

Annual Report 2008



experts in water & atmosphere

# NIWA at a glance

## NIWA's vision:

Leading science to ensure the sustainable use of  
resources for New Zealand and the planet.

The key focuses of our expertise are:

- atmosphere
- energy
- biodiversity
- natural hazards
- aquaculture
- oceans
- climate
- freshwater
- biosecurity
- coasts
- fisheries
- Māori development

**NIWA** was established as a Crown Research Institute in 1992.  
It operates as a stand-alone company with its own Board of  
Directors and Executive Team, and is wholly owned by the Crown.  
As at 30 June 2008, NIWA has 753 staff, revenue of \$120 million,  
and assets of \$109 million.

[www.niwa.co.nz](http://www.niwa.co.nz)

## Taihoru Nukurangi

**NIWA's** Māori name *Taihoru Nukurangi* describes our work as  
studying the waterways and the interface between the earth and  
the sky.

*Taihoru* is the flow and movement of water (from *tai* 'coast, tide',  
and *horu* 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'.

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This is NIWA's official Annual Report 2008. A companion volume, NIWA's Year in Review 2007–2008, is available on-line at [www.niwa.co.nz/pubs/ar](http://www.niwa.co.nz/pubs/ar) or request a hard copy through [xxxxxxx@xxxx.xx.xx](mailto:xxxxxxx@xxxx.xx.xx)

## Science supporting sustainability

Many developed countries have realised that Planet Earth is not a never-ending fountain providing resources to be exploited and consumed. As individuals, communities, companies, and countries, we need to bear in mind that all the decisions we make with regard to our planet are interconnected.

At NIWA, we take the implications of this interconnectedness very seriously. Each day in New Zealand, key decisions are made based on NIWA's science, from resource consent conditions to catch limits attached to fishing quota. We must provide the best evidence and analysis, develop solutions, communicate clearly, and operate sustainably ourselves.

*CEO John Morgan.*



*Chair Sue Suckling.*



## Science provides solutions

Decision-makers at all levels are seeking pragmatic, evidence-based advice from environmental experts.

Across the breadth of NIWA's activities, our science provides both the high quality insights necessary to underpin important decisions, and innovative solutions. They range from assisting Māori business in commercial seafood and high value aquaculture development, to working with the dairy industry to devise, test, and communicate viable farm management practices which improve water quality. They include irrigation modernisation, producing biogas from farm effluent, and sophisticated computer modelling to predict the spread of aquatic pests. We are developing and refining tools for such important activities as hazard forecasting, fisheries stock assessment, and sustainable wastewater treatment.

Looking at one example in a little more detail: climate change and its impacts are now well-established as an important issue in boardrooms and policy forums around the world. People are looking to science for solutions.

As good international citizens, New Zealand should make a solid to climate change mitigation – even though our contribution will be relatively small in the global context. In the area of climate change adaptation, however, it's quite another story. As decision-makers in New Zealand, we can make a crucial difference to our economy and our society. We face choices with long-term ramifications: where to place bridges and highways and coastal subdivisions, what power stations to build, how to deal with new invasive pests, how to manage competing demands for water. Such decisions are worth many billions of dollars over the lifetime of the investment. In some cases, poor decisions could cost lives as well as money.

This year, the contribution of NIWA scientists and engineers to the Ministry for the Environment guidance manuals, helping local government adapt to climate change, is just one example of the real-world application of scientific discovery that NIWA, straddling both research and science based consultancy, is able to provide.

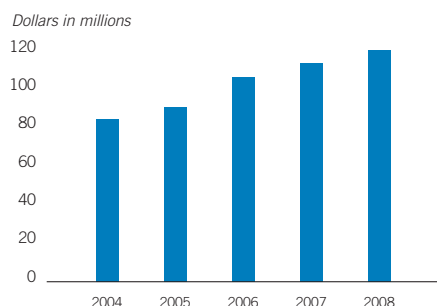
NIWA has both outstanding people and unique infrastructure. It is this combination of talent and hardware that enables us to be such a vital source of expertise for this country, our Pacific neighbours, and the wider world.

## Our performance

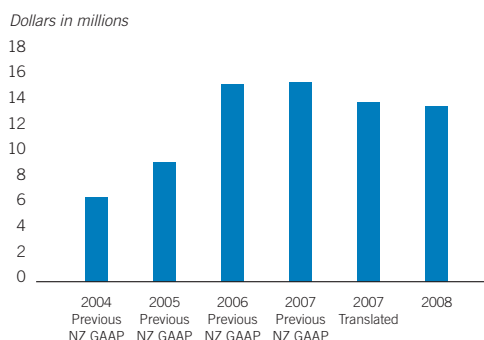
For the past five years, NIWA has maintained an excellent track record in financial and scientific outcomes. Our performance in the year to 30 June 2008 is, once again, a tribute to everyone at NIWA.

NIWA's revenue from its research, consulting, vessel operations, and other business activities (including interest income) grew strongly again in the 2007–08 financial year, reaching \$120.7 million. The Group EBIT was \$13.66 million and net profit after tax \$10.121 million, and average shareholders' funds for the year were \$79.306 million. Capital expenditure for the year ended 30 June 2008 was \$13.985 million – up more than 50% (\$4.878 million) from the previous year.

**Total revenue (includes interest income)**



**Operating profit (EBIT)**



NIWA's after-tax return on average shareholders' equity was 12.8% for the year to 30 June 2008.

Comparisons with previous years are complicated by our move to the International Financial Reporting Standards, and a revaluation of our land and most of our buildings, however a 'translation' of last year's figures for comparison purposes is shown in the table below.

As a research and science services company, NIWA's performance is second to none. We continue to meet all shareholder targets for financial performance, and scientifically, 2007–08 has been one of our most productive years.

Some highlights include:

- New Zealand's International Polar Year voyage of discovery on RV *Tangaroa* – expanding fundamental knowledge to secure a sustainable future for the planet
- Successfully breeding from first-generation captive kingfish that were themselves produced from eggs at our Bream Bay Aquaculture Park – paving the way for high value aquaculture
- Innovative research on orange roughy – providing a scientific basis for sustainable fisheries management

	2008	2007 Translated	2007 Previous NZ GAAP	2006 Previous NZ GAAP	2005 Previous NZ GAAP	2004 Previous NZ GAAP
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Total Revenue (Includes interest income)	120,671	113,911	113,911	106,414	91,137	84,631
– Public Good Science	55,536	53,418	53,418	50,374	43,729	39,591
– Ministry of Fisheries	15,127	17,183	17,183	16,060	16,626	14,602
– Commercial and Other	50,008	43,310	43,310	39,980	30,782	30,438
Net profit before tax	14,335	14,279	15,843	15,706	9,654	7,036
Net profit after tax	10,121	9,813	10,461	10,342	6,434	5,276
Capital expenditure	13,985	9,107	9,107	8,480	7,348	8,389
Return on average equity (%)	12.8	14.1	22.6	24.4	13.5	10.7

The Group changed its accounting policies on 1 July 2006 to comply with New Zealand International Financial reporting standards. The transition required the Statement of Financial Performance to be translated for the year ended 30 June 2007 as shown above.

- The establishment of new operational flood forecasting trials – applying advances in science to reduce property damage and save lives
- Development of specialist tools to assist regional councils with freshwater management – practical tools to address an enormous environmental challenge
- New climate change projections for New Zealand, and associated guidance for local government – pragmatic planning advice based on authoritative, peer-reviewed science
- The completion of over 1200 science publications
- The delivery of over 1000 science presentations
- Responding to more than 350 000 database requests from our nationally significant databases.

### Global collaborations

Many of NIWA's outcomes are made possible by working with other experts around the world. During 2007–08, we were involved in over 970 collaborations, some of which are outlined below. We have close relationships with the other Crown Research Institutes and all the New Zealand universities, which are rightly regarded as leaders in their fields.

NIWA hosts the secretariat of the New Zealand Climate Change Centre, made up of all nine CRIs and two universities (Victoria University of Wellington and the University of Canterbury).

The EnergyScape project, a collaboration involving NIWA, CRL Energy, GNS Science, Industrial Research Ltd, and Scion, has transformed the disparate information on New Zealand's energy system into a usable planning tool, and has only been possible through the Energy Research Alliance, comprising these organisations.

NIWA has close working relationships with many iwi, hapū, and other Māori entities. Through Te Kūwaha o Taihoro Nukurangi (our Māori environmental research group), NIWA currently has over 85 working relationships with Māori entities.

In 2007–08, NIWA had formal collaborative links with some 150 overseas institutions. New Zealand's International Polar Year voyage on RV *Tangaroa* was a good example of global scientific cooperation. Our 'polar partners' were the Ministry of Fisheries, Land Information New Zealand, the Ministry of Foreign Affairs & Trade, Antarctica New Zealand, Te Papa Tongarewa (National Museum of New Zealand), Victoria University of Wellington, University of Waikato, University of Auckland, Università di Genova (Italy), the National Oceanic and Atmospheric Administration (USA), Science Learning Hub, Cousteau Society, and Census of Antarctic Marine Life.

To all our collaborators, at home and abroad – thank you.



Peter Marriett, IPY-CAML



## Strategic direction

NIWA must continue to make a difference for our clients and stakeholders, delivering expertise crucial for the sustainability of New Zealand and the planet. To do this, NIWA's strategy in 2007–08 and for the future revolves around three key themes:

- Attracting and retaining good staff
- Strengthening infrastructure and building new capability
- Continuing to improve the sustainability of our operations.

### Investing in our people

Whether in the lab or at the Board table, at the vessel helm or the reception desk, on North Cape sand dunes or under the polar ice, NIWA's success relies on the talent and dedication of all our people.

NIWA is a truly cosmopolitan workplace. We recruit many staff from overseas, and our Kiwis have often undertaken PhD or post-doctorate research elsewhere. This brings a richness of thinking which we value enormously. We want our scientists to regard their New Zealand experience at NIWA as a career highlight.

To this end, we have an active programme to create the best possible working environment at NIWA, ranging from improving our leadership skills at all levels to improving the physical work spaces for staff. As an example, our Auckland staff will shortly move to new premises and the design of the fitout was chosen for its innovative approach to a science workplace.

While few of our staff are motivated solely by money, we are committed to offering remuneration packages that are at least competitive in the general market. During the past year, we took the unprecedented step of awarding all NIWA staff two across-the-board pay rises; one in July 2007 and one in December 2007. This, coupled with expanding staff numbers, resulted in our salary costs rising by close to \$6 million; however we see this as an investment in attracting and retaining the best possible people in a world fighting for talent.

Again this year, our staff have garnered numerous national and international awards, including Dr Wendy Nelson (Member of the New Zealand Order of Merit) and the dozen NIWA staff who contributed to the Intergovernmental Panel on Climate Change (Nobel Peace Prize). Previous award recipients include Dr Clive Howard-Williams (New Zealand Antarctic Medal), and Dr Janet Grieve (Officer of the New Zealand Order of Merit).

Whilst on the subject of our people, we would like to acknowledge all Board members for their continuing commitment to good governance of NIWA. Our thanks go to departing Board members John Hercus, John Spencer, and Troy Newton for their contribution. During the year, Craig Ellison (now Deputy Chair) joined us and has brought new perspectives and skills to the Board.

### Investing in our infrastructure

In 2007–08, we started a three-year \$58 million capital investment programme, which will continue in 2008–09 and 2009–10. We are confident that this new infrastructure and capability will improve science outcomes for New Zealand, and generate additional revenue.

We are directing much of this investment towards three areas of unique infrastructure:

- Environmental monitoring networks
- Research vessels
- Information technology & supercomputing capability.

Our **environmental monitoring networks** provide a rich source of data for good quality decisions.

To study changing atmospheric composition, for instance, we aim laser beams at the stratosphere, release mini-laboratories of instruments tied to special high altitude balloons, collect air samples from ships and hilltops, and download a vast stream of data from satellites revolving the Earth. NIWA's Marine Benthic Biology Collection, National Climate Database, Water Resources Archive Database, and New Zealand Freshwater Fish Database are all officially defined as "heritage assets" – taonga of unique scientific importance.

This year, we opened up web-based access to our archived data free of charge. The response was excellent with the number of registered users of the National Climate Database rising from 130 to over 4000.

We invested about \$2.4 million of capital expenditure in extending the robustness and reach of our environmental monitoring networks. This included upgrading some hardware, devising better software support systems, and developing better measurement and telemetry systems.

NIWA's Instrument Systems group and our Perth-based subsidiary Unidata, successfully brought new Neon technology to market. The Neon system is one of the most advanced telemetry systems in the world. Data is logged in the field and transmitted to a central Neon server via cellular network or satellite. Users can view their data in 'near real time' via the internet, email, SMS (text message), or a range of other data transfer mechanisms.

Our **research vessels** provide a unique platform for science in this part of the world – from simple kayaks for paddling through mangrove forests to RV *Tangaroa* cracking a path through metre-thick ice in the Ross Sea. Planned investment of \$10 million on a new dynamic positioning system for *Tangaroa* in 2008–09 and a new purpose-built 14 m coastal vessel will bring New Zealand's scientific research vessel capability up to the best in the world.

In 2007–08 we continued to invest significantly in our **information systems and technology** and plan to continue this throughout 2008 and 2009.

In addition, our scientific demands are fast heading towards saturating the capacity of our current Cray T3E supercomputer. We are now working through a process to invest in a new state-of-the-art supercomputer, initially with the power of about 11 000 average desktop PCs. That incredible number does not really convey the 'super' aspect of a supercomputer, of course, because plugging that number of PCs together won't give you the computational power of a supercomputer. The keys are high bandwidth and low latency – exceptional ability to process large volumes of data very quickly.



Tim Hay, NIWA/University of Canterbury





John Mitchell, IPY/CAMLR

## Investing in sustainability

Like all companies which aim to be successful long-term, NIWA is focused on operating sustainably and on reducing our carbon footprint. But we regard ourselves as having a greater imperative than most to show leadership in this area.

We have already made the big gains, and we are applying more dedication and creative thinking to seek further leaps in efficiency. NIWA's biggest source of greenhouse gas emissions, for example, is diesel used by our research vessels. In 2007–08, we reduced cruising speeds by 1.5 knots resulting in a 25% reduction in diesel consumption and reducing emissions by 1700 tonnes CO<sub>2</sub>. Now, such moves have reached a threshold that, if extended, would negatively impact on business viability. While continuing to seek opportunities for improvement, we are also turning our attention to the sustainability of other aspects of our operations.

This year, despite a 4% increase in permanent full-time employees (FTEs), we reduced our solid waste generation by 2% per FTE, and increased our total recycling of solid waste by 18% per FTE.

NIWA's Annual Report this year sets a benchmark for our future quadruple bottom line reporting, using guidelines and indicators from the international standard in sustainability reporting, the Global Reporting Initiative (GRI G3), for performance against environmental, economic, labour, and social/cultural indicators.

## Rising to the challenge

As New Zealand decision-makers consider the many challenges we face – in renewable energy, clean water supply, the changing climate, bio-invasions, falling fish stocks, and so on – NIWA and its research partners will be ready to respond with innovative research, scientific evidence, and sound advice.

We believe these very challenges could be the drivers that will continue to make New Zealand the 'lucky country' – provided we make the right decisions about our natural resources, infrastructure, and communities. NIWA is well positioned to play its part, and will continue to invest in the skills and resources to do so. In this report we have presented some examples where NIWA is providing leading science to ensure the sustainable use of natural resources for New Zealand and the planet.

Sue Suckling  
Chair

John Morgan  
Chief Executive

# Performance against Statement of Corporate Intent

## Financial Performance Measures

In 2007–08, NIWA continues to fulfil its financial obligations as specified in section 5 of the Crown Research Institutes Act (1992). These are:

- 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
- to operate as a going concern.

	2007–08 Actual	2007–08 Target	2006–07 Actual
Revenue (total including interest income)	\$120.7M	\$115.8M	\$113.9M
Current ratio	1.5	1.2	1.3
Quick ratio	2.1	1.2	1.8
Return on equity	12.8%	11.1%	14.1%
Return on assets	12.5%	12.3%	13.9%
EBIT margin	11.3%	11.8%	12.3%

All figures in this table comply with the New Zealand International Financial Reporting Standards. NIWA adopted these standards as at 1 July 2006. The 2006–07 figures shown here have been 'translated' to meet this standard, from their original reporting according to the Generally Accepted Accounting Practice in New Zealand.

## Non-Financial Performance Measures

NIWA operates according to the principles set out in section 5 of the Act, 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.

In most cases, NIWA met its non-financial performance targets for 2007–08. The commentary below focuses on major variances where NIWA either significantly exceeded or did not meet its targets.

### Science outputs and collaboration

From July 2007, web-based access to archived data from NIWA's nationally significant databases has been free. As a result, NIWA greatly exceeded its targets for requests for information from the two largest databases:

- National Climate Database: more than 380% of target; 1200% more than last year
- Water Resources Archive: 110% of target; 150% more than last year.

Funding for this move came from the Foundation for Research, Science and Technology, and the NIWA Capability Fund. Many organisations around the country contribute their data to these national archives.

NIWA places considerable emphasis on our scientists presenting their work to end-users and peers. These figures are reported by calendar year, and our output for 2007 (1028) was slightly ahead of that in 2006 (966).

NIWA achieved four times its target for the value of international consultancy contracts this year. At \$10.25 million, this is a record result for us, driven mainly by new large contracts in the Middle East.

No client survey was conducted in 2007–08. One is planned for 2008–09.

The number of representations on international committees (66) was substantially under the target (110). Such positions are dependent on staff availability and the decisions of international scientific bodies.

NIWA has numerous significant interactions with companies and industry boards. We have worked with 237 significant clients in 2007–08. NIWA will report more detailed data in its forthcoming quarterly report to Shareholding Ministers.

### Environmental sustainability

Staff uptake of video conferencing facilities, available at all NIWA sites servicing 20 or more people, has been three times as high as anticipated.

Work on the efficiency of NIWA buildings this year has concentrated on identifying building standards that improve both energy use and staff working conditions. This was considered a prerequisite for meeting the building efficiency target, which will be addressed in 2008–2009.

NIWA has achieved its target of 10% reduction in solid waste compared with 2003–04. In that year, NIWA produced 124 kg/FTE solid waste (2007–08: 94 kg/FTE) and recycled 37 kg/FTE (2007–08: 56 kg/FTE).

### Good employer

In 2007–08, NIWA upgraded its staff performance and development review format to place more emphasis on individual development plans. Accordingly, an audit of the number of staff with such plans will be carried out following the annual reviews (July–August), and will be collated in September 2008.

### Education

The number of external training courses run in 2007–08 (13) did not meet the target (20), and was lower than the actual number for the previous year (17). This was due to staff changes and availability.

	Non-Financial Performance		
	2007-08 Actual	2007-08 Target	2006-07 Actual
<b>Corporate commitment</b>			
Board reporting and communication of commitment, sustainability one of core values	0.4%	0.5% revenue directed toward sustainability initiatives	–
<b>External sustainability advice/services</b>			
Requests for information from our nationally significant databases and collections			
– National Climate Database	267 000	70 000	21 740
– Water Resources Archive	88 000	80 000	55 920
– NZ Freshwater Fish Database	1550	1500	1457
– Marine invertebrate collection and database	>150	150	Not available
<b>Science outputs and collaboration (including international connectedness)</b>			
Commissioned reports to users <sup>1</sup>	495	550	479
Presentations on technical information and research results <sup>1</sup>	1 028	450	966
Publications on technical information and research results <sup>1</sup>			
– Papers in trade journals, magazines, series, or books	217	200	346
– Conference papers and abstracts (submitted)	392	410	190
– Research monographs or books	86	115	114
– Popular books/articles	217	200	11
– Web-based publications <sup>2</sup>	35	20	
Peer-reviewed articles <sup>1</sup>	315	320	291
Keynote and plenary presentations <sup>1</sup>	31	15	13
Client profile (by revenue & national centre) <sup>2</sup>	See pp. 10–11 of this Annual Report for graphs of revenue against client category & national centre	No target set	
Client feedback <sup>2</sup>	No survey was completed in 2007–08	50% of clients observe an improvement in client relations with NIWA based on survey of industries	
Number of representations on international committees	66	110	96
Number of collaborative formal links with overseas organisations <sup>2</sup>	150	No target set	
Number of NIWA-funded international visits & visiting scientists	159 international visits; 45 visiting scientists	150	10
Number/value of international consultancy contracts <sup>2</sup>	\$10.2M	\$2.7M	
Number of significant interactions with companies and industry boards in NIWA's key target sectors			
– percentage of companies with which NIWA had meaningful interactions	Data to be reported in quarterly report	70%	
– percentage of companies with which NIWA was involved in decision-making		30%	
– percentage of companies providing revenue		70%	
– number of positions on industry boards		4	
<b>Environmental sustainability</b>			
Total greenhouse gas emissions (vehicle fleet, gas, electricity)	9756 tonnes of CO <sub>2</sub> (including Bream Bay Aquaculture Park, Kupe supercomputer, & vessels)	Hold total emissions at 2005–06 levels (9580 tonnes of CO <sub>2</sub> , including vessels)	Equivalent of 9961 tonnes of CO <sub>2</sub> (including Bream Bay Aquaculture Park, Kupe supercomputer, & vessels)
Total GHG emissions/FTE	6.6 tonnes/FTE	Less than 2006–07 levels by 2010	6.19 tonnes/FTE
Hours of video conference <sup>2</sup>	650 hours per year	200 hours per year	
Energy efficiency (kWh/m <sup>2</sup> ) of research buildings, compared with best-in-class standard <sup>2</sup>	Not available	Improvement in building efficiency of 5 kWh/m <sup>2</sup> by 2010	

	Non-Financial Performance		
	2007-08 Actual	2007-08 Target	2006-07 Actual
Energy consumption per FTE	7.703 kW/FTE (excluding Bream Bay Aquaculture Park & Kupe supercomputer)	No increase in electricity consumption compared with 2006–07	7.677 kW/FTE (excluding Bream Bay Aquaculture Park & Kupe supercomputer)
Change in recycling and solid waste production	56kg/FTE for paper recycling. 94kg/FTE of solid waste	10% reduction in solid waste and paper usage by 2008 (cf. 2003–04)	58kg/FTE for paper recycling
Number of staff using alternative modes of transport <sup>2</sup>	Wellington region: 60% of staff travelling to work use sustainable means more than 3 days a week	50% by 2008	
Number of staff who believe sustainability is core to NIWA ethos <sup>2</sup>	59.2% of staff agree or strongly agree	70% by 2009	
<b>Social and cultural sustainability</b>			
Total staff FTEs (permanent and fixed-term, including subsidiaries)	726	720	648
Staff composition (permanent staff only)	501 Researchers 41 Research Support 110 General Support 28 Management 15 Post-docs	473 Researchers 46 Research Support 110 General Support 26 Management 20 Post-docs	481 Researchers 43 Research Support 101 General Support 25 Management 17 Post-docs
Number of community activities <sup>2</sup>	59	No target set	
Number of field days per year <sup>2</sup>	3	No target set	
Number of noho marae attendees <sup>2</sup>	57	60	
<b>Good employer</b>			
Achievement of a desirable work-life balance <sup>2</sup>	75.8% of staff intend to continue working for NIWA for at least the next 12 months (no three-year data available)	70% of staff are positive about working for NIWA and see themselves working for NIWA in three years' time	
Value of financial benefits received by staff <sup>2</sup>	\$2.8M	No target set	
Staff turnover	9.3%	<10%	13%
– Key staff <sup>2</sup>	1.2%	<5%	
Number of new jobs created			
– Main city centre <sup>2</sup>	32	5	
– Rural areas	2	5	4
Staff development			
– Staff with personal development plans	Data not yet available	90%	55%
– Staff days allocated to personal development	502	400	358
Lost time from injuries/accidents	0.012%	<0.05%	0.04%
Number of incident/near miss reports <sup>2</sup>	140	No target set	
<b>Education</b>			
Number of post-docs funded, teaching fellowships awarded, PhD and MSc students supervised, scholarships awarded			
– Teacher fellowships	3	No target set	3
– PhD and MSc students supervised	51	60	62
– Post-docs funded	27	20	22
Number of external training courses run	13	20	17
<b>Innovation</b>			
Patents granted			
– In New Zealand	0	1	1
– Overseas	0	1	1
Licensing arrangements entered into	1	3	10
New or improved products, processes, and services	19	20	4
Joint ventures or formal associations	6	6	6
Spin-out companies formed <sup>2</sup>	0	0	
Spin-off companies formed <sup>2</sup>	0	0	

<sup>1</sup> Measured for a calendar year.

<sup>2</sup> New category for 2007–08.

# Financial Summary

## Highlights

- NIWA Group met its financial targets for 2007–08
- Record revenue of \$120.7 million, including interest income
- Net surplus, at \$10.1 million, producing a return on average equity of 12.8%
- Record international revenue of \$10.25 million.

## Composition of NIWA Group

### Parent Company

National Institute of Water and Atmospheric Research Ltd (NIWA). Sometimes referred to as NIWA Science.

