other comprehensive income or directly in equity, or where it arises from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in calculating goodwill or in determining the excess of the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities, and contingent liabilities over the cost of the business combination. The carrying amount of deferred tax assets is reviewed at each balance date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

(i) Purchased intangible assets

Purchased identifiable intangible assets, comprising copyrights and software, are recorded at cost less amortisation and impairment. Amortisation is charged on a straight-line basis over their estimated useful lives. The estimated useful life and amortisation method are reviewed each balance date.

The estimated useful life for copyrights is 5 years.

The estimated useful life for software is 1 year.

(j) Development costs

Intangible assets which arise from development costs that meet the following criteria are recognised as an asset in the statement of financial position:

- the product or process is clearly defined and the costs attributable to the product or process can be identified separately and measured reliably;
- the Group has the ability to use or sell the product or process;
- the Group intends to produce and market, or use, the product or process;
- the existence of a market for the product or process or its usefulness to the Group, if it is to be used internally, can be demonstrated; and
- adequate resources exist, or their availability can be demonstrated, to complete the projects and market or use the product or process.

Capitalisation is limited to the amount which, taken together with any further related costs, is likely to be recovered from related future economic benefits. Any excess is recognised as an expense.

All other development and research costs are expensed as incurred.

Subsequent to initial recognition, internally generated intangible assets are reported at cost, less accumulated amortisation and accumulated impairment losses, on the same basis as purchased identifiable intangible assets.

(k) Property, plant, and equipment

Property, plant, and equipment are stated at cost less accumulated depreciation to date, less any impairment losses.

Expenditure incurred on property, plant, and equipment is capitalised where such expenditure will increase or enhance the future economic benefits provided by the assets' existing service potential. Expenditure incurred to maintain future economic benefits is classified as repairs and maintenance.

The gain or loss arising on the disposal or retirement of an item of property, plant, and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

(l) Depreciation

Property, plant, and equipment, except for freehold land and work in progress, are depreciated on a straight-line basis at rates estimated to write off the cost of the property, plant, and equipment over their estimated useful lives, which are as follows:

Buildings and leasehold improvements	
Buildings	40 years
Leasehold improvements, freehold property	10 years
Leasehold improvements, rented property	5–12 years
Vessels	
Research Vessel (RV) *Tangaroa* hull	31 years (2010: 26 years)
RV *Kaharoa* hull	16 years
RV *Ikatere* hull	20 years
Plant and equipment	
Plant and equipment	10 years
Scientific equipment	4 years
Electronic data processing equipment	
Supercomputer	8 years
Electronic data processing equipment	3 years
Office equipment	5 years
Furniture and fittings	10 years
Motor vehicles	4 years
Small boats	5 years

(m) Receivables

Receivables are categorised as loans and receivables.

Loans and receivables are stated at amortised cost using the effective interest rate, less any impairment.

Collectability of receivables is reviewed on an ongoing basis. Debts which are known to be uncollectable are written off against the provision, once approved by the Board of Directors. A provision for doubtful debts is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of receivables. Changes in the carrying amount of the provision are recognised in profit or loss.

(n) Inventory

Inventory is stated at the lower of cost and net realisable value. Cost is calculated on the weighted average basis for consumables and first in first out (FIFO) for finished goods and work in progress.

(o) Foreign currencies

i) *Transactions*

Transactions in foreign currencies are converted to the functional currency of New Zealand dollars, by applying the spot exchange rate between the functional currency and the foreign currency at the date of transaction. At the end of each reporting period, monetary assets and liabilities are translated to New Zealand dollars using the closing rate of exchange at balance date, and any exchange gains or losses are taken to profit or loss.

ii) *Translation of foreign operations*

On consolidation, revenues and expenses of foreign operations are translated to New Zealand dollars at the average exchange rates for the period. Assets and liabilities are converted to New Zealand dollars at the rates of exchange ruling at balance date. Exchange rate differences arising from the translation of the foreign operations are recognised in other comprehensive income and accumulated as a separate component of equity in the Group's foreign currency translation reserve. Such exchange differences are reclassified from equity to profit or loss (as a reclassification adjustment) when the foreign operation is disposed of.

(p) Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all of the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Notes to the financial statements
for the year ended 30 June 2011

The Group has not contracted for any leases which would be classified as finance leases.

Operating lease payments are recognised on a systematic basis that is representative of the benefit to the Group (straight line).

(q) Statement of cash flows

The statement of cash flows is prepared exclusive of GST, which is consistent with the method used in the statement of comprehensive income. Operating activities comprise the provision of research services, consultancy, and manufacture of scientific instruments and other activities that are not investing or financing activities. Investing activities comprise the purchase and disposal of property, plant, and equipment, intangible assets, and advances to subsidiaries. Financing activities are those which result in changes in the size and composition of the capital structure of the Group.

Cash and cash equivalents comprise cash on hand, cash in banks, and investments in the money market, net of outstanding bank drafts.

(r) Financial instruments

Derivative financial instruments

The Group may use derivative financial instruments to hedge its exposure to foreign exchange and interest rate risks arising from operational, financing, and investing activities.

Derivative financial instruments such as forward exchange contracts are categorised as held for trading (unless they qualify for hedge accounting), and are initially recognised in the statement of financial position at fair value, and transaction costs are expensed immediately. Subsequent to initial recognition, derivative financial instruments are stated at fair value. The gain or loss on re-measurement to fair value is recognised immediately in profit or loss unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

The fair value of outstanding derivative financial instruments at 30 June 2011 is $20k asset (2010: $70k liability).

Other financial assets

Non-derivative financial assets comprise receivables, cash and cash equivalents, uninvoiced receivables, and intercompany, and are initially recorded at fair value plus transaction costs (except for financial assets at fair value through profit or loss, which are initially recorded at fair value).

Financial assets are classified into the following specified categories; classification depends on the nature and purpose of the financial asset and is determined at the time of initial recognition.

Financial assets at fair value through profit or loss:

Financial assets are classified at fair value through profit or loss where the financial asset is either held for trading or it is designated at fair value through profit or loss.

A financial asset is classified as held for trading if:

- it has been incurred principally for the purpose of selling in the near future; or
- it is a derivative that is not designated and effective as a hedge instrument; or
- it is part of an identified portfolio of financial instruments that the Group manages together and has a recent actual pattern of short-term profit-making.

A financial asset other than a financial asset held for trading may be designated as at fair value upon recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial asset forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with either the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and it is allowable to be designated at fair value through profit or loss.

Financial assets at fair value through profit or loss are classified as current assets and are stated at fair value, and changes resulting in a gain or loss are recognised in profit or loss.

Loans and receivables:

Loans and receivables have fixed or determinable payments and are not quoted in an active market. They arise when the Group provides money, goods, or services directly to a debtor with no intention of selling the receivable. They are included in current assets, except for those with maturities greater than 12 months after the statement of financial position date which are classified as a non-current asset. These are subsequently recorded at amortised cost less impairment.

Impairment of financial assets

Financial assets, other than those at fair value through profit or loss, are assessed for indicators of impairment at each balance date. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cashflows of the investment have been impacted.

For certain categories of financial assets, such as trade receivables, assets that are assessed not to be impaired individually are subsequently assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 60 days, as well as observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortised cost, the amount of the impairment is the difference between the asset's carrying amount and the present value of estimated future cashflows, discounted at the financial asset's original effective interest rate.

The carrying amount of the financial asset is reduced by the impairment loss with the exception of trade receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss.

Financial liabilities

Financial liabilities are classified as either financial liabilities at fair value through profit or loss or other financial liabilities. Financial liabilities are classified as at fair value through profit or loss where the liability is either held for trading or it is designated as at fair value. A financial liability is classified as held for trading if it meets similar criteria as financial assets held for trading.

