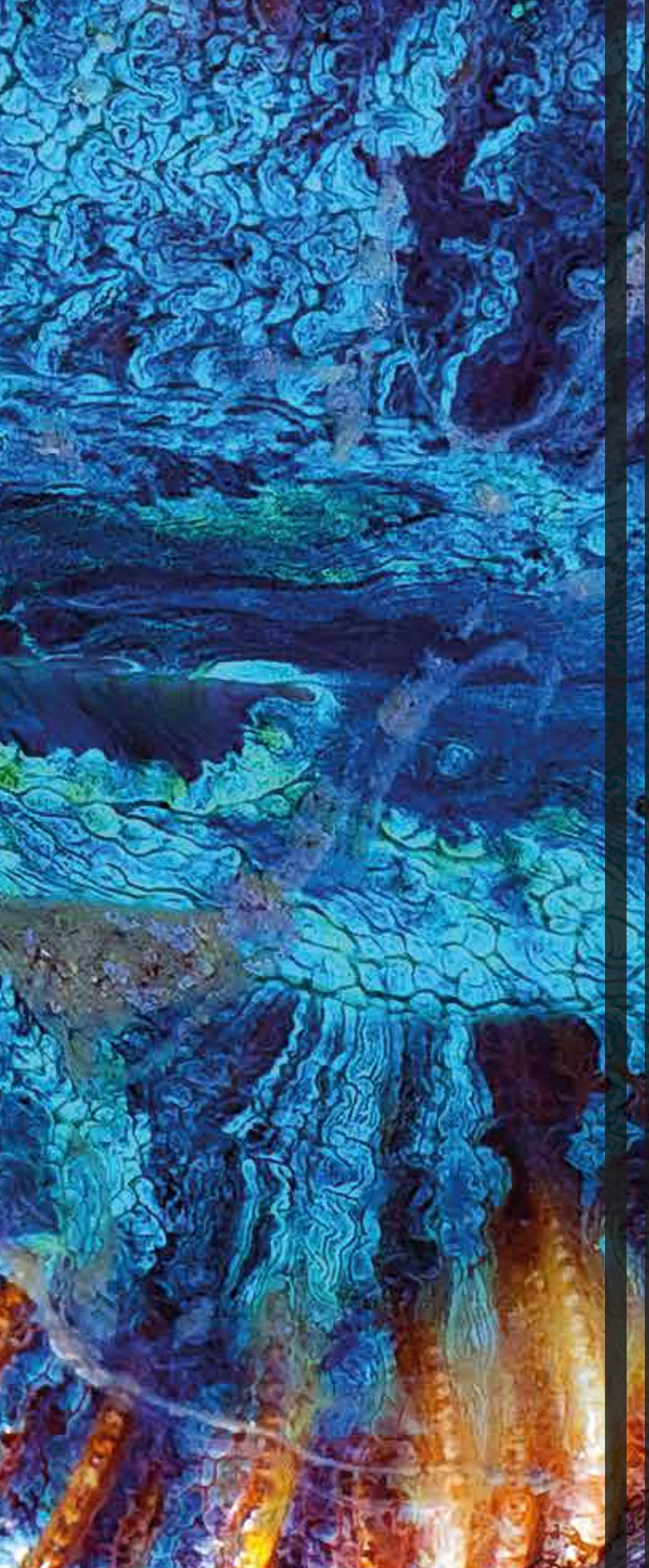

Australian Government

Australian Institute of Marine Science

ANNUAL REPORT

2014-15

AIMS: Australia's tropical marine research agency.

Australian Government

AUSTRALIAN INSTITUTE
OF MARINE SCIENCE

ANNUAL REPORT

2014-15

www.aims.gov.au

AIMS: Australia's tropical marine research agency.

The research reported herein is based on early analyses of complex datasets and should not be considered definitive in all cases. Institutions or individuals interested in all consequences or applications of the Australian Institute of Marine Science's research are invited to contact the Chief Executive Officer at the Townsville address below.

For additional copies of this report, please phone AIMS on (07) 4753 4444, write to us at the Townsville address or email media@aims.gov.au.

This report, along with a range of other information about AIMS, is available online at www.aims.gov.au.

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CONTENTS

Australian Government | Australian Institute of Marine Science

TOWNSVILLE | DARWIN | PERTH

29 September 2015

The Honourable Christopher Pyne, MP
Minister for Industry, Innovation and Science
Parliament House
CANBERRA ACT 2600

Dear Minister,

On behalf of the Council Directors (as the accountable authority of the Australian Institute of Marine Science—AIMS), we have pleasure in presenting our 43rd annual report, for the year ended 30 June 2015. The report is forwarded to you in accordance with Section 46 of the *Public Governance, Performance and Accountability Act 2013*.

This report provides information so that you, the Commonwealth Parliament, and users of AIMS' research outputs can make an informed judgement about the Institute's performance during the 2014–15 financial year.

This report has been prepared in accordance with the requirements of the *Australian Institute of Marine Science Act 1972* and in accordance with Section 46 of the *Public Governance, Performance and Accountability Act 2013* and with the requirements of section 7AB of the *Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Rule 2014* (the CTP Rule). The CTP Rule extends the annual report requirements contained in the *Commonwealth Authorities (Annual Reporting) Orders 2011* to apply to the 2014–15 annual reports of corporate Commonwealth entities in the same way as they applied for the financial year ending on 30 June 2014.

The Council endorsed the content of the AIMS Annual Report 2014–15 by a resolution on 10 September 2015.

Yours sincerely,

The Honourable Penelope Wensley AC
Chairman
Australian Institute of Marine Science

Mr John Gunn
Chief Executive Officer
Australian Institute of Marine Science

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Certification of Report of Operations

The Council Directors, as the accountable authority of the Australian Institute of Marine Science (AIMS), are responsible under Section 46 the *Public Governance, Performance and Accountability Act 2013* for the preparation and content of AIMS' report of operations.

As stipulated in Schedule 1, Section 7AB of the Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Amendment (Annual Reports) Rule 2015, the report of operations has been prepared in accordance with the Commonwealth Authorities (Annual Reporting) Orders 2011.

Council endorsed the content of the report of operations by a resolution on 10 September 2015.

The Honourable Penelope Wensley AC
Chairman
Australian Institute of Marine Science

Mr John Gunn
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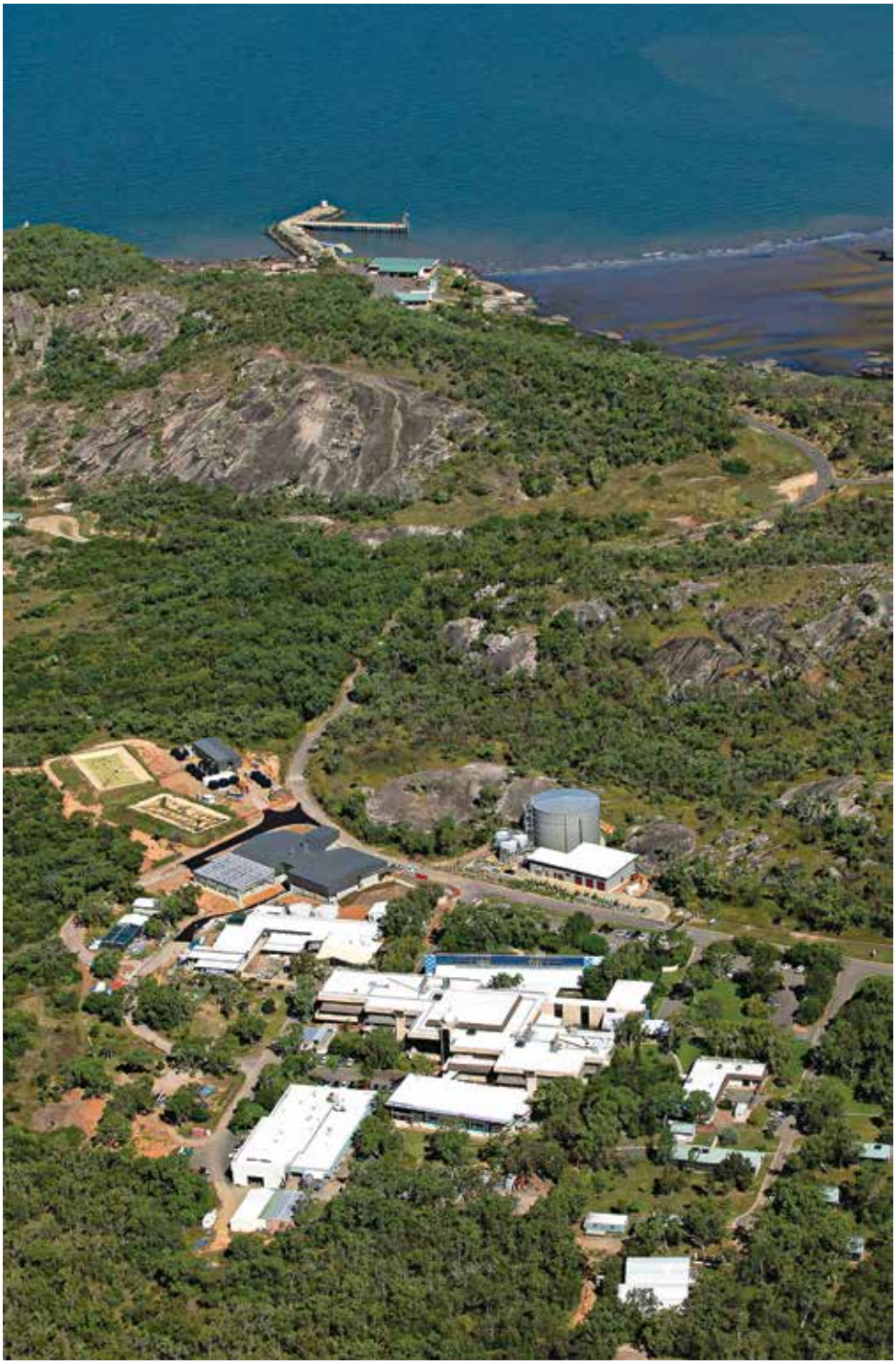
PART ONE: OUR PERFORMANCE



AIMS' Cape Ferguson site, outside Townsville. Image: Aerial Impressions.

