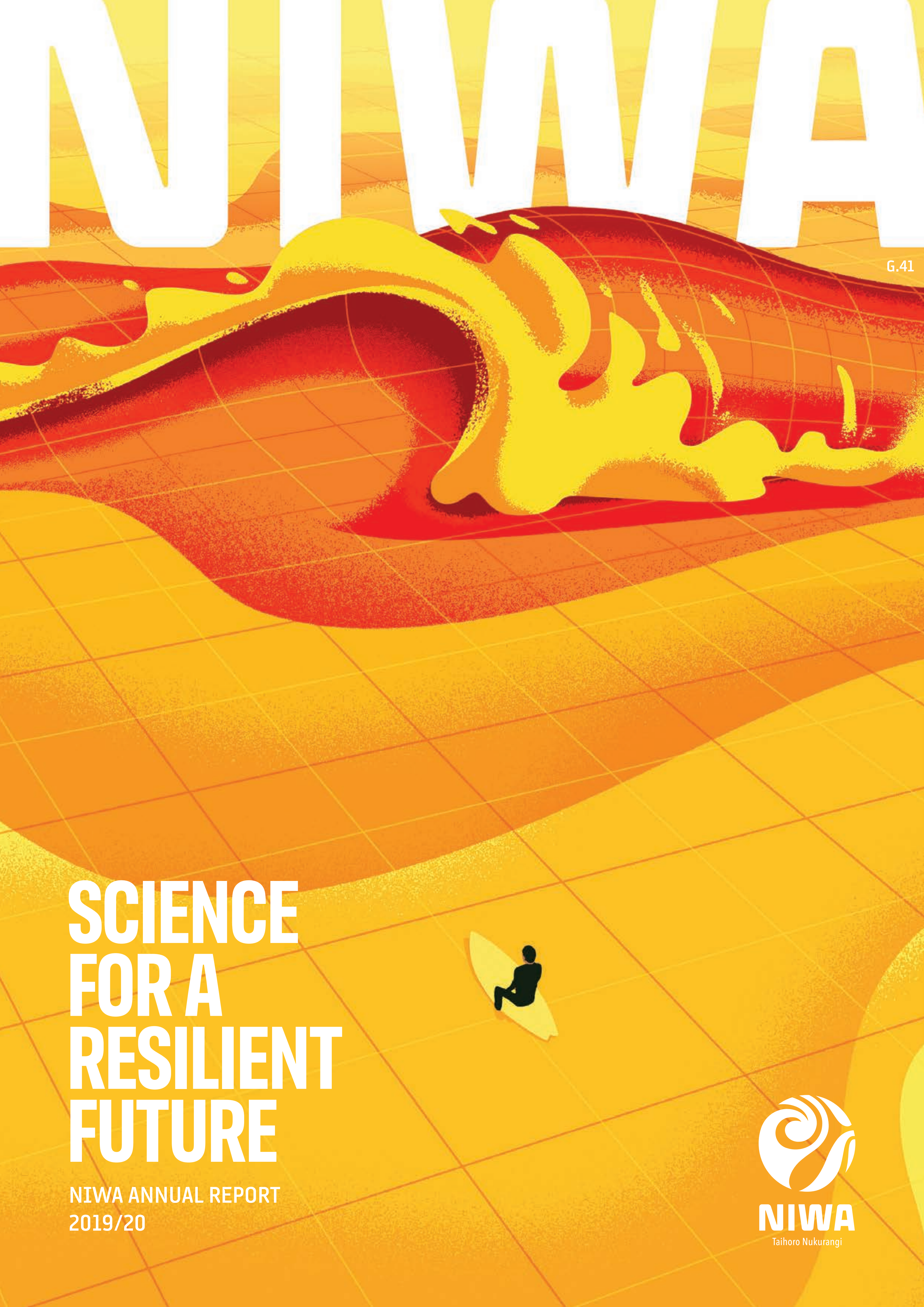
NIWA

G.41



SCIENCE FOR A RESILIENT FUTURE

NIWA ANNUAL REPORT 2019/20

NIWA
Taihoro Nukurangi

Presented to the House of Representatives pursuant to section 44 of the Public Finance Act 1989.

The NIWA Annual Report for 2020 is presented in two parts – the Year in Review and the Annual Report (Reports and Financial Statements). Collectively, these two documents fulfil our annual reporting responsibilities under the Crown Research Institutes Act 1992.

The Year in Review is an illustrated document containing the Chairman and Chief Executive's report, descriptions of our research capabilities and performance, including our work with Māori and other collaborators and stakeholders, and an overview of our people.

Both reports are available digitally at www.niwa.co.nz/about/annual-reports

Published by:

NIWA
41 Market Place
Auckland Central 1010
New Zealand
www.niwa.co.nz

October 2020
ISSN 1172-8140 (print)
ISSN 2423-0901 (online)

NIWA
Annual Report
2019/20

Reports &
Financial
Statements

SCIENCE FOR A RESILIENT FUTURE

Climate,
Freshwater &
Ocean Science

Contents

Statement of Core Purpose Outcomes

The information in this section of the Annual Report demonstrates how NIWA is delivering on its expected outcomes.

Our purpose, set out in our Statement of Core Purpose, is to:

- enhance the economic value and sustainable management of New Zealand's aquatic resources and environments
- provide understanding of climate and the atmosphere
- increase resilience to weather and climate hazards to improve the safety and wellbeing of New Zealanders.

We are expected to fulfil our purpose through the provision of research and transfer of technology and knowledge in partnership with key stakeholders, including industry, government and Māori, to achieve six key outcomes:

1. increase economic growth through the sustainable management and use of aquatic resources
2. grow renewable energy production through developing a greater understanding of renewable aquatic and atmospheric energy resources
3. increase the resilience of New Zealand and South-West Pacific islands to tsunami and weather and climate hazards, including drought, floods and sea-level change
4. enable New Zealand to adapt to the impacts and exploit the opportunities of climate variability and change and mitigate changes in atmospheric composition from greenhouse gases and air pollutants
5. enhance the stewardship of New Zealand's freshwater and marine ecosystems and biodiversity
6. increase understanding of the Antarctic and Southern Ocean climate, cryosphere, oceans and ecosystems and their longer-term impact on New Zealand.

Increasing economic growth through the sustainable management and use of aquatic resources

[Outcome 1]

Project	Key achievements	Sector impact
Growing the aquaculture industry 	*Market testing our Ruakaka kingfish* As part of the strategy to develop a high-value kingfish industry, our Ruakaka-cultured kingfish are supplied to high-profile restaurants. A dish featuring these fish won Second Place during Taste of Auckland this year, backing up a First Place our kingfish won last year.	The annual Taste of Auckland event is a high-profile opportunity to put our Ruakaka kingfish at the forefront of fine dining. The responses from restaurants, judges and the public demonstrate a strong demand for these high-quality and high-value fish, building confidence in the potential for a kingfish aquaculture industry in New Zealand.
Improving understanding of key fish stocks 	*Improving hoki abundance indices* Experimental work on hoki was undertaken in Cook Strait to better understand their biology in an ongoing programme jointly funded by NIWA and MBIE. Measurements were made to populate drift models to determine where early stage larval fish end up and identify constraints that impact early life history. Midwater trawls were used to catch small fish suspected of eating hoki eggs.	Hoki is New Zealand's largest and most valuable finfish fishery. Scientific advice provided by NIWA to Fisheries New Zealand feeds into the quota management system to help ensure sustainable fisheries.
Better use of water 	*Improving irrigation efficiency* The "Irrigation Insight" programme has focused on understanding the environmental and economic aspects of on-farm irrigation management. It has developed three irrigation management tools which are being piloted on 20 Canterbury dairy farms.	The irrigation tools are supporting improved water use efficiency by integrating high-resolution weather forecast data with on-farm soil moisture measurements. They are providing dairy farmers with the knowledge and tools to actively manage irrigation, applying precisely the water needed – when, where and how much.

Growing renewable energy production through developing a greater understanding of renewable aquatic and atmospheric energy resources

[Outcome 2]

Project	Key achievements	Sector impact
Forecasting hydroelectricity supply 	*Predicting our future hydroelectric power supply* More than 50% of New Zealand's electricity is generated by water. NIWA scientists, funded by the Deep South National Science Challenge, have been working with hydroelectricity power generators to understand the resilience of this renewable resource to the increasing pressures of user demand and climate change.	Using the New Zealand Water Model, a hydrological modelling tool co-developed by NIWA, our hydrologists have provided analyses of hydroelectricity generation capacity, floods, droughts and water reserves to help predict future generation capability and climate-driven changes in water availability. The information will also help other research projects examining the implications for flood management and irrigation supply.
Wind and solar energy forecasting 	*Modelling renewable energy* Increasing the amount of electricity produced from renewable sources such as wind, hydro and solar energy, is one of the big climate-change-related challenges faced by New Zealand and other nations. NIWA researchers are working to improve and refine our high resolution forecasting models to provide more accurate spatial and temporal understanding of weather conditions that impact the energy sector.	Work is under way on a 'high resolution weather re-analysis' – where the best models and all available observations are used to reproduce the recent climate. This can then be used to simulate likely energy yields at different times of the year in different locations. The work will provide long-term averages of wind for optimising wind energy production, cloud cover for informing solar network positioning, and rain and snowfall to help quantify hydroelectric capacity.
Providing hydroelectric power inflow advice 	*Powering the hydroelectric industry* New Zealand's hydroelectricity industry is using a broad range of NIWA's data and data-capture capabilities to better manage generation, operations, efficiency and resource consent compliance. NIWA operates river and lake water-level recorders for all the major hydroelectric power companies, transmitting water-level and river-flow data to the companies using telemetry systems in near real time.	This data is not used only to assist hydropower companies with their operations. NIWA also uses it to provide the New Zealand Stock Exchange with a daily bulletin of information on the country's lake inflows and storages. This allows hydropower companies to schedule electricity generation operations and allow the country to make the most efficient use of its largest, but finite, source of electricity.

Increasing the resilience of New Zealand and South-West Pacific islands to tsunami and weather and climate hazards, including drought, floods and sea-level change

[Outcome 3]

Project	Key achievements	Sector impact
Informing regional councils on climate change implications 	*Helping plan for climate change* Reports on climate-change implications have been completed for many regional councils. They incorporate climate-change projections and RiskScape asset exposure data (for example, assets exposed to sea-level rise or river flooding) and help different sectors understand the potential effects of climate change on councils' business, assets and responsibilities.	The information is enabling councils to identify gaps in their understanding about climate-change implications, and to prioritise areas for climate-change action. In future, this new method of analysis is likely to be applied in other areas.
Communicating drought risk 	*Informing decision makers about drought risk* During early 2020, parts of New Zealand experienced their worst droughts in recent times. Auckland was particularly hard hit, with 78 consecutive days in drought. NIWA provided Watercare with monthly updates on drought severity by comparing reservoir rainfall data with historic data. Our research, data and monthly and seasonal outlooks also informed the National Adverse Events Committee.	NIWA's web-based New Zealand Drought Monitor saw an almost three-fold increase in traffic compared with 2019, indicating that our information about drought is used widely by a range of people. It is one of the criteria, alongside the wider impact on the rural community, used to determine whether a drought is a medium- or large-scale adverse event.
Environmental resilience in the Pacific 	*Delivering climate and disaster resilience to the Pacific* Work is ongoing with other Pacific partners to support equipment modernisation, products and services for sea level, data management, and climate and ocean monitoring and prediction in the Pacific.	This three-year programme is targeting 14 Pacific countries, and in the first year it is already operating in nine. It runs alongside capacity building of our Pacific partners as we continue to support the installation of weather stations in Pacific countries.