A financial liability other than a financial liability held for trading may be designated as at fair value through profit or loss upon recognition if it meets similar criteria as financial assets designated as at fair value through profit or loss.

Financial liabilities at fair value are stated at fair value with any resultant gain or loss recognised in profit or loss. This incorporates any interest paid on the financial liability.

Other financial liabilities are initially measured at fair value through profit or loss, net of transaction costs. Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective interest basis.

The effective interest method is the method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period to the net carrying amount of the financial liability.

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled, or they expire.

(s) Changes in accounting policies

There have been no changes in accounting policies this period.

4. Revenues and other gains

Revenue

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Sale of goods	6,418	10,856	2,300	2,188
Rendering of services	111,389	116,860	109,203	117,775
Dividends	4	6	4	6
Total operating revenue	**117,811**	**127,722**	**111,507**	**119,969**

Other gains

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Net gain on sale from property, plant, and equipment	18	13	18	13
Total other gains	**18**	**13**	**18**	**13**

5. Operating expenses and other gains

Employee benefit expense

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Defined contribution plans	2,647	2,206	2,370	1,950
Termination benefits	1,236	48	1,236	48
Other employee benefits	58,294	58,705	52,249	52,612
Employee benefit expense	**62,177**	**60,959**	**55,855**	**54,610**

Operating expenses

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Operating expenses include:				
Rental and operating lease costs	2,228	2,383	2,123	2,284
Remuneration of directors	297	297	297	297
Bad debts written off	–	1	–	1

Other gains and (losses) included in operating expenses

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Other expenses include:				
Movement within doubtful debt provision	257	(654)	257	(654)
Change in the fair value of derivatives	50	(70)	50	(70)
Foreign currency gain (loss)	340	(181)	240	(125)

Auditor's remuneration

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Auditor's remuneration to Deloitte comprises:				
Audit of the financial statements	140	162	122	139
Other assurance services	–	–	–	–
Total auditor's remuneration	**140**	**162**	**122**	**139**

Notes to the financial statements
for the year ended 30 June 2011

6. Net interest and other financing income

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Interest income on bank deposits	32	182	11	154
Finance income	**32**	**182**	**11**	**154**
Finance expense	(491)	(127)	(454)	(92)
Net interest and other financing income	**(459)**	**55**	**(443)**	**62**

7. Income tax
The income tax expense is determined as follows:

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Income tax expense				
Current tax	(556)	3,640	87	2,488
Deferred tax relating to temporary differences	1,150	(802)	787	(828)
Deferred tax relating to budget changes	–	2,215	–	2,319
Income tax expense	**594**	**5,053**	**874**	**3,979**

Reconciliation of income tax expense

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Operating profit before income tax	**1,860**	**9,550**	**2,938**	**5,372**
Tax at current rate of 30%	558	2,865	881	1,612
Adjustments to taxation:				
Other non-deductible expenses	40	38	29	50
Adjustments recognised in the current year in relation to the current tax of prior years	(81)	–	(48)	–
Depreciation changes to buildings	–	2,603	–	2,603
Reduction in the taxation rate	–	(388)	–	(284)
Other deferred taxation adjustments	68	(94)	3	(15)
Under/(over) provision in previous year	9	29	9	13
Income taxation expense	**594**	**5,053**	**874**	**3,979**

The 2010 Government of New Zealand budget introduced the reduction in the company tax rate from 30% to 28% effective from the 2011/12 tax year and removed depreciation on buildings from the 2011/12 year. The rate reduction and the change in depreciation impact the deferred tax calculation for the 2010 year. The change recognised from the reduction of the rate on deferred tax was recognised in the taxation expense in profit or loss in 2010.

8. Share capital

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Issued and fully paid capital	24,799	24,799	24,799	24,799
24,798,700 ordinary shares (2010: 24,798,700 ordinary shares)				

All shares carry equal voting and distribution rights; if the company is to be wound down, all proceeds are distributed equally amongst the shareholders.

9. Unsecured loan

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Loan	344	279	–	–

The loan is unsecured, denominated in Australian dollars, and relates to a vendor finance agreement on the acquisition of a subsidiary, Unidata Pty Ltd. The loan is not subject to any interest charge. Repayment will be made when, and in such amounts as, the cash flow and profitability of Unidata Pty Ltd permit, with full repayment due on 7 May 2014. The loan is recognised at amortised cost using the effective interest rate method.

10. Employee entitlements

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Remuneration				
Salary accrual	2,775	2,447	2,527	2,180
Annual leave	4,676	4,880	4,283	4,486
Training leave	142	130	142	130
Long service leave	1,117	1,208	1,048	1,147
Retirement leave	646	723	539	627
Total employee entitlements	**9,356**	**9,388**	**8,539**	**8,570**
Comprising:				
Current	8,710	8,661	8,000	7,945
Non-current	646	727	539	625

The provisions for long service leave, retirement leave, and training leave are dependent upon a number of factors that are determined by the expected employment period of employees, current remuneration, and the timing of employees using the benefits. Any changes in these assumptions will impact on the carrying amount of the liability. In determining long service leave the employment period is based upon historical length of service to determine the appropriate liability. Training leave is based upon historical usage of the benefit to calculate the likelihood of further benefits incurring.

Notes to the financial statements

for the year ended 30 June 2011

11. Deferred tax liability and assets

Deferred tax assets (liabilities) arise from the following:

Group

As at 30 June 2011 in thousands of New Zealand dollars	Opening balance	Charged to profit or loss	Closing balance
Temporary differences			
Property, plant, and equipment	(5,998)	(679)	(6,677)
Library	18	(5)	13
Uninvoiced receivables	(1,240)	(142)	(1,382)
Employee benefits	1,998	(239)	1,759
Doubtful debts	196	(85)	111
	(5,026)	(1,150)	(6,176)

As at 30 June 2010 in thousands of New Zealand dollars	Opening balance	Charged to profit or loss	Changes in income tax rates	Closing balance
Temporary differences				
Property, plant, and equipment	(4,097)	(2,304)	403	(5,998)
Library	25	(7)	–	18
Uninvoiced receivables	(1,406)	166	–	(1,240)
Employee benefits	1,936	77	(15)	1,998
Doubtful debts	–	196	–	196
	(3,542)	(1,872)	388	(5,026)

Parent

As at 30 June 2011 in thousands of New Zealand dollars	Opening balance	Charged to profit or loss	Closing balance
Temporary differences			
Property, plant, and equipment	(4,545)	(290)	(4,835)
Library	18	(6)	12
Uninvoiced receivables	(1,215)	(125)	(1,340)
Employee benefits	1,814	(281)	1,533
Doubtful debts	196	(85)	111
	(3,732)	(787)	(4,519)

As at 30 June 2010 in thousands of New Zealand dollars	Opening balance	Charged to profit or loss	Changes in income tax rates	Closing balance
Temporary differences				
Property, plant, and equipment	(2,581)	(2,261)	297	(4,545)
Library	25	(7)	–	18
Uninvoiced receivables	(1,405)	190	–	(1,215)
Employee benefits	1,738	89	(13)	1,814
Doubtful debts	–	196	–	196
	(2,223)	(1,793)	284	(3,732)

The NIWA Group is not required to establish or maintain an imputation credit account by virtue of its classification as a Crown Research Institute. The Income Tax Act (2007) confirms this requirement.

12. Payables and accruals, and revenue in advance

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Trade payables and accruals	13,041	10,493	11,760	8,874
Revenue in advance	5,872	5,513	3,124	5,528
Total	**18,913**	**16,006**	**14,884**	**14,402**

Trade payables are payable per normal commercial terms.

Revenue in advance relates to contracted services which have been billed in advance, yet not recognised as revenue in the statement of comprehensive income.