ABOUT AIMS

The Australian Institute of Marine Science (AIMS) is a corporate Commonwealth entity established under the *Australian Institute of Marine Science Act 1972* (AIMS Act). As Australia's tropical marine research agency, our mission is to conduct innovative, world-class scientific and technological research to support sustainable growth in the use and effective environmental management and protection of Australia's tropical marine estate.

To ensure that the outputs of our research are transferred to users, and have the required impact, AIMS actively engages with government (ministers, policy makers, resource managers and environmental regulators), private industry sectors (ports, oil and gas, mining, tourism, services), non-government organisations, scientific peers and the Australian public.

AIMS was established in 1972 near Townsville in recognition of the importance of the Great Barrier Reef to Australia. Today, we also operate from bases in Perth and Darwin, which allows us to undertake research across northern Australia, spanning two oceans and three regional seas (Figure 1).

The Institute:

- conducts strategic and applied research into marine life, from microbes to whole-of-ecosystem studies, and the processes that sustain them
- monitors the condition of, and trends in, the marine environment
- builds models and decision-support tools to help users interpret the data we collect
- develops a broad spectrum of enabling technologies that facilitate research at molecular to oceanic scales.

AIMS' research is targeted towards priorities of the Commonwealth and state governments and industry. Over the last year the Institute's research has continued to:

- underpin Australia's environmental management of the Great Barrier Reef to ensure that this World Heritage Area remains healthy and resilient
- support the sustainable development of coastal industries and ports across northern Australia from Gladstone to the Pilbara
- provide the environmental baselines and condition and risk assessments required for development of the offshore oil and gas industry in north-western Australia.

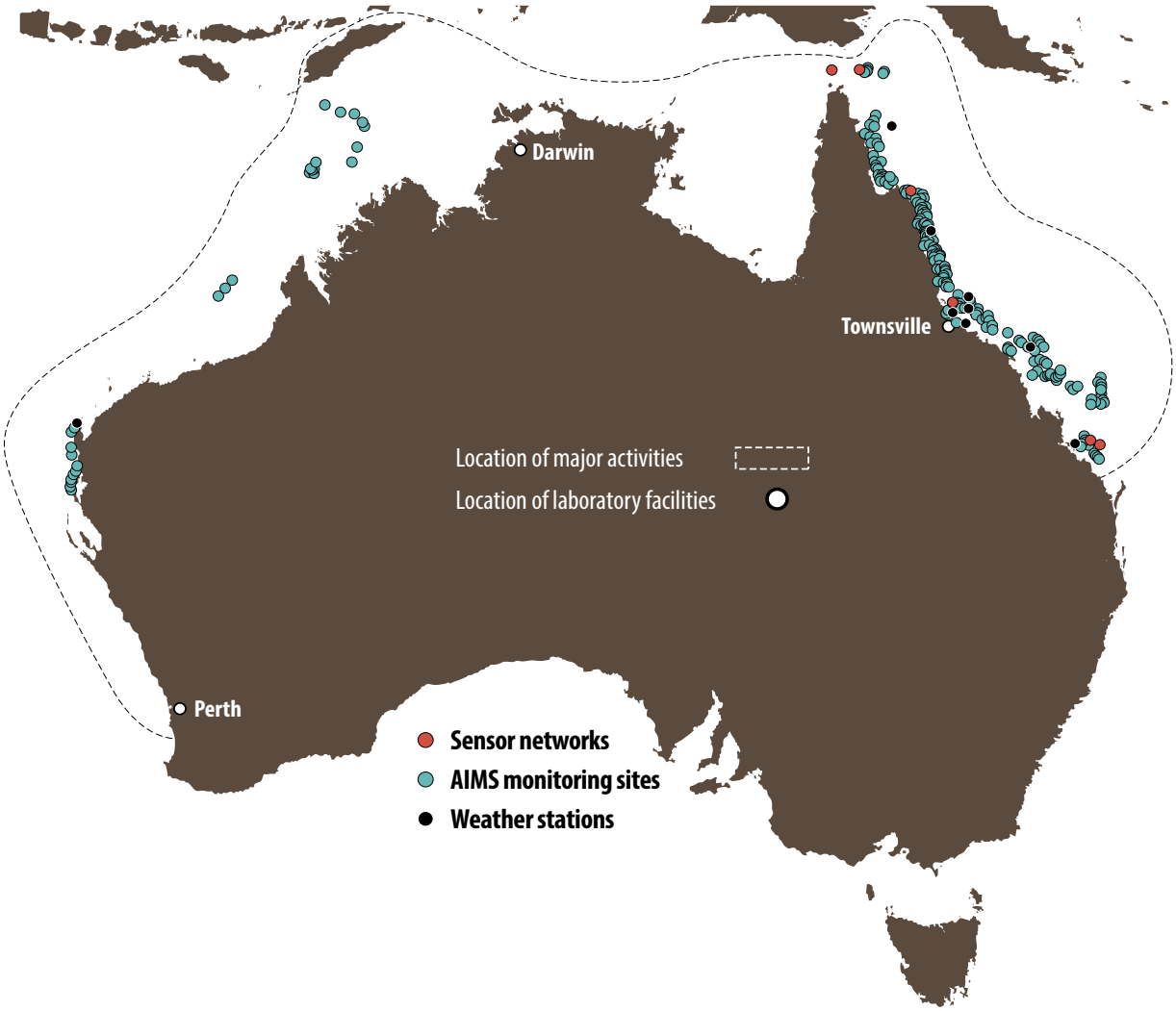


Figure 1. Location of AIMS' major activities and facilities

THE YEAR IN REVIEW: REPORT FROM CHAIRMAN AND CEO

The past year has been a period of intense local, national and international discussion about the future of the Great Barrier Reef, culminating in the Prime Minister's launch of the *Reef 2050 Long-Term Sustainability Plan* (Reef 2050) in March 2015. The Plan was well received by the World Heritage Committee of the United Nations Educational, Scientific and Cultural Organization (UNESCO), which, in June, 2015, decided against declaring the Reef to be a World Heritage Property 'in danger'.

These conversations about the Reef were informed by years of research by the Australian Institute of Marine Science (AIMS) and our partners. We were a core partner in the collaboration of government, industry and community groups that developed the *Reef 2050 Long-Term Sustainability Plan* and presented it to UNESCO. Now AIMS has the challenge of delivering the science that will enable governments to implement and monitor the success of their Plan to help the Reef recover.

> *We are writing to thank you for your contribution to the development of Reef 2050 . . . You have helped create a robust Plan that is relevant across many sectors and makes a major contribution to protecting and managing the Great Barrier Reef for generations to come.*
>
> Extract from letter from The Hon Greg Hunt, MP, Commonwealth Minister for the Environment and The Hon Steven Miles, MP, Queensland Minister for Environment and Heritage Protection and Minister for National Parks and the Great Barrier Reef.

Highlights of the year include:

- contributing to the development and implementation of the *Reef 2050 Long-Term Sustainability Plan*
- stepping up our research into crown-of-thorns starfish control and into cumulative impacts facing the Great Barrier Reef
- leading the Dredging Synthesis Report, which clearly documents the known and unknown impacts of dredging on the Great Barrier Reef
- being recognised by industry for our work with Woodside Energy on the environmental impact of the North Rankin gas platform after 30 years of operation
- seeing the dividends of our investments in Darwin and Perth, for AIMS and the oil, gas and port operators, as more industry players recognise the value of reliable, impartial, baseline data on tropical ecosystems for measuring the impact of development
- completing the first full year of operation of the National Sea Simulator (SeaSim), a state of the art marine research aquarium facility which is developing into a truly remarkable facility that enables us to conduct experiments that we would not have dreamed of tackling in the past. SeaSim will play a critical role in helping us understand the impacts of development on coastal ecosystems, and how the Reef could adapt to climate change

- publishing a host of high-impact research papers that include reports on: the impact of 'green zones' on fish stocks; the genetics of coral heat tolerance; the increasing frequency of extreme floods; and, tiger shark migration.

Over the past twelve months, AIMS has also pushed hard to implement the first stages of our *Strategic Plan 2015–25*, with our vision of:

- a healthy and resilient Great Barrier Reef
- sustainable coastal ecosystems and industries across northern Australia
- environmentally sustainable offshore oil and gas development.

This year we report on our progress towards that vision.