Enabling New Zealand to adapt to the impacts and exploit the opportunities of climate variability and change and mitigate changes in atmospheric composition from greenhouse gases and air pollutants

[Outcome 4]

Project	Key achievements	Sector impact
Producing the world's first national carbon balance 	*Forest measurements supporting low carbon transition* CarbonWatchNZ is an ambitious NIWA-led programme that aims to build the world's first complete national-scale picture of a country's carbon balance based on measurements of greenhouse gases in the atmosphere.	At the half-way stage of this programme, results incorporating new greenhouse gas monitoring sites and a finer-scale weather forecasting model have revealed just how vital our native and planted forests are for reducing New Zealand's net greenhouse gas emissions.
Focusing on air quality 	*Urban air quality information published on the NIWA website* Each year the air quality team sets up outdoor sensor networks that transmit daily air quality data, with pollution animations, for participating towns. The team works with households to measure indoor air quality, and with local schools under an "Unlocking Curious Minds" project. These engagement activities explore the science behind air quality, why it is an issue in some New Zealand towns in winter and how we might improve it.	In Arrowtown (where the 2019 work was centred), as a result of this research, more residents took up subsidies to change home heating from older wood burners to more efficient, lower pollution sources.
Modelling the impact of traffic on air quality 	*Completion of a traffic impact model* This high-resolution spatial model of long-term average air pollution covers most of our major towns and cities. Maps show levels of air pollution at far greater resolution than previously available. The model is the culmination of several years of research, and is based on measurements at more than 1,000 locations across New Zealand conducted by NIWA, NZTA, two universities and several regional councils.	The model will be a key tool that will enable end users to understand and quantify the risks of road traffic air pollution, including the risk to health (especially the health of children), and to assist authorities such as regional councils and NZTA in managing and reducing that risk.

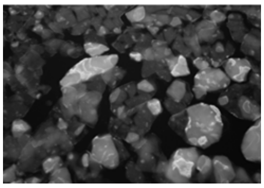
Enhancing the stewardship of New Zealand's freshwater and marine ecosystems and biodiversity

[Outcome 5]

Project	Key achievements	Sector impact
Murihiku Cultural Water Classification System 	*Cultural values informing water and land planning* The Murihiku Cultural Water Classification System (MCWCS), developed within an MBIE-funded research programme, has demonstrated how mātauranga Māori and science can be brought together to assess the state of cultural values/uses at significant sites. Indicators included whānau satisfaction with the presence of the resource, the state of the habitat where the resource is found, and the ability of whānau to safely access the site and resource.	The developed Wai Nohoanga, Wai Pounamau and Wai Tuna frameworks are not replicated elsewhere and provide a holistic approach to assess and communicate the state of cultural values/uses that sustain Māori beliefs and practices. The MCWCS will help to prioritise the actions required by Ngāi Tahu to protect, restore and maintain cultural sites of importance.
Ngāti Maniapoto wetland restoration 	*Restoring the wetlands of Ngāti Maniapoto* Co-development of a methodology and framework to support Ngāti Maniapoto in making decisions about the restoration of their wetlands.	The work has made a positive contribution towards documenting and organising Maniapoto knowledge of resources, cultural uses and associations with repo and puna. It has established and tested a new and effective approach for capturing mātauranga ā-hapu and demonstrated a fit-for-purpose, co-developed and mātauranga-driven framework that can help iwi, hapū and whānau identify and action their priorities for wetland restoration.
Nurturing rare plants 	*Working with Māori to protect rare species* Three examples of a rare species of quillwort – a submerged aquatic plant – were retrieved from the environmentally compromised Lake Omapere, Northland in the 1990s and nurtured by NIWA scientists. Work is ongoing with the Lake Omapere Trust to support the return of the plants when conditions are right.	This work has been in partnership with the Lake Omapere Trust and demonstrates science supporting iwi decision making while preventing possible extinction of a rare species.

Increasing understanding of the Antarctic and Southern Ocean climate, cryosphere, oceans and ecosystems and their longer-term impact on New Zealand

[Outcome 6]

Project	Key achievements	Sector impact
Marine protection in Antarctic waters 	*Monitoring the Ross Sea Marine Protected Area (MPA)* This is a five-year research programme funded by MBIE to evaluate the effectiveness of the Ross Sea MPA, established in 2017. The research is characterising the baseline of the ecosystem and developing and applying methods to measure any long-term change.	This work is making a crucial contribution to tracking change and evaluating the conservation value of the Ross Sea MPA – an enormous and complex region that presents an unprecedented scientific challenge. The research will primarily benefit government agencies in charge of New Zealand's commitments for stewardship of the Antarctic region.
Platelet ice study 	*Understanding changes in Antarctica* This Marsden-funded research is defining how ice shelves will melt as the ocean warms. It involves testing how platelet ice crystals, formed in water colder than freezing, affect turbulence and heat transfer in the upper ocean. Knowing exactly how the ocean affects the ice will enable better predictions of how the melt might speed up in future.	This research will provide new information that can be fed into climate models, making them better at simulating our future climate.
Atmospheric measurements at Lauder and Arrival Heights 	*Maintaining long-term data monitoring sets* NIWA maintains a network of atmospheric monitoring stations constantly measuring long-term changes in atmospheric composition and radiation. Information from these data sets is regularly published worldwide in scientific literature and makes a significant contribution to global understanding of atmospheric processes, including climate change.	This critical work will be used by authors of the next assessment of the Intergovernmental Panel on Climate Change to be issued in 2022.

Performance Targets 2019/20

NIWA measures its performance against the outcomes and operating principles in its Statement of Core Purpose using the following set of indicators.

Financial Indicators

Measure	Calculation	Reporting frequency	Target 2019/20	Actual 2019/20
Operating margin	Earnings Before Interest, Tax, Depreciation, Amortisation and Fair-value (EBITDAF)/Revenue	Annual	18.0%	19.7%
Profit per FTE	EBITDAF/FTE	Annual	$43,000	$47,000
Quick ratio	Current assets less inventory less prepayments/ Current liabilities less revenue received in advance	Quarterly	1.92	2.9
Interest coverage	EBITDAF/Interest paid	Quarterly	Not applicable	Not applicable
Profit volatility	Standard deviation of EBITDAF for past five years/ Average EBITDAF for the past five years	Annual	15.3%	18.9%
Forecasting risk	Five-year average of return on equity less forecast return on equity	Annual	1.2%	1.4%
Adjusted return on equity	NPAT excluding fair value movements (net of tax)/Average of share capital plus retained earnings	Quarterly	4.8%	6.9%
Revenue growth	% change in revenue	Annual	1.8%	(1.5)%
Capital renewal	Capital expenditure/Depreciation expense plus amortisation expense	Quarterly	129.3%	68.8%

Organisational Performance Indicators – 2019/20 at a glance

Measure	Calculation	Reporting frequency	Target 2019/20	Actual 2019/20
End-user collaboration*	Revenue per FTE from commercial sources	Quarterly	$96,000	$97,500
Research collaboration*	Publications with collaborators	Quarterly	85%	94%
Technology & knowledge transfer*	Commercial reports per scientist FTE	Quarterly	1.0	1.79
Science quality*	Impact of scientific publications	Annually	2.5	3.84
Operational efficiency*	Revenue per FTE	Quarterly	$236,000	$238,000
Operational delivery	% projects delivered on time	Annually	>90%	97.8%
Strategic progress – operations	% Enabling Plan KPIs in Section 3 achieved	Annually	>90%	81%
Strategic progress – science	% Science Plan KPIs in Section 2 achieved	Annually	>90%	92%

*Ministry of Business, Innovation & Employment generic indicators.

Financial Summary

Overview of group financial performance

For the year ended 30 June 2020

NIWA Group Financial Summary

In thousands of New Zealand dollars	2020	2019	2018	2017	2016
Revenue and other gains	158,860	161,292	151,416	142,618	130,309
– Research	93,800	94,901	91,516	81,417	68,896
– Commercial science	65,059	66,390	59,899	61,200	61,412
– Other income	1	1	1	1	1
Profit before income tax	9,982	8,708	9,074	5,950	5,492
Profit for the year	7,370	6,247	6,472	4,250	4,011
Capital expenditure	14,757	21,460	33,573	13,053	12,592
Adjusted return on average equity (%)	6.9	6.2	6.9	4.8	4.7
Return on average equity (%)	5.7	5.1	5.5	3.8	3.7

The 'adjusted return on average equity' uses a valuation basis comparable to that used by other Crown Research Institutes. This valuation basis arose from the transition to New Zealand Equivalents to International Financial Reporting Standards in 2006/07 and reverses the effect of the revaluation of certain land and buildings.

Group actual performance versus Statement of Corporate Intent (SCI)

For the year ended 30 June 2020

In thousands of New Zealand dollars	2020 Actual $	2020 SCI $	2019 Actual $
Revenue and other gains	158,860	165,326	161,292
Operating expenses, depreciation and amortisation	149,070	157,405	153,208
Profit before income tax	9,982	7,994	8,708
Profit for the year	7,370	5,070	6,247
Average total assets	182,279	178,910	167,855
Average shareholders' funds	128,984	129,200	123,169
Profitability			
Operating profit margin (%) (EBITDAF/revenue)	19.7	18.0	17.0
Adjusted return on average equity after tax (%) (net surplus/adjusted average equity)	6.9	4.8	6.2
Return on average equity after tax (%) (net surplus/average equity)	5.7	3.9	5.1
Return on assets (%) (EBIT/average total assets)	5.4	4.4	4.8
Profit volatility (%) (non-adjusted ROE)	18.9	15.3	12.7
Forecasting risk (%)	1.4	1.2	1.0
Liquidity and efficiency			
Current ratio	1.5	1.3	1.4
Quick ratio	2.9	1.9	2.2
Financial leverage			
Debt to average equity (%)	–	–	–
Gearing (%)	–	–	–
Proprietorship (%) (average shareholders' funds/total assets)	67	70	72

This year we focused on remaining financially sustainable in order to help us through the uncertainty ahead.

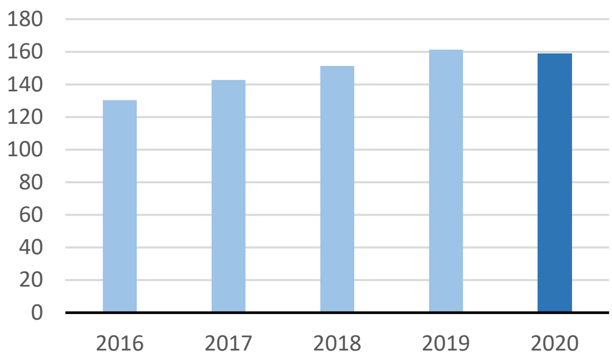
Revenue

NIWA achieved revenue of $158.9 million in 2019/20, below budget by $6.4 million and representing a decrease of $2.4 million over the previous year. This revenue total includes $8.27 million in funding from the Government's COVID-19 Response and Recovery Fund (CRRF). Underlying revenue in 2019/20 decreased by $10.7 million compared with the previous year, with the COVID-19 pandemic adversely impacting on our ability to undertake some of our work during the higher alert levels, and with reductions in the ability of our key customers to buy our services.