13. Borrowings

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Borrowings	14,830	5,905	14,830	5,905

The facility is unsecured, but subject to various covenants that were complied with during the year. The facility is operated on an on-call basis and a short term advance with a limit available to borrow of $19 million (2010: $11.5 million). The facility was operated on an on-call basis). Interest rates that were applicable during this period are referred to in note 25.

14. Intercompany

in thousands of New Zealand dollars	Parent 2011	Parent 2010
Current asset	7,589	406
Non-current asset	1,186	703
Current liability	–	6,303

An amount of $7.6 million relates to advances to NIWA Vessel Management Ltd (2010: $6.3 million was held by the Parent Company (NIWA) on behalf of NIWA Vessel Management Ltd). This is consistent with the Group policy that all surplus funds are managed by NIWA.

Parent Company advanced NIWA Australia Pty Ltd $403k (2010: 293k), NIWA Environmental Research Institute $1k (2010: 6k), and Unidata Pty Ltd $783k (2010: 810k) during the year.

All balances are unsecured, have no set repayment terms, and are payable upon demand, and some are not expected to be repaid within one year of balance date. The balances are not subject to interest.

During the year NIWA contracted vessel charters from its subsidiary NIWA Vessel Management Ltd totalling $6.3 million (2010: $10.9 million) and purchased workshop services totalling $51k (2010: $47k). NIWA Vessel Management Ltd contracted services from its Parent, NIWA Science, totalling $35k (2010: $301k).

During the year NIWA contracted scientific research from its subsidiary NIWA Australia Pty Ltd totalling Nil (2010: Nil) and provided research services to NIWA Australia Pty Ltd of $124k (2010: $114k).

NIWA earned revenue of Nil (2010: Nil) from research subcontracts with NIWA Environmental Research Institute and provided research services to NIWA Environmental Research of $5k (2010: Nil).

During the year Unidata Pty Ltd contracted services from NIWA totalling $391k (2010: $421k). At balance date, Unidata Pty Ltd had an accounts receivable balance for NIWA of $130k (2010: $62k) and had an accounts payable balance of $32k (2010: $8k) payable to NIWA.

NIWA charged its subsidiaries for administration expenses and management services totalling $1.0 million for the financial year (2010: $1.0 million).

The carrying amount of intercompany balances approximate their fair value.

There were no other significant transactions between any of the companies in the Group.

15. Property, plant, and equipment

in thousands of New Zealand dollars	Land	Buildings & leasehold improvements	Vessels	Plant & equipment	Electronic data processing equipment	Office equipment	Furniture & fittings	Motor vehicles	Small boats	Work in progress	Total
Group											
Cost											
Balance at 1 July 2010	12,450	49,298	19,612	77,295	26,584	7,869	2,196	3,692	3,236	8,000	210,232
Additions/transfers	–	256	9,061	3,793	1,405	360	–	7	(117)	6,280	21,045
Disposals	–	(44)	(735)	(1,662)	(3,505)	(289)	(15)	(84)	(30)	–	(6,364)
Foreign currency	–	–	–	6	14	2	5	2	–	–	29
Balance at 30 June 2011	12,450	49,510	27,938	79,432	24,498	7,942	2,186	3,617	3,089	14,280	224,942
Accumulated depreciation and impairment losses											
Balance at 1 July 2010	–	15,264	11,034	54,957	16,284	6,822	1,952	2,911	1,456	–	110,680
Depreciation charge	–	2,474	138	6,215	2,838	513	40	466	286	–	12,970
Foreign currency	–	–	1	6	10	2	6	2	–	–	27
Disposals	–	(44)	(426)	(1,514)	(3,504)	(288)	(17)	(86)	(27)	–	(5,906)
Balance as at 30 June 2011	–	17,694	10,747	59,664	15,628	7,049	1,981	3,293	1,715	–	117,771
Net book value at 30 June 2011	**12,450**	**31,816**	**17,191**	**19,768**	**8,870**	**893**	**205**	**324**	**1,374**	**14,280**	**107,171**
Group											
Cost											
Balance at 1 July 2009	12,429	46,786	18,423	68,703	16,964	7,846	2,216	3,739	2,031	3,962	183,099
Additions/transfers	21	2,520	1,189	8,972	10,259	680	3	14	1,336	4,038	29,032
Disposals	–	(8)	–	(377)	(637)	(657)	(20)	(61)	(131)	–	(1,891)
Foreign currency	–	–	–	(3)	(2)	–	(3)	–	–	–	(8)
Balance at 30 June 2010	12,450	49,298	19,612	77,295	26,584	7,869	2,196	3,692	3,236	8,000	210,232
Accumulated depreciation and impairment losses											
Balance at 1 July 2009	–	12,255	10,259	48,929	14,708	6,831	1,929	2,562	1,339	–	98,812
Depreciation charge	–	2,430	775	6,382	2,219	581	43	410	248	–	13,088
Impairment	–	586	–	–	–	–	–	–	–	–	586
Disposals	–	(7)	–	(354)	(643)	(590)	(20)	(61)	(131)	–	(1,806)
Balance as at 30 June 2010	–	15,264	11,034	54,957	16,284	6,822	1,952	2,911	1,456	–	110,680
Net book value at 30 June 2010	**12,450**	**34,034**	**8,578**	**22,338**	**10,300**	**1,047**	**244**	**781**	**1,780**	**8,000**	**99,552**
Parent											
Cost											
Balance at 1 July 2010	12,450	49,118	–	65,163	24,268	7,526	1,737	3,559	1,795	34	165,650
Additions/transfers	–	256	–	5,362	1,317	319	–	7	99	(17)	7,343
Disposals	–	(44)	–	(1,606)	(3,506)	(288)	(16)	(84)	(28)	–	(5,572)
Balance at 30 June 2011	12,450	49,330	–	68,919	22,079	7,557	1,721	3,482	1,866	17	167,421
Accumulated depreciation and impairment losses											
Balance at 1 July 2010	–	15,103	–	47,942	14,374	6,528	1,524	2,802	1,184	–	89,457
Depreciation charge	–	2,461	–	5,929	2,456	462	35	453	227	–	12,023
Impairment	–	–	–	–	–	–	–	–	–	–	–
Disposals	–	(44)	–	(1,454)	(3,506)	(288)	(17)	(85)	(26)	–	(5,420)
Balance as at 30 June 2011	–	17,520	–	52,417	13,324	6,702	1,542	3,170	1,385	–	96,060
Net book value at 30 June 2011	**12,450**	**31,810**	**–**	**16,502**	**8,755**	**855**	**179**	**312**	**481**	**17**	**71,361**
Parent											
Cost											
Balance at 1 July 2009	12,429	46,606	–	59,189	14,681	7,521	1,757	3,605	1,785	694	148,267
Additions/transfers	21	2,520	–	6,348	10,224	659	–	14	145	(660)	19,271
Disposals	–	(8)	–	(374)	(637)	(654)	(20)	(60)	(135)	–	(1,888)
Balance at 30 June 2010	12,450	49,118	–	65,163	24,268	7,526	1,737	3,559	1,795	34	165,650
Accumulated depreciation and impairment losses											
Balance at 1 July 2009	–	12,107	–	42,721	13,153	6,577	1,507	2,469	1,102	–	79,636
Depreciation charge	–	2,417	–	5,575	1,854	537	37	393	213	–	11,026
Impairment	–	586	–	–	–	–	–	–	–	–	586
Disposals	–	(7)	–	(354)	(633)	(586)	(20)	(60)	(131)	–	(1,791)
Balance as at 30 June 2010	–	15,103	–	47,942	14,374	6,528	1,524	2,802	1,184	–	89,457
Net book value at 30 June 2010	**12,450**	**34,015**	**–**	**17,221**	**9,894**	**998**	**213**	**757**	**611**	**34**	**76,193**

The opening net book value for the Group at 1 July 2009 was $84,287k.