### Subsidiaries

	Principal activities	Ownership & voting interest
NIWA Vessel Management Ltd	Vessel charters for scientific research; owns RV <i>Tangaroa</i> , RV <i>Kaharoa</i> , & survey launch <i>Pelorus</i> ; operates marine mechanical & electrical workshops for maintenance on the NIWA fleet	100
NIWA Natural Solutions Ltd	Commercialisation of NIWA products	100
NIWA Australia Pty Ltd	Scientific research & consultancy services, Australia	100
NIWA Environmental Research Institute	Not-for-profit scientific research & consultancy services, USA	100
NIWA (USA), Incorporated	Scientific research & consultancy services, USA	100
Unidata Pty Ltd	Supplier of environmental technology products	80
EcoConnect Ltd	Non-trading shell company; intended to deliver environmental forecasting services	100

### 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 of GNS Science). The joint venture is funded by the Foundation for Research, Science and Technology to develop the Regional RiskScape Model, a support tool for decision-makers which simulates regional natural hazards and produces estimates of damage in dollars and likely casualties.

## Understanding the numbers

All figures in this Financial Summary relate to the NIWA Group as a whole unless otherwise stated.

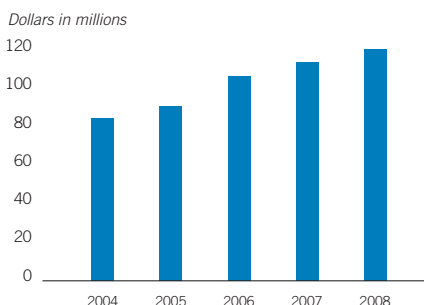
On 1 July 2006, the Group changed its accounting policies to comply with the New Zealand International Financial Reporting Standards (NZ IFRS). Previously we used Generally Accepted Accounting Practice in New Zealand (NZ GAAP). For the purposes of comparison, where the change in accounting policy affects the numbers, we show the figures for 2006–07 both as originally reported (NZ GAAP) and 'translated' according to the new standards.

## Revenue

### Revenue growth

NIWA's revenue continues to grow strongly. In 2007–08, NIWA's total revenue, including interest income, was \$120.7 million (2007: \$113.9 million), against budgeted revenue of \$115.8 million.

#### Total revenue (includes interest income)



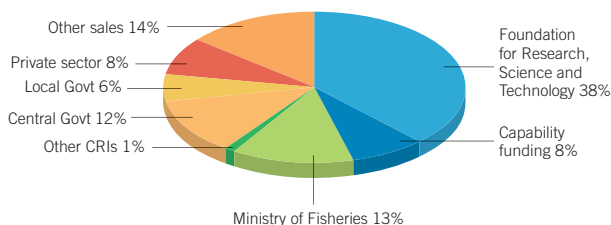
### Revenue sources

Public good science and technology funding represented 46% of NIWA's revenue in 2007–08. This consisted of contestable research funding from the Foundation for Research, Science and Technology (38%; \$45.5 million) and capability funding from the Ministry of Research, Science and Technology (8%; \$10 million).

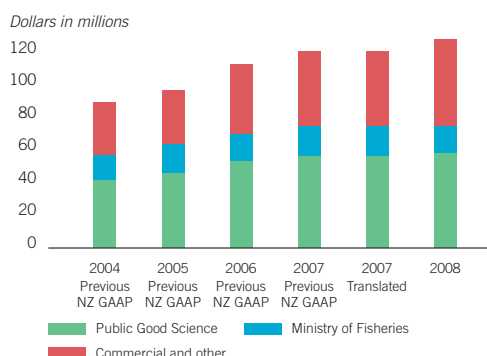
NIWA's second largest single source of revenue was contestable fisheries research contracts from the Ministry of Fisheries (13%; \$15.1 million).

The remainder (41%; \$50 million) largely consisted of commercial consultancy work.

#### Proportion of revenue by source, 2007–08

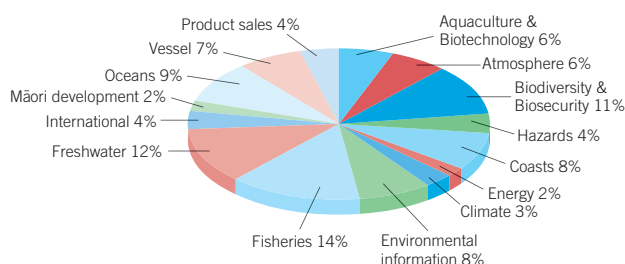


#### Revenue showing sources



Over the past five years, revenue from Ministry of Fisheries contracts has been relatively static. NIWA received a substantial boost in Public Good Science funding in 2005–06, partly related to the introduction of the Capability Fund which is calculated on a different basis from the previous Non-Specific Output Funding. Revenue in this category has grown slightly since. In 2007–08, commercial consultancy work was the largest source of revenue growth.

## Revenue by national centres/area of operations, 2007–08



### International revenue

In 2007–08, NIWA achieved record international revenue of \$10.25 million, mainly driven by new large contracts in the Middle East.

## Expenditure

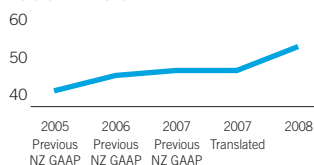
### Personnel

Personnel costs rose by \$6 million this year. This reflects:

- expanding staff numbers
- increasing remuneration per staff member.

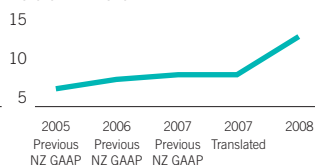
### Payroll benefits

Dollars in millions



### Capital expenditure

Dollars in millions



### Capital

Many of NIWA's core science areas are capital intensive and we must invest heavily in new equipment to keep our science leading-edge and deliver the expected outcomes for New Zealand. In recent years, NIWA's capital investment has been roughly \$9 million per year. In 2007–08, however, NIWA embarked on a three-year \$58 million capital expenditure programme to:

- strengthen the capability of key strategic science assets (e.g., dynamic positioning system for RV *Tangaroa*)
- improve the work environment and facilities for NIWA staff
- strengthen infrastructure and equipment to rapidly advance NIWA's science
- pursue commercialisation opportunities
- implement sustainability initiatives.

### Total asset base

Average shareholders' equity at 30 June 2008 totalled \$79.3 million (2007: \$69.5 million). Total average assets were \$109.5 million at 30 June 2008 (2007: \$100.9 million).

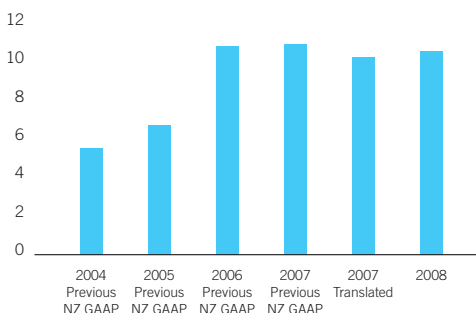
## Net surplus

In 2007–08, NIWA exceeded its business plan objectives, as set out in the Statement of Corporate Intent, with a net surplus (after tax) of \$10.1 million (2007: \$9.8 million) against a budgeted net surplus of \$9.5 million.

NIWA's flat profit despite record high revenue reflects the external environment of rising costs, and growth in both personnel and capital expenditure.

### Net profit after tax

Dollars in millions



### Dividend

In 2007–08, dividend payments of \$186,750 were made to the Government of New Zealand (the Crown), as the sole shareholder.

## Profitability

NIWA continues to be a profitable company. The Group's policy is to maintain a strong capital base to retain investor and creditor confidence, and sustain future development. The Board reviews capital management and allocation policies regularly.

### Return on average equity after tax

The Shareholding Ministers set 9% as the targeted return on equity. They 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 has historically met the targeted return on equity each year. The Board chose to restate the value of the Group's land, and some buildings, on transition to the new financial reporting standards. Formerly they were on our books at their original cost; now they are shown at their value as at 1 July 2006. This resulted in a decrease in return on equity from 22.6% to 14.1% in 2006–07. The return on average equity for 2007–08 was 12.8%.

## Liquidity

NIWA continues to have healthy liquidity, with greater assets than liabilities.

	2006–07	2007–08
Current ratio	1.3	1.5
Quick ratio	1.8	2.1

The audited financial statements of the National Institute of Water & Atmospheric Research Ltd and Group for the financial year ended 30 June 2008 can be found on pp. 27–64 of NIWA's Annual Report 2008. This Financial Summary is not part of NIWA's audited accounts.

# Sustainability – Environmental

The sustainability section of this Annual Report sets the benchmark for NIWA's future quadruple bottom line reporting, using guidelines and indicators from the international standard in sustainability reporting, the Global Reporting Initiative (GRI G3), for performance against the GRI environmental, economic, labour, and social/cultural indicators.

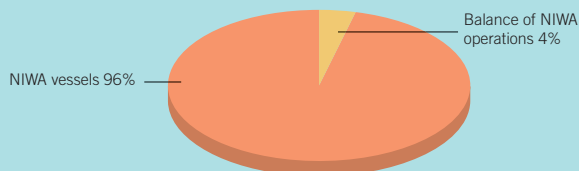
NIWA contributes to the long-term sustainability of New Zealand primarily by undertaking science that enables informed decisions about New Zealand's natural resources. In conducting its science and other operations, NIWA has to be able to measure and mitigate its own impact on the environment.

## Key issues and challenges

First and foremost, with many initiatives already undertaken to address our environmental impacts, bigger leaps in efficiency will become harder to make. For example, reductions in diesel consumption by our marine research vessels have reached a threshold that, if extended, would negatively impact business viability. However, NIWA is taking action.

**Initiative.** NIWA's biggest source of greenhouse gas (GHG) emissions is diesel used by marine research vessels. We continuously seek to reduce diesel consumption; in 2007–08 we reduced cruising speeds of our vessels by 1.5 knots, resulting in a 25% reduction in diesel consumption, and reducing our GHG emissions by 1700 tonnes CO<sub>2</sub>.

### Diesel consumption across NIWA, 2007–08



Secondary issues affecting our environmental performance include:

- The 'balancing act' involved in continuing to develop our business while reducing our environmental impacts. For instance, international travel is essential to stay at the forefront of our scientific fields, but increases our GHG emissions.
- Operating in an expanding field means we are focused on growth. While we are continuously seeking ways to increase efficiencies, employing more people and carrying out more work directly translates to higher energy consumption.

## Strategic initiatives

Initiative	Target
<b>Continuing to reduce NIWA's environmental footprint in our own operations</b>	
Successfully establish baseline data for setting future targets	Install energy monitoring systems at major sites with high energy consumption
Increase investment of NIWA revenue into sustainability initiatives and energy demonstration projects, e.g., more efficient heating and alternative energy systems	Invest up to 0.5% of revenue by 2009
Review ways to further cut consumption or improve efficiency of NIWA vessels, including assessing biofuels	Continue to research and test biofuel technology. Current testing includes biofuels from pig waste at NIWA Hamilton
Implement guidelines for new buildings and renovations to achieve at least 4 star Green Star rating; continue to encourage behavioural changes to help reduce electricity consumption	Building guidelines in place by 2009 and electricity reduction target of 5kWh/m <sup>2</sup> by 2010
Encourage staff to use more environmentally friendly transport for commuting	70% of staff using 'alternative' modes
Enhance mitigation initiatives for overseas travel	Develop formal mitigation strategy. In 2008, NIWA paid for 700 and planted over 400 trees to offset 2007 travel
Measure and track staff opinions on the place of sustainability in NIWA's work	70% of staff believe sustainability is core to NIWA's ethos
Increase use of video conferencing and reduce travel needs	300 hours in 2008–09
Implement projects aimed at increasing the centralisation of processes and Information and Communication Technology (ICT) infrastructure to help reduce electricity and petrol consumption across NIWA's operations	Separate budgets for ICT by 2009; centralised records and registers by 2010

## Key performance indicators

Indicator	Target
Total GHG emissions	Reduce total emissions to below 2006–07 levels by 2010 and reduce emissions for vessels to 2006–07 levels by 2010
Total GHG emissions per full-time employee	Reduce to 2006–07 levels by 2010 and reduce by a further 10% on 2006–07 levels by 2012
Energy consumption per full-time employee	Reduce by 10% of 2006–07 consumption by 2012
Solid waste generation	Reduce solid waste generated by 10% of 2003–04 levels by 2009

## Stakeholder interview

Barry Biggs, General Manager, Operations



### What is the scope of your role?

Until July 2008, I was General Manager, Environmental Information and International. A big part of my role was to develop new and more robust approaches to monitoring New Zealand's climate and water resources to enhance environmental planning and sustainable resource use/management throughout New Zealand.

I was also responsible for NIWA's international programmes, which includes helping Pacific Island countries meet their sustainable development objectives under a changing climate.

Now, as General Manager, Operations, I lead NIWA's sustainable development strategy, including continuous improvement processes in our operations and identifying opportunities to improve sustainable development initiatives for our clients.

### What are the main focus areas for NIWA's environmental performance?

NIWA's involvement in sustainability operates on two levels:

1. Developing tools and systems to enhance sustainability of New Zealand's productive sector, including farming practices and fisheries, whilst maintaining and enhancing the environment. This is our most important contribution to sustainability.
2. Adopting more sustainable business practices for our own organisation. It is important for us to be exemplary, and our main challenges currently are:
  - Fossil fuel consumption and GHG emissions by our research vessels
  - Energy consumption running our buildings
  - Fossil fuel consumption and GHG emissions through staff business travel
  - Improving practices for recycling organic waste, batteries, paper, and IT equipment.

### What are your goals for the next 12–24 months?

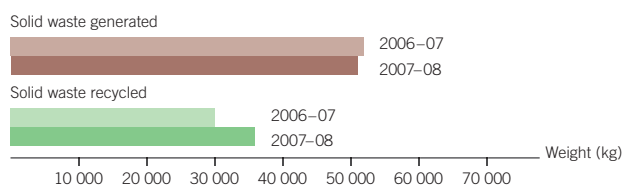
I would like to promote greater understanding of how our science-based tools are fundamental to the sustainability and development goals of society.

Operationally, we must integrate the demands for improved economic, environmental, social, and cultural sustainability whilst maintaining a viable science business that meets shareholder expectations. For example, our vessels produce most of our GHG emissions as they carry out research. There are only a limited number of further changes we can make whilst maintaining client services.

I think that there is a lot that can be done at the local staff level, particularly in carbon emission reduction. It is important that we make use of initiatives by industry, councils, and community groups at the many places where we operate to improve such general tasks as recycling organic waste, batteries, paper, and IT equipment. These are among the issues that I will be pursuing.

## GRI indicators and results

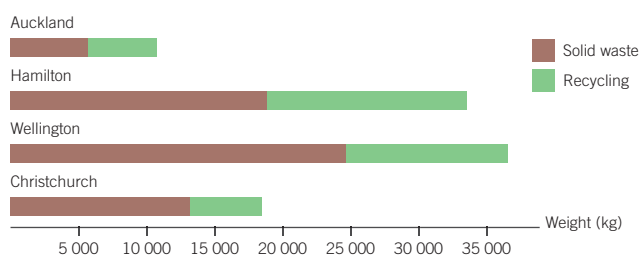
### Total NIWA solid waste and recycling



Despite a 4% increase in permanent full-time employees (FTEs) between 2006–07 and 2007–08, we reduced our solid waste generation by 2% per FTE, and increased our total recycling of solid waste by 18% per FTE. The key initiatives NIWA employed were:

- Influencing the supply chain: requesting IT equipment suppliers to reduce or eliminate packaging materials
- More frequent waste audits: better information about waste flows
- Making the process easier: introducing paper recycling trays and more recycling bins
- Better support: increased internal communication about new processes and benefits.

### Solid waste generated and recycled during 2007–08 at NIWA's main sites

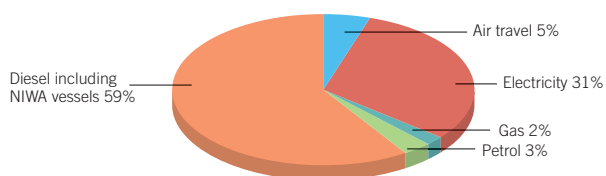


The figures provided for this performance indicator are the best measurements available for NIWA's solid waste across our major sites, but not including NIWA vessels.

NIWA Wellington is our largest site with 274 staff (permanent and fixed-term), as at 30 June 2008, followed by Hamilton with 154 and Christchurch 139. Waste generated and waste recycled reflect these staff numbers and related activity, except for NIWA Hamilton, where a recent waste audit and subsequent recycling initiatives have increased recycling.

## NIWA's GHG emissions profile by source, 2007–08

Source	Tonnes of CO <sub>2</sub> e
Diesel incl. NIWA vessels	5790
Electricity	3026
Air travel	465
Petrol	317
Gas	158
<b>Total</b>	<b>9756</b>



Diesel consumption makes up the largest part of NIWA's GHG emissions. Of this, 96% is attributed to NIWA Vessels' operations and 4% to the rest of NIWA's land-based operations. While air travel is a key requirement for the professional development of NIWA scientists and international collaboration, it makes up only 5% of total emissions. Nevertheless NIWA is developing a mitigation strategy for this.

Gas usage is limited to heating at NIWA's Wellington site. Petrol usage is limited to NIWA staff car use in daily operations.

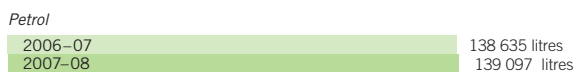
Emissions from electricity consumption provide a good opportunity for emissions reduction through the implementation of Green Star building guidelines as well as evolving staff behaviour. NIWA is installing monitoring systems at sites with high energy consumption while investing more resources into research and development of alternative energy systems.

### Statement on NIWA's environmental mandate as a New Zealand Crown Research Institute (CRI)

NIWA aspires to help maintain the health of the environment and minimise our operational impacts and, through our science, help New Zealanders make decisions and take actions that promote the sustainable use of our natural resources. In addition, NIWA:

- Complies with all environmental regulations, actively monitors processes, and sets improvement targets with the goal of attaining or exceeding them
- Works towards sustainability of operations in support of our mandate to minimise our impacts on the environment
- Endeavours to implement and invest in energy efficient and energy saving initiatives, practices, and behaviours in our operations
- Strives to prevent pollution and minimise material wastes in our operations.

## NIWA's total energy consumption by source

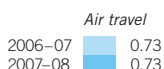
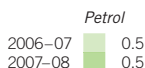
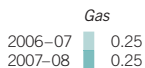


Includes taxis but does not include air travel and rental car usage.

While we have been able to reduce diesel consumption, a four percent growth in permanent full-time employees in 2007–08 – and associated work activity – saw small increases in the consumption of electricity, petrol, and gas. In the coming year, NIWA will continue to seek to reduce energy consumption across the board.

The increases in energy consumption shown above translated to negligible increases in GHG emissions on a per FTE basis. The significant change was the reduction in GHG emissions from our largest source, diesel.

## GHG emissions (in tonnes of CO<sub>2</sub>e) per full-time employee





# Sustainability – Economic

NIWA aims to deliver and communicate expert science that critically informs decision making in the New Zealand economy. As a Crown Research Institute (CRI) operating in a competitive environment, NIWA must balance commercial imperatives with its sustainability aspirations. To be a positive contributor to New Zealand's economy, our own viability – as a business and science organisation – is fundamental. We are focused on improving our operational, science delivery, and financial performance as the basis for future success.

NIWA intends to continue providing the best possible science for all of our customers. The continued increase in our revenue demonstrates an ongoing growth in demand for the research, products, and services that we provide. It also shows NIWA's ability to respond to new opportunities and issues facing New Zealand.

## Stakeholder interview

*John Morgan, Chief Executive*

### How do you describe NIWA's economic impact?

NIWA's economic impact is considerable. Economic decisions are being made everyday as a result of NIWA's science – from fishing quotas, biosecurity and freshwater management guidelines, to planning for roading infrastructure.

One of NIWA's key roles is climate science and environmental forecasting – in a land-based production economy this is critical. Not to mention the requirements of tourism, the energy sector, the insurance industry, and local and central government.

### Is sustainability a fad?

No. But even if you do think sustainability is a fad, it is a global one. New Zealand sells to the world, and as long as those markets consider a clean green image important, maintaining that image here is critical. NIWA has an important role to play in ensuring New Zealanders get comfortable with facts: yes, we do have a water supply issue; yes we do have an energy supply issue. With that national consciousness, we can ensure we do not become complacent about improved sustainability, as individuals, as a society, and as an economy. I wish the facts were wrong. But they are stark and real – and they demand that we take action.

### How should New Zealanders approach climate change?

What we should be talking about is how we – as an economy and a society – will adapt to future changes, not debating whether or not it's real.

### In the big picture, who is NIWA undertaking its science for?

The world's citizens. The species of Earth. New Zealanders. Our clients are in various industry segments, but also, critically, those who make decisions on behalf of New Zealanders, such as local councils and central government. Just as important, we want our knowledge to create communities that are better prepared for a constantly changing environment. Droughts, for example: they may be less dramatic and less newsworthy than floods, but they can have enormous economic impacts. Droughts affect productivity and economic growth in a much more insidious way. Treasury reported this year that the 1998 drought likely triggered or precipitated the onset of the recession in the late 1990s. How well communities and industries are prepared for such events will determine how well they survive and push through it. The value of NIWA's science is in delivering knowledge for better decisions, taken at the right time.



### What are the key challenges?

Something we recognise is that the science sector is not too good at promoting itself. We need to better communicate our science. NIWA's duty is to be experts and confidently present facts. This can be a challenge in a media environment where personal opinions and controversy often gain profile.

Science has been undervalued for the past 20 years. But there is a shift; there is an increasing demand for, and investment in, scientists and good science. This does present challenges in a tight and extremely competitive job market.

For NIWA, economic sustainability is a holistic view. It is about continuous capability building; when some projects are 10 years or longer, we need to ensure we are still here delivering to our mandate in the long term. We need to continue to make good financial and commercial decisions and correctly prioritise our limited resources.

To meet its obligations of economic sustainability, NIWA needs to generate sufficient operating surpluses to enable continued growth, and investment in capital expenditure and areas that extend our current base beyond fee-for-service.

### And key opportunities?

The opportunities are enormous. Today there is high pressure for science to deliver answers for society and industries, and there is a correspondingly high demand for human resources in our field.

In a globalised job market, attraction and retention is always going to be a challenge. We are fortunate that New Zealand offers an attractive lifestyle and interesting work. We need to ensure that a New Zealand-based job with NIWA can be a professional career highlight.

As Chief Executive, a key challenge is creating the environment and work culture that allows this to happen.

The fact that most NIWA staff cite 'making a difference' as their key reason for being here reflects what I enjoy most about running an organisation like NIWA – we have so many bright people who are passionate about finding solutions.

## Key issues and challenges

NIWA has had three exceptional years. The challenge for NIWA is to maintain a good level of growth, profitability, and shareholder return in an economic environment defined by increasing competition, a tight labour market, and rising costs. In this regard, the critical focus areas for NIWA in the next 12–24 months include:

- Increasing commercialisation and other avenues to turn our research outcomes into new products, services, and industries for New Zealand
- Continuing to find new investment and growth opportunities that extend beyond straight fee-for-service
- Continuing to evolve services to meet changing client needs.

## Strategic initiatives

Initiative	Target
<b>Continue to increase and enhance positive contribution to the New Zealand economy</b>	
Roll-out of sustainable purchasing and ethical supply policy	NIWA has 2600 active suppliers and processes, generating approximately 23 000 invoices p.a. NIWA to reduce both by 50%. Preferred suppliers to be identified
<b>Maintain financial and business momentum</b>	
Setting clear targets for financial performance as well as key science outputs	Refer indicators opposite
<b>Increase commercialisation of NIWA science and research in the New Zealand economy</b>	
Setting specific targets for licensing arrangement and patents granted	Refer indicators opposite
<b>Expand growth and investment opportunities</b>	
Setting specific targets for joint ventures and formal associations with other agencies and industries	Refer indicators opposite
Setting specific targets for new or improved products, processes or services	Refer indicators opposite
<b>Better meet client needs</b>	
Implement greater use of the project management system to better track client requirements	Identify and pilot a new enterprise project management system in NIWA and provide staff with appropriate training to use it effectively to manage opportunities, keep track of resources, and track progress on projects. By June 2010

### Influencing the supply chain

NIWA is developing a sustainable purchasing and ethical supply policy to align our own policy with best practice. The policy's general guidelines and criteria will include:

- Value for money
- Preference for New Zealand made goods and services
- Recycled content
- Energy and waste efficient products and processes
- Disposal and pollution reduction.

A Strategic Procurement & Asset Manager has been employed to realign our regional spend into national spend with preferred suppliers, and to provide more centralised management of assets.

### Customers and clients

As a Crown-owned operation, NIWA has a nominal nine per cent return on equity target to meet the shareholders' expectations over the long term.

NIWA continues to meet these targets while retaining the capability to reinvest its profit into improving infrastructure, which includes sustainable development initiatives or enhancing sustainable practices (this includes developing skills/tools for future financial viability).