Working towards a healthy and resilient Great Barrier Reef

AIMS has been monitoring the Great Barrier Reef for over forty years, but it was the Great Barrier Reef Marine Park Authority (GBRMPA)'s *Great Barrier Reef Outlook Report 2009* that really focused national and international attention on the state of the Reef. In 2012, AIMS published a seminal study showing that the Reef had lost half its coral cover in just 27 years. It was one of many papers reporting change, including contributions from our colleagues at James Cook University reporting the loss of dugongs, turtles and seagrass, and other changes.

In the *Great Barrier Reef Outlook Report 2014*, the CEO of the Great Barrier Reef Marine Park Authority stated: 'Even with the recent management initiatives … the overall outlook for the Great Barrier Reef is poor, has worsened since 2009 and is expected to further deteriorate in the future. Greater reductions of all threats at all levels … are required to prevent the projected declines in the Great Barrier Reef and to improve its capacity to recover'.

Creating a future for the Reef

In 2014, the Australian and Queensland governments agreed that a long-term sustainability plan was required for the Reef. Development of the plan involved high level representatives from industry, government, community and NGOs. AIMS was asked to lead and coordinate the science input, liaising with our colleagues at the University of Queensland, James Cook University, CSIRO and others.

The result was the *Reef 2050 Long-Term Sustainability Plan*. The Plan has a clear vision: 'To ensure the Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation to come'.

Central to the Plan are:

- improved water quality
- improved reef systems
- integrated and long-term monitoring.

Past monitoring has tended to focus on direct measures of water quality, such as the levels of nitrogen and pesticide in Reef waters, and on the distribution and abundance of reef species. This monitoring will continue to be important, but the *Reef 2050 Long-Term Sustainability Plan* includes a substantial range of actions designed to meet specific targets for ecosystem recovery, such as an increase in coral cover and in the number and size of fish.

Measuring the impacts of these actions, and assessing whether the targets are met, will require more sophisticated monitoring. There are more than 90 monitoring programs along the Great Barrier Reef. Our role at AIMS will be to ensure that we get the most effective and efficient monitoring across these very broad range of efforts—from citizen science, to industry compliance monitoring and research programs, such as the Marine Monitoring Program and the Long-Term Monitoring Program.

Our contribution to the implementation of the *Reef 2050 Long-Term Sustainability Plan* is much broader than monitoring. We are providing strategic advice through the Reef 2050 Advisory Committee, which is chaired by AIMS Chairman Ms Penelope Wensley AC, and includes AIMS CEO John Gunn as a member, the Independent Expert Panel, which has AIMS Research Program Leader, Dr Britta Schaffelke as a member and also through the related Queensland Government Great Barrier Reef Water Science Taskforce, which also has Dr Britta Schaffelke as a member.

We have an extensive suite of research programs underway to support the *Reef 2050 Long-Term Sustainability Plan,* including using SeaSim to: understand the response of coral communities to change; understand and tackle the outbreaks of crown-of-thorns starfish that are directly responsible for the loss of coral cover; and understand the impacts of water quality and dredging.

We will also assist with the adaptive management of the Reef, which will see a major review of progress every five years and, if the required improvements in the state of the Reef are not evident, the development of new management measures.

Crown-of-thorns starfish

There have been three major outbreaks of crown-of-thorns starfish since the 1960's, each starting around Cairns and taking about a decade to spread south along the Reef. Crown-of-thorns starfish can remove up to 90 per cent of the coral cover on affected reefs.

A new outbreak has been developing over the past two years. Our latest research confirms its scale, with an estimated five million starfish now devouring reefs between Cairns and Cooktown. Based on previous events, we expect the starfish population in the Cairns area to grow quickly over the next few years. Then this 'rolling infestation' will gradually move south over the next decade, devastating reefs as it does so.

We have the tools now to study the outbreak in detail. We've been investing in the eReefs project over the past five years and now it's paying off. eReefs is a collaborative project between the Bureau of Meteorology, CSIRO, the Queensland Government and AIMS that provides analysis and modelling to allow powerful visualisation of coastal information, akin to the Bureau's weather services. It enables us to predict, for marine and agricultural managers, the impacts of their decisions and actions at local, regional and whole-of-Reef scales.

eReefs enables us to examine the hypothesis that river run-off is responsible for the outbreaks of crown-of-thorns starfish, because increased nutrients enhance the survival of starfish larvae. Using eReefs, we can see the relative nutrient contributions of the different rivers that flow into the Reef basin. That information can then be used to determine which riverbanks and catchments to target for remediation.

Improving water quality could help prevent future outbreaks of crown-of-thorns starfish, but what can we do about this one? A method of killing the starfish, with single lethal injection of bile salts, developed by AIMS and the Australian Research Council (ARC) Centre of Excellence for Coral Reef Studies, James Cook University, has replaced a system that required up to 20 injections. It is being implemented with great success on reefs used by the tourist industry but the process is very labour-intensive, so it is not going to stop the spread of an outbreak.

Using SeaSim we have started to explore some innovative approaches to controlling crown-of-thorns starfish using chemical attractants and deterrents. An early result, widely viewed online, shows how starfish react to the smell of a triton marine snail that is one of their few natural predators (www.aims.gov.au/media/the-triton-that-ate-the-crown-of-thorns).

Beyond Reef 2050

We know that reducing the impact of crown-of-thorns starfish will give the Great Barrier Reef an improved chance of adapting to a changing climate. That's a start to meeting the targets of the *Reef 2050 Long-Term Sustainability Plan*, but we also need to understand the cumulative impacts of the many challenges that the Reef faces: climate change, pollution, water quality, coastal development, fishing and so on. The Great Barrier Reef Marine Park Authority is required to develop a cumulative impact policy, and to do that it needs a scientific basis for attributing causes, and proposing mitigation strategies within the policy framework. What happens when higher temperatures combine with higher acidity and changing water quality? Are existing pollutants more dangerous or less dangerous at higher temperatures? What about sediments, storms and other factors working together? And what will be the impact of these changes on fish?

This year we've expanded our efforts to understand these cumulative impacts and to consider how we could help coral adapt to a changing world. Using SeaSim, we have started a series of long-term experiments to help us predict and influence the future of the Reef. These projects include:

- simulating the predicted ocean conditions 20, 50 and 100 years in the future, and finding out how corals and coral communities respond to these cumulative impacts
- determining coral's inherent genetic capacity to cope with warmer oceans. This knowledge could lead to interventions, such as identifying reefs with heat-tolerant coral communities and protecting them so that they naturally repopulate other reefs
- determining if the natural adaptive capacity of corals and their associated microbial communities can be enhanced via laboratory breeding.

Environmentally sustainable offshore oil and gas development

Environmental baselines for the Browse Basin

The Browse Basin, off north-western Australia, potentially contains hundreds of billions of dollars of oil and gas reserves in a remote area larger than Tasmania: Woodside Energy is developing three gas fields more than 400 km off shore, and in waters up to 700 metres deep; INPEX is spending over $US34 billion and building a 900 km pipeline to open up its Ichthys fields; Shell is building the world's largest floating structure, a giant liquefied natural gas facility, to process gas from its Prelude field.

AIMS is leading a team of research organisations which is helping Shell Australia and INPEX Operations Australia develop comprehensive environmental baselines for their oil and gas fields in the Browse Basin.

The research team for this applied research program includes AIMS, CSIRO, the University of Western Australia, Curtin University, Monash University and the Western Australian ChemCentre.

Preparing for spills

The same research providers are contracted to provide an operational and scientific monitoring program in the case of a Tier 3 spill (the most severe rating) from the Prelude and Ichthys wells. This program ensures that our capability—expertise and equipment—is ready to provide a rapid response to examine the environmental impacts of a spill, placing Australia in a better position than ever to respond to future incidents.

Industry recognition for environmental monitoring

AIMS has worked closely with Woodside Energy for many years, with a major focus on Scott Reef in the heart of the Browse Basin north of Broome. In 2013 and 2014, our attention turned to Rankin Bank and Glomar Shoals.

In 1984, Woodside and its partners commissioned North Rankin, the largest gas production platform in the world at that time. It was the first of a series of developments in the area, about 150 km north-west of Karratha.

The nearby Glomar Shoals are a key ecological feature in the region. Recently, Woodside recognised that information on the biodiversity of the Rankin Bank and the Glomar Shoals was limited, and commissioned AIMS to assess the physical and biological characteristics of these submerged reefs.

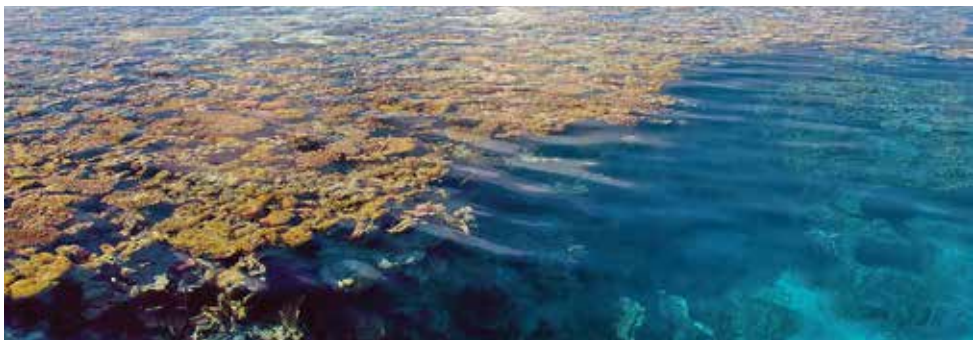
The study, which included three field trips, revealed that both reefs were rich in marine life and sustained a diverse biota comparable to that found on reefs and shoals across the Australian tropics. It concluded that these two ecosystems, despite being situated in an area with over 30 years of gas development, are in excellent condition.