The opening net book value for the Parent at 1 July 2009 was $68,631k.

Research Vessel (RV) *Tangaroa* was valued in November 2010 by M3 Marine Expertise Pte Ltd (Singapore based); their valuation concluded that the market value for the RV *Tangaroa* was $60,000,000.

During the year ended 30 June 2011 the useful life and residual value of the RV *Tangaroa* and related assets were reassessed and depreciation expense decreased by $557k. The useful life of the RV *Tangaroa* has increased from 26 years to 31 years. The residual value of the RV *Tangaroa* has changed from $0 to $4 million in the 2011 year.

Assumptions underlying the estimated useful lives of assets include timing of technological obsolescence and future utilisation plans.

16. Heritage assets

NIWA has one collection and three databases that have been defined as heritage assets. Heritage collection assets are those assets held for the duration of their physical lives because of their unique scientific importance, and heritage databases are maintained as an incidental part of existing business operations.

NIWA has the following heritage assets:

Type	Description
Marine Benthic Biology Collection	A national reference collection of marine invertebrates.
National Climate Database	A national electronic database of high quality climate information, including temperatures, rainfall, wind, and other climate elements.
Water Resources Archive Database	A national electronic database of river and lake locations throughout New Zealand, including levels, quality, and flows.
New Zealand Freshwater Fish Database	A national electronic database of the occurrence of fish in the fresh waters of New Zealand, including major offshore islands.

The nature of these heritage assets, and their significance to the science NIWA undertakes, makes it necessary to disclose them. In the directors' view the cost of these heritage assets cannot be assessed with any reliability, and accordingly these assets have not been recognised for reporting purposes.

17. Identifiable intangibles

Group

in thousands of New Zealand dollars	Software	Copyrights	Total
Cost			
Balance as at 1 July 2010	5,622	215	5,837
Additions	982	–	982
Disposals	(2)	–	(2)
Balance as at 30 June 2011	6,602	215	6,817
Accumulated amortisation and impairment losses			
Balance as at 1 July 2010	5,622	209	5,831
Amortisation	982	6	988
Disposals	(2)	–	(2)
Balance as at 30 June 2011	6,602	215	6,817
Net book value at 30 June 2011	–	–	–

The opening net book value at 1 July 2009 was $37k.

Group

in thousands of New Zealand dollars	Software	Copyrights	Total
Cost			
Balance as at 1 July 2009	5,392	215	5,607
Additions	953	–	953
Disposals	(723)	–	(723)
Balance as at 30 June 2010	5,622	215	5,837
Accumulated amortisation and impairment losses			
Balance as at 1 July 2009	5,392	178	5,570
Amortisation	953	31	984
Disposals	(723)	–	(723)
Balance as at 30 June 2010	5,622	209	5,831
Net book value at 30 June 2010	–	6	6

Parent

in thousands of New Zealand dollars	Software	Copyrights	Total
Cost			
Balance as at 1 July 2010	5,324	–	5,324
Additions	893	–	893
Disposals	(2)	–	(2)
Balance as at 30 June 2011	6,215	–	6,215
Accumulated amortisation and impairment losses			
Balance as at 1 July 2010	5,324	–	5,324
Amortisation	893	–	893
Disposals	(2)	–	(2)
Balance as at 30 June 2011	6,215	–	6,215
Net book value at 30 June 2011	–	–	–

The opening net book value at 1 July 2009 was Nil.

Notes to the financial statements

for the year ended 30 June 2011

Parent

in thousands of New Zealand dollars	Software	Copyrights	Total
Cost			
Balance as at 1 July 2009	5,094	–	5,094
Additions	953	–	953
Disposals	(723)	–	(723)
Balance as at 30 June 2010	5,324	–	5,324
Accumulated amortisation and impairment losses			
Balance as at 1 July 2009	5,094	–	5,094
Amortisation	953	–	953
Disposals	(723)	–	(723)
Balance as at 30 June 2010	5,324	–	5,324
Net book value at 30 June 2010	–	–	–

18. Investments

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Investment in subsidiaries	–	–	12,709	12,709
	–	**–**	**12,709**	**12,709**

Investments in subsidiaries

Name	Principal activities	Ownership and voting interest 2011 %	2010 %
NIWA Vessel Management Ltd	Vessel charters for scientific research	100	100
NIWA Australia Pty Ltd	Scientific research and consultancy services	100	100
NIWA Environmental Research Institute	Scientific research and consultancy services	100	100
Unidata Pty Ltd	Supplier of environmental technology products	80	80
NIWA Natural Solutions Ltd	Non-trading shell company	100	100
EcoConnect Ltd	Non-trading shell company	100	100

All subsidiaries have a balance date of 30 June.

NIWA Vessel Management Ltd, NIWA Natural Solutions Ltd, and EcoConnect Ltd are incorporated in New Zealand. NIWA Australia Pty Ltd and Unidata Pty Ltd are incorporated in Australia. NIWA Environmental Research Institute is incorporated in the USA.

19. Joint ventures

The Group has a 50% participating interest in RiskScape NZ, an unincorporated joint venture of equal interests with Geological Risk Limited (a wholly owned subsidiary company of GNS Science Ltd). RiskScape NZ commenced operations in April 2005 and had a first balance date of 30 June 2005. The Group's interests in this joint venture had an immaterial effect on the financial statements.

During the year ending 30 June 2010, a new arrangement was put in place by the Ministry of Science and Innovation for the funding of the natural hazards platform for the year ending 30 June 2011. Under this arrangement funding is directly paid to each party rather than RiskScape NZ.

The following amounts are from the financial statements of RiskScape NZ.

in thousands of New Zealand dollars	Group 2011	Group 2010
Current assets	–	–
Non-current assets	–	–
Current liabilities	–	–
Non-current liabilities	–	–
Income	–	741
Expenses	–	741

20. Receivables

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Trade receivables	20,697	17,968	18,971	17,767
Provision for doubtful debts	(398)	(655)	(398)	(655)
Total	**20,299**	**17,313**	**18,573**	**17,112**
Classified as:				
Non-current	221	803	221	803
Current	20,078	16,510	18,352	16,309
	20,299	**17,313**	**18,573**	**17,112**

Included in the Group and Parent's trade receivables balance at the end of the year is one debtor's balance which equates to 46% for the Group and 51% (2010: Group 45% and Parent 45%) of the Parent's total trade receivables balance. Contracts with a Crown owned debtor specify retentions are held on each invoice until the individual contracts are complete, which can take up to 5 years. The non-current component of receivables relates to the long-term portion of these contract retentions.

A large proportion of the Group's commercial customers are from central government, local government, and private sectors which the Group considers to be low credit risk.

Before accepting a new customer, a credit check is undertaken when deemed appropriate to ensure validity of the customer before any service or goods are provided to the customer.

The Group reserves the right to charge interest at a rate of 2% per month, calculated daily, on all invoices remaining unpaid at the due date.

Notes to the financial statements
for the year ended 30 June 2011

Past due but not impaired trade receivables

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Between 60 and 90 days	234	196	83	161
Between 91 and 180 days	99	38	99	38
Over 181 days	122	373	122	373
	455	607	304	572

Included in the Group's trade receivable balance are debtors with a carrying amount of $455k (2010: $607k) which are past due at the reporting date for which the Group has not provided as the amounts are still considered recoverable. The Group does not hold any collateral over past due or impaired balances.

Included in the Parent's trade receivable balance are debtors with a carrying amount of $304k (2010: $572k) which are past due at the reporting date for which the Parent has not provided as the amounts are still considered recoverable. The Parent does not hold any collateral over past due or impaired balances.

The above balances indicate the past due receivables which have not been provided for as the amounts are still recoverable. The balances above exclude the Crown owned debtor who has a significant amount owing to the Group as indicated above for which management consider there is low credit risk.