Our direct customers are those who fund our science and research. The New Zealand Government is our largest customer, but we also conduct research for, and provide advice and information to, many others ranging from multinational corporations to local commercial fishing operators to schools. We consider the New Zealand public to be our most important customer.

### Statement on NIWA's economic mandate as a New Zealand CRI

NIWA aspires to provide science that supports the sustainable management of New Zealand's natural resources and promotes innovation and economic success. We adopt financial strategies that ensure we continuously invest in our people, facilities, and equipment to enhance our scientific capabilities. In addition, NIWA aims to:

- Operate a financially viable operation in a fully contestable funding environment
- Collaborate with other agencies where there is an opportunity to enhance the science and delivery or to optimise returns
- Transfer commercialisation opportunities to private enterprise in a way that maximises economic benefits to New Zealanders.

Economic sustainability addresses our effect on the economic circumstances of our stakeholders and their economic systems. As a CRI, NIWA is required to be financially viable and undertake research for the benefit of New Zealand. Economic sustainability is not just about attaining economic growth year on year. It is also about delivering improvements to our community and the environment, as well as satisfying customer needs.

## Key performance indicators

Financial	Performance 2007–08	Target in 2009
Total revenue (Includes interest income)	\$120,671,000	\$125,709,000
<b>Operating results:</b>		
Operating expenses	\$106,291,000	\$115,067,000
EBIT & dividend received	\$13,656,000	\$10,642,000
Profit before income tax	\$14,335,000	\$10,529,000
Profit after tax	\$10,121,000	\$7,670,000
Average total assets	\$109,481,000	\$126,243,000
Average equity (shareholders' funds)	\$79,306,000	\$87,391,000
Adjusted average total assets	\$82,244,000	\$89,006,000
Adjusted average equity	\$56,444,000	\$64,529,000
Capital expenditure, incl. capital committed	\$13,985,000	\$19,224,000
<b>Liquidity:</b>		
Current ratio	1.5	1.21
Quick ratio (a.k.a. acid test)	2.1	1.59
<b>Profitability:</b>		
Return on equity	12.8%	8.8%
Adjusted return on equity <sup>1</sup>	17.9%	11.9%
<b>Percentage of NIWA revenue directed towards sustainability initiatives</b>	0.4%	0.5%

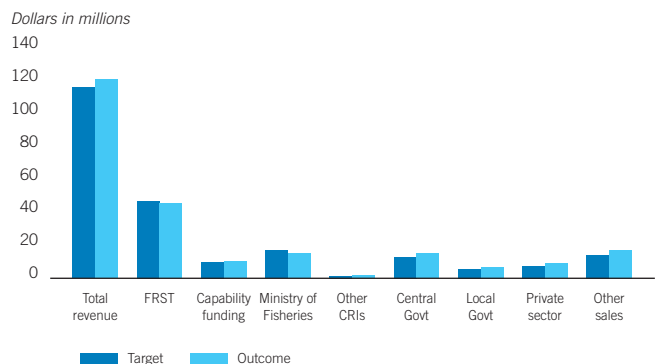
Science output	Performance 2007–08	Target in 2009
Commissioned reports <sup>2</sup>	495	500
Presentations on technical information and research results <sup>2</sup>	1028	500
Peer reviewed articles <sup>2</sup>	315	300
Keynote and plenary presentations <sup>2</sup>	31	15
<b>External requests for information from NIWA's nationally significant databases and collections</b>		
National Climate Database	267 000	25 000
Water Resources Archive	88 000	60 000
NZ Freshwater Fish Database	1550	1500
Marine invertebrate collection and database	more than 150	150
<b>Collaboration</b>		
Representations on international committees	66	110
Collaborative formal links with overseas organisations	150	30
Number of NIWA-funded international visits & visiting scientists	159 & 45	150
<b>Innovation</b>		
Licensing arrangements entered into	1	3
Patents granted in New Zealand & overseas	New Zealand, 0 Overseas, 0	New Zealand, 1 Overseas, 1
Joint ventures or formal associations	6	6
New or improved products, processes, or services	19	20

<sup>1</sup> The CCMAU guideline for this indicator is 9%. However, this is averaged out over the long term. NIWA is confident that this target will remain achievable in the long term. The reduced target is due to increased spending on plant & equipment, and resulting increase in depreciation and payroll related costs, with corresponding effects on profitability.

<sup>2</sup> Based on calendar not financial year data.

## GRI indicators and results

### Revenue, 2007–08



Sales to international clients are included under 'Other sales'. In 2007–08 this totalled \$NZ10,251,000

### Operating surplus and return on equity

#### Operating surplus before tax

2006–07	\$14,279,000
2007–08	\$14,335,000

#### Return on average equity (%)

2006–07	14.1%
2007–08	12.8%

### Expenditure

#### Cost of all goods, materials, and services

2006–07	\$47,712,000
2007–08	\$54,859,000

#### Total payroll and benefits

2006–07	\$48,571,000
2007–08	\$54,702,000

#### Providers of capital

As of 30 June 2008, NIWA had no interest bearing debt.

#### Taxes paid

Most of our research is aimed at addressing issues of relevance to the general public – the sustainability of our society and civilisation. As a commercial entity, we also contribute by paying tax. Taxes paid in other countries were minimal.

2006–07	\$6,063,000
2007–08	\$4,731,000

# Sustainability – Social

NIWA is an environmental science research and consultancy organisation. As at 30 June 2008, NIWA has 753 permanent and fixed-term employees based at 15 sites in New Zealand and in Perth, Australia. In the course of their jobs, NIWA staff work through the length of New Zealand, the surrounding oceans, and beyond, notably the South Pacific and Antarctica.

## Key issues and challenges

- Attraction and retention of staff in a competitive global talent market, particularly as the demand for environmental scientists increases while we face restricted funding and limited resources
- Communications and project management in a geographically widespread and professionally diverse organisation
- Limited graduate numbers entering the environmental science field
- Specialist staff in demanding and busy roles.

## Strategic initiatives

Initiative	Target
<b>Attract and retain good staff</b>	
Carry out internal climate and engagement survey	Repeat in 2008–09
Implement plans for continuous improvement based on staff survey	Successfully carry out results 'roadshow' and engagement seminars. Set future improvement targets
Continue to implement work-life balance strategy	Continue to evolve and enhance strategy based on staff feedback
<b>Communications in a geographically widespread and professionally diverse organisation</b>	
Implement new project management system	Identify and pilot a new enterprise project management system in NIWA and provide staff with appropriate training to use it effectively to manage opportunities, keep track of resources, and track progress on projects. By June 2010
Improve collaboration at a distance and knowledge-sharing through enhanced tools and training	Identify and pilot a collaboration platform/toolset and provide staff with appropriate training to use it effectively to enhance the productivity of distributed teams, increase knowledge transfer, and better preserve organisational memory. By June 2009
<b>Enhance supply of graduates into the field</b>	
<b>Maintain strong relationships with educational institutions</b>	
<b>Increase and enhance collaborative training with other agencies</b>	
Continue to sponsor the NIWA Interactive Room at Kelly Tarlton's Antarctic Encounter & Underwater World. This facility has over 45 000 students visit through organised education programmes and over 400 000 visitors of which approximately 55% are New Zealanders	Agreed sponsorship until 2010, when it will be reviewed
NIWA will be the major sponsor of five regional Science & Technology Fairs and provide funding for six other science fairs and the national Genesis Energy 'Realise the Dream' event for primary and secondary school students	Agreed sponsorship until 2010, when it will be reviewed
Continue to host teacher fellows	Host at least one New Zealand Science, Mathematics & Technology Teacher Fellow to upskill teachers in environmental science
Provide scientific expertise and advice for environmental education programmes such as GLOBE (Global Learning & Observations to Benefit the Environment) and the New Zealand Waterways project	Continue until 2009

Initiative	Target
Provide supervision for PhD and Masters students	Increase PhD numbers to approximately 50 by 2010. Continue interactions with University of Canterbury, University of Otago, and University of Auckland through our joint 'Centres of Excellence'
Work with the Institute of Policy Studies, Victoria University to identify a mechanism for adding policy and economic dimensions to our climate change research	Both organisations are members of the NZ Climate Change Centre, along with all other CRIs, and University of Canterbury. NIWA will continue to host the centre's secretariat in 2008–09
Provide staff, where appropriate, in our core science areas to serve on advisory boards and councils of tertiary institutions	Adjunct professorships appointed to NIWA staff at University of Canterbury and University of Otago until 2011
Provide a range of training courses, in specific areas of NIWA's core business, for the professional development of staff from local and regional councils and central government agencies, other organisations, and students	20 training courses for 2008–09
Publish NIWA's <i>Water &amp; Atmosphere</i> magazine quarterly to communicate the results of NIWA research to students, resource managers, and the public. This magazine includes senior secondary school curriculum links	<i>Water &amp; Atmosphere</i> published and distributed for at least 2008–09
Work collaboratively with two local government agencies, Ngāi Tahu, Lincoln University, and Landcare Research to provide scientific advice to the community based Styx River Living Laboratory project	Continued support of Styx River project with clients and collaborators
<b>Extend specialist knowledge to deeper levels within the organisation</b>	
Continue development and succession plans for key staff and positions; ensure all staff have development plans in place	Have development plans for 90% of staff by 2009

## Stakeholder interview

*Leighton Abbot, Senior Consultant, JRA (NZ) Ltd*

One of the biggest issues facing organisations is the attraction and retention of good staff. Many companies promote the thinking that “people are our most valuable asset”, but there is a big step from that intent to creating an environment where people thrive.



### Measuring employee engagement

What we've found from conducting our annual unlimited/JRA Best Places to Work in New Zealand Survey is that the level to which staff feel connected to your organisation, and are motivated or 'engaged' can directly impact on your bottom line, whatever that may be. In short, our research demonstrates that higher levels of engagement lead to improved efficiencies, increased productivity, and reduced costs.

An engaging organisation is more likely to hold on to its people, reducing turnover. In New Zealand, the estimated real cost of turnover can be up to two and a half times the salary of the role being filled or replaced. For NIWA as a science organisation, employing highly skilled people from a competitive global market, this is a critical issue to get right.

NIWA contracted JRA to conduct a combined 'workplace climate and engagement' survey. A response rate of 69.4 percent was the basis of our analysis of NIWA's permanent and fixed-term staff.

### What are the key drivers of engagement for NIWA staff and how did they perform?

Based on the survey, the key drivers of engagement for NIWA staff include:

- Clear and strong vision and values
- Emphasis on building a sense of community in the organisation
- Learning and development opportunities that helped them realise their potential as professionals and individuals
- Systems to encourage and reward high performance.

The survey suggests some clear future direction to better engage NIWA staff: help them get the most out of their jobs, in terms of learning and development, including creating more variety in roles and challenges to use and develop their knowledge and skills.

### What are the key positives for NIWA?

In general NIWA staff feel they understand where they fit in the big picture and feel their work gives them a sense of achievement. NIWA's turnover is well below the typical average 17–20% for New Zealand organisations. Together with the already high skill levels of staff and the high standards expected by the organisation, these factors form a great platform for NIWA's future success.

*Leighton Abbot is a Senior Consultant with JRA (NZ) Ltd, and holds an MCom(Hons)/BA from the University of Auckland. For the past five years he has project managed New Zealand's largest survey of employee engagement, the unlimited/JRA Best Places to Work in New Zealand Survey.*

## Key performance indicators

Indicator	Performance 2007–08	Target in 2009
Total staff FTEs permanent and fixed-term	726	750
New jobs created, main centres	32	20
New jobs created, rural areas	2	10
Staff composition (permanent only)	501 Researchers 41 Research support staff 110 General support staff 28 Management staff 15 Post-docs	502 Researchers 43 Research support staff 117 General support staff 28 Management staff 20 Post-docs
Work-life balance	75.8% of staff intend to continue working at NIWA for at least the next 12 months	70% of staff are positive about working for NIWA and see themselves working for NIWA in three years' time
Total staff turnover	9.3%	Less than 12%
Key staff turnover	1.2%	Less than 5%
Development – staff with personal development plans	Data not yet available	90%
Development – staff days allocated to personal development	502	400
Lost time from injuries and accidents	0.012%	Less than 0.03% of total work days
Number of incident and near miss reports	140	Less than 90
Number of post-docs funded	27	20
Number of PhD and MSc students supervised	41 PhDs, 10 MSc	60
Number of teacher fellowships	3	2
Number of external training courses run	13	20

## GRI indicators and results

**NIWA's work-life balance strategy**

NIWA has a work-life balance strategy that promotes personal development and satisfaction alongside professional performance.

Financial rewards	+ Non-financial rewards
<p><b>Base pay</b></p> <ul style="list-style-type: none"> <li>Benchmarked against New Zealand market, not just science industry</li> </ul> <p><b>Variable pay</b></p> <ul style="list-style-type: none"> <li>Profit Share – equal distribution of excess profit to all permanent staff</li> </ul> <p><b>Benefits</b></p> <ul style="list-style-type: none"> <li>Training and personal development leave, including 3 days p.a. to pursue non-work, personal interests</li> <li>Professional membership fees</li> <li>Free car parking on all sites</li> <li>Three NIWA days – extra leave entitlement in Christmas period</li> <li>Up to 5% company superannuation contributions to KiwiSaver</li> <li>Life insurance – for permanent staff</li> <li>Professional study support for agreed work related study</li> <li>National Bank loan and account discounts</li> <li>30 day ex-gratia parental leave payment</li> <li>Work-related allowances</li> <li>Overseas travel/conferences subsidies – assessment on case-by-case basis</li> <li>Public Service Association (PSA) Day – PSA members entitlement</li> </ul>	<p><b>Recognition</b></p> <ul style="list-style-type: none"> <li>Site-specific social events</li> </ul> <p><b>Opportunities to develop</b></p> <ul style="list-style-type: none"> <li>Clients and work – matching staff skills with clients and work</li> <li>Extensive technical and non-technical training</li> <li>Sabbaticals – assessment on case-by-case basis</li> <li>Technical Training Awards – internal certification programme</li> <li>Innovation Seed Fund</li> </ul> <p><b>Career opportunities</b></p> <ul style="list-style-type: none"> <li>Promotion through levels</li> <li>Inter-office transfers</li> </ul> <p><b>Quality of work life</b></p> <ul style="list-style-type: none"> <li>Flexible working hours</li> <li>Sponsored sporting events – assessment on case-by-case basis</li> <li>Long service leave</li> <li>Three free confidential counselling sessions – self referral</li> <li>Optical subsidy – available for permanent staff who spend more than a third of work time in front of computer screen or who carry out microscope work</li> <li>Southern Cross health insurance group discount</li> <li>Melanoma checks</li> <li>Hearing tests</li> <li>Flu shots</li> <li>PSA health care subsidy</li> <li>Generous sick leave entitlements</li> </ul>

**NIWA guidelines on retirement**

NIWA recognises that for many, retirement no longer represents a sudden change from work to leisure, but rather more of a gradual transition.

Retirement is no longer compulsory based on age.

However, to aid transition for both NIWA and the employee and the transfer of knowledge, staff may – by mutual agreement – reduce their hours, if this meets with operational requirements.

Phased retirement options can be considered, by mutual agreement, where staff can take reduced work schedules, or return to work after retirement on a part-time or fixed-term basis.

Continued association with NIWA can include:

- Fixed-term engagement after retirement
- Part-time employment
- Staff working on a pro bono basis with access to NIWA facilities to work on science and mentor staff
- Staff engaged as 'emeritus scientists'.

To help manage career endings NIWA facilitates workshops on a variety of areas including presentation skills, leadership training, and retirement financial planning.

**NIWA staff profile as at 30 June 2008 (permanent staff only)**

Categories	Staff numbers				Workforce diversity										Service	
	Staff numbers (of total)	Male	Female	Av. age	Full-time	NZ Euro	NZ Māori	South Africa	Indian	Aust	US	UK	Asian	Pacific Island	Other ethnicity	Av. yrs
<b>NIWA Science</b>																
Research Teams (incl. scientists, technicians, and post-docs)	507 (78%)	73%	27%	43	97%	74.2%	3.4%	0.4%	0.4%	1.8%	1.8%	3.0%	2.4%	0.6%	1.4%	12.7
Research Support	14 (2%)	7%	93%	48	96%	71.4%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	8.1
General Support	105 (16%)	46%	54%	43	95%	73.3%	3.8%	1.0%	6.7%	1.0%	1.0%	2.0%	1.0%	2.0%	2.9%	6.9
Executive/Management	26 (4%)	85%	15%	50	100%	76.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%	17.3
<b>NIWA Vessels</b>																
Research Support	27 (90%)	93%	7%	48	100%											13.4
Support, Admin, and Mgmt	3 (10%)	67%	33%	47	100%											6.0
<b>Unidata</b>																
Technical	9 (69%)	89%	11%	40	93%											3.0
Support, Admin, and Mgmt	4 (31%)	50%	50%	47	95%											2.8

Information for NIWA Science, NIWA Vessel Management Ltd, and Unidata Pty Ltd. (Unidata is NIWA's Australian-based environmental technology company. Unidata is 80 percent owned by NIWA.)

Data on ethnicity is currently unavailable for NIWA Vessel Management Ltd and Unidata Pty Ltd.

NIWA Science staff may choose not to record ethnicity. As a result, figures may not add to 100%.

## NIWA staff turnover

NIWA Science	No. of staff	Turnover	Average age	Male	Female
Research Teams	45	9%	41	69%	31%
Research Support	1	7%	30	–	100%
General Support	12	11%	45	42%	58%
Executive/Management	2	8%	35	50%	50%
Total	60	9%	41	62%	38%

## Absenteeism

NIWA Science	Total hours	Hours per employee
All staff eligible to take sick leave	20 893	32
All staff eligible to take family sick leave	5221	8

## Parental leave

NIWA Science	No.	% returned
Maternity leave	15	87%
Paternity leave	7	100%
<b>Total</b>	<b>22</b>	<b>91%</b>

## Health & Safety

In 2007–08, NIWA lost 19.5 days due to staff injury, corresponding to 0.012% of total work days.

NIWA Science	No. of incidents
Medical treatment injuries/lost time	3
Medical treatment injuries/no lost time	41
First aid injuries	17
Minor injuries: no treatment	36
Other incidents	30
Near misses	13
<b>Total</b>	<b>140</b>

Safety of our staff at work is paramount. NIWA reports injuries, but also other incidents and near misses, as a way to ensure potential hazards are identified and addressed. We provide monthly incident data to all staff, and publish health and safety newsletters. Our long-term aim is for no employee to be injured at work.

In the last 12 months NIWA's medically treated injuries have mostly been sprains, strains, and minor cuts and abrasions.

NIWA's incident reporting system requires an investigation into all incidents to document the causes of injuries as the basis for identifying any training needs, or assigning responsibility for corrective action where necessary. NIWA has recently appointed a full-time National Health and Safety Manager to oversee these processes.

All figures on this page relate to permanent staff only.

## Personal development

NIWA Science – Personal development hours taken	Total hours taken	Average hours per employee
Personal development leave	3768	6

NIWA Science – Personal development cashed up	Total cashed up	Average cash per employee
Personal development cashed up	\$100,095.00	\$160

Personal development training is a benefit provided only to permanent staff. In keeping with NIWA's intent to promote and encourage work-life balance, permanent staff have a three-day leave entitlement to pursue personal interests. NIWA permanent staff have the option to cash in this leave.

## Union membership

	PSA	Seafarer's Union	NZ Merchant Services Guild
<b>NIWA Science</b>			
Research Teams	353		
Research Support	9		
General Support	47		
<b>NIWA Vessels</b>	4	13	5

## Governance profile as at 30 June 2008

	Male	Female	Total	%Male	%Female
NIWA Board of Directors	5	2	7	71%	29%
Executive Team	7	2	9	78%	22%
Sustainable Development Committee	12	6	18	67%	33%

### Statement on NIWA's social and cultural mandate as a New Zealand CRI

As New Zealand's foremost environmental science CRI, NIWA's services have a significant impact on the social and economic future of New Zealand and New Zealanders. NIWA's science and expert opinion influences many decisions made by local and central government and businesses every day.

Our recognised expertise in climate change science puts NIWA in an influential position in terms of how New Zealand will respond to the challenge of climate change. Dr David Wratt, NIWA's Chief Scientist, Climate, is a member of the Bureau of the Intergovernmental Panel on Climate Change (IPCC). Many other New Zealanders contribute to the work of the IPCC, which in 2007 was jointly awarded the Nobel Peace Prize for building and disseminating "greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change."

In line with its Statement of Corporate Intent and Corporate Social Responsibility Charter, NIWA aspires to create a safe and supportive environment for staff to grow and develop professionally, and as individuals.

In addition, NIWA:

- Encourages a workplace that is empowering and free of discrimination
- Provides remuneration that attracts and retains quality staff to the best of our ability
- Encourages and supports people to achieve work-life balance.

NIWA's cultural impacts and initiatives are addressed in the Cultural pillar spread.

# Sustainability – Cultural

NIWA staff and management work under a directive to develop effective long-term relationships with Māori. This is NIWA's key cultural impact. These relationships are managed through NIWA's Māori environmental research group, Te Kūwaha o Taihoro Nukurangi.

The main goal of Te Kūwaha is to establish NIWA as New Zealand's leading provider of water- and atmosphere-related research of benefit to Māori. In addition, Te Kūwaha is also responsible for providing tikanga and te reo Māori training courses within NIWA so that all staff can become more confident in their interactions with Māori.

As at 30 June 2008, Te Kūwaha consists of 11 staff spread across NIWA's sites.

## Key issues and challenges

For Te Kūwaha, the key challenge is continuing to improve the way we carry out our work, including formalising relationships with Māori and representative organisations within an increasingly complex context of sustainability. Te Kūwaha's critical focus areas include:

- Continuously finding improvements in procedures and processes, including formalising relationships with Māori and representative organisations.
- Securing resourcing to continuously grow NIWA's Māori research capacity in an increasingly competitive funding environment.
- Finding space and time in busy schedules to achieve buy-in and increase awareness of tikanga and te reo Māori amongst NIWA staff.

## Strategic initiatives:

### NIWA's protocols for iwi liaison<sup>1</sup>

To build positive working relationships with iwi, hapū and Māori organisations in areas impacted by research NIWA wishes to conduct, the following procedures apply:

1. Staff are to communicate with the Regional Manager and Chief Scientist, Māori when considering, or undertaking, research that involves Māori
2. The Regional Manager and Chief Scientist, Māori will liaise (or delegate responsibility to Manager, Māori Development) with an iwi or hapū representative of that rohe (region). This is to ensure science research considers cultural aspects and acknowledges kaitiakitanga (guardianship) of the iwi, hapū and/or Māori organisation.

### High-level objectives

- To identify key areas of NIWA's work of specific relevance to Māori in consultation with iwi, hapū and Māori organisations throughout the country
- To develop programmes, in collaboration with iwi, hapū and Māori organisations, which will enable NIWA to provide appropriate and relevant science for Māori
- To develop, in consultation with iwi, hapū and Māori organisations, a policy regarding relationships, responsibilities and consultation with Māori; and to educate staff with respect to this policy.

### Specific objectives

- To be a centre of excellence for environmental research with a Māori focus
- To develop strong personal relationships at a flax roots level with Māori organisations throughout the country
  - To allow NIWA staff to do work with their own iwi, where that is applicable
- To encourage the dissemination of information from NIWA to Māori and vice versa

- To identify funding sources and develop programmes which will enable NIWA to provide appropriate and relevant science for different iwi and hapū
  - To encourage collaborative research projects between NIWA and Māori organisations
  - To develop funding applications in collaboration with Māori organisations
- To develop and implement policy regarding relationships, responsibilities and consultation with Māori and educate staff with respect to this policy
  - To check new NIWA projects during set-up to ensure that collaboration with Māori will be appropriately managed, and potential conflicts are avoided
  - To provide tikanga and te reo Māori training to NIWA staff
- To provide opportunities for Māori to work in areas of NIWA science that is of relevance to iwi, and makes NIWA an attractive place for Māori researchers to work.

### NIWA specialist staff

NIWA employs two full-time staff members specifically to initiate and maintain successful working relationships with Māori:

- Mr Apanui Skipper (Manager, Māori Development) – Te Whānau-a-Apanui, Ngāti Tamaterā, Ngāti Paoa, Ngāti Tūkorehe, Ngāti Raukawa ki te Au o Te Tonga, Ngāti Toa Rangatira, Te āitanga-a-Mahaki
- Mr Weno Iti (Manager, Māori Development) – Ngāti Maniapoto, Te Atiawa, Ngāti Tauaiti.

### Formalising relationships

NIWA currently has over 85 working relationships with various Māori groups throughout New Zealand. Some of these have been formalised, or are in the process of being formalised, through a number of mechanisms including:

- Memorandum of Understanding
- Letters of support
- Letters of intent
- Various subcontracts.

These relationships are recorded in NIWA's client database. The relationships have been formalised with Māori organisations depending on the requirements and wishes of our partners. Generally these agreements outline the appropriate behaviours to be upheld by the two parties. All agreements are reviewed and approved by both parties' legal teams before signing.