The level of MBIE National Science Challenge funding earned by NIWA during the year was $7.8 million lower than in the prior year, also mainly due to delivery delays related to the pandemic. Border restrictions resulted in a year-on-year decline of $1.8 million in our internationally sourced revenue.

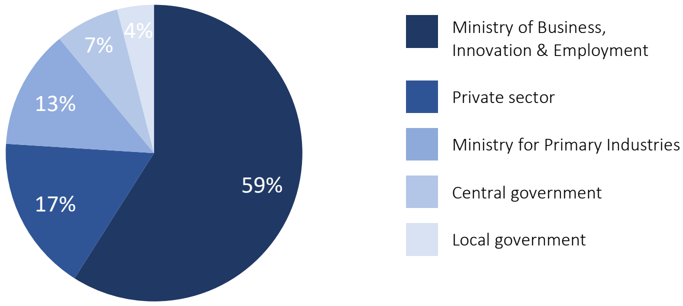
The year saw a decline of $2.6 million in the amount of commercial revenue earned by NIWA in pursuing contracts with central and local government customers. However, this was offset by a $3.0 million increase in other revenue won on a commercial basis. We expect greater pressure on commercial revenue as the economic impacts of the pandemic are felt by key clients.

Total Revenue
($ in millions)



The share of NIWA's revenue arising from transactions with its key central government clients of the Ministry of Business, Innovation & Employment, and the Ministry of Primary Industries, was 72%. This was equal to the position in 2018/19.

Revenue by source
($ in millions)

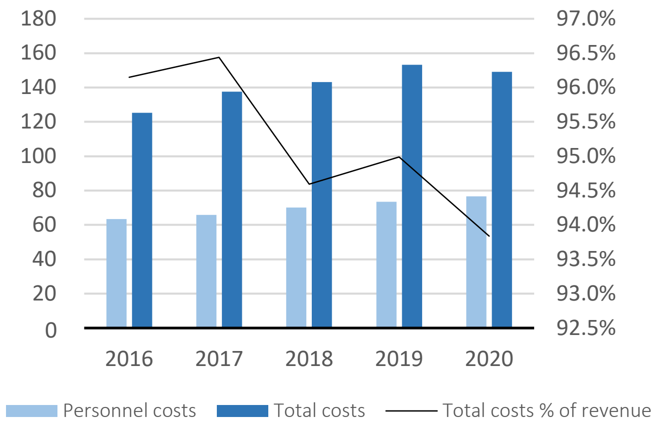


Expenditure

Operating expenses (including depreciation and amortisation) were $10.3 million lower than budget and $4.1 million lower than in the previous year.

Research collaboration accounted for $5.1 million of the decrease, due to reduced subcontractor activity in the early stages of phase two of the National Science Challenges. There was also a reduction in direct and overhead costs due to careful cost management measures implemented in the immediate aftermath of the onset of the pandemic. These reductions were partly offset by an increase in personnel costs of $3.2 million driven by salary increases and continued growth in capacity in the early part of the year.

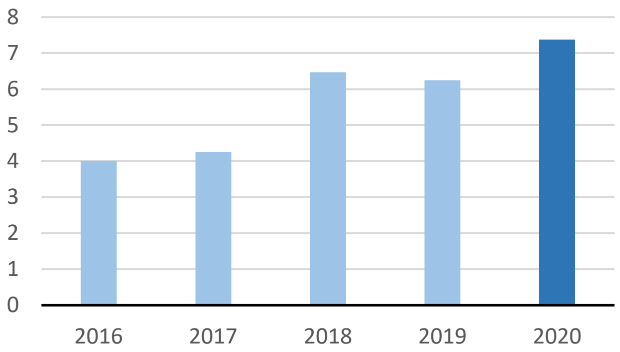
Expenditure
($ in millions)



Profitability

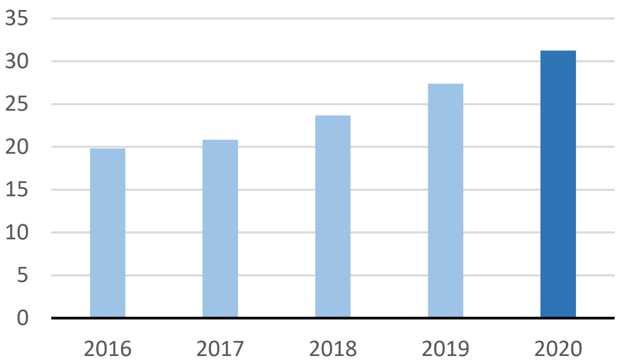
NIWA delivered a profit before tax of $9.98 million and after tax of $7.37 million during 2019/20. Compared with the previous year, these results reflect an increase of $1.27 million and $1.12 million respectively. Compared with budget, the result was also positive, with improvements of $1.99 million before tax and $2.30 million after tax. However, it is important to note that this overall position reflects the impact of $8.27 million in CRRF funding. Excluding this, underlying profit would have been $1.71 million before tax and $1.42 million after tax. This would have represented a material reduction compared with the previous year and with budget.

Net profit after tax
($ in millions)



NIWA also closely monitors its Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA), as this measure assists in understanding the Company's capacity to fund future investments and carry debt. Performance against this measure improved by $3.8 million compared with the previous year to $31.2 million (but with an underlying deterioration of $4.5 million to $22.9 million when excluding CRRF). We will continue to manage this measure carefully in order to finance our planned major facility investments over the coming several years.

EBITDA
($ in millions)



NIWA's fundamental financial performance metric is adjusted return on equity, which enables comparison between CRIs on an equivalent basis. The Company delivered an adjusted ROE of 6.9% this year, which exceeded the budget objective of 4.8% while also being slightly higher than the 6.2% achieved in the previous year.

Capital management and cash

Cash flows

The following table summarises NIWA's cash flows this year and last year:

($ in millions)	2020	2019	Change
Net cash flows from operating activities	41.858	22.309	19.549
Net cash flows from investing activities	(29.518)	(25.837)	(3.681)
Net cash flows from financing activities	(1.465)	0.0	(1.465)
Net increase/(decrease) in cash	**10.875**	**(3.528)**	**14.403**

The above presentation is consistent with New Zealand Equivalents to International Financial Reporting Standards and therefore treats cash flows relating to short-term deposits with maturities greater than three months as investing activities. In order to provide more useful and relevant information concerning the Company's cash flows, the table below restates the summary of cash flows, treating all short-term investments as equivalent to cash:

($ in millions)	2020	2019	Change
Net cash flows from operating activities	41.858	22.309	19.549
Net cash flows from investing activities	(14.518)	(20.837)	6.319
Net cash flows from financing activities	(1.465)	0.0	(1.465)
Net increase/(decrease) in cash including other term deposits	**25.875**	**1.472**	**24.403**

Net cash flows from operating activities

Net cash inflows from operating activities increased by $19.5 million to $41.9 million in 2020. This year-on-year change reflected higher receipts from customers, mainly due to cash received in advance of work being completed (in respect of the two National Science Challenges NIWA hosts) and to a lower year-end receivables balance.

Net cash flows from investing activities

Net cash outflows from investing activities (excluding the impact of cash flows associated with term deposits with maturities in excess of three months) reduced by $6.3 million to $14.5 million. This year-on-year variance was due to reductions in capital spending implemented as a response to the adverse financial impacts of the COVID-19 pandemic.

Net cash flows from financing activities

Net cash outflows from financing activities increased to $1.5 million due to the adoption of a new accounting standard, NZ IFRS 16 *Leases*. The costs recognised here were included in cash flows from operating activities in prior years. The Company paid no dividend during the year. This was signalled in the previous year's Statement of Corporate Intent and reflects upcoming essential and material investments designed to ensure that our science facilities remain fit for purpose for the coming decades.

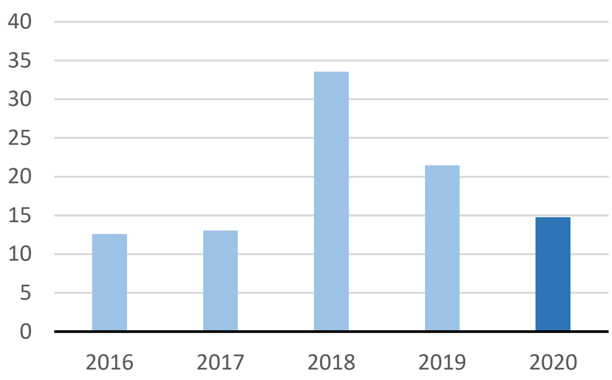
Capital spending

The following table summarises NIWA's capital expenditure this year and last year:

($ in millions)	2020	2019	Change
Land, buildings & improvements	5.878	7.769	(1.891)
Equipment	5.401	7.829	(2.428)
ICT equipment	1.437	2.436	(0.999)
Vessel equipment	0.765	1.853	(1.088)
Other	1.276	1.573	(0.297)
Total capital spending	**14.757**	**21.460**	**(6.703)**

Total capital expenditure was $14.8 million during the year, down from $21.5 million during the prior year. This was due to the phasing of certain major capital projects as well as spending controls implemented in response to COVID-19.

Capital expenditure
($ in millions)



Capital structure and liquidity

Shareholders' equity at 30 June 2020 was $131.7 million (2019: $126.3 million), which was $0.5 million above the level forecast in the SCI budget. Total assets at year end were $193.7 million (2019: $170.9 million). As at 30 June 2020, the Company's net debt balance was zero, equal to that at the prior year end.

NIWA's liquidity is mainly provided by operating cash flows. In addition, the Company has access to financing facilities of $10.5 million provided by its bank, although this facility was not required to be called upon during the year.

Dividends

As foreshadowed in the Company's Statement of Corporate Intent, the Directors of NIWA have once again decided not to declare a dividend in respect of the 2020 year. This is in the light of a series of significant capital investments which will be required to maintain and build the Company's capability and financial sustainability for the future. These investments include renovating or replacing the physical infrastructure and facilities at three of the Company's main sites, and continued development at the Northland Marine Research Centre at Bream Bay.