Provision for doubtful debts

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Balance at the beginning of the year	655	1	655	1
Impairment loss recognised	1	655	1	655
Impairment losses reversed	(272)	–	(272)	–
Amounts written off as uncollectible	–	(1)	–	(1)
Amounts recovered during the year	14	–	14	–
	398	655	398	655

Included in the provision for doubtful debts are individually selected debtors of $398k (2010: $655k) for the Group and the Parent which are unlikely to be recoverable. The provision recognises the difference between the carrying amount of these trade receivables and the expected recoverable amount. The net carrying amount is considered to approximate their fair value.

21. Uninvoiced receivables

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Uninvoiced receivables	4,937	4,138	4,927	4,048

The amount of revenue unbilled at balance date is represented by 'uninvoiced receivables', which is stated at the proportion to the stage of completion in the statement of financial position. Once this balance is invoiced it is transferred to trade debtors.

Management believe there are no significant concentrations of risk relating to this balance.

22. Inventory

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Consumables	764	510	105	38
Finished goods	1,716	1,974	1,262	1,490
Work in progress	316	65	262	50
Total	2,796	2,549	1,629	1,578

Inventories are not pledged as security for liabilities, nor are any inventories subject to retention of title clauses.

23. Reconciliation of the profit for the period to net cash from operating activities

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Profit for the period	1,266	4,497	2,064	1,394
Add/(less) items classified as investing activities				
Net loss/(gain) on disposal of property, plant, & equipment	442	(13)	133	(13)
	442	(13)	133	(13)
Add/(less) non-cash items				
Depreciation and impairment	12,970	13,674	12,023	11,612
Amortisation of identifiable intangibles	988	984	893	953
(Increase)/decrease in unsecured loan	(65)	(19)	–	–
Net foreign currency (gain)/loss	(123)	138	26	82
Increase/(decrease) in deferred tax liability	1,147	1,484	787	1,509
	14,917	16,261	13,729	14,156
Add/(less) movements in working capital items				
Increase/(decrease) in payables and accruals and revenue in advance	2,907	(1,668)	481	(1,797)
Increase/(decrease) in employee entitlements	(36)	746	(29)	700
(Increase)/decrease in receivables and prepayments	(3,260)	1,486	(1,767)	1,489
(Increase)/decrease in inventory and uninvoiced receivables	(1,045)	264	(930)	255
(Increase)/decrease in taxation receivable	(3,075)	2,412	(1,269)	1,676
Increase/(decrease) in forward exchange derivatives	(50)	70	(50)	70
	(4,559)	3,310	(3,564)	2,393
Net cash flows from operating activities	12,066	24,055	12,362	17,930

24. Related party transactions

In addition to the disclosures in note 10 and 20, the Government of New Zealand (the Crown) is the ultimate shareholder of the NIWA Group. All transactions with other Government-owned entities are not considered to fall within the intended scope of related party transactions. No related party debts have been written off or forgiven during the year. Any business the NIWA Group has transacted in which a director or an employee has an interest has been carried out on a commercial 'arms-length' basis. Any potential conflict is recorded and minuted in Board meetings for directors and a separate interest register for employees. The interest register containing all relevant interests is updated on a regular and timely basis.

Key management personnel compensation

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Short-term benefits	6,016	6,230	5,869	6,101

The table above includes remuneration of the Chief Executive Officer and all key management positions.

Notes to the financial statements

for the year ended 30 June 2011

25. Financial instruments

Capital management

The Group has externally imposed requirements under the Crown Research Institutes Act 1992:

- to operate in a financially responsible manner so that sufficient operating funds are generated to maintain financial viability;
- to provide an adequate rate of return on shareholders' funds; and
- to operate as a going concern.

Specifically the Shareholding Ministers expect the targeted adjusted return on equity to be 9.0%. The Ministers have indicated that the target is to be delivered as a long-term average due to the potential cyclical profitability that can be involved in research outputs.

The Group's policy is to maintain a strong capital base so as to maintain investor and creditor confidence and to sustain future development of the business.

The Group's policies in respect of capital management and allocation are reviewed regularly by the Board of Directors.

The advance facility available from The ANZ National Bank is subject to two covenants:

1. Maintain shareholders funds of not less than $50 million of net tangible assets; and
2. Reserve the right to review the facility in the event of a change in the shareholding structure.

Capital refers to the equity and borrowings of the Group and Parent.

There have been no material changes in the Group's management of capital during the period.

Fair value of financial instruments

The fair values of financial assets and financial liabilities are determined as follows:

- the fair value of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets is determined with reference to quoted market prices;
- the fair value of other financial assets and financial liabilities (excluding derivative instruments) is determined in accordance with valuation techniques based on discounted cash flow analysis using prices from observable recent market transactions, or dealer quotes for similar instruments; and
- the fair value of derivative instruments is calculated using quoted prices. Where such prices are not available, use is made of discounted cash flow analysis using the applicable yield curve for the duration of the instruments for non-optional derivatives, and option pricing models for optional derivatives.

The Group has no level 3 financial instruments. The carrying value of all financial instruments is considered to approximate fair value.

Categories of financial instruments

Group

Balance at 30 June 2011 in thousands of New Zealand dollars	Note	Loans and receivables	Held for trading	Financial liabilities at amortised cost	Total
Assets					
Cash and cash equivalents		1,447	–	–	
Receivables	20	20,299	–	–	
Uninvoiced receivables	21	4,937	–	–	
Total financial assets		26,683	–	–	26,683
Total non-financial assets					113,162
Total assets					**139,845**
Liabilities					
Payables and accruals	12	–	–	13,041	
Unsecured loans	9	–	–	344	
Borrowings	13	–	–	14,830	
Employee entitlements	10	–	–	9,356	
Forward exchange derivatives		–	20	–	
Total financial liabilities		–	20	37,571	37,591
Total non-financial liabilities					12,048
Total liabilities					**49,639**

Fair value through profit or loss financial instruments are all level 2 of the hierarchy.

Balance at 30 June 2010 in thousands of New Zealand dollars	Note	Loans and receivables	Held for trading	Financial liabilities at amortised cost	Total
Assets					
Cash and cash equivalents		2,396	–	–	
Receivables	20	17,312	–	–	
Uninvoiced receivables	21	4,138	–	–	
Forward exchange derivatives		–	28	–	
Total financial assets		23,846	28	–	23,874
Total non-financial assets					103,476
Total assets					**127,350**
Liabilities					
Payables and accruals	12	–	–	10,493	
Unsecured loans	9	–	–	279	
Borrowings	13	–	–	5,905	
Employee entitlements	10	–	–	9,388	
Forward exchange derivatives		–	98	–	
Total financial liabilities		–	98	26,065	26,163
Total non-financial liabilities					12,064
Total liabilities					**38,227**

Parent

Balance at 30 June 2011 in thousands of New Zealand dollars	Note	Loans and receivables	Held for trading	Financial liabilities at amortised cost	Investment in subsidiary accounted for at cost	Total
Assets						
Cash and cash equivalents		477	–	–	–	
Receivables	20	18,573	–	–	–	
Investments	18	–	–	–	12,709	
Uninvoiced receivables	21	4,927	–	–	–	
Intercompany	14	8,775	–	–	–	
Total financial assets		32,751	–	–	12,709	45,462
Total non-financial assets						75,182
Total assets						**120,644**
Liabilities						
Payables and accruals	12	–	–	11,760	–	
Borrowings	13	–	–	14,830	–	
Intercompany	14	–	–	–	–	
Employee entitlements	10	–	–	8,539	–	
Forward exchange derivatives		–	20	–	–	
Total financial liabilities		–	20	35,129	–	35,149
Total non-financial liabilities						7,643
Total liabilities						**42,792**

Balance at 30 June 2010 in thousands of New Zealand dollars	Note	Loans and receivables	Held for trading	Financial liabilities at amortised cost	Investment in subsidiary accounted for at cost	Total
Assets						
Cash and cash equivalents		1,401	–	–	–	
Receivables	20	17,112	–	–	–	
Investments	18	–	–	–	12,709	
Uninvoiced receivables	21	4,048	–	–	–	
Intercompany	14	1,109	–	–	–	
Forward exchange derivatives		–	28	–	–	
Total financial assets		23,670	28	–	12,709	36,407
Total non-financial assets						79,034
Total assets						**115,441**
Liabilities						
Payables and accruals	12	–	–	8,874	–	
Borrowings	13	–	–	5,905	–	
Intercompany	14	–	–	6,303	–	
Employee entitlements	10	–	–	8,570	–	
Forward exchange derivatives		–	98	–	–	
Total financial liabilities		–	98	29,652	–	29,750
Total non-financial liabilities						9,903
Total liabilities						**39,653**

Credit risk

Credit risk is the risk that a third party will default on its obligations to NIWA and the Group, causing a loss.