<sup>1</sup> From section 2.4 of NIWA's Policy and Procedures manual.



### Considerations when formalising relationships:

- Intellectual property arrangements (especially projects that involve mātauranga Māori)
- Dispute resolution process
- Code of conduct
- Process for publicising research outcomes (i.e., approval from research partner required before any publication of material emanating from research)
- Specific timeframes for activities and initiatives.

### Results and targets

To be able to measure overall success, we have to measure the success of our interactions and relationships. The key mechanisms for this are:

- Recording the daily interactions/hui NIWA staff members have with various Māori organisations as a way to improve/ensure longevity in NIWA's institutional memory
- Internally, we record the numbers of staff members who have attended the te reo and tikanga Māori training courses run by Te Kūwaha. At the end of each course, staff fill out an evaluation form. Relevant feedback/suggestions are incorporated into future courses.

The target for Noho Marae attendees for 2008–09 is a minimum of 60.

The formalisation of NIWA's relationships with Māori research partners, and the type of agreement entered into, are typically driven by the needs of our partners (except subcontracts where we have a fee-for-service arrangement). Therefore, Te Kūwaha have not established targets as these relationships are managed on a case-by-case basis. In all cases Te Kūwaha work hard to ensure NIWA has a 'seen face' and is easily contactable to ensure that the relationships remain functional and healthy for the long-term benefit of both parties.

Agreement type	Typical use	Total
Memorandum of Understanding (MoU)	Typically for long-term working relationships with larger Māori groups/entities	10
Letter of support/understanding	Pre-research proposal submission; supplied by potential research partner in support of a specific research proposal	16
Letter of intent	Typically after research funding has been approved. Project and timeframe specific	3

## Stakeholder interview

*Geraldine Baker, Fisheries Management Consultant. Formerly General Manager, Ngāpuhi Fisheries Ltd, asset-holding company for Te Rūnanga A Iwi O Ngāpuhi*



### When working with NIWA what is the scope of your role?

I have worked with NIWA in two roles. The first was in my former capacity as General Manager for Ngāpuhi Fisheries Ltd, the asset-holding company for Te Rūnanga A Iwi O Ngāpuhi, the mandated iwi authority for Ngāpuhi. We worked together on two projects with NIWA. The first project involved Ngāpuhi's interest in finfish farming opportunities. Through NIWA's international networks, we were able to acquire first-hand experience, from an indigenous perspective, of how first nation peoples benefited culturally, socially, and economically from their involvement in marine farming and the sustainable management of marine resources in their environment. The second project involved contracting NIWA's services to develop a sustainable comprehensive eel management framework for Māori in Te Tai Tokerau.

The second role is in my current capacity as a commercial fisheries consultant. This role involves providing services to NIWA in the form of a scoping report on the regulatory process involved in establishing an Aquaculture Management Area (AMA) in Northland.

### How are NIWA helping you in your role?

In my first role, NIWA provided the contacts, essential technical and scientific research processes and frameworks that complimented the traditional mātauranga. In the first instance this assisted Ngāpuhi to make better decisions in terms of our aquaculture aspirations, and in the second instance provided Māori in Te Tai Tokerau with the know-how to confidently collate, record, and sustainably manage freshwater resources within their particular hapū and tribal rohe. These services were provided in a culturally respectful and embracing environment, engendering trust and open communication, thereby encouraging opportunities for future collaborative projects together.

In my second role, NIWA are assisting me to grow my business and to become more knowledgeable about the environment in which I work and the people engaged within that environment.

### From a Māori perspective how is NIWA helping Aotearoa/ New Zealand?

Te Ao Māori stems from a traditional foundation of tikanga and kawa, mātauranga and oral history. By combining the western scientific methodologies and knowledge base with Māori traditional methodologies and knowledge base, not only will all New Zealanders benefit from a greater understanding and appreciation of both cultures, they will also be better informed and equipped to manage the increasingly rapid changes to our environmental landscape and be in a healthier position to take advantage of opportunities as they come to hand. By combining both world-views, there is real potential for Māori to enhance traditional practices of kaitiakitanga, manaakitanga, rangatiratanga, and whanaungatanga. Only by becoming more knowledgeable about our environment and resources can we truly behave in ways that ensure the sustainable longevity of Aotearoa.

# Capability Funding

Capability funding is provided to Crown Research Institutes (CRIs) through the Ministry of Research, Science & Technology to support and enhance long-term research capability. Capability funding is based on each CRI's proportion of the total government research investment. In 2007–08, NIWA received \$10.08 million (excluding GST) in capability funding.

	\$'000 (excl GST)	Percentage
Support core skill bases that are at or below critical mass	532	5
Advance new areas of science and innovation	4,053	40
Increase the transfer of science to end-users	1,527	15
Build future research capacity in areas of high national need	2,720	27
Bridge the gap between research and commercialisation of new products	1,250	13

## Impact of fishing on albatross colonies monitored

Capability funding is assisting NIWA with a post-doctoral study into the effects of fishing activity on New Zealand's white-capped albatross.

Although the white-capped albatross is the most common albatross found in New Zealand, these seabirds are prone to bycatch in commercial fishing operations when foraging for food.

Dr Leigh Torres, a NIWA post-doctoral fellow, analysed high resolution data of the seabird distributions at sea from GPS tags attached to 19 white-capped albatross.

This information was matched with commercial fishing data, provided by the Ministry of Fisheries, to assess changes in habitat use and behaviour patterns of the albatross when they were near fishing activity.

Results show that 75% of the foraging trips by the albatross overlapped with fishing vessels at some point, but six birds did not go near the fishing vessels at all.

While this indicates commercial fishing activity could be influencing the ecology and biology of the albatross population, a wider study is needed to determine whether commercial fishing is actually detrimental or an advantage to the seabirds.

More albatross will be tagged, and their movements monitored against fishing activity, in the coming months.

*How does commercial fishing affect white-capped albatross? The Capability Fund is supporting a NIWA post-doctoral fellow to investigate.*



David Thompson, NIWA



Geoff Read, NIWA

*Invasive species like this Mediterranean fanworm, Sabella spallanzanii, can wreck havoc. The Capability Fund is helping NIWA scientists develop new and reliable ways to model and predict aquatic species distributions – both native and introduced.*

## Modelling aquatic species distributions for better biosecurity & biodiversity management

Understanding more about aquatic biodiversity and possible threats from non-indigenous species is essential for New Zealand's biosecurity management.

Capability funding has assisted NIWA to strengthen its research in this area; in particular, with the development of new and reliable ways to model and predict aquatic species distributions – both native and introduced species.

Our models can predict the distributions of species based on what's known about their current distribution, habitat requirements, and some environmental variables. We can predict where a species is likely to occur for the whole country or EEZ, even for locations where we don't have any presence/absence information. Using these techniques, we have also assessed the likely spread of invasive species, such as didymo.

NIWA's analyses can help government departments, including the Department of Conservation, and MAF, to develop biosecurity policies and operational management decisions for responding to pest species incursions and spread, and conserving or restoring critical habitats.

This research also includes design and evaluation of large-scale marine protected areas in offshore waters, predicting the distributions of coastal reef fishes and the 30 commonest freshwater fish species. The freshwater fish distributions are being used to assess the conservation values of New Zealand rivers and streams.

## Capabilities to be maintained, enhanced, or developed with Capability Fund

Areas of nationally recognised expertise	2007–08 Forecast	2007–08 Achievements
<i>Freshwater</i>	<ul style="list-style-type: none"> <li>■ maintain national capabilities in lake and wastewater sciences</li> <li>■ continue support for seven post-doctoral fellows in key areas of increasing stakeholder need (e.g., water allocation, catchment water quality modelling, water-borne pathogens)</li> <li>■ enhance national capability in freshwater science through support of two sabbaticals and technical training</li> </ul>	<ul style="list-style-type: none"> <li>■ research on lake restoration processes and novel wastewater treatment ponds</li> <li>■ post-doctoral fellows supported to study modelling riparian processes, stream geomorphology, water resources planning, stream habitats, health risk assessment modelling, and snow resources</li> <li>■ staff sabbaticals supported to study fish migrations and water resource assessments, and training in environmental contaminants</li> </ul>
<i>Coasts</i>	<ul style="list-style-type: none"> <li>■ enhance core skills in key areas of coastal hydrodynamics, near-shore ecology, and effects of marine farming through support of five post-doctoral fellows</li> <li>■ strengthen understanding of interactions between coastal aquaculture and land-derived contamination</li> <li>■ assist iwi in implementing techniques for managing coastal ecosystems, especially shellfish and pelagic fish</li> </ul>	<ul style="list-style-type: none"> <li>■ post-doctoral fellows supported to study fish farm impacts, beach erosion modelling, coastal fisheries, inundation modelling, and coastal currents</li> <li>■ research on the effect of dairy farming on coastal embayment contamination</li> <li>■ framework developed with iwi on management of the Kaipara Harbour marine resources</li> </ul>
<i>Oceans</i>	<ul style="list-style-type: none"> <li>■ continue support for cross-agency initiative for Ocean Survey 20/20 to proceed and inform ocean policy</li> <li>■ maintain critical mass in core skill areas of ocean sciences through support of three post-doctoral fellows</li> </ul>	<ul style="list-style-type: none"> <li>■ 60-day census of Antarctic marine life voyage completed</li> <li>■ three post-doctoral fellows supported to study submarine hazards, ocean hydrodynamics, and seabird ecology</li> </ul>
<i>Fisheries</i>	<ul style="list-style-type: none"> <li>■ develop tools and services to mitigate fisheries bycatch and damage to sensitive environments</li> <li>■ improve our core fisheries survey and analytical software tools</li> <li>■ re-develop our software systems for gathering, storing, and interrogating our fisheries data</li> <li>■ develop training courses to enable stakeholders to better participate in the fishery management and research planning process</li> </ul>	<ul style="list-style-type: none"> <li>■ researched net selectivity and bycatch mitigation in the hoki fishery</li> <li>■ developed and upgraded stock assessment models</li> <li>■ initiated software development for new fish data gathering instrumentation</li> <li>■ organised four stakeholder workshops on fisheries management</li> </ul>
<i>Māori Development</i>	<ul style="list-style-type: none"> <li>■ provide guidance to iwi on the potential economic opportunities from renewable energy</li> <li>■ support a post-doctorate fellow to study the effects of climate change on the Māori economy</li> <li>■ support staff collaborations and technology transfer initiatives with iwi on lake restoration, fisheries, aquaculture, energy and water supply, and wastewater treatment</li> <li>■ continue to strengthen the capability of staff to interact effectively with Māori through the provision of support tools, guidelines and protocols, and training courses</li> </ul>	<ul style="list-style-type: none"> <li>■ established advisory group and guided iwi on resource use</li> <li>■ post-doctoral fellow researching the impacts of emissions trading on Māori businesses</li> <li>■ completed national aquaculture roadshows with iwi, and transfer of environmental science through hui, reports, and collaborative research</li> <li>■ staff participated in four noho marae and attended te reo and tikanga training courses</li> </ul>
<i>Atmospheric Trace Gases</i>	<ul style="list-style-type: none"> <li>■ maintain critical mass in atmospheric chemistry and modelling through supporting a post-doctoral fellow</li> <li>■ develop models that quantify health risks associated with emissions/air quality</li> <li>■ establish capability for assessment of indoor air quality</li> </ul>	<ul style="list-style-type: none"> <li>■ post-doctoral fellow supported to study ozone chemistry and climate interactions</li> <li>■ research on human exposure to air pollution</li> <li>■ instrumentation developed for measuring indoor pollutants</li> </ul>
<i>Energy</i>	<ul style="list-style-type: none"> <li>■ develop techniques for assessing environmental impacts of marine energy installations</li> <li>■ recruit skills in distributed and combined source energy technologies</li> </ul>	<ul style="list-style-type: none"> <li>■ guidelines for environmental consents developed</li> <li>■ new staff employed to study small scale energy installations</li> </ul>
<i>Climate &amp; Hazards</i>	<ul style="list-style-type: none"> <li>■ develop near real-time hazard forecasting products</li> <li>■ improve integration of our chained models (e.g., rainfall, river flow, inundation)</li> <li>■ enhance ability to advise local authorities on the effects of climate change on urban infrastructure</li> <li>■ support the activities of the national centres for climate and hazards in providing advice to policymakers and the public</li> </ul>	<ul style="list-style-type: none"> <li>■ riverflow, wave, and sea-level forecasting models implemented</li> <li>■ hydrological models implemented for all New Zealand catchments</li> <li>■ produced second edition of climate change guidance manual for local government</li> <li>■ seasonal updates and outlook publications produced monthly and over 100 presentations to stakeholders</li> </ul>
<i>Environmental Information</i>	<ul style="list-style-type: none"> <li>■ develop new tools for real-time data capture, transfer, and display</li> <li>■ expand coverage of our environmental monitoring networks to enable better decision-making</li> <li>■ improve web access to NIWA's environmental data</li> </ul>	<ul style="list-style-type: none"> <li>■ system developed for large scale irrigation water management</li> <li>■ new monitoring stations for snow and ice established in mountain areas</li> <li>■ new web tool developed to access water resources information</li> </ul>
<i>Aquaculture &amp; Biotechnology</i>	<ul style="list-style-type: none"> <li>■ develop commercial scale trials on a new species with sector partners</li> <li>■ complete technical feasibility studies on added-value products</li> <li>■ develop a broodstock programme to support industry</li> <li>■ engage with industry in developing an R&amp;D programme to support the sector's future vision</li> </ul>	<ul style="list-style-type: none"> <li>■ sea cage rearing trials of kingfish established at Mahanga Bay</li> <li>■ initiated research on drug encapsulation for finfish health care</li> <li>■ breeding families established for kingfish, hapuku, and paua</li> <li>■ new research programme established with industry to advance commercial culture of high value species</li> </ul>
<i>Aquatic Biodiversity &amp; Biosecurity</i>	<ul style="list-style-type: none"> <li>■ enhance core skills in marine and freshwater taxonomy and freshwater biosecurity through support of visiting scientists and post-doctorates</li> <li>■ increase staff skills in taxonomy through sponsoring training courses</li> <li>■ improve utility of biosecurity data through developing better analysis and mapping tools</li> <li>■ develop predictive models and tools for biodiversity management and bio-incursion spread and effects</li> </ul>	<ul style="list-style-type: none"> <li>■ post-doctoral fellows and visiting scientists supported to study aquatic algae and freshwater fish biosystematics and identification of invasive species</li> <li>■ seven taxonomic training courses held</li> <li>■ biosecurity data used to develop spatial models of introduced freshwater species</li> <li>■ statistical techniques developed to predict spread of introduced aquatic species</li> </ul>

# Board of Directors



*The NIWA Board as at 30 June 2008, with the Chief Executive (left to right): John Morgan, Ed Johnson, Sue Suckling, Graham Hill, Troy Newton, Craig Ellison, John Hercus, Wendy Lawson.*

**Sue Suckling** (*Chair*), OBE, BTech (Hons), MTech (Hons), is a Christchurch-based director and strategic business consultant. She is Chair of the New Zealand Qualifications Authority and a number of private companies. She is a director of Restaurant Brands and a member of the Takeovers' Panel. Previously, she was Chair of AgriQuality Ltd and Deputy Chair of the Institute of Geological and Nuclear Sciences Ltd. Sue was appointed NIWA Chair in July 2001.

**Craig Ellison** (*Deputy Chair*) has an MSc in zoology from Otago University, and is a director on several boards, including Airways Corporation of New Zealand, and New Zealand Trade & Enterprise, as well as chairing the New Zealand Seafood Standards Council. He was a commissioner on the Treaty of Waitangi Fisheries Commission until 2004, and a director of Aotearoa Fisheries until the end of 2007. Craig has a strong interest in improving NZ business management capability, Māori governance structures, and resource management.

**John Hercus** has an MSc in physics from Victoria University of Wellington and has been a leading figure in polytechnic, technology, and science education, serving as Director of the Christchurch Polytechnic from 1974 to 1993. He has worked for the UN Development Programme in higher education and training, and on projects with UNESCO and the Asian Development Bank. He has held directorates with several companies involved in international education and technology development.

**Dr Graham Hill** is an astronomer and astrophysicist currently lecturing in astronomy at the University of Auckland. From 1967 to 1996 he was a research scientist at the National Research Council of Canada – Dominion Astrophysical Observatory in Victoria, BC, and is a scientific computer software consultant and collaborator with colleagues at several overseas universities. He is an invited member of the International Astronomical Union and holds a PhD in astronomy from the University of Texas. He is a director of Mighty River Power and the Research and Education Advanced Network New Zealand, a former director of the Meteorological Service of New Zealand, and a council member of Unitec.

**Ed Johnson**, BA (Hons) Finance and Accounting, MBA (Hons), is a Marlborough-based company director and advisor. He is currently Chair of Fulton Hogan Ltd and Goldpine Industries Ltd, and a director of several entities, including the Bank of New Zealand, Port Otago Ltd, MDC Holdings Ltd, and Marlborough Airport Ltd. He retired as Chairman and Chief Financial Officer of Shell New Zealand in 2002 after having senior management roles in New Zealand, the US, and the UK. In 2001, Ed was appointed the inaugural Honorary Fellow of Massey University's Centre for Business and Sustainable Development. In 2003, he was made a Fellow of the Institute of Directors in New Zealand.

**Dr Wendy Lawson**, BSc (Hons), PhD, is a glaciologist and academic, with a particular interest in the impacts of climate change on earth systems at IPCC time scales. She has more than 25 years of remote field science experience in Arctic, Antarctic, and alpine regions, on expeditions from universities in the UK and US, as well as New Zealand. She is Head of the Department of Geography at the University of Canterbury, Chair of the Advisory Board of Gateway Antarctica, and serves on the Board of the Antarctic Research Centre at Victoria University. She previously served on the Board of Antarctica New Zealand.

**Troy Newton** is a partner of KPMG Corporate Finance, where he advises clients on mergers and acquisitions, valuation, regulatory reform, and financing matters in New Zealand, Australia, and the Pacific Rim. He is a chartered accountant and was a director of Industrial Research Ltd from 1997 until September 2002. He has particular industry experience in telecommunications, information technology, and energy and transport operations.

**John Morgan** (*Chief Executive Officer*) John took up his position as CEO of NIWA on 30 April 2007 and has a wealth of experience in guiding companies to world-leading positions in their fields. He has extensive senior executive and governance experience in the science sector and is passionate about the role science can play in transforming New Zealand's economy, society, and global reputation. John's previous roles include CEO of AgriQuality Ltd, Executive Director of Orica New Zealand Ltd, and Chairman of New Zealand Pharmaceuticals Ltd.

# Report of the directors to the shareholders

The directors take pleasure in presenting the National Institute of Water & Atmospheric Research Ltd (NIWA) and Group Annual Report for the financial year ended 30 June 2008.

## Business activities

The NIWA Group provided scientific research and consultancy services in New Zealand and overseas during the financial year. In New Zealand, services were provided to the Foundation for Research, Science and Technology, the Ministry of Fisheries, 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 has exceeded its business plan objectives, as set out in the Statement of Corporate Intent (SCI), with a net surplus of \$10.1 million (2007: \$9.8 million) against a budgeted net surplus of \$9.5 million. This was achieved on a turnover of \$120.6 million (2007: \$113.9 million), against budgeted revenue of \$115.8 million.

Average shareholders' equity at 30 June 2008 totalled \$79.3 million (2007: \$69.5 million). Total average assets were \$109.5 million at 30 June 2008 (2007: \$100.9 million).

## Donations

Donations of \$10,957 were made during the year.

## Dividends

Dividend payments of \$186,750 were made to the Government of New Zealand (the Crown), as the sole shareholder.

## Group actual performance versus Statement of Corporate Intent (SCI)

Years ended 30 June	Actual 2008 \$'000	SCI 2008 \$'000	Actual 2007 \$'000
Total revenue (includes interest income)	120,671	115,798	113,911
Operating expenses, depreciation, and amortisation	106,291	101,632	99,632
Operating surplus before tax	14,335	14,167	14,279
Net surplus	10,121	9,515	9,813
Average total assets	109,481	111,672	100,956
Average shareholders' funds	79,306	85,434	69,483
<b>Profitability</b>			
EBIT margin (%) (EBIT/revenue)	11.3	11.8	12.3
Return on average equity after tax (%) (net surplus/average equity)	12.8	11.1	14.1
Return on assets (%) (EBIT/average total assets)	12.5	12.3	13.9
<b>Liquidity and efficiency</b>			
Current ratio	1.5	1.2	1.3
Quick ratio	2.1	1.2	1.8
<b>Financial leverage</b>			
Debt to average equity (%)	37	36	39
Gearing (%)	–	–	1
Proprietorship (%) (shareholders' funds/total assets)	72	77	69

## Directors

The retirement of John Spencer on 31 October 2007, and of John Hercus and Troy Newton on 30 June 2008, were the changes to the Board of Directors for the year ended 30 June 2008. Dennis Cairns and Helen Robinson were appointed to the Board of Directors on 1 July 2008.

## 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 6 of the 'Notes to the Group Financial Statements'.

## Interests register

The following are transactions 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.

#### Directors' remuneration

Details of the directors' remuneration are provided in the Remuneration of directors section of the governance statement.

#### 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

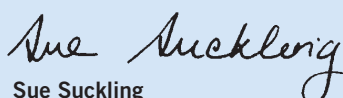
During the year no director purchased or disposed of any equity securities of the NIWA Group.

#### Directors' loans

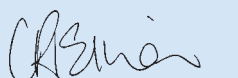
There were no loans by the NIWA Group to any director.

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

For and on behalf of the Board:



**Sue Suckling**  
Chair



**Craig Ellison**  
Director

25 August 2008

## Statement of management responsibility

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

1. The management of the company is responsible for the preparation of these Financial Statements and the judgements used therein.
2. The management of the company is responsible for establishing and maintaining internal control procedures designed to provide reasonable assurance as to the integrity and reliability of financial reporting.
3. In the opinion of management, these Financial Statements fairly reflect the financial performance, movements in equity, financial position, and cash flows of the National Institute of Water & Atmospheric Research Ltd and Group for the year ended 30 June 2008.



**Sue Suckling**  
Chair

25 August 2008



**Craig Ellison**  
Director

# Corporate governance statement

for the year ended 30 June 2008

## Approach to corporate governance

The NIWA Group is continually striving to achieve and maintain its robust and transparent corporate governance.

Renewed interest in corporate governance (particularly due to high-profile collapses) has reinforced the Board's view that corporate governance is an essential factor of accountability.

We believe that corporate governance is not a matter of ticking boxes to ensure compliance, but a useful tool that focuses us on improvement and value adding – it ensures effectiveness in an ever-changing environment.

The NIWA Group's corporate governance deals with how the company is directed and controlled to ensure good ethical behaviour and promote shareholders' interests in a sustainable way. In particular, corporate governance applies to the role of the Board of Directors ('the Board') and the need to ensure a framework of effective accountability and transparency.

A key element of governance is designing a governance model that reflects the values of the NIWA Group and its participants and then evaluates the model's effectiveness. Ethical behaviour is a vital element; the governance model in place will be ineffective unless the Board, directors, and management are committed to ethical standards and behaviours. Ultimately, the Board is responsible for ethical behaviour within the NIWA Group.

We believe the following characteristics promote good governance:

- strong and effective leadership, which establishes and promotes the vision of the NIWA Group;
- culture which is based upon openness and honesty;
- supporting accountability through systems and processes, such as risk management;
- effective decision making;
- focus on the needs of the end user.

Corporate governance values adopted by the NIWA Group include honesty, openness, trust and integrity, mutual respect, performance orientation, accountability, and commitment.

The NIWA Group is a Crown Research Institute, established under the terms of the Crown Research Institutes Act (1992) and the Public Finance Act (1989), with all its shares held by the Minister of Finance and the Minister for Research, Science and Technology on behalf of the Crown.

The Board's authority and accountability is based upon the two acts noted above and the Statement of Corporate Intent (SCI). The SCI is produced annually, and sets out the Board's strategic objectives, specific goals, and performance targets. The SCI is submitted to the Shareholding Ministers for acceptance.

We are committed to ensure that best practice governance principles and ethical standards are upheld and applied consistently.

This governance statement outlines the main corporate governance practices as at 30 June 2008. Unless otherwise stated, they reflect the over-arching practices in place throughout the financial year ending on that date.

## Principles for corporate governance

Nine principles and guidelines established by the Securities Commission of New Zealand in 2004 are contained in the corporate governance of the NIWA Group. These principles apply to entities that have an economic impact in New Zealand and/or are accountable to the public in various ways.

The NIWA Group is a Crown Research Institute that is owned by the government which is held accountable by the public.

Our direct customers are those who fund our science and research. The Government is our largest customer, but we also conduct research for, and provide advice and information to, many others, ranging from international conglomerates to local commercial fishers and schools. We consider the New Zealand public to be our most important customer, although they do not directly contract us.

Most of our research is aimed at addressing issues of relevance to the general public – the sustainability of our society and civilisation.