The study also highlighted the importance of actively managing and mitigating potential impact from future brownfield development.

Woodside received an environmental award in May, 2015 from the Australian Petroleum Production and Exploration Association for this project.

In their nomination, Woodside said:

> *'The track record with AIMS to date has proven to be of a high scientific quality which is critical to our objective to deliver a competitive advantage through our reputation and environmental capability. Such high-quality science underpins robust descriptions of the receiving environment and environmental risk assessments, the publication of studies in high-profile scientific journals and avenues for additional outreach.'*



The reefs of northwest Australia are known for their clear water and diverse reef communities. Image: AIMS

Sustainable coastal ecosystems and industries across northern Australia

Our applied research and development is assisting in the sustainable development of the massive iron ore and oil and gas export facilities along the coastline of northern Australia.

Last year we reported on AIMS research that helped the Darwin Ports Corporation improve the design and ecological sustainability of the massive port development underway in support of oil, gas and defence operations in the region. Our modelling of Darwin Harbour is now so sophisticated that pilots can now use a smartphone application to help guide them safely into port.

We are now experts in turning data and models into practical information for ships and port managers, and are offering assistance to other tropical ports in Australia and the region.

We are also partners in Australia's largest dredging research program, a collaboration with the Western Australian Marine Science Institution, industry and a host of science partners. AIMS leads the science component of this five-year program worth over $19 million, working on a suite of projects across the north-west.

Dredging and the Reef

This year, dredging became a hot issue for the Great Barrier Reef. Many disparate claims were being made about what would and would not happen as a result of the proposed capital dredging for new ports.

AIMS responded by working with the Great Barrier Reef Marine Park Authority to bring scientists from industry, government and the university sector together to generate the Dredging Synthesis Report[1] —*Synthesis of current knowledge of the biophysical impacts of dredging and disposal on the Great Barrier Reef*.

Even if not all experts agree, bringing them together results in greater clarity. Between the start and finish of the process, policy changes were made and capital dredge disposal was banned in and near the Great Barrier Reef Marine Park, reflected in the *Reef 2050 Long Term Sustainability Plan*.

Much of the work of AIMS has the long-term aim of reducing the envelope of uncertainty in which decisions are often made, giving government, industry and the community an agreed set of facts and knowledge gaps that can better inform public discussion and policy formulation.

This exercise showed what science can and should do. We made available a clear synthesis of what we know and we clearly acknowledged what we don't know.

The report broadly concluded that, under the current rules, the Reef-wide impact of dredging is much less significant than that of run-off from rivers. However, it also identified 'significant areas of insufficient knowledge' including sediment dynamics, monitoring, and sensitivity of coral and seagrass to increased sediment exposure.

We are now using SeaSim to provide a stronger evidence base for any future evaluation of dredge proposals across northern Australia.

1 http://www.gbrmpa.gov.au/managing-the-reef/how-the-reefs-managed/expanding-knowledge-of-dredging

Marine science highlights

AIMS had another highly productive year in publishing, producing 168 journal articles, 8 book chapters, 31 reports and 11 theses.

There were a number of marine science highlights from AIMS research.

Twice the coral trout in Great Barrier Reef protected zones.

Coral trout in protected 'green zones' are not only bigger and more abundant than those in fished 'blue zones' of the Great Barrier Reef Marine Park, but they are also better able to cope with cyclone damage, according to a long-term study published in *Current Biology.*

Corals already have the genes to adapt to warmer oceans

Corals already have the genes to tolerate global warming. It may only be a matter of shifting them to where they are most needed. Migration and breeding may allow coral to adapt to hotter oceans, and offer a path for smarter reef conservation and restoration, according to a paper published in *Science*.

Extreme river flooding more frequent on the Great Barrier Reef: evidence from coral core luminescence

The frequency of large river floods affecting the central Great Barrier Reef has increased since the late 19th century. Flooding is now occurring every 6 years, compared to every 20 years before European settlement, says a paper published in *Coral Reefs*.

Roadmap to recovery for the world's reef fish

A *Nature* paper reported that near-pristine reefs around the world contain 1000 kilos (one tonne) of fish per hectare. Using this figure as a benchmark, the scientists found that 83 per cent of fished reefs have lost more than half of their fish biomass.

A window into the future reveals a grim reality for certain coral algae

A paper in *Scientific Reports* presented conclusive evidence that crustose coralline algae are vulnerable to ocean acidification. These algae play an important role in many marine ecosystems, providing the building blocks for coral reef development.

The secrets of long-distance migration of tiger sharks

Tiger sharks can migrate over very large distances, and range from the tropics to cool temperate waters, according to a new study by marine biologists in Western Australia. The study, published in *PLoS ONE,* tagged tiger sharks with satellite transmitters. One shark was tracked for 517 days, during which it travelled more than 4000 km.

Crown-of-thorns starfish thriving as ocean temperatures rise

Rising sea surface temperatures are boosting survival rates of crown-of-thorns starfish, according to a study published in *Scientific Reports*. Much of the research was carried out in SeaSim.

Giving some hope for coral reef survival

A paper in *Proceedings of the National Academy of Sciences* explored how 'assisted evolution' may help some corals adapt better to climate change. These approaches include techniques such as selective breeding and the manipulation of the microbial communities associated with plants and animals. So far, studies have shown that corals can naturally adapt or acclimatise to areas of elevated water temperatures.

Inshore reefs of the Great Barrier Reef especially vulnerable to ocean acidification

Inshore reefs on the Great Barrier Reef are particularly vulnerable to ocean acidification during the tropical wet season, according to a paper published in *PLoS ONE*. This is due to the impacts of both increased soil run-off from rivers and acidification caused by elevated carbon dioxide levels in the atmosphere and oceans. The rates of increase in carbon dioxide levels were almost twice as high in the waters surrounding inshore reefs as in the waters of outer reefs.

Study links dredging to diseased corals

Dredging activity near coral reefs can increase the frequency of diseases affecting corals, according to a study published in *PLoS ONE*. The research was conducted off Barrow Island in Western Australia.

National and international leadership

AIMS has played a leadership role in the development of a National Marine Science Plan for Australia. The Plan describes a series of grand challenges to be met to enable the growth of Australia's 'blue economy', which is forecast to reach $100 billion by 2025. A blue economy strikes the right balance between reaping our oceans' economic potential and the need to safeguard their longer term health. In this economy, our ocean ecosystems bring economic, cultural and social benefits that are efficient, equitable and sustainable. The Plan makes recommendations for investments that will improve the efficiency and effectiveness of marine science. It was launched in Parliament House in August 2015.

We have also contributed to the Foreign Minister's drive for regional innovation and the development of regional blue economies. Australia chairs the Indian Ocean Rim Association, for which AIMS hosted a meeting in Bali. AIMS CEO John Gunn spoke about Australia's *National Marine Science Plan 2015–25*[2] at a recent global summit in Lisbon.

2 http://frdc.com.au/environment/NMSC-WHITE/Pages/default.aspx

A new Chairman

The Honourable Penelope Wensley AC, was appointed Chairman of the AIMS Council for a five year term from 1 January, 2015. A former career diplomat, Penny has a deep appreciation of sustainable development and environmental protection and considerable experience in national and international policy development in these fields, from her work as Australia's Ambassador for the Environment and to the United Nations, and in a number of other Ambassadorial roles and senior policy positions in the Department of Foreign Affairs and Trade. She also served as Queensland's 25th Governor, from 2008 – 2014. Penny's experience and leadership will be especially helpful in guiding the development of AIMS' international engagement strategies and its involvement with Australia's science diplomacy activities.

Penny is joined by three other new members: Ms Diana Hoff, Dr Stephen Morton and Mr Roy Peterson. We look forward to working with them.

We would like to thank Mr Wayne Osborn, who served as Chairman of the Council for five years. He played a major role in improving our industry engagement, especially with offshore oil and gas producers. Our thanks go also to retiring Council members Mr John Grace and Ms Elizabeth Montano who concluded their terms on Council in December, 2014 and Mr Nicholas Mathiou who completed his term in August, 2013.

The right tools for the job

The scientific achievements we outline in this report were only possible because of the remarkable research infrastructure and staff who support our science.