In the normal course of business, the Group incurs credit risk from trade receivables, uninvoiced receivables, and transactions with financial institutions (cash and short-term deposits and derivatives). The Group has a credit policy that is used to manage this risk. As part of this policy, limits are placed on the amounts of credit extended to third parties, and care is taken to ensure the credit-worthiness of third parties dealt with. All credit risk exposures are monitored regularly.

The Group does not require any collateral or security to support financial instruments, because of the quality of financial institutions and counterparties dealt with. There are no significant concentrations of credit risk.

The maximum exposure to credit risk for the Group is $26,681k (total exposed to credit risk, which is cash and cash equivalents $1,447k, uninvoiced receivables $4,937k, and trade receivables net of provisions $20,297k) (2010: 23,874k).

The maximum exposure to credit risk for the Parent is $32,754k (total exposed to credit risk, which is cash and cash equivalents $477k, uninvoiced receivables $4,927k, trade receivables net of provisions $18,575k, and intercompany $8,775k) (2010: 23,698k).

Receivables and prepayments include further analysis on the trade receivables (refer note 20).

The Group has not renegotiated the terms of any financial assets which would result in the carrying amount no longer being past due or avoid a possible past due status.

The Group's maximum exposure to credit risk by geographic regions is as follows:

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
New Zealand	23,754	21,005	31,312	22,641
Australia	1,688	1,717	1,600	1,380
USA	146	1,614	30	139
United Kingdom	35	–	4	–
Other European countries	46	26	46	26
Other Asia Pacific countries	1,128	32	81	134
Other regions	282	135	79	33
Provision for doubtful debts	(398)	(655)	(398)	(655)
Total credit risk	**26,681**	**23,874**	**32,754**	**23,698**

Interest rate risk

Interest rate risk is the risk that cashflows will fluctuate because of changes in market interest rates. This could particularly affect the cost of borrowing and the return on investments.

The interest rates on the Group and Parent borrowings as at 30 June:

	2011	2010
Borrowings	3.62% – 4.05%	3.75%

The interest rates on the Group and Parent investments as at 30 June:

	2011	2010
Cash (on call)	2.5%	2.5%

The directors do not consider there is any significant exposure to interest rate risk. All borrowings and intercompany balances are managed by NIWA on behalf of the Group.

NIWA has a regularly reviewed treasury policy in place which ensures the appropriate management of currency and interest rate risk.

Currency risk

The Group undertakes transactions in foreign currencies from time to time, and, resulting from these activities, exposures in foreign currency arise. It is the Group's policy to economically hedge foreign currency trading transaction risks as they arise, unless explicitly authorised otherwise by the Board. To manage these exposures, the Group uses forward foreign exchange contracts. At balance date the Group had forward foreign exchange arrangements in place with a NZD notional value of $260k (2010: $6,320k).

The following table details the forward foreign currency exchange contracts outstanding as at 30 June 2011 and 2010 for the Parent and the Group.

in thousands of New Zealand dollars	Average exchange rates 2011	Average exchange rates 2010	Foreign currency 2011	Foreign currency 2010	Notional value 2011	Notional value 2010	Fair value 2011	Fair value 2010
Buy NOK								
Less than 3 months	–	4.0903	–	3,244	–	794	–	70
3 to 6 months	–	4.0717	–	1,101	–	270	–	24
Buy SGD								
Less than 3 months	–	0.9761	–	4,249	–	4,387	–	(8)
3 to 6 months	0.9822	1.0020	243	355	260	354	(20)	(14)
7 to 12 months	–	0.9530	–	243	–	255	–	(1)
13 to 18 months	–	0.9355	–	243	–	260	–	(1)

The Parent and Group have entered into forward exchange contracts to economically hedge the exchange rate risk for the forecasted purchase of goods and services for the fit out of the RV *Tangaroa*.

The Group's exposure to foreign currency denominated non-derivative financial instruments was as follows, based on notional amounts:

in thousands of New Zealand dollars	AUD 30 June 2011	EUR 30 June 2011	USD 30 June 2011	YEN 30 June 2011	AUD 30 June 2010	EUR 30 June 2010	USD 30 June 2010	YEN 30 June 2010
Cash balances	828	28	232	15	992	16	1,237	–
Trade receivables	541	30	16	–	315	–	191	–
Trade payables	(397)	(28)	(196)	–	(253)	(2)	(121)	–
Statement of financial position exposure	**972**	**30**	**(52)**	**15**	**1,054**	**14**	**1,307**	**–**

The Parent's exposure to foreign currency denominated non-derivative financial instruments (excluding derivatives) was as follows, based on notional amounts:

in thousands of New Zealand dollars	AUD 30 June 2011	EUR 30 June 2011	USD 30 June 2011	YEN 30 June 2011	AUD 30 June 2010	EUR 30 June 2010	USD 30 June 2010	YEN 30 June 2010
Cash balances	1	28	134	15	34	16	1,197	–
Trade receivables	158	30	–	–	77	–	105	–
Trade payables	(285)	(28)	(196)	–	(180)	(2)	(151)	–
Statement of financial position exposure	**(126)**	**30**	**(62)**	**15**	**(69)**	**14**	**1,151**	**–**

Notes to the financial statements
for the year ended 30 June 2011

The following significant exchange rates applied:

NZD	Reporting date spot rate 2011	2010
AUD	0.7725	0.8508
USD	0.8303	0.6936
NOK	4.4553	4.4268
SGD	1.0199	0.9550
EUR	0.5721	0.5684
YEN	66.73	61.34

A 10% strengthening of the NZD against the following currencies at 30 June would have increased (decreased) the profit and the equity by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant. The analysis is performed on the same basis for 2010.

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
AUD	108	117	(14)	(8)
EUR	3	2	3	2
USD	6	145	(7)	131
YEN	2	–	2	–
NOK	–	(108)	–	(108)
SGD	(27)	(587)	(27)	(587)

A 10% weakening of the NZD against the above currencies at 30 June would have had approximately an equal but opposite effect on the above currencies to the amounts shown above, on the basis that all other variables remain constant.

Liquidity risks

Liquidity risk represents the Group's ability to meet its contractual obligations. The Group evaluates its liquidity requirements on an ongoing basis. In general, the Group generates sufficient cash flows from its operating activities to meet its obligations arising from its financial liabilities and has credit lines in place to cover potential shortfalls.

The NIWA Group's current liabilities exceed its current assets by $10 million due to the decision to secure borrowings on a short term basis which have favourable terms and interest rates in comparison with long term debt. This on-going banking arrangement suits NIWA's expected cashflows with both short and long term positive operating cashflows projected. NIWA is able to meet all of its obligations as they fall due.