Not all of the principles apply to the NIWA Group but are observed to the fullest extent to which they apply; for example, directors are appointed by the Shareholding Ministers rather than the Board.

### Principle 1 Ethical standards

*Directors should observe and foster high ethical standards.*

We aim to promote a Code of Conduct to all staff (including the Board and management) which promotes standards of integrity, discretion, and ethical conduct. The NIWA Group encourages staff to:

1. perform to the best of their ability, and be committed to a high quality of work performed in a safe manner;
2. take the initiative and be creative in resolving problems, seeking improved productivity, and responding to opportunities within areas of responsibility;
3. make decisions and be responsible for those decisions and the actions that flow from them;
4. be supportive of their work teams;
5. treat staff and equipment with care and respect.

It is expected that managers will guide staff in accordance with management's philosophy, policies, and standards.

## Corporate governance statement

for the year ended 30 June 2008

We encourage the personal development of our staff through outside interests and will not normally object to their participation. The existence of a conflict of interest does not necessarily cause problems; it requires identification and careful management.

In making decisions about conflicts of interest, management are guided by the concepts of integrity, honesty, transparency, openness, independence, and good faith. Situations may not be clear cut; judgement is exercised when necessary on a case-by-case basis.

Both employees and directors must disclose any financial, professional, or personal interests (direct or indirect) that may create a conflict with the Group's interests. We expect both our employees and directors to be open and honest with disclosures.

### Principle 2 Board composition and performance

*There should be a balance of independence, skills, knowledge, experience, and perspectives among directors so that the Board works effectively.*

#### Responsibilities of the Board and management

The Board of Directors of the NIWA Group is appointed by the Shareholding Ministers to guide and monitor the business of the Group and its subsidiaries.

The functions of the Board include but are not limited to:

- establishing objectives;
- reviewing and approving major strategies for achieving objectives;
- managing risks;
- reviewing and approving capital investments;
- ensuring compliance with statutory requirements;
- providing leadership in the relationship with key stakeholders;
- determining the overall policy framework within which the business is conducted;
- establishing appropriate governance structures;
- monitoring management's performance with respect to these matters.

The Board delegates management of the day-to-day affairs and management responsibilities of the NIWA Group to the executive team under the leadership of the Chief Executive Officer (CEO). The CEO and his team deliver the strategic direction and goals determined by the Board. A formal delegations authority framework establishes the operational and expenditure delegations within which the Chief Executive Officer must operate.

#### Board composition and activity

Shareholding Ministers appoint Board members under the Crown Entities Act 2004 and the Board are required to meet the same obligations as directors of private sector companies.

Board directors are selected and appointed on the basis of their skills and experience. Additionally the balance of these skills and experience is required to match the strategic direction and needs of the NIWA Group.

Some basic competencies that all directors must have:

- an ability to add value;
- an ability to communicate clearly;
- the ability to take a wide perspective on issues;
- common sense, integrity, and a strong sense of ethics;
- organisational and strategic awareness;
- financial literacy;
- a knowledge of the responsibilities of a director and an ability to distinguish corporate governance from management.

Before a new director is appointed, candidates are put through a due diligence process to determine whether the candidate can add value to the Board, the degree of risk entailed in the appointment, and whether there are known or potential conflicts of interest. Once a director has been appointed, they receive guidelines on the government's expectations, above those contained in the Companies Act 1993.

Appointment of directors is for a term of up to three years. Directors may be reappointed for a second term of up to three years, although this is not automatic, with Ministers basing their decision on the company's needs. Both the Chair and the Deputy Chair are appointed by the Shareholding Ministers.

During the financial year ended 30 June 2008 the Board comprised seven independent non-executive directors (including the Chair). The directors' profiles are presented on page 26. Board meetings are held monthly. The Board formally met eleven times during the year.



## Corporate governance statement

for the year ended 30 June 2008

### Membership and attendance

Director	Date of appointment	Appointment term expires	Board	Audit Committee	Remuneration Committee
John Spencer (Resigned 31 October 2007)	16 June 2003	30 June 2009	3		1
John Hercus (Resigned 30 June 2008)	27 October 2000	30 June 2008	7		
Troy Newton (Audit Committee Chair) (Resigned 30 June 2008)	18 June 2002	30 June 2008	9	3	
Sue Suckling (Chair)	1 March 2001	30 June 2009	10	3*	1
Graham Hill	27 May 2002	30 June 2009	8		
Wendy Lawson	1 July 2006	30 June 2009	10		
Craig Ellison (Deputy Chair)	1 July 2007	30 June 2010	8		
Ed Johnson	9 June 2005	30 June 2011	9	3	1
Dennis Cairns	1 July 2008	30 June 2011			
Helen Robinson	1 July 2008	30 June 2011			

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

### Membership of subsidiary Boards

Director	NIWA Vessel Management Ltd	NIWA Natural Solutions Ltd	NIWA Australia Pty Ltd	NIWA (USA), Inc. & NIWA Environmental Research Institute	Unidata Pty Ltd
Sue Suckling	✓*	✓*	✓*	✓*	
Craig Ellison	✓	✓	✓	✓	
John Hercus	✓	✓	✓	✓	
Graham Hill	✓	✓	✓	✓	
Ed Johnson	✓	✓	✓	✓	
Troy Newton	✓	✓	✓	✓	
David Saunders <sup>1</sup>					✓
John Spencer	✓	✓	✓	✓	
Wendy Lawson	✓	✓	✓	✓	
Dennis Cairns	✓				
Helen Robinson	✓				
Kate Thomson <sup>2</sup>					✓*
Bryce Cooper <sup>2</sup>					✓
Matt Saunders <sup>3</sup>					✓

\* Chair.

<sup>1</sup> Director representing minority interest.

<sup>2</sup> Management members of the parent company.

<sup>3</sup> Management member of Unidata Pty Ltd.

## Corporate governance statement

for the year ended 30 June 2008

### Director development

A sector specific induction programme is conducted for all new directors by Crown Company Monitoring Advisory Unit (CCMAU). A formal induction into all aspects of the NIWA Group is provided by the Chair and management representatives.

All directors are responsible for staying up-to-date in their knowledge of the legal and professional duties of board members.

Ongoing professional development is agreed between the directors and the Chair as part of the annual review process.

### Directors' insurance

The NIWA Group has arranged policies for director's 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.

### Principle 3 Board committees

*The Board should use committees where this would enhance its effectiveness in key areas while retaining board responsibility.*

#### Audit and Legislative Compliance Committee

The Audit and Legislative Compliance Committee is a sub-committee of the Board. During the financial year, the Audit and Legislative Compliance Committee comprised three members of the Board and met formally three times with the NIWA Chair as an ex-officio member.

The core responsibilities of the Audit and Legislative Compliance Committee include:

- legislative and regulatory compliance;
- the risk management framework;
- the internal control environment;
- internal audit and assurance;
- external audit;
- financial reporting.

We believe that the audit and legislative compliance committee makes a valuable contribution in improving governance, the performance, and accountability of the NIWA Group. The effectiveness is shown through the Group's culture of openness and continuous improvement.

The committee believes in independence and objectivity. If an employee or others believe the audit-client relationship or other audit aspects may be compromised, these concerns can be referred to the committee and should be received in an open manner.

### Remuneration committee

The Remuneration Committee is a sub-committee of the Board and comprised two members, the NIWA Chair and a NIWA director.

The Remuneration Committee reviews the remuneration policies applicable to the Chief Executive Officer on an annual basis and makes recommendations on remuneration packages and terms of employment to the Board. The Remuneration Committee also ratifies the remuneration packages of the direct reports to the Chief Executive Officer.

Remuneration packages are reviewed with due regard to performance and other relevant factors.

### Principle 4 Reporting and disclosure

*The Board should demand integrity both in financial reporting and in the timeliness and balance of disclosures on entities' affairs.*

The NIWA Group reports annually to Parliament on its performance in its Annual Report. A half-yearly report and quarterly progress reports are also prepared for Shareholding Ministers and performance is measured against the objectives in the SCI. This continuous disclosure is a major contributor to the high standards of information provided to our shareholders.

In addition to the statutes applied and the SCI, the Board operates under a number of other governance instruments, which include:

- periodic letter of expectation from the Shareholder;
- director's undertakings at the time of appointment;
- directors' interests register;
- policy on directors' expenses.

The quality and integrity of both the internal and external financial reports is reflected in the appropriate disclosures, relevance, reliability, and comparability.

### Principle 5 Remuneration

*The remuneration of directors and executives should be transparent, fair, and reasonable.*

Directors' remuneration is annually reviewed and approved by the Shareholding Ministers. Remuneration is set at levels that are fair and reasonable in a competitive market for the skills, knowledge, and experience required by the NIWA Group.

Primarily the annual review is a tool to help boards to analyse their performance and identify any areas where performance could be improved. The review assists in the Chair's succession planning and identification of director training needs.

## Corporate governance statement

for the year ended 30 June 2008

Boards are additionally reviewed as a whole through a set of performance measures on an on-going basis.

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

Parent	2008 \$'000	2007 \$'000
<i>Directors of the National Institute of Water &amp; Atmospheric Research Ltd</i>		
Sue Suckling (Chair)	72	52
John Hercus (Resigned 30 June 2008)	36	26
Graham Hill	36	26
Ed Johnson	36	26
Wendy Lawson	36	25
Troy Newton (Resigned 30 June 2008)	36	26
John Spencer (Resigned 31 October 2007)	12	33
Craig Ellison (Deputy Chair) (Appointed 1 July 2007)	41	–

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

### Remuneration of employees

Adequate remuneration is necessary to attract, retain, and motivate employees.

Additional to salary, other employee benefits include but are not limited to:

- death and disability insurance;
- superannuation;
- training leave;
- profit share;
- Employee Assistance Programme;
- Annual practising and professional membership fees.

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

Group \$	2008	2007
100,000–109,999	51	24
110,000–119,999	30	10
120,000–129,999	11	6
130,000–139,999	6	3
140,000–149,999	9	2
150,000–159,999	1	–
160,000–169,999	4	4
170,000–179,999	5	1
180,000–189,999	–	1
190,000–199,999	–	1
200,000–209,999	–	1
220,000–229,999	2	1
250,000–259,999	1	–
270,000–279,999	1	–
330,000–339,000*	–	1
420,000–429,000*	1	–

\* Chief Executive Officer's remuneration band.

### Principle 6 Risk Management

*The Board should regularly verify that the entity has appropriate processes that identify and manage potential and relevant risks.*

Risk management has been incorporated into the normal business processes of the NIWA Group, with practices such as business planning and budgeting, operational management, and project management. Appropriate processes are regularly verified by the Board to identify and manage potential and relevant risks.

The Board reviews the delegations authority framework. The delegations authority framework sets authorities for operational and expenditure delegations, including authority for undertaking treasury activities of the NIWA Group.

The Audit and Legislative Compliance Committee receives reports on internal audit and risk management reviews. The committee also meets with the external auditors to discuss findings from the annual audit.

To assist the NIWA Group to monitor and report on our legislative compliance obligations, the ComplyWith software system has been implemented during the 2007–08 financial year.

## Corporate governance statement

for the year ended 30 June 2008

### Principle 7 Auditors

*The Board should ensure the quality and independence of the external audit process.*

The appointment of auditors to conduct the statutory audit, and the annual audit fees, are approved annually by the Auditor-General.

The Board and the auditors are jointly responsible for ensuring that the audit is conducted with independence, integrity, and objectivity.

Rotation of audit partners promotes independence and objectivity. Audit partners are rotated every six years; the 2007–08 year has had an audit partner rotation.

To ensure the independence of the external auditors, NIWA does not consult the external auditor for tax or management related services and takes care not to make use of the external auditors for any work which they may need to evaluate as part of the external audit.

### Principle 8 Shareholder relations

*The Board should foster constructive relationships with shareholders that encourage them to engage with the entity.*

The New Zealand Government is the ultimate shareholder of the NIWA Group, with the Shareholding Ministers holding the shares.

Formally outlined in an owner's expectation manual, Shareholding Ministers relate their expectations of the Board. This document entails the expectations and responsibilities of the Board, including Board duties, reporting requirements, financial governance, and how to deal with strategic issues.

Each year, an operating framework is issued to Crown Research Institutes. It is the cornerstone document through which Shareholding Ministers communicate their yearly expectations.

From the operating framework, the Board develops a Statement of Corporate Intent (SCI) which Shareholding Ministers need to approve before it is tabled in Parliament and becomes a public document. Shareholding Ministers are then held accountable by Parliament for the performance against the Statement of Corporate Intent.

The NIWA Group reports quarterly against its SCI to the Crown Company Monitoring Advisory Unit, yearly to Treasury, and half-yearly and yearly annual reports are generated for shareholders and stakeholders.

### Principle 9 Stakeholders' interests

*The Board should respect the interests of stakeholders within the context of the entity's ownership type and its fundamental purpose.*

Stakeholders include, but are not limited to, creditors, debtors, employees, the New Zealand Government, and the public.

Contained within the yearly Sustainability Report, stakeholders are informed by both financial and non-financial measures on the NIWA Group's actions and performance over the past year and what challenges we face in the future.

As a responsible and accountable corporate citizen, the NIWA Group is committed to maintaining the health of our environmental systems through the provision of sustainability advice and services, and operating in a socially and environmentally responsible manner. We firmly believe that socially and environmentally sound behaviour contributes to sustained economic growth and value creation.

### Governance achievements

We are continuously seeking to improve NIWA's governance. As part of continuous improvement during 2007–08 we undertook and implemented a more rigorous approach to internal audit. This included reviewing our financial internal control process. As a result of this review a full-time staff member has been employed in this capacity.

A ComplyWith software system has been implemented during the 2007–08 financial year to assist with reporting on our legislative compliance obligations; additionally this will help to identify potential areas for improvement for the future.

Our employees are the core ingredient to NIWA success. With this in mind we have achieved our goal to increase our interactions with staff by continuing to hold our Board meetings at several of our offices around New Zealand. Holding meetings and luncheons at these different locations has increased the visibility of the Board to all employees. This further assists with keeping the Board up-to-date with our science, people, and activities.

# Statement of Financial Performance

for the year ended 30 June 2008

<i>in thousands of New Zealand dollars</i>	Note	Group 2008 Actual	Group 2008 Budget	Group 2007 Actual	Parent 2008 Actual	Parent 2007 Actual
<b>Revenues and other gains</b>	5					
Public Good Science and Technology						
Contract funding		45,453	46,827	44,324	45,453	44,324
Capability Fund		10,083	10,083	9,094	10,083	9,094
Ministry of Fisheries		15,127	16,845	17,183	15,127	17,183
Commercial		49,284	41,539	42,886	39,289	36,892
Share of associate's net gain/(deficit)		38	50	60	–	–
Dividends from subsidiaries		–	–	–	2,500	7,000
<b>Total income</b>		<b>119,985</b>	<b>115,344</b>	<b>113,547</b>	<b>112,452</b>	<b>114,493</b>
<b>Operating expenses</b>	6					
Employee benefits expense		(55,090)	(52,322)	(50,725)	(49,889)	(45,854)
Other expenses		(41,060)	(39,022)	(38,627)	(43,230)	(44,375)
<b>Total operating expenses</b>		<b>(96,150)</b>	<b>(91,344)</b>	<b>(89,352)</b>	<b>(93,119)</b>	<b>(90,229)</b>
<b>Profit/(loss) before interest, income tax, depreciation, and amortisation</b>		<b>23,835</b>	<b>24,000</b>	<b>24,195</b>	<b>19,333</b>	<b>24,264</b>
Depreciation		(9,714)	(9,862)	(9,788)	(8,498)	(8,426)
Amortisation		(448)	(426)	(385)	(311)	(323)
<b>Profit/(loss) before interest and income tax</b>		<b>13,673</b>	<b>13,712</b>	<b>14,022</b>	<b>10,524</b>	<b>15,515</b>
Interest income		685	455	364	679	354
Finance expense		(23)	–	(107)	–	(86)
<b>Net interest and other financing costs</b>	7	<b>662</b>	<b>455</b>	<b>257</b>	<b>679</b>	<b>268</b>
<b>Profit/(loss) before income tax</b>		<b>14,335</b>	<b>14,167</b>	<b>14,279</b>	<b>11,203</b>	<b>15,783</b>
Income tax credit/(expense)	8	(4,214)	(4,652)	(4,466)	(2,776)	(2,660)
<b>Profit/(loss) for the period</b>		<b>10,121</b>	<b>9,515</b>	<b>9,813</b>	<b>8,427</b>	<b>13,123</b>
<i>Profit/(loss) comprises:</i>						
Parent interest		10,061	9,507	9,805		
Minority interest	22	60	8	8		

The accompanying 'Notes to the Financial Statements' are an integral part of, and should be read in conjunction with, this 'Statement of Financial Performance'.

# Statement of Recognised Income and Expense

for the year ended 30 June 2008

<i>in thousands of New Zealand dollars</i>	Note	Group 2008 Actual	Group 2008 Budget	Group 2007 Actual	Parent 2008 Actual	Parent 2007 Actual
<b>Balance at the beginning of the year</b>		<b>74,339</b>	<b>81,094</b>	<b>64,627</b>	<b>67,684</b>	<b>54,662</b>
<b>Net surplus for the year</b>						
Parent	9	10,061	9,507	9,805	8,427	13,123
Minority interest	9	60	8	8	–	–
<b>Total recognised revenues and expenses</b>		<b>10,121</b>	<b>9,515</b>	<b>9,813</b>	<b>8,427</b>	<b>13,123</b>
<b>Distributions to owners</b>						
Dividends	10	(187)	(835)	(101)	(187)	(101)
<b>Balance at the end of the year</b>	9	<b>84,273</b>	<b>89,774</b>	<b>74,339</b>	<b>75,924</b>	<b>67,684</b>

The accompanying 'Notes to the Financial Statements' are an integral part of, and should be read in conjunction with, this 'Statement of Recognised Income and Expense'.

# Statement of Financial Position

as at 30 June 2008

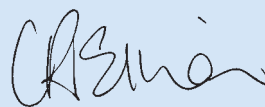
<i>in thousands of New Zealand dollars</i>	Note	Group 2008 Actual	Group 2008 Budget	Group 2007 Actual	Parent 2008 Actual	Parent 2007 Actual
<b>Equity</b>	9					
Share capital		24,799	24,799	24,799	24,799	24,799
Equity reserves		59,425	65,008	49,551	51,125	42,885
Shareholders' interest		84,224	89,807	74,350	75,924	67,684
Minority interest		49	(33)	(11)	-	-
<b>Total equity</b>		<b>84,273</b>	<b>89,774</b>	<b>74,339</b>	<b>75,924</b>	<b>67,684</b>
<b>Non-current liabilities</b>						
Unsecured loans	11	241	414	185	-	-
Employee entitlements	12	812	1,421	928	725	835
Deferred tax liability	13	3,476	1,803	4,424	2,105	2,871
Intercompany	23	-	-	-	10,884	9,587
<b>Total non-current liabilities</b>		<b>4,529</b>	<b>3,638</b>	<b>5,537</b>	<b>13,714</b>	<b>13,293</b>
<b>Current liabilities</b>						
Payables and accruals	14	17,284	7,716	16,421	16,625	15,451
Short-term advance facility	15	-	7,400	-	-	-
Employee entitlements	12	7,607	6,240	8,971	7,118	8,368
Taxation payable		-	523	-	-	-
<b>Total current liabilities</b>		<b>24,891</b>	<b>21,879</b>	<b>25,392</b>	<b>23,743</b>	<b>23,819</b>
<b>Total equity and liabilities</b>		<b>113,693</b>	<b>115,291</b>	<b>105,268</b>	<b>113,381</b>	<b>104,796</b>
<b>Non-current assets</b>						
Property, plant, & equipment	16	75,038	85,375	71,336	64,101	60,268
Identifiable intangibles	18	87	82	69	-	-
Investments	22	-	-	-	12,709	13,209
Investments accounted for using the equity method	22	-	597	559	-	-
Deferred tax asset	13	-	3,782	-	-	-
Receivables and prepayments	19	335	-	688	335	688
<b>Total non-current assets</b>		<b>75,460</b>	<b>89,836</b>	<b>72,652</b>	<b>77,145</b>	<b>74,165</b>
<b>Current assets</b>						
Cash and cash equivalents		9,303	980	4,138	9,060	3,619
Receivables and prepayments	19	20,715	17,896	19,803	19,801	19,148
Taxation receivable		1,144	-	1,575	1,638	1,935
Uninvoiced receivables	26	4,471	5,000	4,829	4,466	4,699
Assets held for sale	16	107	-	-	107	-
Inventory	20	2,493	1,579	2,271	1,164	1,230
<b>Total current assets</b>		<b>38,233</b>	<b>25,455</b>	<b>32,616</b>	<b>36,236</b>	<b>30,631</b>
<b>Total assets</b>		<b>113,693</b>	<b>115,291</b>	<b>105,268</b>	<b>113,381</b>	<b>104,796</b>

For and on behalf of the Board:


**Sue Suckling**

Chair

25 August 2008


**Craig Ellison**

Director

The accompanying 'Notes to the Financial Statements' are an integral part of, and should be read in conjunction with, this 'Statement of Financial Position'.

# Cash Flow Statement

for the year ended 30 June 2008

<i>in thousands of New Zealand dollars</i>	Note	Group 2008 Actual	Group 2008 Budget	Group 2007 Actual	Parent 2008 Actual	Parent 2007 Actual
<b>Cash flows from operating activities</b>						
<i>Cash was provided from:</i>						
Receipts from customers		119,978	115,013	108,007	112,804	108,876
Interest received		686	455	364	679	354
<i>Cash was disbursed to:</i>						
Payments to employees and suppliers		(97,208)	(93,662)	(89,337)	(93,746)	(89,800)
Interest paid		(23)	–	(107)	–	(86)
Taxation paid		(4,731)	(4,938)	(6,130)	(3,244)	(4,466)
<b>Net cash inflow from operating activities</b>	21	<b>18,702</b>	<b>16,868</b>	<b>12,797</b>	<b>16,493</b>	<b>14,878</b>
<b>Cash flows from investing activities</b>						
<i>Cash was provided from:</i>						
Sale of property, plant, & equipment		95	100	93	95	93
<i>Cash was applied to:</i>						
Purchase of property, plant, & equipment	16	(13,527)	(23,331)	(8,760)	(12,455)	(8,290)
Purchase of intangible assets	18	(458)	(470)	(347)	(311)	(323)
Sale of associate		500	–	–	500	–
<b>Net cash outflow in investing activities</b>		<b>(13,390)</b>	<b>(23,701)</b>	<b>(9,014)</b>	<b>(12,171)</b>	<b>(8,520)</b>
<b>Cash flows from financing activities</b>						
<i>Cash was applied to:</i>						
Dividends paid to shareholders	10	(187)	(835)	(101)	(187)	(101)
Short-term advance facility (repaid)	15	–	–	(600)	–	(600)
Subsidiary loan proceeds		–	–	–	21,129	23,512
Subsidiary loan (repaid)		–	–	–	(19,832)	(26,017)
<b>Net cash outflow from financing activities</b>		<b>(187)</b>	<b>(835)</b>	<b>(701)</b>	<b>1,110</b>	<b>(3,206)</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>5,125</b>	<b>(7,668)</b>	<b>3,082</b>	<b>5,432</b>	<b>3,152</b>
Effects of exchange rate changes on the balance of cash held in foreign currency		40	–	(87)	9	(21)
Opening balance of cash and cash equivalents		4,138	8,648	1,143	3,619	488
<b>Closing cash and cash equivalents balance</b>		<b>9,303</b>	<b>980</b>	<b>4,138</b>	<b>9,060</b>	<b>3,619</b>
<i>Made up of:</i>						
Cash		4,303	980	4,138	4,060	3,619
Short-term deposits		5,000	–	–	5,000	–
<b>Closing cash and cash equivalents balance</b>		<b>9,303</b>	<b>980</b>	<b>4,138</b>	<b>9,060</b>	<b>3,619</b>

The accompanying 'Notes to the Financial Statements' are an integral part of, and should be read in conjunction with, this 'Cash Flow Statement'.



# Notes to the Financial Statements

for the year ended 30 June 2008

## 1 Reporting entity

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

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. The consolidated (or 'Group') Financial Statements comprise NIWA (the 'Parent Company'), its subsidiaries and the Group's interest in associates and joint ventures.

## 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 the 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 reporting standards (IFRS).

### 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 reporting 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 parent and the consolidated entity changed their accounting policies on 1 July 2006 to comply with NZ IFRS. This transition is accounted for in accordance with NZ IFRS-1 First time Adoption of New Zealand Equivalents to International Financial Reporting Standards, with 1 July 2006 as the date of transition. An explanation of the impact of transition on the Financial Statements is discussed in notes 4 and 30.

The accounting policies have been applied in preparing the Financial Statements for the year ended 30 June 2008, the comparative information for the year ended 30 June 2007 and in preparing the opening NZ IFRS balance sheet as at 1 July 2006, the date of transition.