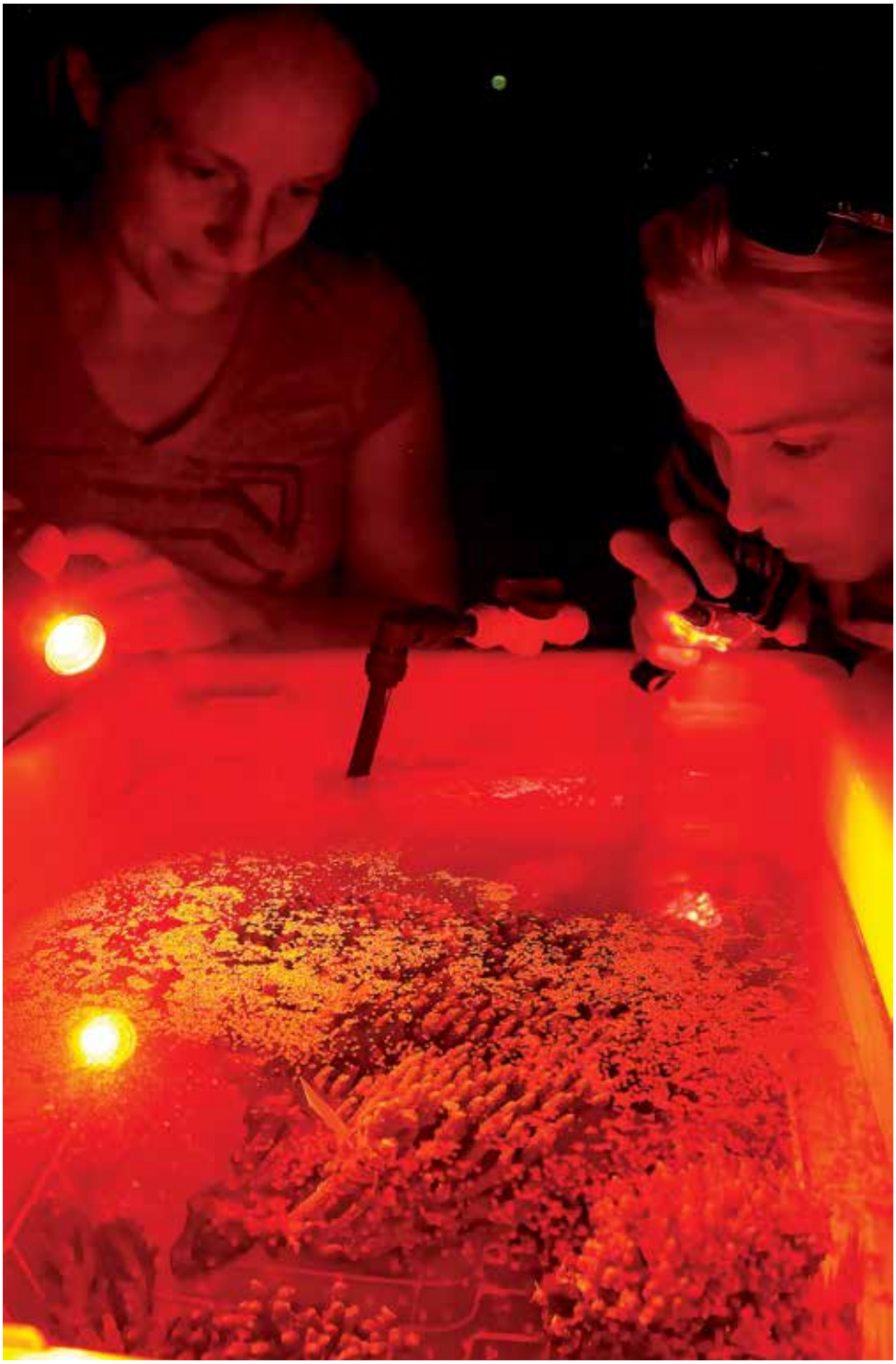
This year our research vessels spent 604 days at sea. SeaSim completed its first full year of operation and received accolades from its users, especially during the annual coral spawning when researchers from around the world flock to AIMS. Remote buoys operated by AIMS and by the Integrated Marine Observing System harvested gigabytes of data, which AIMS shared with scientists around the world.

Marine research is changing. There will always be a need to go out, dive and observe the oceans, but there are also new technologies which enable us to do much more. Our AIMS scientists and engineers are at the forefront of these new marine remote sensing applications.

We thank them, and all members of staff for their commitment to AIMS and all who have supported AIMS' work during the past year. We look forward to your continued support to help us achieve our purpose of providing world class marine, scientific and technological research in support of the protection of our marine environment and the sustainable use of its wealth for the benefit of all Australians and future generations.

The Honourable Penelope Wensley AC and John Gunn

September, 2015



The National Sea Simulator is facilitating new research on coral reproduction. Image: AIMS

KEY OUTCOMES

Through its research programs, AIMS is making a significant contribution to Australia.

This section presents five examples of significant research outcomes in 2014–15 from AIMS' three high-level outcome areas.

A healthy and resilient Great Barrier Reef

- Genomic determinants of heat tolerance in corals
- Reef zoning supports greater biomass of key fisheries species

Sustainable coastal ecosystems and industries across northern Australia

- Improving our ability to predict the potential impacts of industrial discharges into tropical marine environments

Environmentally sustainable offshore oil and gas development

- International, multidisciplinary collaboration investigates key processes sustaining Scott Reef off Western Australia
- Documenting the Kimberley's marine biodiversity in priority management areas

Each of these achievements is described in more detail below.

A healthy and resilient Great Barrier Reef

Genomic determinants of heat tolerance in corals

New research has uncovered a genetic basis to temperature tolerance in corals—information that will improve our projections of future changes to reefs and provide foundational knowledge for reef restoration.

Corals face environmental conditions that change gradually and are periodically extreme, resulting in physiological stress that affects the coral's health and survival. Corals die when their stress thresholds are exceeded, which contributes to the downward trend in coral cover, calcification rate and other health attributes observed on reefs the world over. Understanding how corals can raise their stress threshold, and tolerate conditions that would otherwise kill them, greatly enhances our ability to forecast and manage coral cover and other health attributes under future scenarios of environmental change. The research collaboration between AIMS and the University of Texas uncovered a genetic mechanism by which branching coral can become more tolerant of higher temperatures—and it involves mum.

Acropora millepora, a common coral on the Great Barrier Reef that is vulnerable to temperature stress. Image: Eric Matson © AIMS

Research published in the journal *Science* tested the temperature tolerance of parent corals originating from warmer and cooler reefs, and their offspring. The study showed that corals living in warmer waters are naturally adapted to the higher temperatures, and pass on their temperature tolerance to their offspring. Tolerance was most enhanced in offspring with a mother from the warmer location.

'Our research opens up the possibility of using naturally tolerant corals from warmer waters to alleviate some of the problems of global warming in cooler waters,' says Dr Line Bay, an evolutionary biologist from AIMS in Townsville and the joint senior author on the paper.

Next-generation sequencing data revealed that elevated heat tolerance in offspring was associated with the regulation of mitochondrial genes, which are inherited solely from mothers, responsible for energy production and conversion. Two genomic regions strongly responded to selection for thermal tolerance, providing evidence that existing genetic variation could help the coral species adapt to a warming world.

This research suggests a way of speeding up that adaptation. A potentially rapid mechanism of climate change adaptation in corals is a 'genetic rescue', whereby heat-tolerant corals from warmer reefs are introduced to reefs where the local corals, less tolerant of warming, are suffering from stress. This genetic rescue can improve the heat tolerance of the population very quickly, and in time scales that are relevant for reef conservation and management.

Genetic exchange occurs among reefs naturally through larval dispersal following the annual mass spawning in late spring on the Great Barrier Reef. It is also possible to experimentally breed or transplant corals with elevated heat tolerance. This research provides the tools to identify the best natural targets for such reef restoration approaches.

Dixon GB, Davies SW, Aglyamova GA, Meyer E, Bay LK, Matz MV (2015) Genomic determinants of coral heat tolerance across latitudes. *Science* 348(6242): 1460–1462

Reef zoning supports greater biomass of key fisheries species

New research by AIMS scientist Dr Aaron MacNeil confirms Australia's fisheries management system is working: the fished biomass of our coral reef ecosystems is among the best in the world.

In positive news for the Queensland and Australian governments, fisheries regulations on the Great Barrier Reef are striking a balance between conservation and resource use.

In collaboration with researchers from seven other organisations, quantitative ecologist Dr MacNeil was able to quantify fish biomass across the world's coral reefs.

> "Biomass is the total density of all species of fish. 'Fish stocks' refers to the population numbers of individual species."

Dr MacNeil's study determined the fish biomass in hypothetically 'unfished' reefs—the potential biomass on a reef in the absence of fishing—by combining information from marine protected areas and remote areas located over 200 km from human habitation.

Once this baseline was known, Dr MacNeil studied fish biomass at sites with various fisheries management strategies in place, such as 'green' zones in the Great Barrier Reef where fishing is not permitted, and sites with no fishing restrictions at all.

'One of the problems in setting regulations is that we need to know how many fish *could* be in any given area if that area wasn't being fished,' Dr MacNeil said.

'In this study we were able to find that number, and this means that we know where we fit in the global context, and therefore how well we are doing.'

After compiling data from 832 reefs in 64 locations, it was clear some reef fisheries were in better shape than others. A major contributing factor to reefs with a healthy biomass was having some form of fishing restriction in place.

Different socioeconomic factors around the world mean that some people rely more heavily on reef resources for their livelihoods than do others. The study showed that, among communities relying on reef resources, any form of fisheries regulation can have substantial positive effects on reef health, provided local people abide by the rules.

Dr MacNeil estimated that, on average, reefs where fishing is allowed or semi-restricted need 35 years of protection to fully recover their full biomass potential, extremely depleted reefs would take 59 years of protection to completely recover.