The following table details the Group's and the Parent's contractual maturity analysis. The table has been based upon the earliest date on which the Group and the Parent can be required to pay.

Group

As at 30 June 2011 in thousands of New Zealand dollars	On demand	Less than 1 year	Later than 1 year and not later than 5 years	Later than 5 years	Total
Payables and accruals	–	13,041	–	–	13,041
Unsecured loan	–	19	457	–	476
Borrowings	3,830	11,066	–	–	14,896
Employee entitlements	–	8,710	646	–	9,356
Forward exchange derivative	–	20	–	–	20
Total	**3,830**	**32,856**	**1,103**	**–**	**37,789**

As at 30 June 2010 in thousands of New Zealand dollars	On demand	Less than 1 year	Later than 1 year and not later than 5 years	Later than 5 years	Total
Payables and accruals	–	10,493	–	–	10,493
Unsecured loan	–	19	457	–	476
Borrowings	1,905	4,012	–	–	5,917
Employee entitlements	–	8,661	727	–	9,388
Forward exchange derivative	–	70	–	–	70
Total	**1,905**	**23,255**	**1,184**	**–**	**26,344**

Parent

As at 30 June 2011 in thousands of New Zealand dollars	On demand	Less than 1 year	Later than 1 year and not later than 5 years	Later than 5 years	Total
Payables and accruals	–	11,760	–	–	11,760
Intercompany	–	–	–	–	–
Borrowings	3,830	11,066	–	–	14,896
Employee entitlements	–	8,000	539	–	8,539
Forward exchange derivative	–	20	–	–	20
Total	**3,830**	**30,846**	**539**	**–**	**35,215**

As at 30 June 2010 in thousands of New Zealand dollars	On demand	Less than 1 year	Later than 1 year and not later than 5 years	Later than 5 years	Total
Payables and accruals	–	8,874	–	–	8,874
Intercompany	6,303	–	–	–	6,303
Borrowings	1,905	4,012	–	–	5,917
Employee entitlements	–	7,945	625	–	8,570
Forward exchange derivative	–	70	–	–	70
Total	**8,208**	**20,901**	**625**	**–**	**29,734**

Financing facilities

The Group has access to financing facilities; the total facility is $19.5 million (2010: $11.5 million). $14.8 million was drawn down at 30 June 2011 (2010: $5.9 million). The total facility of $19.5 million relates to an overdraft facility of $0.5 million (on-call) and an overnight placement and short term advance facility of $19 million (2010: $11.5 million). These facilities are available for the Parent company.

Notes to the financial statements
for the year ended 30 June 2011

26. Commitments

26a. Operating lease arrangements

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Obligations payable after balance date on non-cancellable operating leases:				
Within 1 year	2,429	2,187	2,340	2,101
Between 1 and 2 years	2,020	1,861	2,020	1,861
Between 2 and 5 years	5,613	4,804	5,613	4,804
Over 5 years	13,222	10,920	13,222	10,920
	23,284	**19,772**	**23,195**	**19,686**

Operating leases relate to office and laboratory facilities within New Zealand and Australia with lease terms between 1 and 11 years, with various options to extend.

26b. Capital commitments

in thousands of New Zealand dollars	Group 2011	Group 2010	Parent 2011	Parent 2010
Commitments for future capital expenditure:				
Contracted, but not provided for	–	6,034	–	–
	–	**6,034**	**–**	**–**

27. Contingent liabilities

There are no material contingent liabilities (2010: Nil).

28. Subsequent events

There were no subsequent events.

Statutory information

Directors' remuneration

Directors' remuneration received or due and receivable during the year is:

in thousands of New Zealand dollars	2011	2010
Directors of the National Institute of Water & Atmospheric Research Ltd		
Christopher Mace (Chairman)	72	72
Craig Ellison (Deputy chairman)	45	45
Dennis Cairns	36	36
Ed Johnson	36	36
Helen Robinson	36	36
Jason Shoebridge	36	36
Dr Wendy Lawson	36	36

No fees were paid in respect of directors of the subsidiaries NIWA Vessel Management Ltd, NIWA Environmental Research Institute, NIWA Australia Pty Ltd, NIWA Natural Solutions Ltd, EcoConnect Ltd, and Unidata Pty Ltd, other than those shown above.

Directors' insurance

The NIWA Group has arranged policies for directors' liability insurance which, with a deed of indemnity, ensures that generally directors will incur no monetary loss as a result of lawful actions undertaken by them as directors. Certain actions are specifically excluded; for example, incurring penalties and fines which may be imposed in respect of breaches of the law.

Employees' remuneration

The numbers of employees (not including directors) whose total remuneration exceeded $100,000 is:

	Group	
$	**2011**	**2010**
100,000–109,999*	51	35
110,000–119,999	26	23
120,000–129,999*	19	14
130,000–139,999*	15	10
140,000–149,999	5	3
150,000–159,999*	10	3
160,000–169,999*	5	5
170,000–179,999*	3	2
180,000–189,999*	5	3
190,000–199,999	3	4
200,000–209,999	–	2
230,000–239,999*	2	1
250,000–259,000*	2	1
270,000–279,999	2	2
540,000–549,999**	1	–
550,000–559,999**	–	1

* See text below.
** Chief Executive Officer's remuneration band.

Remuneration includes salary, accrued at risk salary components, severance, and exit payments.

Remuneration above was received by 92 Science staff, 10 Science Support, 26 Management, and 21 Subsidiaries. (2010: 65 Science staff, 3 Science Support, 24 Management, and 17 Subsidiaries).

In 2010–11, the Parent and Group paid compensation or other benefits to 28 people who ceased to be an employee during the financial year. The total value of the payment was $1,456,651 (2009–10: $54,042). Of these 28 people, 14 are included in the table above (*).

Donations

Donations of $7,822 were made during the year (2010: $8,677).

Dividends

No dividend payments (2010: Nil) were made to the Government of New Zealand as the sole shareholder.

Statement of responsibility

The following statement is made in accordance with section 155 of the Crown Entities Act (2004).

1. The Board of the company is responsible for the preparation of these financial statements and the judgements used therein.
2. The Board of the company is responsible for establishing and maintaining a system of internal controls designed to provide reasonable assurance as to the integrity and reliability of financial reporting.
3. In the opinion of the Board, these financial statements reflect a true and fair view of the financial position and operations of the National Institute of Water & Atmospheric Research Ltd and Group for the year ended 30 June 2011.

Christopher Mace
Chairman
1 September 2011

Craig Ellison
Director

Auditor's report

To the readers of National Institute of Water and Atmospheric Research Limited and Group's financial statements for the year ended 30 June 2011

Deloitte.

The Auditor-General is the auditor of National Institute of Water and Atmospheric Research Limited (the company) and group. The Auditor-General has appointed me, Andrew Dick, using the staff and resources of Deloitte, to carry out the audit of the financial statements of the company and group, on her behalf, for the year ended 30 June 2011.

We have audited the financial statements of the company and group on pages 18 to 46, that comprise the statement of financial position as at 30 June 2011, the statement of comprehensive income, statement of changes in equity and cash flow statement for the year ended on that date and the notes to the financial statements that include accounting policies and other explanatory information.

Opinion on the financial statements

In our opinion the financial statements of the company and group on pages 18 to 46:

- comply with generally accepted accounting practice in New Zealand;
- comply with International Financial Reporting Standards; and
- give a true and fair view of the company and group's:
  - financial position as at 30 June 2011; and
  - financial performance and cash flows for the year ended on that date.

Opinion on other legal requirements

In accordance with the Financial Reporting Act 1993 we report that, in our opinion, proper accounting records have been kept by the company as far as appears from an examination of those records.

Our audit was completed on 1 September 2011. This is the date at which our opinion is expressed.