### Adoption of new and revised standards

#### Standards and interpretations in issue not yet adopted

The following new standards and interpretations had been issued at reporting date but are not yet effective.

Application of the following standards which are effective from 1 January 2009 unless otherwise stated will require additional disclosure or will have no material impact on the financial statements in the period of initial application:

- (Revised) Presentation of Financial Statements (NZ IAS 1)
- (Revised) First time Adoption of New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS 1)
- (Revised) Business combinations (NZ IFRS 3) (effective for accounting periods beginning on or after 1 July 2009)
- (Revised) Insurance Contracts (NZ IFRS 4)
- Operating Segments (NZ IFRS 8) (effective for accounting periods beginning on or after 1 July 2008)
- Consolidated and Separate Financial Statements – Cost of an Investment in a subsidiary, Jointly Controlled Entity or Associate (NZ IAS 27) (effective for accounting periods beginning on or after 1 July 2009)
- Improvements to New Zealand Equivalents to International Financial Reporting Standards
- Omnibus Amendments (2007) (effective for accounting periods beginning on or after 1 January 2008)

Application of the following standards and interpretations which are effective from 1 January 2009 unless otherwise stated will not have any impact on the financial report of the company because they are not relevant to the company's current activities:

- (Revised) Share Based Payments (NZ IFRS 2)
- Service Concession Arrangements (NZ IFRIC 12) (effective for accounting periods beginning on or after 1 July 2008)
- Customer Loyalty Programmes (NZ IFRIC 13) (effective for accounting periods beginning on or after 1 July 2008)
- The limit on a defined benefit asset, minimum funding requirements and their interaction (NZ IFRIC 14)
- Agreements for the Construction of Real Estate (NZ IFRIC 15)
- Hedges of a Net Investment in a Foreign Operation (NZ IFRIC 16) (effective for accounting periods beginning on or after 1 October 2008)
- (Revised) Borrowing Costs (NZ IAS 23)
- (Revised) Puttable financial instruments and obligations arising on liquidation (NZ IAS 32)

### Critical accounting estimates and judgements

The preparation of financial statements requires the use of certain critical accounting estimates and assumptions concerning the future. It also requires the company to exercise its judgement in the process of applying the Group's accounting policies.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

In particular, information about significant areas of estimation uncertainty and critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements is included in the following notes:

- Note 12 Provision for employee entitlements
- Note 14 Valuation of revenue in advance
- Note 16 The estimated useful economic lives of assets

### 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

##### i) Consolidation of subsidiaries

Subsidiaries are those entities controlled by NIWA. The Group's financial statements have been prepared using the purchase method of consolidation. This involves adding corresponding assets, liabilities, revenues, and expenses on a line-by-line basis. All intercompany transactions, balances, and unrealised profits are eliminated on consolidation. The results of any subsidiaries that become or cease to be part of the Group during the year are consolidated from the date that control commenced or until the date that control ceased.

The interest of minority shareholders is stated at the minority's proportion of the fair values of the identifiable assets and liabilities recognised on acquisition together with the minority interests' share of post acquisition surpluses.

##### ii) Accounting for associates

An associate is an investee, not being a subsidiary or joint venture arrangement, over which the Group has the capacity to exercise significant influence, but not control, through participation in the financial and operating policy decisions of the investee.

The Group Financial Statements incorporate the Group's interest in associates, using the equity method, as from the date that significant influence commenced or until the date the significant influence ceased. The investments are recorded at the lower of carrying value and recoverable amount.

The Group recognises its share of the associates' net surplus or deficit for the year in its Statement of Financial Performance. The Group recognises its share of other post-acquisition movements in reserves in its Statement of Changes in Equity. Dividends received from associates are recognised directly against the carrying value of the investment. In the Statement of Financial Position the investment and the reserves are increased by the Group's share of the post-acquisition retained surplus and other post-acquisition reserves of the associates. In assessing the Group's share of earnings of associates, the Group's share of any unrealised profits between group companies and associates is eliminated.

## Notes to the Financial Statements

for the year ended 30 June 2008

**iii) Accounting for joint ventures**

Joint ventures are joint arrangements between NIWA and another party in which there is a contractual agreement to undertake a specific business project in which the venturers share joint and several liabilities in respect of the costs and liabilities of the project and share in any resulting output. NIWA's share of the assets, liabilities, revenues, and expenses of the joint ventures is incorporated into the Parent Company and Group Financial Statements on a line-by-line basis using the proportionate consolidation method.

**(b) Revenue recognition****Rendering of services**

Revenue from services rendered is recognised in the Statement of Financial Performance 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 in 'Payables and accruals' in 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 risk 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 shareholder's 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 entity in return for past or future compliance with certain conditions relating to the operating activities of the entity. 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 Statement of Financial Performance on a systematic basis in the equivalent period in which the expense is recognised.

There were no Government grants received during the year.

**(d) 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.

**(e) 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 as 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.

**(f) Impairment of assets**

Intangible and tangible assets that have an indefinite life are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation 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 to the 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 to profit or loss.

**(g) 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.

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 as an expense in the Statement of Financial Performance, except when it relates to items credited or debited direct to equity, in which case the deferred or current tax is recognised directly to equity. 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.

**(h) Identifiable 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. Identifiable intangible assets are reviewed for indications of impairment each year. The estimated useful life and amortisation method are reviewed each balance date.

The estimated useful life for the copyrights is 5 years.

The estimated useful life for software is 1 year.

**(i) Development costs**

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 technical feasibility of the product or process can be demonstrated;
- the ability to use or sell the intangible asset;
- 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;
- 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 further related costs, is likely to be recovered from related future economic benefits.

## Notes to the Financial Statements

for the year ended 30 June 2008

When the criteria above no longer apply, the unamortised balance of development costs is recognised as an expense.

Development costs recognised as an asset are amortised in the Statement of Financial Performance on a straight-line basis over the period of expected benefits.

When the unamortised balance of development costs exceeds the recoverable amount, the excess is written down and recognised immediately 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 intangible assets acquired separately.

The estimated useful life is between 1 and 5 years.

There were no development costs during the year.

**(j) Property, plant, and equipment**

Property, plant, and equipment (except land and certain buildings) are stated at historical cost less accumulated depreciation to date less any impairment losses. Assets are reviewed annually for indications of impairment.

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.

**(k) 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:

<b>Buildings &amp; leasehold improvements</b>	
Buildings	40 years
Leasehold improvements, freehold property	10 years
Leasehold improvements, rented property	5 years
<b>Vessels</b>	
RV <i>Tangaroa</i> hull	26 years
RV <i>Kaharoa</i> hull	16 years
<b>Plant &amp; equipment</b>	
Plant & equipment	10 years
Scientific equipment	4 years
<b>Electronic data processing equipment</b>	
Supercomputer	5 years
Electronic data processing equipment	3 years
Office equipment	5 years
Furniture & fittings	10 years
Motor vehicles	4 years
Small boats	5 years

**(l) Receivables**

Receivables are classified 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 the Statement of Financial Performance.

**(m) 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.

**(n) Foreign currencies****i) Transactions**

Transactions in foreign currencies are converted to the functional currency of New Zealand dollars by applying the foreign currency amount, to the spot exchange rate between the functional currency and the foreign currency at the date of transaction. 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 the Statement of Financial Performance.

**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 the Statement of Financial Performance.

Goodwill and fair value adjustment arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operations and translated at the exchange rate ruling at balance date.

**(o) Leases**

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

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.

**(p) 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 Financial Performance. 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 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 money market, net of outstanding bank drafts.

**(q) Net interest and other financing costs**

Finance income comprises interest income on funds invested and gains on hedging instruments that are recognised in the Statement of Financial Performance. Interest income is recognised as it accrues, using the effective interest method.

Finance expenses comprise interest expense on borrowings and losses on hedging instruments that are recognised in the Statement of Financial Performance. All borrowing costs are recognised using the effective interest method.

**(r) Financial instruments****Derivative financial instruments**

The Group uses 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 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 remeasurement to fair value is recognised immediately in the Statement of Financial Performance. However, where derivatives qualify for hedge accounting, recognition of any resultant gain or loss depends on the nature of the hedging relationship.

**1) Cash flow hedges:**

Changes in the fair value of the derivative hedging instrument designated as a cash flow hedge are recognised directly in equity to the extent that the hedge is effective. If the hedge is ineffective, changes in the fair value are recognised in the Statement of Financial Performance.

There were no derivative financial instruments outstanding at 30 June 2008.

**Non-derivative financial instruments**

Non-derivative financial instruments comprise investments in equity and debt securities, trade and other receivables, cash and cash equivalents, loans and borrowings, and trade and other payables.

Subsequent to initial recognition, investments in subsidiaries are measured at cost. Investments in associates are accounted for under the equity method in the consolidated financial statements and recorded at cost in the parent's financial statements.

## Notes to the Financial Statements

for the year ended 30 June 2008

Other 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 and re-evaluates this designation at each reporting date:

1) Financial assets at fair value through profit or loss:

Financial assets held for trading purposes are classified as current assets and are stated at fair value, and changes resulting in a gain or loss are recognised in the Statement of Financial Performance.

2) Held to maturity investments:

Held to maturity investments are fixed or have determinable payments and fixed maturities that the Group has the positive intention and ability to hold to maturity. These are recorded at amortised cost using the effective interest method less impairment; revenue is recognised on an effective yield basis.

3) Available for sale financial assets:

Available for sale investments are stated at fair value less impairment. Gains and losses arising from changes in fair value are recognised directly to a revaluation reserve until the investment is disposed of or determined to be impaired, at which time the accumulated gain or loss is recognised in the Statement of Financial Performance.

4) Loans and receivables:

Loans and receivables have fixed or determinable payments that 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 which are classified as a non-current asset. These are recorded at amortised cost less impairment.

*Impairment of financial assets*

Financial assets, other than those at fair value, 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.

*Financial liabilities*

Financial liabilities are classified as either financial liabilities at fair value or other financial liabilities.

Financial liabilities are classified as at fair value 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 has been incurred principally for the purpose of repurchasing 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 liability other than a financial liability 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 liability 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.

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

Other financial liabilities, including borrowings, are initially measured at fair value, 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 exactly 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.

## 4 Transition to NZ IFRS

### Application of NZ IFRS 1

The financial statements for the year ended 30 June 2008 are the first annual financial statements that comply with NZ IFRS. The financial statements have been prepared as described in note 3. The Group has applied NZ IFRS 1 in preparing the consolidated financial statements.

The Group's and the company's transition date was 1 July 2006 and the opening NZ IFRS Statement of Financial Position is prepared at that date. The reporting date of these financial statements is 30 June 2008. The Group and the company has restated the 2007 comparative figures as set out in the financial statements for compliance with NZ IFRS.

In preparing the consolidated financial statements in accordance with NZ IFRS 1, the Group has applied the mandatory exceptions and certain optional exemptions from full retrospective application from NZ IFRS.

The Group has elected to apply the following optional exemptions from full retrospective application.

#### a) *Cumulative translation differences exemption*

The Group has elected to set the cumulative translation differences for all foreign subsidiaries to zero at 1 July 2006.

#### b) *Fair value as deemed cost exemption*

The Group has elected to measure certain items of property, plant and equipment at fair value as at 1 July 2006 and use that fair value as its deemed cost as at 1 July 2006.

#### c) *Business combinations exemption*

The Group has applied the business combinations exemption in NZ IFRS 1. Business combinations that took place prior to the 1 July 2006 transition date have not been restated.

## Notes to the Financial Statements

for the year ended 30 June 2008

**5 Revenues and other gains***in thousands of New Zealand dollars*

	Group 2008	Group 2007	Parent 2008	Parent 2007
Sale of goods	14,129	9,790	2,732	2,314
Rendering of services	105,837	103,629	107,142	105,179
Dividends	2	–	2,502	7,000
<b>Total operating revenue</b>	<b>119,968</b>	<b>113,419</b>	<b>112,376</b>	<b>114,493</b>
Other gains	16	128	76	–
<b>Total operating revenue and other gains</b>	<b>119,985</b>	<b>113,547</b>	<b>112,452</b>	<b>114,493</b>

Revenue for the 2008 and 2007 period are generated from continuing operations.

**6 Operating expenses****Operating expenses***Operating expenses include:*

Rental and operating lease costs	1,045	1,232	986	1,215
Remuneration of directors	304	259	304	254
Net (gain)/loss on sale of property, plant, & equipment	21	161	(76)	10
Net (gain)/loss on sale of associates	97	(93)	–	–
Bad debts written off	14	–	14	–
Movement within doubtful debt provision	(48)	18	(48)	18
(Gain)/loss on foreign currency cash held	40	(87)	9	(21)
Impairment on intercompany advances	–	–	–	240

**Auditors' remuneration**

Auditors' remuneration to Deloitte comprise:

Audit of the financial statements	113	103	95	93
Other assurance services	–	–	–	–
<b>Total auditors' remuneration</b>	<b>113</b>	<b>103</b>	<b>95</b>	<b>93</b>

**7 Net interest and other financing costs**

Interest income on bank deposits	685	364	679	354
Interest income on debtors	–	–	–	–
<b>Finance income</b>	<b>685</b>	<b>364</b>	<b>679</b>	<b>354</b>
Interest paid by subsidiary companies	–	–	–	–
Finance expense	23	107	–	86
<b>Net interest and other financing costs</b>	<b>662</b>	<b>257</b>	<b>679</b>	<b>268</b>

**8 Income tax**

The income tax expense is determined as follows:

**Income tax expense**

Current tax	5,110	4,580	3,469	2,669
Deferred tax	(896)	(114)	(693)	(9)
<b>Income tax expense</b>	<b>4,214</b>	<b>4,466</b>	<b>2,776</b>	<b>2,660</b>

**Reconciliation of income tax expense**

<b>Operating profit before income tax</b>	<b>14,335</b>	<b>14,279</b>	<b>11,203</b>	<b>15,783</b>
Tax at current rate of 33%	4,731	4,712	3,697	5,208
Adjustments to taxation:				
Intercompany dividends	–	–	(750)	(2,310)
Share of associate's net gain	11	20	–	–
Other non deductible expenses	63	10	18	90
Deferred tax adjustment for tax rate decrease	–	(442)	–	(287)
Under/(over) provision in previous year	(591)	166	(189)	(41)
<b>Income taxation expense</b>	<b>4,214</b>	<b>4,466</b>	<b>2,776</b>	<b>2,660</b>

The 2007 budget introduced the reduction in the company tax rate from 33% to 30% from 1 July 2008. The rate reduction impacts the deferred tax calculation for the 2007 year. The change recognised from the reduction of the rate on deferred tax is recognised in the taxation expense in the income statement.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 9 Equity

## Group equity

*in thousands of New Zealand dollars*

	Share capital	Retained earnings	Minority interest	Total equity
Balance at 1 July 2007	24,799	49,551	(11)	74,339
Total recognised income and expenses	–	10,061	60	10,121
Dividends to equity holders	–	(187)	–	(187)
Balance at 30 June 2008	24,799	59,425	49	84,273
Balance at 1 July 2006	24,799	39,847	(19)	64,627
Total recognised income and expenses	–	9,805	8	9,813
Dividends to equity holders	–	(101)	–	(101)
Balance at 30 June 2007	24,799	49,551	(11)	74,339

## Parent equity

*in thousands of New Zealand dollars*

	Share capital	Retained earnings	Total equity
Balance at 1 July 2007	24,799	42,885	67,684
Total recognised income and expenses	–	8,427	8,427
Dividends to equity holders	–	(187)	(187)
Balance at 30 June 2008	24,799	51,125	75,924
Balance at 1 July 2006	24,799	29,863	54,662
Total recognised income and expenses	–	13,123	13,123
Dividends to equity holders	–	(101)	(101)
Balance at 30 June 2007	24,799	42,885	67,684

## 9a Share Capital

*in thousands of New Zealand dollars*

	Group 2008	Group 2007	Parent 2008	Parent 2007
Issued and fully-paid capital	24,799	24,799	24,799	24,799
24,798,700 ordinary shares (2007 24,798,700 ordinary shares)				

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

## 10 Dividends

Payments were made on:

31 January 2007	–	(101)	–	(101)
22 May 2008	(187)	–	(187)	–

These dividend payments were made to the Government of New Zealand (the Crown) as the sole shareholder.

## 11 Unsecured loan

Shareholder loan	241	185	–	–
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The loan is unsecured 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 valued using the effective interest rate method; interest expense is recognised on an effective yield basis annually.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 12 Provision for employee entitlements

*in thousands of New Zealand dollars*

	Group 2008	Group 2007	Parent 2008	Parent 2007
<b>Accrued remuneration</b>				
Salary accrual	1,629	4,129	1,451	3,876
Annual leave	4,786	3,561	4,494	3,318
Training leave	97	210	97	210
Long service leave	1,094	1,071	1,076	964
Retirement leave	813	928	725	835
<b>Total employee entitlement provision</b>	<b>8,419</b>	<b>9,899</b>	<b>7,843</b>	<b>9,203</b>
<b>Comprising:</b>				
Current	7,607	8,971	7,118	8,368
Non-current	812	928	725	835
Balance at the beginning of the year	9,988	9,477	9,203	8,797
Additional provision recognised	2,901	4,067	2,562	3,568
Amount utilised	(4,470)	(3,645)	(3,922)	(3,162)
<b>Balance at the end of the year</b>	<b>8,419</b>	<b>9,899</b>	<b>7,843</b>	<b>9,203</b>

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.

## 13 Deferred tax liability and assets

## 13a Deferred tax liability

The balance comprises temporary differences attributable to:

*Amounts recognised in profit or loss*

Provisions and prepayments	(678)	(42)	(527)	32
Depreciation	4,154	4,466	2,632	2,839
	3,476	4,424	2,105	2,871
<i>Amounts recognised directly in equity</i>				
Cash flow hedges	-	-	-	-
Deferred tax liabilities	-	-	-	-

**Movements**

Balance at the beginning of the year	4,424	4,538	2,871	2,880
Under-provided in prior years	(52)	-	(73)	-
Charged to the Statement of Financial Performance	(896)	(114)	(693)	(9)
<b>Balance at the end of year</b>	<b>3,476</b>	<b>4,424</b>	<b>2,105</b>	<b>2,871</b>

## 13b Imputation credits

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 (2004) confirms this requirement.

## 14 Payables and accruals

Trade payables	10,221	9,341	9,531	8,476
Revenue in advance	7,063	7,080	7,094	6,975
<b>Total</b>	<b>17,284</b>	<b>16,421</b>	<b>16,625</b>	<b>15,451</b>

Trade payables are payable per creditor terms.

Revenue in advance relates to contracted services which have been billed in advance, yet not recognised as revenue in the Financial Statement of Performance.

Assumptions underlying the revenue in advance include the performance of employees to complete the contract in the future specified time frames, internal procedures, and the review of the procedures which calculate the revenue in advance.

## 15 Short-term advance facility

A short-term advance facility is available from Westpac Banking Corporation.

Advance facility	-	-	-	-
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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 with a limit available to borrow of \$3.5 million.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 16 Property, plant, and equipment

<i>in thousands of New Zealand dollars</i>	Land	Buildings & leasehold improvements	Vessels	Plant & equipment
<b>Group</b>				
<b>Cost</b>				
Balance at 1 July 2007	12,429	41,960	18,423	53,677
Additions	-	1,153	-	7,827
Transfers	-	(565)	-	20
Disposals	-	(23)	-	(903)
Foreign currency	-	-	-	7
Balance at 30 June 2008	12,429	42,526	18,423	60,627
<b>Accumulated depreciation and impairment losses</b>				
Balance at 1 July 2007	-	9,046	8,781	41,081
Depreciation charge	-	2,166	739	4,303
Impairment	-	45	-	6
Transfers	-	(459)	-	-
Disposals	-	(23)	-	(890)
Balance as at 30 June 2008	-	10,778	9,520	44,500
<b>Net book value at 30 June 2008</b>	<b>12,429</b>	<b>31,748</b>	<b>8,903</b>	<b>16,127</b>
<b>Group</b>				
<b>Cost</b>				
Balance at 1 July 2006	12,429	40,853	18,423	49,594
Additions	-	1,171	-	4,496
Transfers	-	-	-	679
Disposals	-	(64)	-	(1,092)
Balance at 30 June 2007	12,429	41,960	18,423	53,677
<b>Accumulated depreciation and impairment losses</b>				
Balance at 1 July 2006	-	6,358	8,042	38,241
Depreciation charge	-	2,752	739	3,932
Impairment	-	-	-	-
Disposals	-	(64)	-	(1,092)
Balance as at 30 June 2007	-	9,046	8,781	41,081
<b>Net book value at 30 June 2007</b>	<b>12,429</b>	<b>32,914</b>	<b>9,642</b>	<b>12,596</b>
<b>Parent</b>				
<b>Cost</b>				
Balance at 1 July 2007	12,429	41,781	-	47,117
Additions	-	1,153	-	7,460
Transfers	-	(566)	-	-
Disposals	-	(23)	-	(903)
Balance at 30 June 2008	12,429	42,346	-	53,674
<b>Accumulated depreciation and impairment losses</b>				
Balance at 1 July 2007	-	8,924	-	35,561
Depreciation charge	-	2,153	-	3,995
Transfers	-	(459)	-	-
Impairment	-	45	-	6
Disposals	-	(23)	-	(890)
Balance as at 30 June 2008	-	10,640	-	38,673
<b>Net book value at 30 June 2008</b>	<b>12,429</b>	<b>31,705</b>	<b>-</b>	<b>15,001</b>
<b>Parent</b>				
<b>Cost</b>				
Balance at 1 July 2006	12,429	40,663	-	43,381
Additions	-	1,125	-	5,438
Transfers	-	-	-	(606)
Disposals	-	(7)	-	(1,096)
Balance at 30 June 2007	12,429	41,781	-	47,117
<b>Accumulated depreciation and impairment losses</b>				
Balance at 1 July 2006	-	6,238	-	33,044
Depreciation charge	-	2,693	-	3,613
Impairment	-	-	-	-
Disposals	-	(7)	-	(1,096)
Balance as at 30 June 2007	-	8,924	-	35,561
<b>Net book value at 30 June 2007</b>	<b>12,429</b>	<b>32,857</b>	<b>-</b>	<b>11,556</b>



Electronic data processing equipment	Office equipment	Furniture & fittings	Motor vehicles	Small boats	Work in progress	Total
16,020	6,770	1,961	3,416	1,439	604	156,699
1,315	579	265	498	362	1,529	13,527
11	3	(17)	2	-	-	(549)
(829)	(159)	-	(348)	(16)	-	(2,279)
8	2	6	1	-	-	27
16,525	7,193	2,215	3,569	1,786	2,133	167,425
14,641	6,331	1,860	2,478	1,145	-	85,363
1,303	525	54	473	100	-	9,663
-	-	-	-	-	-	51
-	-	-	-	-	-	(459)
(798)	(159)	-	(344)	(17)	-	(2,231)
15,145	6,696	1,914	2,607	1,228	-	92,387
1,380	497	301	962	558	2,133	75,038
16,220	6,626	1,971	3,253	1,283	754	151,406
1,336	478	4	463	206	606	8,760
-	9	(9)	-	-	(756)	(77)
(1,536)	(343)	(5)	(300)	(50)	-	(3,390)
16,020	6,770	1,961	3,416	1,439	604	156,699
14,755	6,317	1,826	2,302	1,124	-	78,965
1,422	357	39	476	71	-	9,788
-	-	-	-	-	-	-
(1,536)	(343)	(5)	(300)	(50)	-	(3,390)
14,641	6,331	1,860	2,478	1,145	-	85,363
1,379	439	101	938	294	604	71,336
14,792	6,479	1,534	3,298	1,191	606	129,227
1,296	564	246	468	362	907	12,455
-	-	-	-	-	-	(566)
(829)	(159)	-	(348)	(16)	-	(2,276)
15,259	6,884	1,780	3,418	1,537	1,513	138,840
13,553	6,163	1,458	2,375	925	-	68,959
1,222	480	43	464	91	-	8,447
-	-	-	-	-	-	(459)
-	-	-	-	-	-	51
(827)	(159)	-	(344)	(17)	-	(2,259)
13,947	6,483	1,501	2,495	998	-	74,739
1,312	401	279	923	537	1,513	64,101
15,091	6,456	1,540	3,134	1,053	617	124,364
1,252	364	3	467	188	(547)	8,290
-	-	-	-	-	536	(70)
(1,551)	(341)	(9)	(303)	(50)	-	(3,357)
14,792	6,479	1,534	3,298	1,191	606	129,227
13,885	6,172	1,428	2,204	920	-	63,891
1,219	332	39	474	55	-	8,426
-	-	-	-	-	-	-
(1,551)	(341)	(9)	(303)	(50)	-	(3,357)
13,553	6,163	1,458	2,375	925	-	68,959
1,239	316	76	923	266	606	60,268

## Notes to the Financial Statements

for the year ended 30 June 2008

**16 Property, plant, and equipment (continued)**

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

**Assets held for sale**

*in thousands of New Zealand dollars*

	Group 2008	Group 2007	Parent 2008	Parent 2007
Property	107	–	107	–
<b>Total</b>	<b>107</b>	<b>–</b>	<b>107</b>	<b>–</b>

Property was reclassified from plant, property, and equipment to assets held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as completed within one year from the date of classification.