He said the findings show that new marine reserves can take decades to fully establish their potential, but also that fishing restrictions are a viable management strategy where full closures are unfeasible.

'Although we aren't at the top of the list for fish biomass anywhere, the data from Australia were very positive,' he said. 'In terms of coastal populations using a resource, Australia is doing well.'

Co-authors included researchers from the Australian Research Council (ARC) Centres of Excellence for Coral Reef Studies and Environmental Decisions, Wildlife Conservation Society, Newcastle University, University of Hawaii, the Western Australia Department of Parks and Wildlife and the US National Oceanic and Atmospheric Administration Pacific Islands Fisheries Science Centre.

MacNeil MA, Graham NAJ, Cinner JE, Wilson SK, Williams ID, Maina J, Newman S, Friedlander AM, Jupiter S, Polunin NVC, McClanahan TR (2015) Recovery potential of the world's coral reef fishes. *Nature* 520: 341–344

Further evidence for the benefits of fisheries management was provided by a study that found that coral trout in protected 'green zones' are bigger and more abundant than those in fished 'blue zones' of the Great Barrier Reef Marine Park, and also better able to cope with cyclone damage. The long-term study, carried out jointly by AIMS and the ARC Centre of Excellence for Coral Reef Studies at James Cook University, was published in *Current Biology*.

Coral trout biomass has more than doubled since the 1980s in the green zones, with most of the growth occurring since the Marine Park was re-zoned in 2004. The re-zoning increased marine reserves where fishing is prohibited (called 'green zones' because of their colour on the park zoning maps) from less than five per cent to about one-third of the total Marine Park area.

The study combined a vast amount of information from underwater surveys carried out from 1983 to 2012 on reefs spread across approximately 150000 km^2 (more than 40 per cent) of the Marine Park.

The study demonstrated that the Reef's network of green zones is yielding broadscale population increases for coral trout, the primary target species of both the commercial and recreational sectors of hook-and-line fishers. It also found that reefs in green zones supported higher numbers of large, reproductively mature coral trout, even after being damaged by cyclones—such as tropical cyclone Hamish, which hit the Reef in 2009.

These and other changes identified by the study show that the green zones are contributing to the health of the Great Barrier Reef, and that similar approaches may be beneficial for coral reefs around the world.

The findings provide compelling evidence that effective protection within green zone networks can play a critical role in conserving marine biodiversity and enhancing the sustainability of targeted fish populations.

'It's heartening to know the green zones are working as we had expected,' said lead author Mr Michael Emslie from AIMS. 'Among the world's coral reefs, fishing on the Great Barrier Reef is relatively light but it has still reduced the number and average size of the few fish species that are taken by fishers. Data since the 1980s show that green zones have been effective in restoring numbers of coral trout to their former levels.'

Dr David Williamson, a co-author from the ARC Centre of Excellence for Coral Reef Studies said, 'We expected to see some declines in coral trout biomass on reefs that remained open to fishing after the re-zoning due to the increased concentration of fishing effort on those reefs, a so-called squeeze effect. Instead, we found that coral trout biomass remained stable on fished reefs in areas that avoided the impacts of cyclone Hamish, while it increased significantly on green zone reefs. Ultimately, it has led to an overall increase in coral trout biomass across those regions. It's a really positive result for both the fish and the fishery'.

The study suggests that the original Marine Park zoning plan, which was established in the 1980s, began to improve fish stocks, but that the expanded protection from 2004 greatly improved on this. Dr Hugh Sweatman, also of AIMS and co-author of the paper, said: 'Australia's Great Barrier Reef Marine Park is looked upon as a benchmark for large-scale reserve networks around the world. Unlike many places where coral reefs are found, Australia is a developed country where fishing is fairly light and well regulated. Yet even here we see clear effects of fishing—the benefits of no-take reserves would be much more obvious where large coastal populations depend on reefs for their daily food, so fishing is more intense and everything is taken. Our findings suggest that effectively protected networks of no-take reserves will help reef fish cope with some present and future stresses, and assist in maintaining coral reef fish populations as we know them'.

The study received funding from the Australian Government's Marine and Tropical Sciences Research Facility (MTSRF) and the National Environmental Research Program, the Australian Research Council, the Cooperative Research Centre (CRC) Reef Research Centre and AIMS.

Emslie MJ, Logan M, Williamson DH, Ayling T, MacNeil MA, Ceccarelli D, Cheal AJ, Evans RD, Johns KA, Jonker MJ, Miller IR, Osborne K, Russ GR, Sweatman HPA (2015) Expectations and outcomes of reserve network performance following re-zoning of the Great Barrier Reef Marine Park. *Current Biology* 25(8): 983–992

Sustainable coastal ecosystems and industries across northern Australia

Improving our ability to predict the potential impacts of industrial discharges into tropical marine environments

AIMS' Darwin team is developing standards for using tropical species to test the potential effects of marine contaminants and establish water quality guideline values relevant to Australia's tropical marine environments. The research, which is co-funded by Queensland Alumina Limited and the aluminium product group of Rio Tinto, will provide guideline values for aluminium, molybdenum and gallium in marine waters. Relevant, high-quality scientific data will enable the prediction of impacts from industrial discharges to the marine environment, including those from alumina refineries. The current safety thresholds for water quality were published by the Australian and New Zealand Environment Conservation Council (ANZECC) in 2000.

The permissible concentration of potentially toxic elements in water surrounding industrial discharge into 'moderately disturbed environment' is set at levels that ensure 95 per cent of marine species are protected. For 'high ecological value environments', the protection required is 99 per cent.

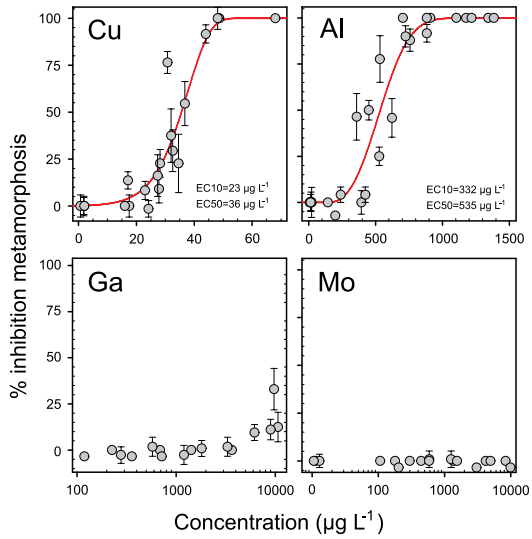


Figure 2. Concentration-response plots showing the effects of copper (Cu), Aluminium (Al), gallium (Ga) and molybdenum (Mo) on successful metamorphosis in hermit crab (Coenobita variabilis) larvae.

Some of the 'safe' levels used in the ANZECC guidelines are based on limited or non-representative data. For example, the marine water guideline value for gallium is highly unreliable because it is based on a single freshwater species.

AIMS postdoc Joost van Dam said the knowledge gap was a significant problem for industry. The lack of research makes it difficult for companies to make decisions informed by scientific evidence, while also trying to minimise their environmental footprint and increase efficiency.

A reliable guideline value includes data from at least five toxicity measurements. Such a large body of work has not been completed for every single element, so regulators have adopted conservative thresholds for some elements to ensure the safety of marine life.

Data obtained from this project to date shows that gallium and molybdenum are effectively harmless to receptor species (including hermit crabs, barnacles and microalgae) at low concentrations (see Figure 2). The results have refreshed discussion about environmentally and regionally relevant guideline values, and it is anticipated that they will be used to set revised levels. This will ultimately result in appropriate ecosystem protection without applying unnecessarily stringent limits on industry.

In addition to published papers, this work was featured in the Fisheries Research and Development Corporation *FISH* magazine in June 2015. Findings were also presented at meetings of the Society of Environmental Toxicology and Chemistry in 2014 and 2015, and the project was promoted at Garma, an annual festival to promote Indigenous business development and to increase engagement with Indigenous groups.

Other collaborators on the project include Dr Claire Streten and Mr Simon Harries (AIMS); Dr Melanie Trenfield, a Northern Australia Marine Research Alliance postdoc (AIMS/Charles Darwin University); Dr Rick van Dam and Dr Andrew Harford from the Australian Government Office of the Supervising Scientist; Professor Karen Gibb (Charles Darwin University); and Professor David Parry (Rio Tinto).

David Parry, Principal Advisor, Environment, at Rio Tinto gave the following feedback:

'Rio Tinto and Queensland Alumina Limited are extremely pleased with the outcomes of the research project. The results have already been used in negotiations with regulators in Queensland and the Northern Territory in establishing discharge limits and water quality targets and in assessing potential impacts from discharges. This has been a very good outcome for the project, and clearly demonstrates the value of the project to industry.'

Trenfield MA, van Dam JW, Harford AJ, Parry D, Streten C, Gibb K, van Dam RA (2015) Aluminium, gallium, and molybdenum toxicity to the tropical marine microalga *Isochrysis galbana*. *Environmental Toxicity and Chemistry* 34(8): 1833-1840

Environmentally sustainable offshore oil and gas development

International, multidisciplinary collaboration investigates key processes sustaining Scott Reef off Western Australia

In April 2015, scientists from AIMS, the University of Western Australia (UWA) and Stanford University joined forces to survey the physical oceanography and habitat structure of the South Scott Reef deeper lagoon in unprecedented detail. The project investigated key processes sustaining the reef by integrating patterns of water mixing and flow with the observed distribution of seabed habitats.