Financial Statements

NIWA Group
Statement of comprehensive income
For the year ended 30 June 2020

In thousands of New Zealand dollars	Notes	2020 Actual	2020 SCI Budget (unaudited)	2019 Actual
Revenue and other gains	1			
Revenue		158,859	165,325	161,291
Other gains		1	1	1
Total income		**158,860**	**165,326**	**161,292**
Operating expenses	2			
Employee benefits expense		(76,657)	(77,001)	(73,539)
Other expenses		(50,960)	(58,520)	(60,380)
		(127,617)	**(135,521)**	**(133,919)**
Profit before interest, income tax, depreciation, and amortisation		**31,243**	**29,805**	**27,373**
Depreciation	4, 5	(20,547)	(20,999)	(18,260)
Amortisation	7	(906)	(885)	(1,029)
Profit before interest and income tax		**9,790**	**7,921**	**8,084**
Interest income		599	696	624
Finance expense	5	(407)	(623)	–
Net interest and other financing income		**192**	**73**	**624**
Profit before income tax		**9,982**	**7,994**	**8,708**
Income tax expense	11	(2,612)	(2,924)	(2,461)
Profit for the year		**7,370**	**5,070**	**6,247**
Other comprehensive income (loss)				
Items that may be reclassified to profit or loss				
Foreign currency translation differences of foreign operations		24	–	(71)
Total comprehensive income for the year		**7,394**	**5,070**	**6,176**
Profit attributable to:				
Owners of the Parent		7,341	5,070	6,248
Non-controlling interest		29	–	(1)
Profit for the year		**7,370**	**5,070**	**6,247**
Total comprehensive income attributable to:				
Owners of the Parent		7,365	5,070	6,177
Non-controlling interest		29	–	(1)
Total comprehensive income for the year		**7,394**	**5,070**	**6,176**

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

NIWA Group
Statement of changes in equity
For the year ended 30 June 2020

In thousands of New Zealand dollars	Note	Share capital	Retained earnings	Non-controlling interest	Foreign currency translation reserve	Total equity
Balance at 1 July 2018		**24,799**	**95,264**	**256**	**(238)**	**120,081**
Profit for the year		–	6,248	(1)	–	6,247
Other comprehensive income		–	–	–	(71)	(71)
Total comprehensive income		–	6,248	(1)	(71)	6,176
Balance at 30 June 2019		**24,799**	**101,512**	**255**	**(309)**	**126,257**
Balance at 1 July 2019		**24,799**	**101,512**	**255**	**(309)**	**126,257**
Profit for the year		–	7,341	29	–	7,370
Other comprehensive income		–	–	–	24	24
Total comprehensive income		–	7,341	29	24	7,394
Adoption on NZ IFRS 16	5	–	(1,940)	–	–	(1,940)
Balance at 30 June 2020		**24,799**	**106,913**	**284**	**(285)**	**131,711**

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

Share capital
The Group has authorised issued and fully paid capital of 24,798,700 ordinary shares (2019: 24,798,700 ordinary shares). All shares carry equal voting and distribution rights and have no par value.

NIWA Group
Statement of financial position
As at 30 June 2020

In thousands of New Zealand dollars	Notes	2020 Actual	2020 SCI Budget (unaudited)	2019 Actual
Equity and liabilities				
Equity				
Share capital		24,799	24,799	24,799
Equity reserves		106,628	106,102	101,203
Shareholders' interest		**131,427**	**130,901**	**126,002**
Non-controlling interest		284	256	255
Total equity		**131,711**	**131,157**	**126,257**
Non-current liabilities				
Provision for employee entitlements	3	1,019	969	932
Lease liabilities	5	9,879	9,833	–
Deferred tax liability	12	2,824	4,730	5,770
Total non-current liabilities		**13,722**	**15,532**	**6,702**
Current liabilities				
Payables and accruals		9,793	13,236	12,041
Revenue in advance		24,633	15,473	15,991
Provision for employee entitlements	3	9,406	9,044	8,516
Taxation payable		2,922	1,025	1,383
Lease liabilities	5	1,460	–	–
Forward exchange derivatives		8	27	12
Total current liabilities		**48,222**	**38,805**	**37,943**
Total equity and liabilities		**193,655**	**185,494**	**170,902**
Assets				
Non-current assets				
Property, plant and equipment	4	109,405	128,361	115,071
Identifiable intangibles	7	1,576	–	1,439
Deferred tax asset	12	143	–	159
Right-of-use asset	5	8,861	6,699	–
Prepayments		66	94	142
Total non-current assets		**120,051**	**135,154**	**116,811**
Current assets				
Cash and cash equivalents	13	24,173	19,927	13,277
Other short-term investments	13	25,000	–	10,000
Receivables	9	12,546	18,134	19,745
Prepayments		2,231	2,650	2,317
Assets held for sale	8	245	–	245
Uninvoiced receivables		6,834	7,057	5,874
Inventory	10	2,575	2,572	2,633
Total current assets		**73,604**	**50,340**	**54,091**
Total assets		**193,655**	**185,494**	**170,902**

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

For and on behalf of the Board:

Barry Harris
Chairman

Nicholas Main
Deputy Chairman

The financial statements were authorised for issue by the directors on 25 August 2020.

NIWA Group
Cash flow statement

For the year ended 30 June 2020

In thousands of New Zealand dollars	Notes	2020 Actual	2020 SCI Budget (unaudited)	2019 Actual
Cash flows from operating activities				
Cash was provided from:				
Receipts from customers		173,719	165,069	159,762
Dividends received		1	–	1
Interest received		600	696	624
Cash was disbursed to:				
Payments to employees and suppliers		(128,801)	(132,188)	(133,994)
Interest Paid	5	(407)	(623)	–
Taxation paid		(3,254)	(4,789)	(4,084)
Net cash inflow from operating activities	13	**41,858**	**28,165**	**22,309**
Cash flows from investing activities				
Cash was provided from:				
Sale of property, plant and equipment		31	–	337
Term deposits maturing		29,000	–	12,000
Cash was applied to:				
Purchase of property, plant and equipment		(13,506)	(28,527)	(20,575)
Purchase of intangible assets		(1,043)	(885)	(599)
Investments in other term deposits		(44,000)	–	(17,000)
Net cash outflow from investing activities		**(29,518)**	**(29,412)**	**(25,837)**
Cash flows from financing activities				
Cash was applied to:				
Payment for lease principal		(1,465)	(1,141)	–
Net cash inflow from financing activities		**(1,465)**	**(1,141)**	**–**
(Decrease) increase in cash and cash equivalents		**10,875**	**(2,388)**	**(3,528)**
Effects of exchange rate changes on the balance of cash held in foreign currency		21	–	(34)
Opening balance of cash and cash equivalents		13,277	22,315	16,839
Closing cash and cash equivalents balance		**24,173**	**19,927**	**13,277**
Made up of:				
Cash at bank and on hand		1,923	19,927	1,495
Short-term deposits		22,250	–	11,782
Closing cash and cash equivalents balance		**24,173**	**19,927**	**13,277**

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

NIWA Group
Notes to the financial Statements

For the year ended 30 June 2020

1. Revenue and other gains

Rendering of services

The Group uses the 'percentage-of-completion method' to determine the appropriate amount of revenue to recognise in a given period. The stage of completion is measured by reference to the labour and non-labour costs incurred up to the end of the year as a percentage of total estimated costs for each contract.

Contract duration is typically 1–5 years and revenue is recognised over time as service is rendered. The customer pays a fixed amount over the contract term in accordance with the payment frequency specified in the contract.

Goods sold

The Group recognises revenue from the sale of goods when control of the goods has passed to the customer, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and there is a high probability that a significant reversal in the revenue recognised will not occur. Revenue from the sale of goods is measured at the fair value of the consideration received or receivable, net of returns and allowances. The timing of the transfer of control varies depending on the individual terms of the sales agreement.

Government grants

Government grants are recognised under NZ IAS 20 when there is a reasonable assurance that the Group will comply with the conditions attached to the grant, and that the grant will be received.

Government grants related to costs are deferred and recognised in profit or loss over the period in which the Group incurs the costs for which the grant is intended to compensate.

Government grants relating to the purchase of property, plant and equipment are included in non-current liabilities as revenue in advance and they are credited to profit or loss on a straight-line basis over the expected lives of the related assets.

A government grant that becomes receivable as compensation for expenses or losses already incurred, or for the purpose of giving immediate financial support to the Group with no future related costs, is recognised in profit or loss in the period in which the grant becomes receivable.

Strategic funding

NIWA and the Crown are parties to a Strategic Science Investment Fund – Programmes Investment Contract (SSIF Contract) under which the Crown contracts NIWA to perform research activities that support NIWA's Statement of Core Purpose (SCP). Specific SCP outcomes, and their associated delivery programmes, are agreed annually with Shareholding Ministers and documented in NIWA's Statement of Corporate Intent.

For financial reporting purposes this Strategic Funding is treated as a Government Grant in terms of NZ IAS 20. Strategic Funding received and recognised during the year was $49.489 million exclusive of GST (2019: $49.489 million). All Strategic Funded projects were completed during the year.

COVID-19 response and recovery fund

NIWA received $8.27 million from the Crown's COVID-19 Response and Recovery Fund during the year. This funding was provided to partially offset the revenue impact of COVID-19. For financial reporting purposes, this contribution has been treated as a Government Grant under NZ IAS 20 and recognised as revenue during the year.

Financing components

The Group does not expect to have any significant contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group does not adjust any of the transaction prices for the time value of money as this is considered to not have a material impact.

Contract balances

Contract assets

A contract asset is the right to consideration in exchange for goods or services transferred to the customer, conditional on something other than the passage of time. If the Group performs under a contract by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

Contract assets are classified as 'Uninvoiced receivables' in the Statement of Financial Position.

Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services, a contract liability is recognised. Contract liabilities are recognised as revenue when the Group performs under the contract.

Contract liabilities are classified as 'Revenue in advance' in the Statement of Financial Position.

Revenue and other gains

In thousands of New Zealand dollars	2020	2019
Research		
Strategic Funding	49,489	49,489
Rendering of services	36,041	45,412
COVID-19 Response and Recovery Funding	8,270	–
Commercial Science		
Rendering of services	60,061	61,609
Sale of goods	4,998	4,781
Dividends	1	1
Total revenue and other gains	**158,860**	**161,292**

Revenue recognised in relation to contract liabilities (revenue in advance)

In thousands of New Zealand dollars	2020	2019
Revenue recognised that was included in the contract liability balance at the beginning of the year		
Rendering of services	13,328	11,862

2. Operating expenses

Employee benefits

In thousands of New Zealand dollars	2020	2019
Defined contribution plans	3,246	3,204
Termination benefits	203	104
Other employee benefits	73,208	70,231
Employee benefits expense	**76,657**	**73,539**

Termination benefits were paid out in respect of seven employees.

Other expenses

In thousands of New Zealand dollars	Notes	2020	2019
Materials and supplies		8,297	10,063
Research collaboration		13,491	18,636
Property occupancy costs		4,459	5,804
Information technology		7,243	7,268
Remuneration of directors		283	298
Foreign currency (gain)/loss		(105)	(69)
Movement within loss allowance provision	9	1,487	158
Bad debts written off		–	9
Change in the fair value of derivatives		(4)	11
Other expenses		15,629	18,022
Total other expenses		**50,780**	**60,200**

Auditor's remuneration

In thousands of New Zealand dollars	2020	2019
Auditor's remuneration comprises:		
Audit of the financial statements (Group)	151	158
Audit of the financial statements (Subsidiary)	29	22
Total auditor's remuneration	**180**	**180**

3. Employee entitlements

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 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 from balance date.

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

In thousands of New Zealand dollars	2020	2019
Remuneration		
Salary accrual	2,131	2,083
Annual leave	6,593	5,891
Training leave	305	155
Long service leave	820	796
Retirement leave	576	523
Total employee entitlements	**10,425**	**9,448**
Comprising:		
Current	9,406	8,516
Non-current	1,019	932

The provisions for long service leave, retirement leave, and training leave are dependent upon several factors that are determined by the expected employment period of employees, current remuneration, and the timing of employees' use of the benefits. Any changes in these assumptions will impact on the carrying amount of the liability. The employment period used to determine the appropriate long service leave liability is based upon historical average length of service. The training leave liability is based upon typical historical usage of the benefit.