**16a Vessels**

As agreed with the shareholders, an amount has been identified within the Group for any shortfall between the current insured value of \$40 million and the estimated replacement cost of RV *Tangaroa*, in the event of the loss of that vessel. This has not been provided for in the Statement of Financial Position.

**17 Heritage assets**

NIWA has one collection and three databases that have been defined as heritage assets. Heritage assets are those assets held for the duration of their physical lives because of their unique scientific importance.

NIWA has the following heritage assets:

Type	Description
<b>Marine Benthic Biology Collection</b>	A national reference collection for marine invertebrates.
<b>National Climate Database</b>	A national electronic database of high quality climate information, including temperatures, rainfall, wind, and other climate elements.
<b>Water Resources Archive Database</b>	A national electronic database of river and lake locations throughout New Zealand, including levels, quality, and flows.
<b>New Zealand Freshwater Fish Database</b>	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 value of these heritage assets cannot be assessed with any reliability, and accordingly these assets have not been valued for reporting purposes.

**18 Identifiable intangibles**

*in thousands of New Zealand dollars*

	Software	Copyrights	Total
<b>Group</b>			
<b>Cost</b>			
Balance as at 1 July 2007	4,775	165	4,940
Additions	408	50	458
Disposals	(116)	–	(116)
Currency movements	–	–	–
Balance as at 30 June 2008	5,067	215	5,282
<b>Accumulated amortisation and impairment losses</b>			
Balance as at 1 July 2007	4,775	96	4,871
Amortisation	408	40	448
Impairment	–	–	–
Disposals	(116)	–	(116)
Currency movements	–	(8)	(8)
Balance as at 30 June 2008	5,067	128	5,195
<b>Net book value at 30 June 2008</b>	<b>–</b>	<b>87</b>	<b>87</b>

Identifiable intangibles such as copyrights and trademarks are amortised over their estimated useful lives.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 18 Identifiable intangibles (continued)

<b>Group</b>		Software	Copyrights	Total
<i>in thousands of New Zealand dollars</i>				
<b>Cost</b>				
Balance as at 1 July 2006		4,526	165	4,691
Additions		347	–	347
Disposals		(98)	–	(98)
Currency movements		–	–	–
Balance as at 30 June 2007		4,775	165	4,940
<b>Accumulated amortisation and impairment losses</b>				
Balance as at 1 July 2006		4,526	48	4,574
Amortisation		347	38	385
Impairment		–	–	–
Disposals		(98)	–	(98)
Currency movements		–	10	10
Balance as at 30 June 2007		4,775	96	4,871
<b>Net book value at 30 June 2007</b>		<b>–</b>	<b>69</b>	<b>69</b>
<b>Parent</b>				
<b>Cost</b>				
Balance as at 1 July 2007		4,575	–	4,575
Additions		311	–	311
Disposals		(117)	–	(117)
Currency movements		–	–	–
Balance as at 30 June 2008		4,769	–	4,769
<b>Accumulated amortisation and impairment losses</b>				
Balance as at 1 July 2007		4,575	–	4,575
Amortisation		311	–	311
Impairment		–	–	–
Disposals		(117)	–	(117)
Currency movements		–	–	–
Balance as at 30 June 2008		4,769	–	4,769
<b>Net book value at 30 June 2008</b>		<b>–</b>	<b>–</b>	<b>–</b>
<b>Parent</b>				
<b>Cost</b>				
Balance as at 1 July 2006		4,347	–	4,347
Additions		323	–	323
Disposals		(95)	–	(95)
Currency movements		–	–	–
Balance as at 30 June 2007		4,575	–	4,575
<b>Accumulated amortisation and impairment losses</b>				
Balance as at 1 July 2006		4,347	–	4,347
Amortisation		323	–	323
Impairment		–	–	–
Disposals		(95)	–	(95)
Currency movements		–	–	–
Balance as at 30 June 2007		4,575	–	4,575
<b>Net book value at 30 June 2007</b>		<b>–</b>	<b>–</b>	<b>–</b>

## Notes to the Financial Statements

for the year ended 30 June 2008

## 19 Receivables and prepayments

<i>in thousands of New Zealand dollars</i>	Group 2008	Group 2007	Parent 2008	Parent 2007
Trade receivables	20,049	19,787	19,159	19,209
Provision for doubtful debts	(10)	(58)	(10)	(58)
Prepayments	1,011	762	987	685
<b>Total</b>	<b>21,050</b>	<b>20,491</b>	<b>20,136</b>	<b>19,836</b>
<i>Classified as:</i>				
<b>Non-current</b>	335	688	335	688
<b>Current</b>	20,715	19,803	19,801	19,148
	<b>21,050</b>	<b>20,491</b>	<b>20,136</b>	<b>19,836</b>

Included in the Group's trade receivables balance at the end of the year is one debtor's balance which equates to 35% (2007 41%) of the total trade receivables balance. Contracts with the 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, local government, and private sectors which have little perceived risk associated with them.

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.

Included in the Group's trade receivable balance are debtors with a carrying amount of \$1,203k (2007 \$700k) 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 these balances.

Included in the Parent's trade receivable balance are debtors with a carrying amount of \$1,198k (2007 \$566k) 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 these balances.

The below balances indicate the past due receivables which have not been provided for as the amounts are still recoverable. The balances below exclude the Crown-owned debtor who has a significant amount owing to the Group as indicated above for which management have indicated there is no perceived credit risk.

## Ageing past due trade receivables

60-90 days	325	300	325	218
91-180 days	725	365	720	313
Over 181 days	153	35	153	35
	<b>1,203</b>	<b>700</b>	<b>1,198</b>	<b>566</b>

Included in the provision for doubtful debts are individually selected debtors \$10k (2007 \$58k) for the Group and the Parent which are unlikely to be recoverable and were all over 181 days overdue. 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.

## Movement in the provision for doubtful debts

Balance at the beginning of the year	58	41	58	41
Impairment loss recognised	-	56	-	56
Impairment losses reversed	-	-	-	-
Amounts written off as uncollectible	(35)	-	(35)	-
Amounts recovered during the year	(13)	(39)	(13)	(39)
	<b>10</b>	<b>58</b>	<b>10</b>	<b>58</b>

## 20 Inventory

Consumables	1,054	389	-	16
Finished goods	1,139	1,325	948	1,103
Work in progress	300	557	216	111
<b>Total</b>	<b>2,493</b>	<b>2,271</b>	<b>1,164</b>	<b>1,230</b>

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

## Notes to the Financial Statements

for the year ended 30 June 2008

## 21 Reconciliation of the profit for the period to net cash from operating activities

<i>in thousands of New Zealand dollars</i>	Group 2008	Group 2007	Parent 2008	Parent 2007
<b>Profit for the period</b>	<b>10,061</b>	<b>9,805</b>	<b>8,427</b>	<b>13,123</b>
<b>Add/(less) items classified as investing activities</b>				
Net loss/(gain) on disposal of property, plant, & equipment	21	161	(76)	10
Net loss/(gain) on disposal of associate	97	(93)	–	–
	<b>118</b>	<b>68</b>	<b>(76)</b>	<b>10</b>
<b>Add/(less) non-cash items</b>				
Share of associate's (profit)/deficit for the year	(38)	(62)	–	–
Depreciation and impairment	9,714	9,788	8,498	8,426
(Surplus)/deficit attributable to minority interests	(60)	(8)	–	–
Amortisation of identifiable intangibles	448	385	311	323
Unrealised changes in the value of subsidiaries	57	18	–	–
(Gain)/loss on foreign currency cash held	(40)	87	(9)	21
Increase/(decrease) in employee entitlements	(116)	(73)	(110)	(79)
Increase/(decrease) in deferred tax liability	(948)	(114)	(766)	(8)
(Increase)/decrease in deferred tax asset	–	–	–	–
	<b>9,017</b>	<b>10,021</b>	<b>7,924</b>	<b>8,683</b>
<b>Add/(less) movements in working capital items</b>				
Increase/(decrease) in payables and accruals	862	(771)	1,174	(397)
Increase/(decrease) in employee entitlements	(1,364)	495	(1,252)	485
(Increase)/decrease in receivables and prepayments	(559)	(2,187)	(300)	(2,294)
(Increase)/decrease in inventory and uninvoyed receivables	136	(3,059)	299	(2,935)
(Increase)/decrease in taxation receivable	431	(1,575)	297	(1,797)
	<b>(494)</b>	<b>(7,097)</b>	<b>218</b>	<b>(6,938)</b>
<b>Net cash flows from operating activities</b>	<b>18,702</b>	<b>12,797</b>	<b>16,493</b>	<b>14,878</b>

## 22 Investments

Investment in subsidiaries	–	–	12,709	12,709
Investment in associates	–	559	–	500
	<b>–</b>	<b>559</b>	<b>12,709</b>	<b>13,209</b>

## Investments in subsidiaries

Name	Principal activities	Ownership and voting interest	
		2008 %	2007 %
NIWA Vessel Management Ltd	Vessel charters for scientific research	100	100
NIWA Natural Solutions Ltd	Commercialisation of NIWA products	100	100
NIWA Australia Pty Ltd	Scientific research and consultancy services	100	100
NIWA Environmental Research Institute	Scientific research and consultancy services	100	100
NIWA (USA), Incorporated	Scientific research and consultancy services	100	100
Unidata Pty Ltd	Supplier of environmental technology products	80	80
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 the only subsidiaries incorporated in New Zealand. NIWA Australia Pty Ltd and Unidata Pty Ltd are incorporated in Australia. NIWA (USA), Incorporated and NIWA Environmental Research Institute are incorporated in the USA.

NIWA has an A\$100 equity investment in NIWA Australia Pty Ltd, a US\$1 equity investment in NIWA (USA), Incorporated, and an A\$250,000 equity investment in Unidata Pty Ltd. NIWA has no equity investment in NIWA Environmental Research Institute (non-stock corporation). NIWA Environmental Research Institute is a not-for-profit entity which has been classified as a publicly supported organisation by the Internal Revenue Service, and as such is exempt from US federal income tax. NIWA Environmental Research Institute conducts scientific research with a federal or state focus in the USA.

EcoConnect Ltd has an authorised share capital of \$300,000, divided into 300 000 ordinary shares of \$1.00 each, all of which have been issued, are unpaid, and are beneficially owned by NIWA at 30 June 2008. EcoConnect Ltd had not commenced trading by 30 June 2008.

No shares in subsidiaries were disposed of during the year ended 30 June 2008.

## Investments in associates, equity accounted

Ensid Investments Ltd and Ensid Technologies Ltd were sold on 29 September 2006. These were both incorporated in New Zealand with their principal activities being intellectual property investments and commercialisation of intellectual property respectively.

The NIWA Group acquired 50% ownership in CRL Energy Ltd on 1 April 2006. This was incorporated in New Zealand with the principal activity being energy and environmental research.

The Group's share of profit in the equity accounted associate for the year was \$38k (2007 \$62k).

CRL Energy Ltd was sold on 30 June 2008.

## Notes to the Financial Statements

for the year ended 30 June 2008

**22 Investments (continued)**

Movements in the carrying value of equity accounted associates

*in thousands of New Zealand dollars*

	Group 2008	Group 2007
Balance at 1 July	559	497
Share of profit/(loss)	38	62
Sale of Ensid Investments Ltd	–	(61)
Sale of Ensid Technologies Ltd	–	(32)
Sale of CRL Energy Ltd	(500)	–
(Loss)/ gain on sale	(97)	93
Balance at 30 June	–	559

**23 Intercompany***in thousands of New Zealand dollars*

	Parent 2008	Parent 2007
NIWA non-current liability	10,884	9,587

An amount of \$12.0 million is 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. This amount is offset by Parent Company receivables and advances to NIWA Australia Pty Ltd of \$298,277, NIWA Environmental Research Institute of \$56,957, NIWA (USA), Incorporated of \$6,969, NIWA Natural Solutions Ltd of \$30,537, and Unidata Pty Ltd of \$809,915, resulting in a net non-current liability of \$10.8 million. All balances are unsecured and have no set repayment terms, but 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 \$9.1 million (2007: \$10.9 million) and purchased workshop services totalling \$152,962 (2007: \$58,712). NIWA Vessel Management Ltd contracted services from its Parent, NIWA Science, totalling \$581,783 (2007: \$194,969).

During the year NIWA contracted scientific research from its subsidiary NIWA Australia Pty Ltd totalling Nil (2007: Nil) and provided research services to NIWA Australia Pty Ltd of \$304,411 (2007: \$392,692).

NIWA earned revenue of \$42,500 (2007: \$87,565) from research subcontracts with NIWA Environmental Research Institute.

NIWA Natural Solutions Ltd purchased products from NIWA of Nil (2007: \$709,659).

NIWA charged its subsidiaries for administration expenses and management services totalling \$1.0 million for the financial year (2007: \$1.1 million).

There were no other significant transactions between any of the companies in the Group. All transactions with subsidiaries are carried out on an arms-length basis.

**24 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 the Institute of Geological and Nuclear Sciences 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.

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

*in thousands of New Zealand dollars*

	Group 2008	Group 2007
Current assets	39	84
Non-current assets	–	–
Current liabilities	–	–
Non-current liabilities	–	–
Income	1,778	1,778
Expenses	1,778	1,778

## Notes to the Financial Statements

for the year ended 30 June 2008

## 25 Related party transactions

The Government of New Zealand (the Crown) is the ultimate shareholder of the NIWA Group. All transactions with other Government-owned entities are carried out on an arms-length basis.

Research activities revenue includes amounts received from the Crown or Crown-owned entities as follows:

<i>in thousands of New Zealand dollars</i>	Group 2008	Group 2007	Parent 2008	Parent 2007
Public Good Science and Technology				
Contract funding	45,453	44,324	45,453	44,324
Capability Fund	10,083	9,094	10,083	9,094
Ministry of Fisheries	15,127	17,183	15,127	17,183
Ministry for the Environment	146	228	146	228
Department of Conservation	1,386	1,287	1,306	1,287
Land Information New Zealand	6,917	4,407	3,846	1,068
Genesis Energy	1,132	921	1,132	921
Meridian Energy	1,474	1,328	1,474	1,328
Mighty River Power	178	585	178	585
Ministry of Agriculture & Forestry	2,866	4,728	2,866	4,728

The NIWA Group did not write off or forgive any related party balances during the year.

Other operating expenses include amounts paid to the Crown or Crown-owned entities as follows:

Genesis Energy	933	802	933	802
Mighty River Power	212	100	212	100
Air New Zealand	1,634	1,291	1,539	1,207
AgResearch Ltd	373	180	373	180
ESR Ltd	133	116	133	116
Industrial Research Ltd	421	265	421	265
Geological and Nuclear Sciences	479	517	479	517
Landcare Research Ltd	319	380	319	380
Scion	182	167	182	167
Crop and Food Research	124	–	124	–
University of Waikato	183	303	183	303
University of Auckland	476	154	476	154
University of Canterbury	427	437	427	437
University of Otago	973	1,170	973	1,170

## Key management personnel compensations

Short-term benefits	4,575	3,294	4,403	3,122
	<b>4,575</b>	<b>3,294</b>	<b>4,403</b>	<b>3,122</b>

The table above includes remuneration of the Chief Executive and his senior management team.

## 26 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 return on equity to be 9.0% every year. 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 has historically met the targeted return on equity each year. The Group elected to measure certain items of land, property, plant, and equipment at fair value and use that fair value as its deemed cost on transition to IFRS. The fair value was determined with reference to market prices at the time of the valuation at 1 July 2006. This has resulted in a decrease in return on equity from 22.6% to 14.1% in 2007.

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.

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 generally accepted pricing models based on discounted cash flow analysis using prices from observable current market transactions and dealer quotes for similar instruments;
- 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; and
- the fair value of financial guarantee contracts is determined using pricing models where the main assumptions are the probability of default by the specified counterparty extrapolated from market-based credit information and the amount of loss, given default.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 26 Financial instruments (continued)

## Categories of financial instruments

## Group

in thousands of New Zealand dollars

Balance at 30 June 2008	Note	Loans and receivables	Financial liabilities at amortised cost	Investment in associates accounted for using the equity method	
<b>Assets</b>					
Cash and cash equivalents		9,303	-	-	
Trade receivables	19	20,039	-	-	
Investments	22	-	-	-	
Total financial assets		29,342	-	-	29,342
Total non-financial assets					84,765
<b>Total assets</b>					<b>114,107</b>
<b>Liabilities</b>					
Trade payables	14	-	10,221	-	
Unsecured loans	11	-	241	-	
Intercompany	23	-	-	-	
Total financial liabilities		-	10,462	-	10,462
Total non-financial liabilities					18,958
<b>Total liabilities</b>					<b>29,420</b>

## Balance at 30 June 2007

<b>Assets</b>					
Cash and cash equivalents		4,138	-	-	
Trade receivables	19	19,729	-	-	
Investments	22	-	-	559	
Total financial assets		23,867	-	559	24,426
Total non-financial assets					80,842
<b>Total assets</b>					<b>105,268</b>
<b>Liabilities</b>					
Trade payables	14	-	9,341	-	
Unsecured loans	11	-	185	-	
Intercompany	23	-	-	-	
Total financial liabilities		-	9,526	-	9,526
Total non-financial liabilities					21,403
<b>Total Liabilities</b>					<b>30,929</b>

## Parent

in thousands of New Zealand dollars

Balance at 30 June 2008	Note	Loans and receivables	Financial liabilities at amortised cost	Investment in associates accounted for using the equity method	Investment in subsidiary accounted for at cost	
<b>Assets</b>						
Cash and cash equivalents		9,060	-	-	-	
Trade receivables	19	19,149	-	-	-	
Investments	22	-	-	-	12,709	
Total financial assets		28,209	-	-	12,709	40,918
Total non-financial assets						72,907
<b>Total assets</b>						<b>113,825</b>
<b>Liabilities</b>						
Trade payables	14	-	9,531	-	-	
Intercompany	23	10,884	-	-	-	
Total financial liabilities		10,884	9,531	-	-	20,415
Total non-financial liabilities						17,042
<b>Total liabilities</b>						<b>37,457</b>



## Notes to the Financial Statements

for the year ended 30 June 2008

## 26 Financial instruments (continued)

*in thousands of New Zealand dollars*

Balance at 30 June 2007	Note	Loans and receivables	Financial liabilities at amortised cost	Investment in associates accounted for using the equity method	Investment in subsidiary accounted for at cost	
<b>Assets</b>						
Cash and cash equivalents		3,619	–	–	–	
Trade receivables	19	19,151	–	–	–	
Investments	22	–	–	500	12,709	
Total financial assets		22,770	–	500	12,709	35,979
Total non-financial assets						68,817
<b>Total assets</b>						<b>104,796</b>
<b>Liabilities</b>						
Trade payables	14	–	8,476	–	–	
Intercompany	23	9,587	–	–	–	
Total financial liabilities		9,587	8,476	–	–	18,063
Total non-financial liabilities						19,049
<b>Total liabilities</b>						<b>37,112</b>

**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 and transactions with financial institutions (cash and short-term deposits). 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 trade receivables dealt with.

There are no significant concentrations of credit risk. The maximum exposure to credit risk is \$21,019k (total exposed to credit risk, which is bank, short-term investments, and debtors, net of provisions).

Note 19, Receivables and prepayments includes further analysis of the trade receivables.

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 for trade and other receivables by geographic regions is as follows:

<i>in thousands of New Zealand dollars</i>	Group 2008	Group 2007
New Zealand	18,676	19,009
Australia	731	429
America	199	215
United Kingdom	11	25
Other European countries	72	47
Other Asia Pacific countries	241	48
Other regions	119	14
Trade receivables	20,049	19,787

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. The Group's balance at June 2008 is \$4.5 million (2007 \$4.8 million) and the Parent at June 2008 \$4.4 million (2007 \$4.7 million). Management believes there are no significant concentrations of risk relating to this balance. This is verified from the balances for provision for doubtful debts and bad debts in previous years.

**Interest rate risk**

Interest rate risk is the risk that the value of the financial instrument 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 NIWA's borrowings during the year were:

	2008	2007
On call	–	–
Short term	–	–

The interest rates on NIWA's investments during the year were:

Cash (on call)	7.20–8.20%	7.20–7.95%
Term deposits	8.57–8.65%	–

The directors do not consider there is any significant exposure to interest rate risk on investments. All investments 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.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 26 Financial instruments (continued)

## Currency

Currency risk is the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates.

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 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 no forward foreign exchange arrangements in place (2007: \$nil).

The Group's exposure to foreign currency risk was as follows based on notional amounts:

<i>in thousands of New Zealand dollars</i>	AUD	EUR	USD	YEN	AUD	EUR	USD	YEN
	30 June 2008				30 June 2007			
Cash balances	(263)	(12)	(49)	(1)	(417)	(1)	(186)	(82)
Trade receivables	(898)	-	(60)	-	(446)	-	-	-
Trade payables	161	-	-	-	254	-	-	-
Statement of Financial Position exposure	(1,000)	(12)	(109)	(1)	(609)	(1)	(186)	(82)

The following significant exchange rates applied during the year:

<i>NZD</i>	Average rate		Reporting date spot rate	
	2008	2007	2008	2007
AUD	0.8579	0.8716	0.7838	0.8986
USD	0.7684	0.6875	0.7535	0.7563

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 2007.

<i>in thousands of New Zealand dollars</i>	Group 2008	Group 2007
AUD	111	68
EUR	1	-
USD	12	21
YEN	-	9

A 10% weakening of the NZD against the above currencies at 30 June would have had the 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 following tables detail 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

*in thousands of New Zealand dollars*

<b>As at 30 June 2008</b>	On demand	Less than 1 year	Later than 1 year and not later than 5 years	Later than 5 years	Total
Trade payables	-	10,221	-	-	10,221
Unsecured loan	-	-	-	476	476
<b>Total</b>	<b>-</b>	<b>10,221</b>	<b>-</b>	<b>476</b>	<b>10,697</b>
<b>As at 30 June 2007</b>					
Trade payables	-	9,341	-	-	9,341
Unsecured loan	-	-	-	476	476
<b>Total</b>	<b>-</b>	<b>9,341</b>	<b>-</b>	<b>476</b>	<b>9,817</b>

## Notes to the Financial Statements

for the year ended 30 June 2008

**26 Financial instruments (continued)****Parent***in thousands of New Zealand dollars*

As at 30 June 2008	On Demand	Less than 1 year	Later than 1 year and not later than 5 years	Later than 5 years	Total
Trade payables	–	9,531	–	–	9,531
Intercompany	–	–	–	10,884	10,884
<b>Total</b>	<b>–</b>	<b>9,531</b>	<b>–</b>	<b>10,884</b>	<b>20,415</b>
<b>As at 30 June 2007</b>					
Trade payables	–	8,476	–	–	8,476
Intercompany	–	–	–	9,587	9,587
<b>Total</b>	<b>–</b>	<b>8,476</b>	<b>–</b>	<b>9,587</b>	<b>18,063</b>

**Financing facilities**

The Group has access to financing facilities; the total unused amount is \$4.0 million at the balance date. The unused amounts relate to the undrawn overdraft facility of \$0.5 million and the undrawn loan commitment of \$3.5 million. These facilities are available for the Parent company and have not changed in value over the last year.

**27 Commitments****27a Operating lease arrangements***in thousands of New Zealand dollars*

	Group 2008	Group 2007	Parent 2008	Parent 2007
Obligations payable after balance date on non-cancellable operating leases:				
Within 1 year	1,439	1,188	1,358	1,133
Between 1 and 2 years	1,448	961	1,448	961
Between 2 and 5 years	3,980	2,028	3,980	2,028
Over 5 years	4,780	4,860	4,780	4,860
	<b>11,647</b>	<b>9,037</b>	<b>11,566</b>	<b>8,982</b>

**27b Capital commitments**

Commitments for future capital expenditure:  
Contracted, but not provided for

	Group 2008	Group 2007	Parent 2008	Parent 2007
Contracted, but not provided for	98	110	98	110
	<b>98</b>	<b>110</b>	<b>98</b>	<b>110</b>

**28 Contingent liabilities**

There are no material contingent liabilities that were identified during the normal course of activities (2007 Nil).

**29 Subsequent events**

There were no subsequent events.

**30 New Zealand International Financial Reporting Standards**

Transition to New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS).

**Basis of preparation of data**

The Parent and Group financial statements for the year ended 30 June 2008 are the first annual financial statements that comply with NZ IFRS and First time Adoption of New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS 1) have been applied in their preparation.

In accordance with NZ IFRS 1, the transition date is 1 July 2006, the start of the comparative period for the year ended 30 June 2007. Normally accounting changes of this nature would require full retrospective application, but NZ IFRS 1 presents optional and mandatory exemptions to full retrospective application.