Dr Richard Brinkman and Mr Simon Spagnol brought AIMS' expertise in mooring design, deployment and recovery to the research vessel (RV) *Falkor*, successfully setting up instruments in the major deeper water arrays at 200 m and 400 m depths between North and South Scott Reef. In collaboration with Professors Greg Ivey and Ryan Lowe from UWA, a dense spread of instruments was also deployed across the 30–60 m depths of South Scott Reef lagoon. This network of sensors was extended by an AIMS dive team on the RV *Solander*, led by Dr James Gilmour, fixing water quality sensors on to the shallow reef margins, where precise location of the instruments on the reef framework was critical.

Data from the network of sensors, combined with intensive 24/7 water column sampling during the cruise, will help further refine a very high-resolution circulation and mixing model for the reef. This model, combined with data on coral recruitment and genetics, will explore fine-scale patterns of connectivity among sites across Scott Reef. Ongoing collaboration with UWA and Stanford University staff working on the oceanography also provides an opportunity to evaluate dynamic physical forcing as an element in the spatial models of reef habitats that AIMS continues to develop for this region.

Simon Spagnol (centre) prepared instruments on the RV *Falkor*. Image: SOI / Cordelia Moore, AIMS

While the oceanographers toiled under a tropical sun, Dr Ben Radford and Dr Andrew Heyward gathered the deeper lagoon habitat data at night. Several weeks of deeper water coral assessments were completed under cover of darkness, which provided the best possible imaging conditions using artificial lights as the sole light source (see remotely operated vehicles (ROV) dives at http://www.schmidtocean.org/story/show/4228). Excellent vessel control and ROV capabilities on the RV *Falkor* enabled a comprehensive survey of the deeper coral communities that dominate much of South Scott Reef lagoon at 30–60 m. These deeper habitats exist in greatly reduced light, typically only 2–10 per cent of the amount of sunlight at the sea surface, and are now frequently referred to as mesophotic reefs.

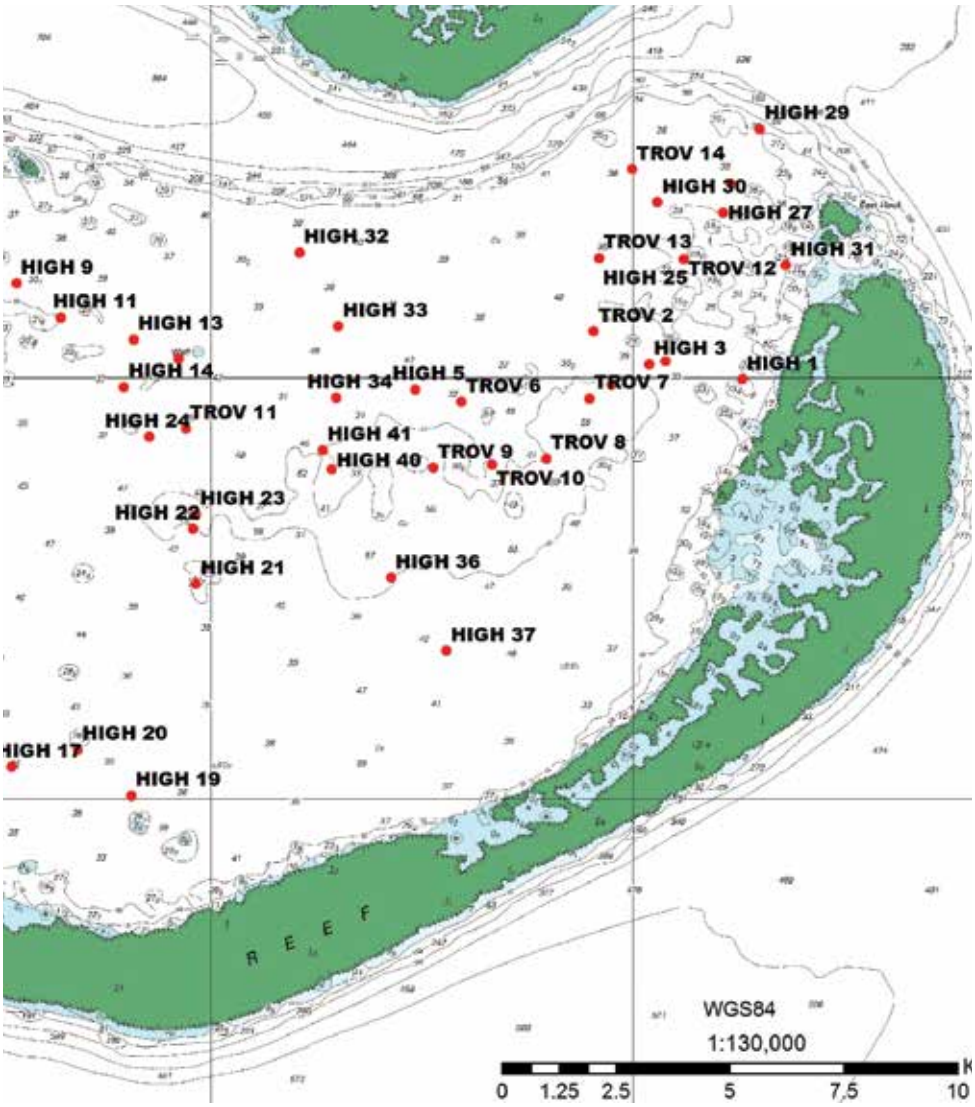


Figure 3. Remotely operated vehicles' deeper coral community survey stations, first assessed in 1999 and resurveyed in 2015. Four 50 m video transects were completed at each station.

These important coral communities were first assessed by AIMS in 1999 in collaboration with Woodside Energy Ltd, so the cruise provided an opportunity to review their status and assess their stability over the 15-year interval. The 1999 survey and the 2015 repeated survey of the same stations (Figure 3) provide the bookends for a unique long-term assessment of a large mesophotic reef habitat. Once completed, the analyses will allow comparison with the adjacent shallow water reef corals, which are known to have been affected by major disturbances from bleaching and cyclones during this same time period.

The SeaEye ROV was configured with both forward-looking and downward-looking high definition cameras. These provided both a broad, habit-scale image along transects (Figure 4) and a close-up 'photo quadrat' perspective of the benthic biota (Figure 5). The downward-facing images will facilitate a quantitative analysis of the benthic community composition.

Figure 4. South Scott Reef lagoon. Foliaceaous and branching coral dominated habitat in 52 m water depth, as seen in the forward-looking ROV camera view. The forward perspective camera provides a broad view of the overall habitat along each transect.

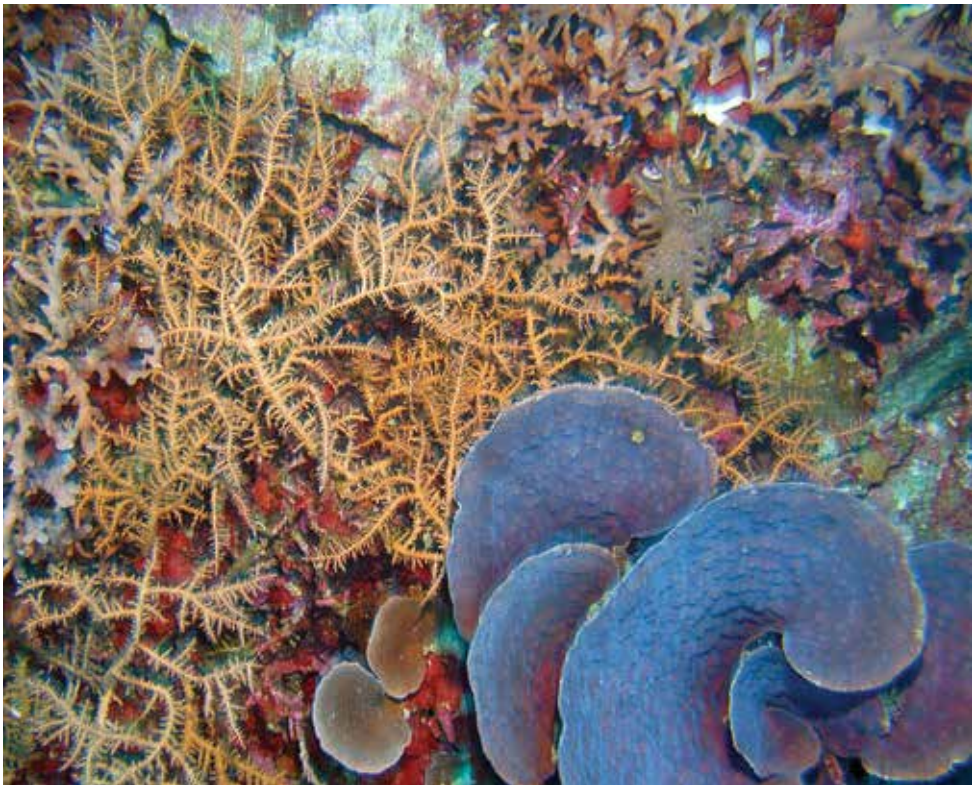


Figure 5. South Scott Reef lagoon. Mixed coral community at 55 m depth taken on a 50 m video transect survey. This image was taken from the continuous video record, captured directly under the ROV using a downward-facing camera. These downward-perspective images will be analysed to characterise in detail the composition of the deeper water benthic communities, and compare with data from the same locations collected by AIMS in 1999.