COVID-19 has impacted the annual leave provision as staff balances increased during level four lockdown and as a result of the closed international borders.

4. Property, plant and equipment

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

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

The gain or loss arising on the disposal or retirement of an item of property, plant and equiment is determined as the difference between the sale proceeds and the carrying amount of the asset and is recognised in the Statement of Comprehensive Income.

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

Category	Useful life
Buildings and leasehold improvements	5–40 years
Vessels	20–31 years
Plant and equipment	8–10 years
IT equipment	3–8 years
Office equipment	5 years
Furniture and fittings	10 years
Motor vehicles	6 years
Small boats	10 years

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

The Group considered the carrying value of property, plant and equipment in the light of COVID-19 and determined that there was no impact on the carrying value of the assets.

Major source of uncertainty

The useful lives of items of property, plant and equipment are key assumptions concerning the future that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

The Group reviews the estimated useful lives of property, plant and equipment items during each annual reporting period.

In thousands of New Zealand dollars	Land	Buildings & leasehold improvements	Vessels	Plant & equipment	IT equipment	Office equipment	Furniture & fittings	Motor vehicles	Small boats	Work in progress	Total
Cost											
Balance at 1 July 2019	15,768	54,579	40,269	102,528	33,129	7,372	1,650	4,523	3,545	12,461	275,824
Additions	–	72	453	2,255	715	162	325	5	31	9,700	13,718
Transfers	–	192	(4)	1,682	1,009	–	–	51	125	(3,055)	–
Disposals	–	(11)	–	(356)	(163)	(57)	(7)	(88)	(64)	–	(746)
Foreign currency adjustment	–	–	–	3	4	–	2	–	–	–	9
Balance at 30 June 2020	15,768	54,832	40,718	106,112	34,694	7,477	1,970	4,491	3,637	19,106	288,805
Accumulated depreciation and impairment losses											
Balance at 1 July 2019	–	35,180	24,393	73,193	15,188	6,176	1,202	3,366	2,055	–	160,753
Depreciation	–	5,351	2,042	6,666	4,128	455	91	378	183	–	19,294
Disposals	–	(11)	–	(303)	(154)	(56)	(3)	(74)	(55)	–	(656)
Foreign currency adjustment	–	–	–	4	4	–	1	–	–	–	9
Balance as at 30 June 2020	–	40,520	26,435	79,560	19,166	6,575	1,291	3,670	2,183	–	179,400
Net book value at 30 June 2020	15,768	14,312	14,283	26,552	15,528	902	679	821	1,454	19,106	109,405

In thousands of New Zealand dollars	Land	Buildings & leasehold improvements	Vessels	Plant & equipment	IT equipment	Office equipment	Furniture & fittings	Motor vehicles	Small boats	Work in progress	Total
Cost											
Balance at 1 July 2018	15,656	52,914	41,228	96,706	31,213	7,029	1,433	4,568	3,455	5,423	259,625
Additions	357	4	1,158	6,511	1,353	453	221	196	143	10,667	21,063
Transfers	(245)	1,677	167	789	787	–	–	–	–	(3,629)	(454)
Disposals	–	(16)	(2,284)	(1,474)	(217)	(109)	(1)	(240)	(53)	–	(4,394)
Foreign currency adjustment	–	–	–	(4)	(7)	(1)	(3)	(1)	–	–	(16)
Balance at 30 June 2019	15,768	54,579	40,269	102,528	33,129	7,372	1,650	4,523	3,545	12,461	275,824
Accumulated depreciation and impairment losses											
Balance at 1 July 2018	–	31,465	24,559	67,696	10,960	5,821	1,160	3,160	1,912	–	146,733
Depreciation	–	3,731	2,101	6,852	4,425	475	46	447	183	–	18,260
Disposals	–	(16)	(2,267)	(1,345)	(194)	(119)	(1)	(240)	(40)	–	(4,222)
Foreign currency adjustment	–	–	–	(10)	(3)	(1)	(3)	(1)	–	–	(18)
Balance as at 30 June 2019	–	35,180	24,393	73,193	15,188	6,176	1,202	3,366	2,055	–	160,753
Net book value at 30 June 2019	**15,768**	**19,399**	**15,876**	**29,335**	**17,941**	**1,196**	**448**	**1,157**	**1,490**	**12,461**	**115,071**

5. Right-of-use asset and lease liability – NZ IFRS 16 *Leases*

NIWA adopted NZ IFRS 16 retrospectively from 1 July 2019 but has not restated the comparatives for the 2019 reporting periods, as permitted under the specific transitional provisions in the standard. The reclassifications and adjustments arising from the new standard are therefore recognised in the opening balance sheet on 1 July 2019.

Lease liabilities were measured at the present value of the remaining lease payments, discounted by the lessee's incremental borrowing rates as at 1 July 2019. The weighted average lessee's incremental borrowing rate applied to the lease liabilities on 1 July 2019 was 3.62%.

The associated right-of-use asset was measured on a retrospective basis as if the new rules had always been applied. The recognised right-of-use asset relates to property leases only.

On transition, the Group applied the following practical expedients:

- Accounting for operating leases with a lease term of less than 12 months as short-term leases.
- The use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

In the process of adopting NZ IFRS 16, several judgements and estimates have been made. These include:

- Incremental borrowing rate at the time of adoption. The Group used the rate available on its short-term advance facility, which is currently unused.
- Lease terms, including any rights of renewal expected to be exercised. The Group has assumed that all rights of renewal will be exercised, consistent with the Group's usual practice. This judgement has been applied unless a specific exception to this practice was known at the time of adoption.
- Foreign exchange conversion rates.
- Application of practical expedients and recognition exemptions allowed by the new standard, including in respect of low value assets and short-term lease exemptions.

Reconciliation of right-of-use asset balance

In thousands of New Zealand dollars	2020	2019
Right-of-use asset		
Right-of-use asset at adoption date of 1 July 2019	9,218	–
Depreciation	(1,253)	–
Lease modifications and additions	898	–
FX movement	(2)	–
Right-of-use asset at year end	**8,861**	**–**
Represented by:		
Cost	10,114	–
Accumulated depreciation	(1,253)	–
Right-of-use asset at year end	**8,861**	**–**

The Group's leases relate to buildings and land. All of these were classified as operating leases until 30 June 2019. Payments made under operating leases were previously charged to profit or loss on a straight-line basis over the period of the lease.

From 1 July 2019, leases are recognised as a right-of-use asset and a corresponding liability. Each lease payment is allocated between the lease liability and the finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present-value basis. Lease liabilities include the net present value of fixed payments.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the Group's incremental borrowing rate is used, being the rate that the Group would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment, with similar terms and conditions.

Right-of-use assets are measured at cost, comprising the amount of the initial measurement of lease liability. These assets are subsequently depreciated using the straight-line method from the commencement date to the end of the lease term.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise small storage spaces.

Reconciliation of operating commitments to lease liabilities

In thousands of New Zealand dollars	Total
Operating lease commitments disclosed as at 30 June 2019	7,023
Effect of discounting commitments	(1,357)
Value of future lease options expected to be exercised at the date of adoption	6,242
Net present value of future lease liability as at 1 July 2019	**11,908**
Additions	898
Interest for the year	407
Lease payments made	(1,873)
FX impact	(1)
Net present value of future lease liability as at 30 June 2020	**11,339**
Current lease liability	1,460
Non-current lease liability	9,879
Total lease liabilities as at 30 June 2020	**11,339**

Lease liabilities maturity analysis

In thousands of New Zealand dollars	Minimum lease payments	Interest	Present value
Within one year	1,841	(380)	1,461
One to five years	6,385	(1,010)	5,375
Beyond five years	4,870	(367)	4,503
Lease liabilities at 30 June 2020	**13,096**	**(1,757)**	**11,339**

Lease-related expenses included in the statement of comprehensive income

In thousands of New Zealand dollars	Total
Depreciation	1,253
Short-term and low-value leases	639
Interest on leases	407
Total	**2,299**

For comparative year analysis purposes, the adoption of the accounting standard has affected the following items of the statement of comprehensive income and statement of cash flows:

- In the statement of comprehensive income, 'finance expense' includes interest expense associated with lease liabilities, and 'depreciation' includes depreciation associated with right-of-use assets.
- In the statement of cash flows, lease payments are now split between principal repayments classified within 'financing activities' and interest repayments classified within 'operating activities'. Previously lease

payments were included within 'payments to employees and suppliers' within operating activities.

Impact of NZ IFRS 16 adoption on financial statements

The tables below provide further detail in relation to the impacts of NZ IFRS 16 on the statement of comprehensive income, the statement of financial position and the statement of cash flows.

Impact of NZ IFRS 16 adoption on statement of comprehensive income

In thousands of New Zealand dollars	Pre NZ IFRS 16	Adjustments under NZ IFRS 16	Post NZ IFRS 16
Total income	158,860	–	158,860
Operating expenses	(129,490)	1,873	(127,617)
Profit before interest, income tax, depreciation, and amortisation	**29,370**	**1,873**	**31,243**
Depreciation	(19,294)	(1,253)	(20,547)
Amortisation	(906)	–	(906)
Profit before interest and income tax	**9,170**	**620**	**9,790**
Interest income	599	–	599
Finance expense	–	(407)	(407)
Net interest and other financing income	**599**	**(407)**	**192**
Profit before income tax	**9,769**	**213**	**9,982**
Income tax expense	(2,612)	–	(2,612)
Profit for the year	**7,157**	**213**	**7,370**
Other comprehensive income	24	–	24
Total comprehensive income for the year	**7,181**	**213**	**7,394**

Impact of NZ IFRS 16 adoption on statement of financial position

Assets and liabilities have both increased as a result of the change in accounting policy relating to leases. As at 30 June 2020 the statement of financial position accounts affected by the change are detailed below:

In thousands of New Zealand dollars	Pre NZ IFRS 16	Adjustments under NZ IFRS 16	Post NZ IFRS 16
Right-of-use asset	–	8,861	8,861
Impact on total assets	**–**	**8,861**	**8,861**
Current lease liability	–	1,460	1,460
Non-current lease liability	–	9,879	9,879
Deferred tax liability	4,261	(1,437)	2,824
Impact on total liabilities	**4,261**	**9,902**	**14,163**
Impact on net liabilities	**4,261**	**1,041**	**5,302**

Impact of NZ IFRS 16 adoption on statement of cash flows

Cash outflows from leases for the year ended 30 June 2020 are detailed below. For the year ended 30 June 2020, the equivalent cash outflows were included in the cash flows from operating activities as payments to employees and suppliers.

In thousands of New Zealand dollars	Total
Interest paid on leases (operating activities)	(407)
Payments for lease liabilities principal (financing activities)	(1,465)
Total cash outflows from leases	**(1,872)**

6. Heritage assets

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

NIWA has the following heritage assets:

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

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

7. Identifiable intangibles

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 the assets' estimated useful lives. The estimated useful life and amortisation method are reviewed each balance date.