**NZ IFRS 1 exemptions**

NZ IFRS 1 permits companies adopting NZ IFRS for the first time to take some exemptions from the full requirements of NZ IFRS. NIWA has applied the following key exemptions:

**Business combinations**

Business combinations prior to the transition date (1 July 2006) have not been restated on an NZ IFRS basis.

**Translation difference**

The balance of the foreign currency translation reserve, representing all cumulative translation differences that have arisen on the retranslation of overseas entities, was set to zero at 1 July 2006.

## Notes to the Financial Statements

for the year ended 30 June 2008

## 30 New Zealand International Financial Reporting Standards (continued)

## Revaluation at deemed cost

NIWA elected to use a revaluation for land and certain buildings at deemed cost at the date of valuation which was 1 July 2006.

In preparing the opening Statement of Financial Position, the Parent and the Group have adjusted amounts reported previously in financial statements prepared in accordance with its old basis of accounting (previous GAAP). An explanation of how the transition from previous GAAP to NZ IFRS has affected the Statement of Financial Performance, financial position and cash flows is set out in the following tables and notes that accompany the tables.

## Impacts of the adoption of New Zealand Equivalents to International Financial Reporting Standards

## Effect of the NZ IFRS on the Statement of Financial Position as at 1 July 2006

<i>in thousands of New Zealand dollars</i>	Note	Group			Parent		
		Previous NZ GAAP	Effect of transition NZ IFRS	NZ IFRS	Previous NZ GAAP	Effect of transition NZ IFRS	NZ IFRS
<b>Equity</b>							
Share capital		24,799		24,799	24,799		24,799
Equity reserves	a, g	16,452	23,395	39,847	6,732	23,131	29,863
Shareholders' interest		41,251		64,646	31,531		54,662
Minority shareholders' interest		(19)		(19)	-		-
<b>Total equity</b>		<b>41,232</b>		<b>64,627</b>	<b>31,531</b>		<b>54,662</b>
<b>Non-current liabilities</b>							
Unsecured loans	f	452	(269)	183	-		-
Employee entitlements	d	1,551	(550)	1,001	1,468	(554)	914
Deferred tax liability	e	-	4,538	4,538	-	2,880	2,880
Intercompany		-		-	12,119		12,119
<b>Total non-current liabilities</b>		<b>2,003</b>		<b>5,722</b>	<b>13,587</b>		<b>15,913</b>
<b>Current liabilities</b>							
Payables and accruals		17,192		17,192	15,847		15,847
Short-term advance facility		600		600	600		600
Employee entitlements	d	7,705	771	8,476	7,115	768	7,883
Taxation payable		26		26	-		-
<b>Total current liabilities</b>		<b>25,523</b>		<b>26,294</b>	<b>23,562</b>		<b>24,330</b>
<b>Total equity and liabilities</b>		<b>68,758</b>		<b>96,643</b>	<b>68,680</b>		<b>94,905</b>
<b>Non-current assets</b>							
Property, plant, & equipment	b	42,740	29,701	72,441	30,770	29,701	60,471
Identifiable intangibles		117		117	-		-
Investments		491		491	13,246		13,246
Deferred tax asset	e	1,816	(1,816)	-	3,476	(3,476)	-
Receivables and prepayments		765		765	765		765
Loans to associates		106		106	26		26
<b>Total non-current assets</b>		<b>46,035</b>		<b>73,920</b>	<b>48,283</b>		<b>74,508</b>
<b>Current assets</b>							
Cash and short-term deposits		1,143		1,143	488		488
Receivables and prepayments		17,539		17,539	16,777		16,777
Taxation receivable		-		-	138		138
Uninvoiced receivables		2,217		2,217	2,203		2,203
Inventories		1,824		1,824	791		791
<b>Total current assets</b>		<b>22,723</b>		<b>22,723</b>	<b>20,397</b>		<b>20,397</b>
<b>Total assets</b>		<b>68,758</b>		<b>96,643</b>	<b>68,680</b>		<b>94,905</b>

## Notes to the Financial Statements

for the year ended 30 June 2008

## 30 New Zealand International Financial Reporting Standards (continued)

## Effect of the NZ IFRS on the Statement of Financial Position as at 30 June 2007

<i>in thousands of New Zealand dollars</i>	Note	Group			Parent		
		Previous NZ GAAP	Effect of transition NZ IFRS	NZ IFRS	Previous NZ GAAP	Effect of transition NZ IFRS	NZ IFRS
<b>Equity</b>							
Share capital		24,799		24,799	24,799		24,799
Equity reserves	g	26,687	22,864	49,551	20,238	22,647	42,885
Shareholders' interest		51,486		74,350	45,037		67,684
Minority shareholders' interest		(11)		(11)	–		–
<b>Total equity</b>		<b>51,475</b>		<b>74,339</b>	<b>45,037</b>		<b>67,684</b>
<b>Non-current liabilities</b>							
Unsecured loans	f	409	(224)	185	–		–
Employee entitlements	d	1,474	(546)	928	1,388	(553)	835
Deferred tax liability	e	–	4,424	4,424	–	2,871	2,871
Intercompany		–		–	9,587		9,587
<b>Total non-current liabilities</b>		<b>1,883</b>		<b>5,537</b>	<b>10,975</b>		<b>13,293</b>
<b>Current liabilities</b>							
Payables and accruals		16,421		16,421	15,451		15,451
Short-term advance facility		–		–	–		–
Employee entitlements	d	8,252	719	8,971	7,651	717	8,368
Taxation payable		–		–	–		–
<b>Total current liabilities</b>		<b>24,673</b>		<b>25,392</b>	<b>23,102</b>		<b>23,819</b>
<b>Total equity and liabilities</b>		<b>78,031</b>		<b>105,268</b>	<b>79,114</b>		<b>104,796</b>
<b>Non-current assets</b>							
Property, plant, & equipment	b	43,201	28,135	71,336	32,133	28,135	60,268
Identifiable intangibles		69		69	–		–
Investments		559		559	13,209		13,209
Deferred tax asset	e	898	(898)	–	2,453	(2,453)	–
Receivables and prepayments		688		688	688		688
<b>Total non-current assets</b>		<b>45,415</b>		<b>72,652</b>	<b>48,483</b>		<b>74,165</b>
<b>Current assets</b>							
Cash and short-term deposits		4,138		4,138	3,619		3,619
Receivables and prepayments		19,803		19,803	19,148		19,148
Taxation receivable		1,575		1,575	1,935		1,935
Uninvoiced receivables		4,829		4,829	4,699		4,699
Inventories		2,271		2,271	1,230		1,230
<b>Total current assets</b>		<b>32,616</b>		<b>32,616</b>	<b>30,631</b>		<b>30,631</b>
<b>Total assets</b>		<b>78,031</b>		<b>105,268</b>	<b>79,114</b>		<b>104,796</b>

## Notes to the Financial Statements

for the year ended 30 June 2008

## 30 New Zealand International Financial Reporting Standards (continued)

## Effect of the NZ IFRS on the Statement of Financial Performance as at 30 June 2007

<i>in thousands of New Zealand dollars</i>	Note	Group			Parent		
		Previous NZ GAAP	Effect of transition NZ IFRS	NZ IFRS	Previous NZ GAAP	Effect of transition NZ IFRS	NZ IFRS
<b>Operating revenues and other gains</b>							
Public Good Science and Technology							
Contract funding		44,324		44,324	44,324		44,324
Capability Fund		9,094		9,094	9,094		9,094
Ministry of Fisheries		17,183		17,183	17,183		17,183
Commercial		42,886		42,886	36,892		36,892
Share of associate's net gain / (deficit)		60		60	-		-
Dividends from subsidiaries		-		-	7,000		7,000
<b>Total income</b>		<b>113,547</b>		<b>113,547</b>	<b>114,493</b>		<b>114,493</b>
<b>Operating expenses</b>							
Employee benefits expense	d	(50,789)	64	(50,725)	(45,902)	48	(45,854)
Other expenses		(38,627)		(38,627)	(44,375)		(44,375)
<b>Total operating expenses</b>		<b>(89,416)</b>		<b>(89,352)</b>	<b>(90,277)</b>		<b>(90,229)</b>
<b>Profit/(loss) before interest, income tax, depreciation, and amortisation</b>		<b>24,173</b>		<b>24,195</b>	<b>24,216</b>		<b>24,264</b>
Depreciation	b	(8,570)	(1,218)	(9,788)	(7,184)	(1,242)	(8,426)
Amortisation	c	(38)	(347)	(385)	-	(323)	(323)
<b>Profit/(loss) before interest and income tax</b>		<b>15,565</b>		<b>14,022</b>	<b>17,032</b>		<b>15,515</b>
Interest income		364		364	354		354
Finance expense	f	(86)	(21)	(107)	(86)		(86)
<b>Net interest and other financing costs</b>		<b>278</b>		<b>257</b>	<b>268</b>		<b>268</b>
<b>Profit/(loss) before income tax</b>		<b>15,843</b>		<b>14,279</b>	<b>17,300</b>		<b>15,783</b>
Income tax credit/(expense)	e	(5,382)	916	(4,466)	(3,693)	1,033	(2,660)
<b>Profit/(loss) for the period</b>		<b>10,461</b>	<b>(648)</b>	<b>9,813</b>	<b>13,607</b>	<b>(484)</b>	<b>13,123</b>

## Reconciliation of Cash Flow Statement for the year ended 30 June 2007

There is not an impact of adopting NZ IFRS on the Cash Flow Statement.

## Notes to the Financial Statements

for the year ended 30 June 2008

## Notes to the reconciliation

## a) Foreign currency translation reserve: cumulative translation differences

The Group has elected to apply the exemption NZ IFRS 1. The cumulative translation differences for all foreign operations represented in the foreign currency translation reserve are deemed to be zero at the date of transition to NZ IFRS.

At 1 July 2006 the balance of \$264,000 debit in the foreign currency translation reserve was reduced to zero.

There is no effect on the parent company.

## b) Adjustments to plant, property, and equipment

Under NZ IFRS 1 entities are permitted to adjust the carrying value of selected plant, property, and equipment to their fair value and use that fair value as deemed cost at the date of transition. NIWA elected to revalue land and certain buildings. These assets were valued with an effective date of 1 July 2006 by DTZ New Zealand Limited, registered valuers and members of the New Zealand Property Institute. Certain items of equipment were classified under the valuation which were determined to be relevant to the valuation of certain buildings. The basis of valuation is fair value being the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion. The impact on the Statement of Financial Position is demonstrated below.

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Group 2006</b>	<b>Parent 2007</b>	<b>Parent 2006</b>
<i>Property, plant, and equipment</i>				
<b>Cost</b>				
Land	10,223	10,223	10,223	10,223
Buildings and leasehold improvements	16,738	16,738	16,738	16,738
Equipment	(79)	(79)	(79)	(79)
Reclassified software (c)	(4,775)	(4,524)	(4,575)	(4,347)
<b>Increase cost</b>	<b>22,107</b>	<b>22,358</b>	<b>22,307</b>	<b>22,535</b>
<b>Accumulated depreciation</b>				
Buildings and leasehold improvements	1,143	2,711	1,143	2,711
Equipment	110	108	110	108
Reclassified software (c)	4,775	4,524	4,575	4,347
<b>Reverse accumulated depreciation</b>	<b>6,028</b>	<b>7,343</b>	<b>5,828</b>	<b>7,166</b>
<b>Total effect on transition</b>	<b>28,135</b>	<b>29,701</b>	<b>28,135</b>	<b>29,701</b>

Due to the increase in the asset base, depreciation is increased in the Statement of Financial Performance for the 2007 year.

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Parent 2007</b>
<i>Depreciation</i>		
Buildings and leasehold improvements	1,568	1,568
Equipment	(3)	(3)
Reclassified software (c)	(347)	(323)
<b>Total effect on transition</b>	<b>1,218</b>	<b>1,242</b>

## c) Reclassification of software

Under NZ IFRS, software is classified as part of intangible assets rather than property, plant, and equipment. This has resulted in the cost of intangible assets increasing and the cost of property, plant, and equipment decreasing. While the amount previously depreciated on software is unchanged, it is now classified as amortisation.

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Group 2006</b>	<b>Parent 2007</b>	<b>Parent 2006</b>
<i>Intangible assets</i>				
Cost	4,775	4,524	4,575	4,347
Accumulated amortisation	(4,775)	(4,524)	(4,575)	(4,347)

Software has been reclassified as an intangible asset; therefore the depreciation expense recognised in depreciation in 2007 is classified as amortisation.

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Parent 2007</b>
<b>Total effect on transition</b>	<b>347</b>	<b>323</b>

## Notes to the Financial Statements

for the year ended 30 June 2008

## Notes to the reconciliation (continued)

## d) Employee benefits

Under NZ IFRS, training leave (which is an accumulating compensated absence) is measured as the additional amount expected to pay as a result of the unused entitlement. Under previous GAAP, training leave was measured as the additional cash portion expected to pay as a result of the unused entitlement. This has resulted in an increase in current employee entitlements and an increased expense in the Financial Statement of Performance.

Under previous GAAP, long service leave was recognised once an employee was entitled to the benefit. Under NZ IFRS, the amount recognised as a current employee entitlement is the obligation expected to be paid in future reporting periods.

Retirement leave is recognised under NZ IFRS on the likelihood that the employee will reach the full entitlement based on current service. Under previous GAAP, retirement leave was recognised on the current entitlement.

The total effect on transition is shown below, which shows the effect on the Statement of Financial Position.

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Group 2006</b>	<b>Parent 2007</b>	<b>Parent 2006</b>
Training leave	100	177	100	174
Long service leave	619	594	617	594
Retirement leave	(546)	(550)	(553)	(554)
<b>Total effect of transition</b>	<b>173</b>	<b>221</b>	<b>164</b>	<b>214</b>
Non-current employee entitlements	(546)	(550)	(553)	(554)
Current employee entitlements	719	771	717	768

The effect on the Statement of Financial Performance is detailed below.

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Parent 2007</b>
Reverse movement included in previous GAAP	78	52
NZ IFRS movements between June 06 and June 07		
Training leave	(34)	(37)
Long service leave	(54)	(46)
Retirement leave	74	79
<b>Total effect on transition</b>	<b>64</b>	<b>48</b>

## e) Deferred tax liability

Under previous GAAP, income tax expense was calculated by reference to the accounting profit after allowing for permanent differences. The adoption of NZ IFRS has resulted in a change of accounting policy. The application of NZ IAS 12 income taxes has resulted in the recognition of a deferred tax liability arising on the revaluation of land and certain buildings and the recognition of future payable employee benefits; the tax effects relate to note c and d.

The effects on the deferred tax of the adoption of NZ IFRS are as follows:

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Group 2006</b>	<b>Parent 2007</b>	<b>Parent 2006</b>
Deferred tax asset before adoption of NZ IFRS	(898)	(1,816)	(2,453)	(3,476)
Revaluation of land and certain buildings	5,367	6,415	5,374	6,285
Provisions	(45)	(61)	(50)	71
Increase in deferred tax liability	4,424	4,538	2,871	2,880

The effects on the income tax expense of the adoption of NZ IFRS are as follows:

<i>in thousands of New Zealand dollars</i>	<b>Group 2007</b>	<b>Parent 2007</b>
Reverse deferred tax movement before adoption of NZ IFRS	798	1,024
Deferred tax movement to the Statement of Financial Performance	118	9
<b>Total effect on transition</b>	<b>916</b>	<b>1,033</b>



## Notes to the Financial Statements

for the year ended 30 June 2008

## Notes to the reconciliation (continued)

## f) Unsecured loans

Under previous GAAP, financial liabilities (the unsecured loan) were to be measured at face value. Under NZ IFRS, financial liabilities are required to be stated at amortised cost using the effective interest method.

There is no effect on the Parent company.

*in thousands of New Zealand dollars*

	Group 2007	Group 2006
<b>Total effect on transition</b>	(224)	(269)

The effects on the interest expense of the adoption of NZ IFRS are as follows:

*in thousands of New Zealand dollars*

	Group 2007	Parent 2007
<b>Total effect on transition</b>	(21)	–

## g) Impact on equity

*in thousands of New Zealand dollars*

	Group 2007	Group 2006	Parent 2007	Parent 2006
Property, plant, and equipment (b)	28,135	29,701	28,135	29,701
Employee benefits (d)	(173)	(221)	(164)	(214)
Deferred tax liability (e)	(4,424)	(4,538)	(2,871)	(2,880)
Deferred tax asset (e)	(898)	(1,816)	(2,453)	(3,476)
Unsecured loan (f)	224	269	–	–
<b>Total effect on transition</b>	22,864	23,395	22,647	23,131

## Statement pursuant to section 152 of the Crown Entities Act (2004)

In 2007–08, the Group paid compensation or other benefits to one person who ceased to be an employee during that financial year. The total value of the payment was \$103,812.36.

### TO THE READERS OF

### NATIONAL INSTITUTE OF WATER & ATMOSPHERIC RESEARCH LIMITED AND GROUP'S FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2008

The Auditor-General is the auditor of National Institute of Water & Atmospheric Research Limited (the company) and group. The Auditor-General has appointed me, Nick Main, using the staff and resources of Deloitte, to carry out the audit of the financial statements of the company and group, on his behalf, for the year ended 30 June 2008.

#### Unqualified Opinion

In our opinion:

- The financial statements of the company and group on pages 35 to 63:
  - comply with generally accepted accounting practice in New Zealand; and
  - give a true and fair view of:
    - the company and group's financial position as at 30 June 2008; and
    - the results of operations and cash flows for the year ended on that date.
- Based on our examination the company and group kept proper accounting records.

The audit was completed on 25 August 2008, and 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 the Auditor, and explain our independence.

#### Basis of Opinion

We carried out the audit in accordance with the Auditor-General's Auditing Standards, which incorporate the New Zealand Auditing Standards.

We planned and performed the audit to obtain all the information and explanations we considered necessary in order to obtain reasonable assurance that the financial statements did not have material misstatements, whether caused by fraud or error.

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.

The audit involved performing procedures to test the information presented in the financial statements. We assessed the results of those procedures in forming our opinion.

Audit procedures generally include:

- determining whether significant financial and management controls are working and can be relied on to produce complete and accurate data;

- verifying samples of transactions and account balances;
- performing analyses to identify anomalies in the reported data;
- reviewing significant estimates and judgments made by the Board of Directors;
- confirming year-end balances;
- determining whether accounting policies are appropriate and consistently applied; and
- determining whether all financial statement disclosures are adequate.

We did not examine every transaction, nor do we guarantee complete accuracy of the financial statements.

We evaluated the overall adequacy of the presentation of information in the financial statements. We obtained all the information and explanations we required to support our opinion above.

#### Responsibilities of the Board of Directors and the Auditor

The Board of Directors is responsible for preparing financial statements in accordance with generally accepted accounting practice in New Zealand. Those financial statements must give a true and fair view of the financial position of the company and group as at 30 June 2008. They must also give a true and fair view of the results of operations and cash flows for the year ended on that date. The Board of Directors' responsibilities arise from the Crown Research Institutes Act 1992 and the Financial Reporting Act 1993.

We are responsible for expressing an independent opinion on the financial statements and reporting that opinion to you. This 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.



Nick Main  
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 & Atmospheric Research Limited for the year ended 30 June 2008 included on National Institute of Water & Atmospheric Research Limited's website. National Institute of Water & Atmospheric Research Limited's Board of Directors is responsible for the maintenance and integrity of National Institute of Water & Atmospheric Research Limited's website. We have not been engaged to report on the integrity of National Institute of Water & Atmospheric Research Limited'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 25 August 2008 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 statements may differ from legislation in other jurisdictions.

# Directory

## National Institute of Water & Atmospheric Research Ltd

### Directors

Sue Suckling (*Chair*)  
Craig Ellison (*Deputy Chair*)  
John Hercus  
(*resigned 30 June 2008*)  
Dr Graham Hill  
Ed Johnson  
Dr Wendy Lawson  
Troy Newton  
(*resigned 30 June 2008*)  
John Spencer  
(*resigned 31 October 2007*)  
Dennis Cairns  
(*appointed 1 July 2008*)  
Helen Robinson  
(*appointed 1 July 2008*)

### Executive Team

John Morgan  
x.xxxxx@xxx.xx.xx  
*Chief Executive Officer*

Dr Bryce Cooper  
x.xxxxx@xxx.xx.xx  
*General Manager, Strategy*

Dr Rob Murdoch  
r.xxxxx@xxx.xx.xx  
*General Manager, Research*

Dr Barry Biggs  
x.xxxxx@xxx.xx.xx  
*General Manager, Operations*

Kate Thomson  
x.xxxxx@xxx.xx.xx  
*Chief Financial Officer & Company Secretary*

Geoff Baird  
x.xxxxx@xxx.xx.xx  
*General Manager, Communications & Marketing*

Dr Mary-Anne Dehar  
x.xxxxx@xxx.xx.xx  
*General Manager, Human Resources*

Arian de Wit  
x.xxxxx@xxx.xx.xx  
*General Manager, Information Systems*

### Science Management Team

Nicholas Bain  
x.xxxxx@xxx.xx.xx  
*Manager, Commercialisation*

Andrew Forsythe  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Aquaculture & Biotechnology*

Dr Clive Howard-Williams  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Freshwater & Coasts*

Dr Mark James  
x.xxxxx@xxx.xx.xx  
*Manager (interim), Environmental Information & Pacific Rim*

Dr John McKoy  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Fisheries*

Dr Murray Poulter  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Atmosphere, Natural Hazards, & Energy*

Dr Don Robertson  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Aquatic Biodiversity & Biosecurity*

Dr Charlotte Severne  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Māori & Oceans*

Fred Smits  
x.xxxxx@xxx.xx.xx  
*General Manager, Vessel Operations*

Dr David Wratt  
x.xxxxx@xxx.xx.xx  
*Chief Scientist, Climate*

### Operations Management Team

Ken Becker  
x.xxxxx@xxx.xx.xx  
*Regional Manager, Auckland*

Dr Graham Fenwick  
x.xxxxx@xxx.xx.xx  
*Assistant Regional Manager, Christchurch*

Dr Ken Grange  
x.xxxxx@xxx.xx.xx  
*Regional Manager, Nelson*

Dr Julie Hall  
x.xxxxx@xxx.xx.xx  
*Assistant Regional Manager, Wellington*

Dr Terry Hume  
x.xxxxx@xxx.xx.xx  
*Assistant Regional Manager, Hamilton*

Dr Andrew Laing  
x.xxxxx@xxx.xx.xx  
*Regional Manager, Wellington*

Charles Pearson  
x.xxxxx@xxx.xx.xx  
*Regional Manager, Christchurch/Lauder*

Dr Dave Roper  
x.xxxxx@xxx.xx.xx  
*Regional Manager, Hamilton*

Michael Stobart  
x.xxxxx@xxx.xx.xx  
*Regional Manager, Bream Bay*

### Registered Office

**until mid-November**  
269 Khyber Pass Road  
Newmarket, Auckland  
New Zealand

**from mid-November**  
41 Market Place  
Auckland Central 1010  
New Zealand

### Auditors

Deloitte on behalf of the Auditor-General

### Bankers

The National Bank of New Zealand Limited

### Solicitors

Bell Gully

### Insurance Broker

Marsh Limited

### Head Office

41 Market Place  
Auckland Central 1010  
Private Bag 99940  
Newmarket, Auckland 1149  
New Zealand  
Tel +64-9-375 2050  
Fax +64-9-375 2051

### Regional Offices

**Bream Bay Aquaculture Park**  
Station Road, Ruakaka 0116  
PO Box 147, Ruakaka 0151  
Tel +64-9-432 5500  
Fax +64-9-432 5501

### Auckland

41 Market Place  
Auckland Central 1010  
Private Bag 99940  
Newmarket, Auckland 1149  
Tel +64-9-375 2050  
Fax +64-9-375 2051

### Hamilton

Gate 10, Silverdale Road,  
Hillcrest, Hamilton 3216  
PO Box 11115, Hillcrest,  
Hamilton 3251  
Tel +64-7-856 7026  
Fax +64-7-856 0151

### Wellington

301 Evans Bay Parade,  
Greta Point, Wellington 6021  
Private Bag 14901, Kilbirnie,  
Wellington 6241  
Tel +64-4-386 0300  
Fax +64-4-386 0574

### Nelson

217 Akersten St, Port Nelson  
PO Box 893, Nelson 7040  
Tel +64-3-548 1715  
Fax +64-3-548 1716

### Christchurch

10 Kyle Street,  
Riccarton, Christchurch 8011  
P O Box 8602,  
Christchurch 8440  
Tel +64-3-348 8987  
Fax +64-3-348 5548

### Lauder (Central Otago)

State Highway 85, Lauder,  
Central Otago 9320  
Private Bag 50061,  
Omakau 9352,  
Central Otago  
Tel +64-3-440 0055  
Fax +64-3-447 3348

### Unidata Pty Ltd

General Manager: Matt Saunders  
40 Ladner Street,  
O'Connor, WA 6163  
Australia  
Tel +61-8-9331 8600  
Fax +61-8-9331 8611  
www.unidata.com.au



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