The basis of our opinion is explained below. In addition, we outline the responsibilities of the Board of Directors and our responsibilities, and we explain our independence.

Basis of opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the International Standards on Auditing (New Zealand). Those standards require that we comply with ethical requirements and plan and carry out our audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

Material misstatements are differences or omissions of amounts and disclosures that would affect a reader's overall understanding of the financial statements. If we had found material misstatements that were not corrected, we would have referred to them in our opinion.

An audit involves carrying out procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgement, including our assessment of risks of material misstatement of the financial statements whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the company and group's preparation of the financial statements that fairly reflect the matters to which they relate. We consider internal control in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the company and group's internal control.

An audit also involves evaluating:

- the appropriateness of accounting policies used and whether they have been consistently applied;
- the reasonableness of the significant accounting estimates and judgements made by the Board of Directors;
- the adequacy of all disclosures in the financial statements; and
- the overall presentation of the financial statements.

We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements. In accordance with the Financial Reporting Act 1993, we report that we have obtained all the information and explanations we have required. We believe we have obtained sufficient and appropriate audit evidence to provide a basis for our audit opinion.

Responsibilities of the Board of Directors

The Board of Directors is responsible for preparing financial statements that:

- comply with generally accepted accounting practice in New Zealand; and
- give a true and fair view of the company and group's financial position, financial performance and cash flows.

The Board of Directors is also responsible for such internal control as it determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The Board of Directors' responsibilities arise from the Crown Research Institutes Act 1992 and the Financial Reporting Act 1993.

Responsibilities of the Auditor

We are responsible for expressing an independent opinion on the financial statements and reporting that opinion to you based on our audit. Our responsibility arises from section 15 of the Public Audit Act 2001 and the Crown Research Institutes Act 1992.

Independence

When carrying out the audit, we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the New Zealand Institute of Chartered Accountants.

Other than the audit, we have no relationship with or interests in the company or any of its subsidiaries.

Andrew Dick
Deloitte
On behalf of the Auditor-General
Auckland, New Zealand

Matters relating to the electronic presentation of the audited financial statements

This audit report relates to the financial statements of National Institute of Water and Atmospheric Research Limited (the company) for the year ended 30 June 2011 included on the company's website. The company's Board of Directors is responsible for the maintenance and integrity of the company's website. We have not been engaged to report on the integrity of the company's website. We accept no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.

The audit report refers only to the financial statements named above. It does not provide an opinion on any other information which may have been hyperlinked to or from the financial statements. If readers of this report are concerned with the inherent risks arising from electronic data communication they should refer to the published hard copy of the audited financial statements and related audit report dated 1 September 2011 to confirm the information included in the audited financial statements presented on this website.

Legislation in New Zealand governing the preparation and dissemination of financial information may differ from legislation in other jurisdictions.

Directory

National Institute of Water & Atmospheric Research Ltd

Directors

Christopher Mace (Chairman)

Craig Ellison (Deputy Chairman)

Dr Helen Anderson (appointed 1 July 2011)

Dennis Cairns (resigned 30 June 2011)

Ed Johnson

Dr Wendy Lawson

Helen Robinson

Jason Shoebridge

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Deloitte on behalf of the Auditor-General

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Solicitors

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Aitken Holm Joseph Majurey Ltd

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NIWA's Māori name Taihoro Nukurangi describes our work as studying the waterways and the interface between the Earth and the sky.

Taihoro is the flow and movement of water (from tai 'coast, tide', and horo which means 'fast moving').

Nukurangi is the interface between the sea and the sky (i.e., the atmosphere).

Together, we have taken it to mean 'where the waters meet the sky'.

This Annual Report is a companion volume to NIWA's 2011 Year in Review, which gives an illustrated description of NIWA's environmental science and applied science services. Both reports are available at www.niwa.co.nz/pubs/ar or request a hard copy through scicomm@niwa.co.nz

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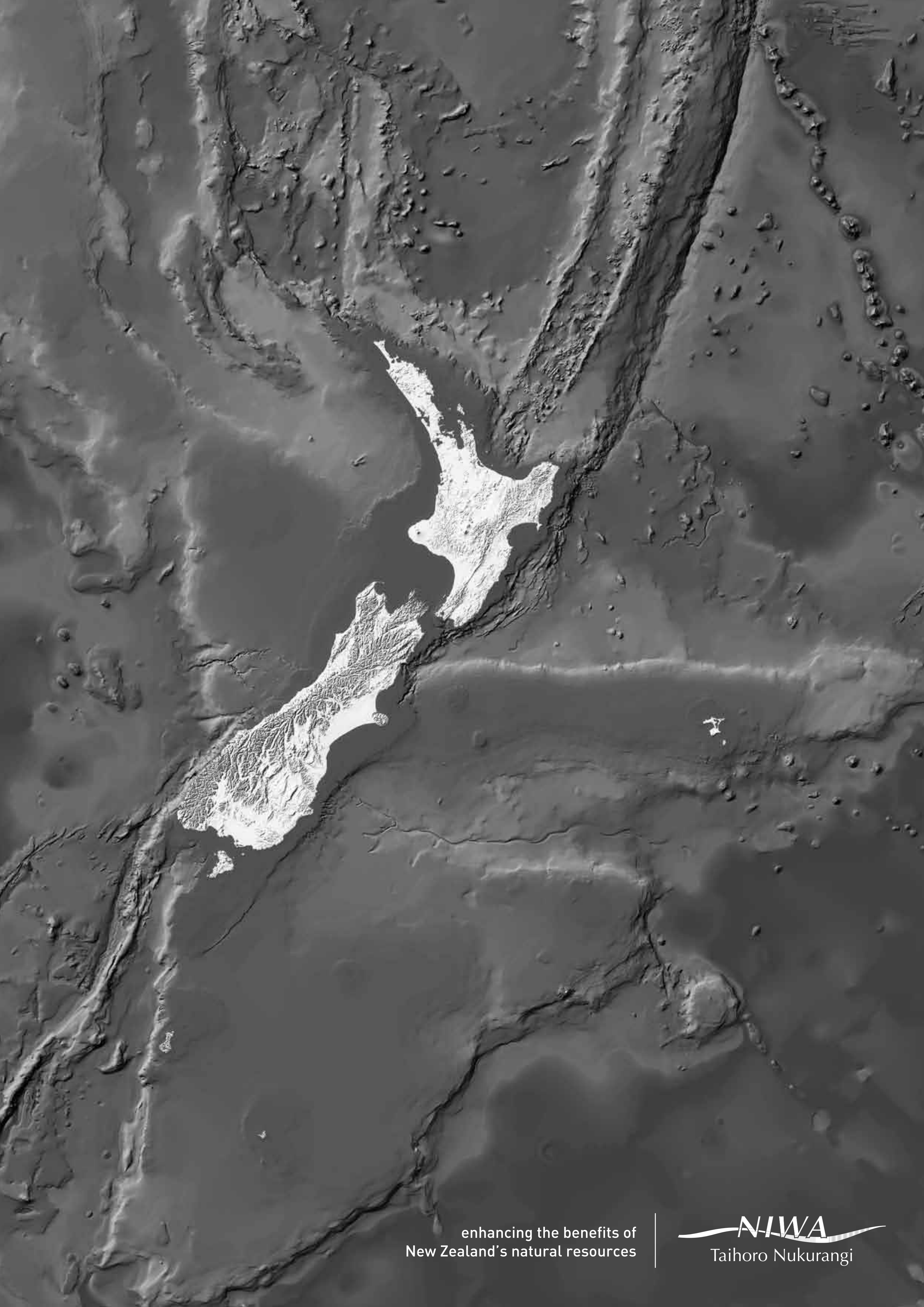

enhancing the benefits of
New Zealand's natural resources

NIWA
Taihoro Nukurangi