Category	Useful life
Copyrights	5 years
Development costs	5 years
Software	3 years

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

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

All other development and research costs are expensed as incurred.

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

In thousands of New Zealand dollars	Software	Copyrights	Development costs	Work in progress	Total
Cost					
Balance as at 1 July 2019	9,459	215	352	–	10,026
Additions	424	–	–	615	1,039
Disposals	–	–	–	–	–
Transfers	252	–	–	(252)	–
Balance as at 30 June 2020	10,135	215	352	363	11,065
Accumulated amortisation and impairment losses					
Balance as at 1 July 2019	8,308	215	64	–	8,587
Amortisation	865	–	41	–	906
Disposals	–	–	–	–	–
Foreign Currency Adjustment	(1)	–	(3)	–	(4)
Balance as at 30 June 2020	9,172	215	102	–	9,489
Net book value at 30 June 2020	**963**	**–**	**250**	**363**	**1,576**

In thousands of New Zealand dollars	Software	Copyrights	Development costs	Work in progress	Total
Cost					
Balance as at 1 July 2018	8,961	215	243	–	9,419
Additions	300	–	97	–	397
Disposals	–	–	–	–	–
Transfers	198	–	12	–	210
Balance as at 30 June 2019	9,459	215	352	–	10,026
Accumulated amortisation and impairment losses					
Balance as at 1 July 2018	7,300	215	36	–	7,551
Amortisation	1,008	–	21	–	1,029
Disposals	–	–	–	–	–
Foreign Currency Adjustment	–	–	7	–	7
Balance as at 30 June 2019	8,308	215	64	–	8,587
Net book value at 30 June 2019	**1,151**	**–**	**288**	–	**1,439**

8. Assets held for sale

Assets held for sale are stated at the lower of their carrying amount and fair value less costs to sell.

No new assets were reclassified as held for sale in 2020 (2019: $245k). The site at Mahanga Bay is in the process of being sold. This is expected to be finalised within the next twelve months, following delays in 2020.

In thousands of New Zealand dollars	2020	2019
Land	245	245
Total	**245**	**245**

9. Receivables

Receivabes are stated at amortised cost using the effective interest rate, less an allowance for expected losses.

A loss allowance provision is established when the assessment under NZ IFRS 9 deems a provision is required. Changes in the carrying amount of the provision are recognised in the Statement of Comprehensive Income. Debts which are known to be uncollectable are written off against the provision, once approved by the Board of Directors.

in thousands of New Zealand dollars	2020	2019
Trade receivables	14,120	19,839
Sundry receivables	66	59
Loss allowance provision	(1,640)	(153)
Total	**12,546**	**19,745**
Classified as:		
Non-current	–	–
Current	12,546	19,745
Total	**12,546**	**19,745**

Included in the Group's trade receivables balance at the end of the year is one Crown debtor's balance which equates to 24% of the Group's total receivables balance (2019: 21%). 98% of that debtor's balance is less than 60 days overdue and is deemed to be low credit risk (2019: 99%). A second debtor has a balance that is more than 60 days overdue and equates to 12% of the Group's total receivables balance. A provision for this debtor has been recognised because uncertainty exists over whether this debt will be fully recoverable.

The Group considers that a large proportion of its customers have a low credit risk associated with them. Before providing any service or goods to a new customer on credit terms, a check is undertaken when deemed appropriate to verify the credit-worthiness of 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 $2,185k (2019: $3,080k) which are more than 60 days past due at the reporting date. 75% of this balance relates to the second debtor identified above. The Group does not hold any collateral over past due or impaired balances.

The Group has applied the simplified approach to providing for expected credit losses, which requires the recognition of a lifetime expected loss provision for trade receivables. To measure the expected credit losses, trade receivables have been grouped based on days past due. The expected loss rates are based on the payment profiles of customers on a lifetime basis and the corresponding historical credit losses over a period of five years, adjusted for any significant known amounts that are not receivable. In addition, an expected credit loss allowance provision has been separately calculated in respect of the second debtor identified above as management assessed the risk of not collecting the debt as high. The total expected credit loss allowance provision has been determined as $1,640k (2019: $153k) for the Group.

Management assessed the impact of COVID-19 on debtors and determined that no further expected credit loss allowance was required. A large proportion of customers are related to local or central government and are unlikely to default.

In thousands of New Zealand dollars As at 30 June 2020	Expected loss rate	Gross carrying amount	Loss allowance provision
Current	0.0%	10,093	–
Past due 1–30 days	0.0%	1,682	–
Past due 31–60 days	0.0%	160	–
Past due 61–90 days	0.0%	252	–
Past due >90 days	0.0%	293	–
Separately assessed debtor	100.0%	1,640	1,640
Total		**14,120**	**1,640**

10. Inventory

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

In thousands of New Zealand dollars	2020	2019
Consumables	364	572
Raw materials	167	222
Finished goods	2,044	1,839
Total	**2,575**	**2,633**

11. Income tax

The income tax expense for the year is the tax payable on the current year'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.

The income tax expense is determined as follows:

In thousands of New Zealand dollars	2020	2019
Income tax expense		
Current tax	4,793	2,580
Deferred tax relating to temporary differences	(2,181)	(119)
Income tax expense	**2,612**	**2,461**

Reconciliation of income tax expense

In thousands of New Zealand dollars	2020	2019
Profit before income tax	**9,982**	**8,708**
Tax at current rate of 28%	2,795	2,438
Adjustments to taxation:		
Other non-deductible expenses	29	45
R&D tax concession (Australian-based subsidiary)	(12)	(20)
Reintroduction of building depreciation	(190)	–
(Over)/under provision in previous year	(10)	(2)
Income tax expense	**2,612**	**2,461**

In March 2020, Parliament reintroduced the deduction allowed for depreciation on buildings with effect from the 2021 tax year. This impacts the deferred tax calculation for 2020 as deductions are now available in future tax years. This change was recognised in the taxation expense in profit or loss in 2020.

12. Deferred tax liability and assets

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

Current and deferred tax is recognised in profit or loss, except when it relates to items recognised in other comprehensive income or directly in equity, in which case the deferred or current tax is also recognised in other comprehensive income or directly in equity, or where it arises from the initial accounting for a business combination.

In thousands of New Zealand dollars As at 30 June 2020	Opening balance	Credited/ (charged) to opening retained earnings	Credited/ (charged) to profit or loss	Closing balance
Temporary differences				
Property, plant and equipment	(5,806)	–	1,543	(4,263)
Library books	4	–	(1)	3
Uninvoiced receivables	(1,645)	–	(268)	(1,913)
Employee benefits	1,738	–	570	2,308
Unrealised forex gains/losses on creditors/debtors	(16)	–	11	(5)
Doubtful debts	43	–	416	459
Leases	–	749	(62)	687
R&D tax credit (Australian-based subsidiary)	71	–	(28)	43
Total	(5,611)	749	2,181	(2,681)

In thousands of New Zealand dollars As at 30 June 2019	Opening balance	Credited/ (charged)to opening retained earnings	Credited/ (charged) to profit or loss	Closing balance
Temporary differences				
Property, plant and equipment	(6,085)	–	279	(5,806)
Library books	5	–	(1)	4
Uninvoiced receivables	(1,412)	–	(233)	(1,645)
Employee benefits	1,717	–	21	1,738
Unrealised forex gains/losses on creditors/debtors	(44)	–	28	(16)
Doubtful debts	1	–	42	43
R&D tax credit (Australian-based subsidiary)	88	–	(17)	71
Total	(5,730)	–	119	(5,611)

In accordance with the Income Tax Act 2007 the Group is not required to establish or maintain an imputation credit account by virtue of its classification as a Crown Research Institute.

13. Cash and cash flows

13a Cash and cash equivalents and other short-term investments

Cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, and other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.
Other short-term investments consists of deposits with financial institutions with maturities over three months which are presented as a separate line item in the statement of financial position.

13b Reconciliation of the profit for the year to net cash from operating activities

In thousands of New Zealand dollars	2020	2019
Profit for the year	7,370	6,247
Add/(less) non-cash items		
Net loss on disposal of property, plant and equipment	59	20
Depreciation and impairment	20,547	18,260
Amortisation of identifiable intangibles	906	1,029
Net foreign currency loss	5	(38)
	21,517	19,271
Add/(less) movements in working capital		
Increase/(decrease) in payables and accruals and revenue in advance	6,181	864
Increase/(decrease) in employee entitlements	977	408
Decrease/(increase) in receivables and prepayments	7,361	(1,879)
Decrease/(increase) in inventory and uninvoiced receivables	(902)	(990)
Increase/(decrease) in taxation payable and receivable	(642)	(1,623)
Increase/(decrease) in forward exchange derivatives	(4)	11
	12,971	(3,209)
Net cash flows from operating activities	41,858	22,309

14. Subsidiaries

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

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

The subsidiaries of the Group and their activities are listed below:

Name	Country	Principal activities	Ownership
NIWA Vessel Management Ltd	New Zealand	Vessel charters for scientific research	100%
Unidata Pty Ltd	Australia	Supplier of environmental technology products	80%
EcoConnect Ltd	New Zealand	Non-trading company	100%
NIWA Australia Pty Ltd	Australia	Non-trading company	100%
NIWA Environmental Research Institute	USA	Non-trading company	100%
NIWA Natural Solutions Ltd	New Zealand	Non-trading company	100%

All subsidiaries have a balance date of 30 June.

No stake in any subsidiary was acquired or disposed of during the year.

15. Related party transactions

The Government of New Zealand (the Crown) is the ultimate shareholder of the NIWA Group. No transactions with other New Zealand Government-owned entities are considered related party transactions in terms of NZ IAS 24. No related party debts have been written off or forgiven during the year. Any business the NIWA Group has transacted in which a director or an employee has an interest has been carried out on a commercial basis. Any potential conflict is recorded in the minutes of Board meetings for directors and a separate interests register for employees. The interests register containing all relevant interests is updated on a regular and timely basis.

Key management personnel compensation

In thousands of New Zealand dollars	2020	2019
Short-term benefits	3,709	3,452

The table above includes the remuneration of the Chief Executive, Executive Team and the Board of Directors.

16. Financial instruments and risk management

The classification of financial assets and liabilities depends on the purpose for which the financial assets and liabilities were incurred. Management determines the classification of the Group's financial assets and liabilities at initial recognition.

Financial assets

Classification

The Group classifies its financial assets in the following measurement categories: those to be measured at amortised costs, and those to be measured subsequently at fair value (either through other comprehensive income, or through profit or loss). The classification depends on the Group's business model for managing the financial assets and the contractual terms of the cash flow.

For assets measured at fair value, gains and losses will be recorded in either profit or loss, or other comprehensive income. For investments in debt instruments, this will depend on the business model in which the investment is held. For investments in equity instruments, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income.

The Group reclassifies debt investments when, and only when, its business model for managing those assets changes.

Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss (FVPL), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets and liabilities at fair value through profit or loss – Derivative financial instruments

This category has two sub-categories: financial assets held for trading, and those designated at fair value through profit or loss at inception. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term, or if so designated by management.

Derivatives are also categorised as held for trading, unless they are designated as hedges. Assets in this category are classified as current assets if they are either held for trading or are expected to be realised within 12 months of the balance sheet date. After initial recognition, they are measured at their fair values. Gains or losses on re-measurement are recognised in the Statement of Comprehensive Income.

Financial assets at amortised cost

The Group classifies its financial assets at amortised cost only if both of the following criteria are met:

- The asset is held to collect the contractual cash flows,
- The contractual terms give rise to cash flows that are solely payments of principal and interest.

Impairment of financial assets

The Group assesses, on a forward-looking basis, the expected credit losses associated with its assets carried at amortised cost and fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk. Note 9 details how the Group determines whether there has been a significant increase in credit risk.

For trade receivables only, the Group applies the simplified approach permitted by NZ IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

Capital management

The Group has the following requirements imposed upon it 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,
- to operate as a going concern.

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

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

The advance facility available from ANZ Bank (refer note 16 subsection financing facilities) is subject to two covenants:

1. That the value of the Group's net tangible assets is greater than $50 million,
2. That ANZ reserves the right to review the facility in the event of a change in the shareholding structure.

The Group was compliant with these covenants throughout the year.

Capital refers to the equity and borrowings of the Group.

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

Fair value of financial instruments

The carrying value of all financial instruments is considered to approximate fair value.

All the Group's financial instruments are classified as being within level 2 of the fair value hierarchy as defined by NZ IFRS 13 *Fair Value Measurement* (2019: the same). Their fair value is determined with reference to quoted rates for identical instruments on active markets.

Credit risk

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

In the normal course of business, the Group incurs credit risk from trade receivables, uninvoiced receivables, and transactions with financial institutions (cash and short-term deposits and derivatives).

The Group has a credit policy that is used to manage this risk. As part of this policy, limits are placed on the amounts of credit extended to third parties, and care is taken to ensure the credit-worthiness of third parties dealt with. All credit risk exposures are monitored regularly.

The Group does not require any collateral or security to support financial instruments, because of the quality of financial institutions and counterparties it deals with. There are no significant concentrations of credit risk, other than with the New Zealand Government, which the Group does not consider represents a material credit risk.

The exposure of the Group to credit risk as at 30 June 2020 was $68,553k (total exposure to credit risk, comprising cash and cash equivalents $24,173k, other short-term investments $25,000k, uninvoiced receivables $6,834k, and receivables net of provisions $12,546 k) (2019: $48,896k).

The Group considered the impact of COVID-19 on its credit risk and determined that a large proportion of customers are related to local or central government and do not pose a default risk.

Further analysis on the receivables balance can be found in note 9.

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

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

In thousands of New Zealand dollars	2020	2019
New Zealand	67,596	45,307
Australia	1,188	1,199
USA	322	175
Other Asia Pacific countries	725	2,284
Other regions	362	84
Total credit risk	**68,553**	**48,896**

Interest rate risk

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

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

	2020	2019
Cash (on call)	0.30%	1.50%
Other short-term investments	1.77% – 2.40%	2.67% – 3.04%

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

Currency risk

The Group undertakes transactions in foreign currencies from time to time, and, resulting from these activities, exposures in foreign currency arise. It is the Group's policy to hedge foreign currency trading transaction risks economically as they arise. To manage these exposures, the Group may use financial instruments such as forward foreign exchange contracts. At balance date, the Group had forward foreign exchange arrangements in place with a New Zealand dollar (NZD) fair value of $8k (2019: $12k).

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

In thousands of New Zealand dollars 30 June 2020	AUD	EUR	USD	FJD	GBP	CAD	SGD
Cash balances	696	1	83	4	34	5	11
Trade receivables	494	24	159	–	117	–	446
Trade payables	(88)	(11)	(10)	–	(13)	–	–
Statement of financial position exposure	1,102	14	232	4	138	5	457

In thousands of New Zealand dollars 30 June 2019	AUD	EUR	USD	FJD	GBP	CAD	SGD
Cash balances	788	24	7	1	31	6	3
Trade receivables	447	70	81	168	–	–	125
Trade payables	(267)	(13)	(266)	–	(4)	(3)	–
Statement of financial position exposure	968	81	(178)	169	27	3	128

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

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.

Payables and accruals of $6.801 million (2019: $9.415 million) have a contractual maturity of less than one year. This is based upon the earliest date on which the Group can be required to pay.

Financing facilities

The Group has access to financing facilities made available by ANZ Bank with a total value of $10.5 million (2019: $10.5 million). This was undrawn at 30 June 2020 (2019: also undrawn). The total facility of $10.5 million relates to an overdraft facility of $0.5 million (on-call) and an overnight placement and short-term advance facility of $10 million (2019: $10 million).

17. Capital commitments

In thousands of New Zealand dollars	2020	2019
Commitments for future capital expenditure		
Contracted, but not provided for	3,334	867

18. Contingent liabilities

The ground lease over the Hamilton office site includes a clause that requires the site to be restored at the end of the lease. Ongoing negotiations over the future use of the site had meant that it was not yet probable that NIWA would be required to restore the site, therefore no provision for this was included in the financial statements for site restoration. Quantity surveyors had provided an estimate of the costs for restoring the site (including demolition of buildings) which had previously been disclosed below as a contingent liability. Recent negotiations have confirmed that the Group will not be required to restore the site, so a contingent liability is no longer disclosed.

In thousands of New Zealand dollars	2020	2019
Site restoration lease clause	–	500

19. Impact of COVID-19

On 11 March 2020 the World Health Organization declared a global pandemic as a result of the outbreak and spread of COVID-19. On 25 March 2020 New Zealand went into a stage 4 lockdown requiring all non-essential businesses whose employees could not work from home to close for a four-week period (extended by a further 5 days to 27 April 2020).

During the period when New Zealand was at COVID-19 Alert Level 4, all vessel voyages, field and laboratory work was cancelled. All NIWA staff worked from home to the extent possible. The only very limited exceptions to these arrangements were in respect of staff operating services authorised by the Government as 'essential' including hazard monitoring, biosecurity and the maintenance of animal facilities. At Alert Level 3, some additional laboratory, vessels and field work was possible, under carefully managed COVID-safe conditions. At Alert Level 2, all staff were able to return to their normal work environments.

As a result of the restricted working arrangements which prevailed during the higher COVID-19 Alert Levels, productivity was lower than planned for the year. This, together with lower spending by NIWA's customers, resulted in the Group's revenue being $14.74 million lower than planned for the year. This impact was partly offset by the Government's COVID-19 Response and Recovery Fund, from which the Group received $8.27 million (note 1).

While commercial revenue will likely be affected for some time due to the wider economic impact of the COVID-19 pandemic, the Group expects to continue to receive research funding from the Government at planned levels. This accounts for approximately two-thirds of revenue planned for 2020/21 and includes a further $8.27 million of funding from the COVID-19 Response and Recovery Fund. The aim of this funding is to ensure the Group can maintain critical science and research capability, essential services, and planned capital investment programmes. With the support of this funding, NIWA does expect to maintain all of these capabilities.

Current and future economic conditions do not have a significant impact on the valuation of assets and liabilities at balance date as the majority are measured at cost. Management has reviewed all assets for potential impairment and is satisfied that none exists.

There is no other material impact on the financial statements. Management and the Board continue to monitor developments as they occur.

20. Subsequent events

There are no material events occurring subsequent to 30 June 2020 which require adjustment or disclosure in the financial statements.

Preparation Disclosures

Reporting entity

National Institute of Water and Atmospheric Research Limited ('NIWA' or 'the Company') and its subsidiaries form the consolidated Group ('the NIWA Group' or 'the Group'). NIWA is a profit-oriented company registered in New Zealand under the Companies Act 1993.

The financial statements for the NIWA 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 2013.

Nature of activities

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

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 above.

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

All amounts disclosed in the financial statements and notes have been rounded to the nearest thousand New Zealand dollars unless otherwise stated.

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

The accounting policies have been applied in preparing the financial statements for the year ended 30 June 2020 and the comparative information for the year ended 30 June 2019.

The 2020 Statement of Corporate Intent (SCI) Budget that is used for comparative information is not audited.

Statement of compliance

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

The financial statements comply with International Financial Reporting Standards (IFRS).

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.

Foreign currencies

Transactions

Transactions in foreign currencies are converted to the functional currency of the Group, being New Zealand dollars, by applying the spot exchange rate between the functional currency and the foreign currency at the date of transaction. At the end of each year, 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 recognised in the statement of comprehensive income.

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

Adoption of new and revised standards

The following accounting standard was adopted from 1 July 2019.

NZ IFRS 16: Leases (effective for annual periods beginning on or after 1 January 2019)

Effective from 1 January 2019, NZ IFRS 16 replaced the previous guidance in NZ IAS 17. Under NZ IFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. Under NZ IAS 17, a lessee was required to make a distinction between a finance lease (on-balance sheet) and an operating lease (off-balance sheet). NZ IFRS 16 requires a lessee to recognise a lease liability, reflecting future lease payments, and a right-of-use asset for virtually all lease contracts. An optional exemption is included for certain short-term leases and leases of low-value assets; however, this exemption can only be applied by lessees.

The Group adopted NZ IFRS 16 retrospectively from 1 July 2019, but did not restate the comparatives for the 2019 reporting period, as permitted under the specific transition provisions in the standard.

The Group recognised right-of-use assets of $9.2 million on 1 July 2019, and lease liabilities of $11.9 million. In addition, the Group classified $1.9 million that would previously have been recognised as rental expense, as depreciation and interest expense.

There are no other standards that are not yet effective and that would be expected to have a material impact on the Group.

Independent Auditor's Report

To the readers of National Institute of Water and Atmospheric Research Limited's Financial Statements for the year ended 30 June 2020

The Auditor-General is the auditor of National Institute of Water and Atmospheric Research Limited (NIWA) (the Group). The Auditor-General has appointed me, Troy Florence, using the staff and resources of PricewaterhouseCoopers, to carry out the audit of the financial statements of the Group, on his behalf.

Opinion

We have audited:

- the financial statements of the Group on pages 15 to 29, that comprise the statement of financial position as at 30 June 2020, the statement of comprehensive income, statement of changes in equity and cash flow statement for the year ended on that date and the notes to the financial statements that include accounting policies and other explanatory information.

In our opinion,

- the financial statements of the Group:
  - present fairly, in all material respects:
    - its financial position as at *30 June 2020*; and
    - its financial performance and cash flows for the year then ended; and
  - comply with generally accepted accounting practice in New Zealand in accordance with New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS) and International Financial Reporting Standards (IFRS).

Our audit was completed on 25 August 2020. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Board of Directors and our responsibilities relating to the financial statements, we comment on other information, and we explain our independence.

Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand). Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of matter – COVID-19

Without modifying our opinion, we draw attention to notes 1, 3, 4, 9, 11, and 19 to the financial statements, which explain the impact of the COVID-19 pandemic on the Group. The most material impact was the Group's revenue being lower than planned for the year due to restricted working arrangements and lower spending from customers. The impact was partly offset by the Government's COVID-19 Response and Recovery Fund, from which the Group received $8.27m.

Responsibilities of the Board of Directors for the financial statements

The Board of Directors is responsible on behalf of the Group for preparing financial statements that are fairly presented and that comply with generally accepted accounting practice in New Zealand. The Board of Directors is responsible for such internal control as it determines is necessary to enable it to prepare financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible on behalf of the Group for assessing the Group's ability to continue as a going concern. The Board of Directors is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless the Board of Directors has to cease operations, or has no realistic alternative but to do so.

The Board of Directors' responsibilities arise from the Crown Research Institutes Act 1992.

Responsibilities of the auditor for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers taken on the basis of these financial statements.

For the budget information reported in the financial statements, our procedures were limited to checking that the information agreed to the Group's statement of corporate intent.

We did not evaluate the security and controls over the electronic publication of the financial statements.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. Also:

- We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Board of Directors and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- We evaluate the overall presentation, structure and content of the financial statements, including the disclosures and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- We obtain sufficient appropriate audit evidence regarding the financial statements of the entities or business activities within the Group to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in the documents titled "NIWA Annual Report 2019/20", from pages 3 to 14 and 31 to 34 and "NIWA Year in Review 2020", but does not include the financial statements, and the auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Independence

We are independent of the Group in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: *International Code of Ethics for Assurance Practitioners* issued by the New Zealand Auditing and Assurance Standards Board.

Other than the audit, we have no relationship with, or interests in, the Group.

TRFlorence

Troy Florence

PricewaterhouseCoopers
On behalf of the Auditor-General
Auckland, New Zealand

Corporate governance and disclosures

Board and committee meeting attendance

The table below shows director attendance at these Board meetings and committee member attendance at committee meetings. In addition, any director may attend any committee meeting.

Director	Board meetings	ALCR Committee*	People & Culture Committee*	Future Property Programme Governance Committee*
Barry Harris *(Chairman)*	10	4**	2**	1**
Nicholas Main *(Deputy Chairman)*	9	4	–	6
Dr Helen Anderson	8	–	3	–
Dr Tracey Batten	10	4	–	2
Prof. Gillian Lewis	9	–	3	6
Mary-Anne Macleod	10	1	2	–
Michael Pohio***	6	2	–	4
Total meetings held	**10**	**4**	**3**	**6**

* Only attendances by committee members and Chairman are recorded.
**Barry Harris attends committee meetings in an ex officio capacity.
***Michael Pohio resigned as director effective from 31 January 2020. He was replaced by Mary-Anne Macleod on the ALCR Committee and by Tracey Batten on the Future Property Programme Governance Committee. They attended all meetings for the respective committees following their appointments.

Directors' remuneration

The total remuneration received or receivable by directors of NIWA during the year was:

In thousands of New Zealand dollars	2020	2019
Barry Harris *(Chairman)*	72	72
Nicholas Main *(Deputy Chairman)*	45	45
Dr Helen Anderson	36	36
Dr Tracey Batten	36	36
Prof. Gillian Lewis	36	36
Mary-Anne Macleod	36	36
Michael Pohio	22	36

Subsidiary company directors

The following people held office as directors of NIWA's subsidiary companies at 30 June 2020:

Subsidiary company	Directors
NIWA Vessel Management Ltd	B Harris, N Main, H Anderson, T Batten, G Lewis, M-A Macleod
Unidata Pty Ltd	B Cooper[1], B Biggs[1], D Saunders[2]
EcoConnect Ltd	J Morgan[1], P Baker[1]
NIWA Australia Pty Ltd	B Harris, N Main, H Anderson, T Batten, G Lewis, M-A Macleod
NIWA Environmental Research Institute	B Harris, N Main, H Anderson, T Batten, G Lewis, M-A Macleod
NIWA Natural Solutions Ltd	J Morgan[1], P Baker[1]

1. Employee of the Group's parent company.
2. Appointed by the minority ownership interest in Unidata Pty Ltd.

No fees were paid in respect of membership of subsidiary boards.

Insurance for directors and employees

The NIWA Group has arranged insurance policies for directors and employees which, with a deed of indemnity, ensure that they will generally incur no monetary loss as a result of lawful actions undertaken by them as directors or employees. These include, among others, directors and officers and professional indemnity policies. Certain risks are specifically excluded from the cover provided, including the imposition of penalties and fines in respect of breaches of the law.

Auditors

In accordance with Section 21(1) of the Crown Research Institutes Act 1992, the Group's auditor is the Auditor-General. The Auditor-General has appointed Troy Florence of PricewaterhouseCoopers to conduct the audit on his behalf. The audit remuneration and fees paid for other services are detailed in note 2.

Interests register

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

Interested transactions

Any business the NIWA Group has transacted in which a director has an interest has been carried out on a commercial basis. Any potential conflict is recorded in the minutes of Board meetings. A register containing all relevant interests is updated on a monthly basis.

Directors' remuneration

Details of the directors' remuneration are provided in the 'Directors' remuneration' section above.

Use of company information by directors

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

Share dealings

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

Directors' loans

No loans by the NIWA Group to any director were made or were outstanding during the year.

Employees' remuneration

The number of employees (not including directors) whose remuneration exceeded $100,000 during the year, stated in brackets of $10,000, was:

In New Zealand dollars	2020
100,000–109,999	76
110,000–119,999	52
120,000–129,999	35
130,000–139,999	40
140,000–149,999	16
150,000–159,999	7
160,000–169,999	8
170,000–179,999	6
180,000–189,999	8
190,000–199,999	4
200,000–209,999	3
210,000–219,999	5
220,000–229,999	3
230,000–239,999	1
240,000–249,999	1
250,000–259,999	1
270,000–279,999	1
300,000–309,999	1
340,000–349,999	1
380,000–389,999	3
400,000–409,999	1
750,000–759,999	1

The remuneration reflected in the above table comprises base salary and at-risk salary components (earned in 2019 and paid in 2020). This excludes payments in respect of superannuation or in respect of the cessation of employment of employees.

In 2020, the Group made payments of $203k for compensation or other benefits in respect of the cessation of employment of employees (2019: $104k).

Executive remuneration

Remuneration components

The Group's Executive Team (ET), including the Chief Executive, receive fixed remuneration only. This consists of base salary and benefits, including KiwiSaver and insurance. Previously, the ET and other key management personnel were eligible for short-term performance incentives in the form of at-risk salary. This was paid annually dependent on the performance of the Group and the individual. The remuneration packages of the ET and other key management personnel were restructured in 2020 to remove this at-risk salary, reflecting changes in government expectations of State-owned organisations' remuneration practices.

Chief Executive's remuneration

The Chief Executive's remuneration package that applied for 2020, together with the comparative information for the prior year, is as follows:

in New Zealand dollars	2020	2019
Base salary [1]	661,116	565,861
At-risk salary [2]	–	90,000
Subtotal	661,116	655,861
Benefits [3]	53,880	50,651
Total Remuneration [4]	**714,996**	**706,512**

1. Actual salary paid includes holiday pay paid consistent with New Zealand legislation. The base salary for 2020 was $658,711 (2019: $647,560, including at-risk salary).
2. The packages of all relevant NIWA staff were restructured for 2020 to end the practice of withholding at-risk salary components.
3. Benefits include KiwiSaver, insurance and vehicle fuel expenses.
4. This table sets out the amounts *earned* by the Chief Executive in each year, including associated KiwiSaver employer contributions. (The earlier table showing employees' remuneration in bands is based on amounts actually *paid* during the year, including the at-risk salary amounts earned during the previous year. It excludes the value of benefits.)

The Chief Executive is a member of KiwiSaver. As a member of this scheme, all Group staff, including the Chief Executive, are eligible to contribute and receive a matching company contribution up to a maximum of 5% of gross taxable earnings. In 2020, the Group's contribution was $33,056 (2019: $32,793).

A summary of the Chief Executive's total remuneration during the past five years is as follows:

In New Zealand dollars	Total remuneration
2020	714,996
2019	706,512
2018	687,978
2017	672,106
2016	657,559

Executive Team remuneration

In addition to the Chief Executive, NIWA's Executive Team consisted of seven members until March 2019 when a further position was added. The remuneration package for all Executive Team members combined (excluding the Chief Executive) that applied for 2020, together with the comparative information for the prior year, is as follows:

In New Zealand dollars	2020	2019
Base salary [1]	2,470,929	2,000,835
At-risk salary [2]	–	230,000
Subtotal	2,470,929	2,230,835
Benefits [3]	239,932	217,583
Total Remuneration [4]	**2,710,861**	**2,448,418**

1. Actual salaries paid includes holiday pay paid consistent with New Zealand legislation. The base salaries for 2020 totalled $2,403,941 (2019: $2,356,181 including at-risk salaries).
2. The packages of all relevant NIWA staff were restructured for 2020 to end the practice of withholding at-risk salary components.
3. Benefits include employer contributions to superannuation schemes (KiwiSaver or legacy government superannuation schemes, as applicable), insurance and wellness allowances.
4. This table sets out the amounts *earned* by the Executive Team in each year, including associated superannuation contributions. (The earlier table showing employees' remuneration in bands is based on amounts actually *paid* during the year, including the at-risk salary amounts earned during the previous year. It excludes the value of benefits.)

Donations

Donations of $1,034 were made during the year (2019: $1,563).

Statement of Responsibility

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

1. The Board of the Company is responsible for the preparation of these financial statements and the judgements used therein.

2. The Board of the Company is responsible for establishing and maintaining a system of internal controls designed to provide reasonable assurance as to the integrity and reliability of financial reporting.

3. In the opinion of the Board, these financial statements reflect a true and fair view of the financial position and operations of the Group for the year ended 30 June 2020.

Barry Harris	Nicholas Main
Chairman	*Deputy Chairman*

25 August 2020

Directory

Directors
Barry Harris (*Chairman)*
Nicholas Main (*Deputy Chairman)*
Dr Helen Anderson
Dr Tracey Batten
Prof. Gillian Lewis
Mary-Anne Macleod
Michael Pohio (until 31 January 2020)

Executive Team
John Morgan (*Chief Executive)*
Geoff Baird (*General Manager, Communications & Marketing)*
Patrick Baker (*Chief Financial Officer)*
Dr Barry Biggs (*General Manager, Technology & Innovation)*
(until 31 July 2020)
Dr Bryce Cooper (*General Manager, Strategy)*
Dr Mary-Anne Dehar (*General Manager, People & Capability)*
Warrick Johnston (*General Manager, Technology & Innovation)*
(appointed 1 August 2020)
Dr Rob Murdoch (*General Manager, Research)*
Dr Helen Neil (*General Manager, Operations)*
Marino Tahi (*General Manager, Māori Strategy & Partnerships)*

Registered office and address for service
41 Market Place
Auckland Central 1010
New Zealand

Auditor
Troy Florence with the assistance of PricewaterhouseCoopers
on behalf of the Auditor-General

Bankers
ANZ Bank New Zealand Ltd
ASB Bank Ltd
Westpac New Zealand Ltd

Solicitors
Meredith Connell
Atkins Holm Majurey

Insurance broker
Marsh Ltd

Head office
41 Market Place
Auckland Central 1010

Private Bag 99 940
Newmarket 1149, Auckland
New Zealand

Tel +64 9 375 2050
Fax +64 9 375 2051

Website and social media
www.niwa.co.nz
weather.niwa.co.nz
facebook.com/nzniwa
twitter.com/niwa_nz
twitter.com/niwaweather
linkedin.com/company/niwa
instagram.com/niwa_science

NIWA
Taihoro Nukurangi

Climate, Freshwater & Ocean Science