Documenting the Kimberley's marine biodiversity in priority management areas

Fieldwork to characterise seabed biodiversity along the Kimberley coast began in November 2014 with a three-week cooperative effort by scientists and staff on board AIMS' *RV Solander* and CSIRO's RV *Linnaeus*. The initial ship-based expedition to Camden Sound was conducted under the auspices of the Western Australian Marine Science Institution (WAMSI)'s Kimberley Benthic Biodiversity Project, which aims to learn more about the habitat types and marine diversity of the Kimberley's diverse marine environments, especially in priority management areas such as the state government's proposed marine parks and reserves. This project is a collaboration between AIMS, the Western Australian Museum, CSIRO and Curtin University.

The project's Principal Investigator and cruise leader on board the RV *Solander*, Andrew Heyward, said that the vessel operated 24/7 during its 18-day itinerary. Pre-cruise planning made use of all available information on the area to develop a representative sampling plan (Figure 6), but the limited knowledge of what existed below low tide meant the voyage was definitely one of discovery.

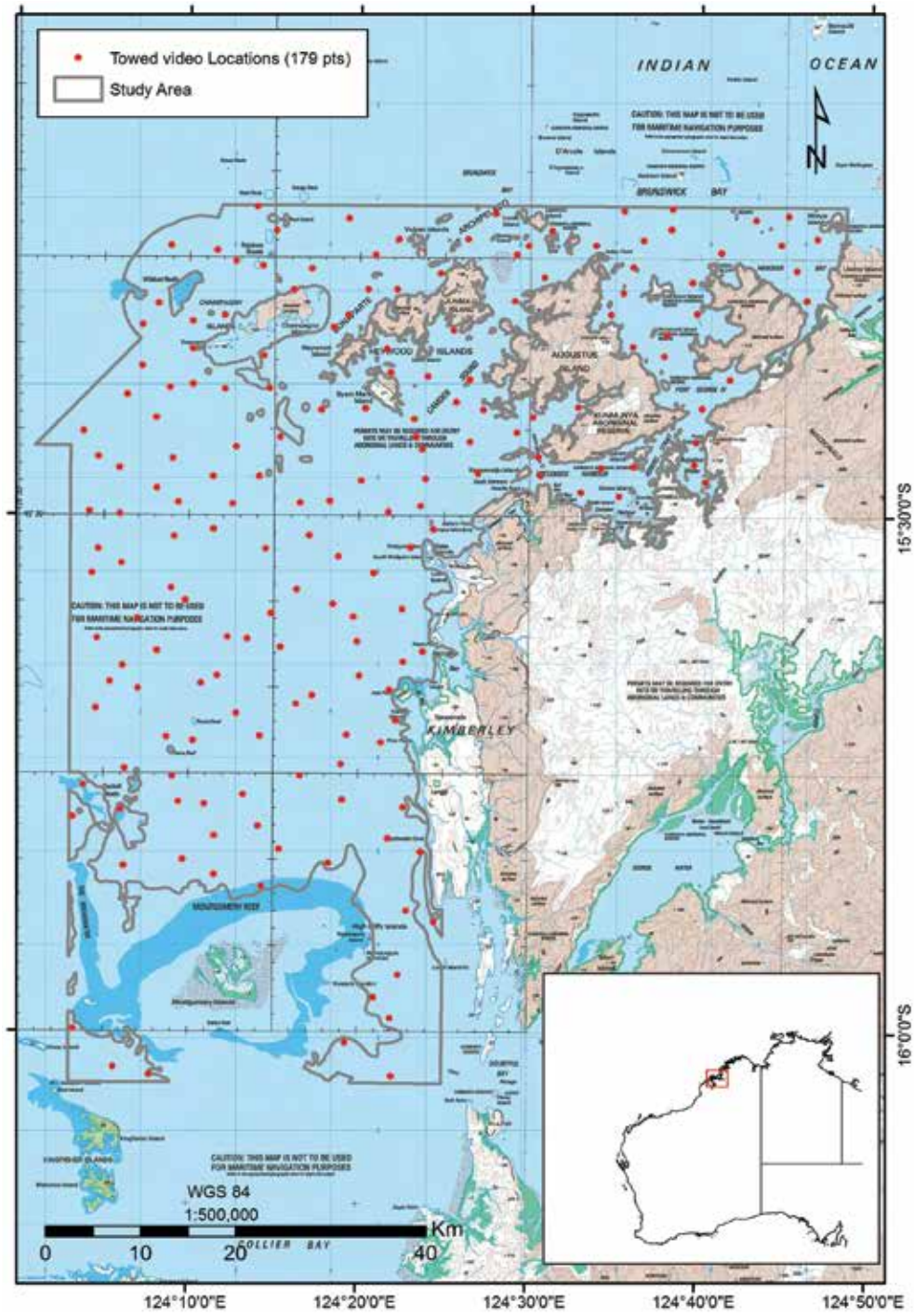


Figure 6. Camden Sound showing targeted towed video survey sites, November 2014

Although the weather was generally very good, extreme tides, strong currents, turbid waters and some uncharted areas provided plenty of challenges for researchers. Both vessels had moments where towed cameras tangled with rocky seabed hidden in the gloom until the last minute. They successfully completed more than 200 km of towed video and thousands of kilometres of multi-beam seafloor mapping, in the first of two expeditions to the Camden Sound area (Figure 7). The towed cameras revealed large areas of dynamic sand across the open Sound, including some patches with underwater sand dunes, but also rocky ground covered in a large variety of marine invertebrates, particularly sponges and soft corals.

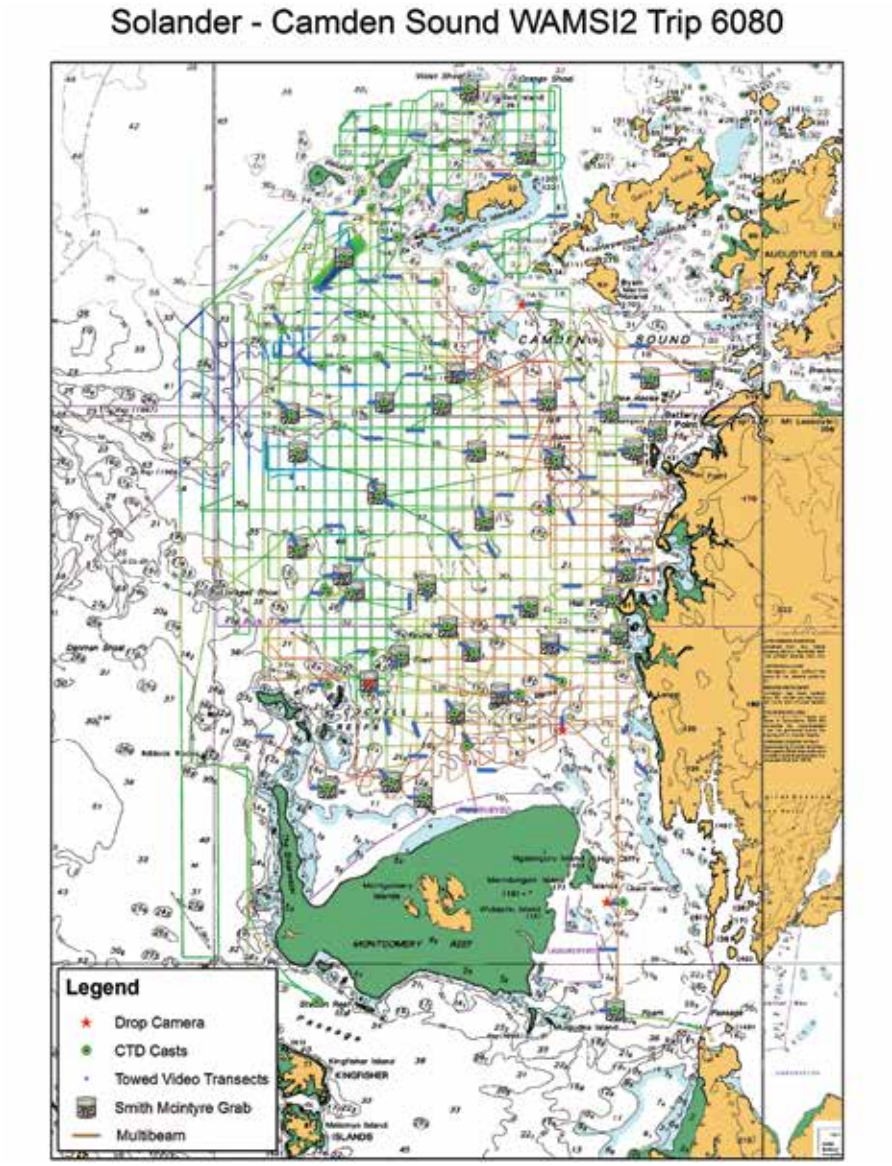


Figure 7. Multi-beam grid tracks surveyed at night at Camden Sound, November 2014.

The turbid waters of Camden Sound can prevent sunlight from penetrating more than approximately 10 m below the low tide mark in many places. Consequently, organisms that need light—such as corals and seaweeds—appear to be restricted to the shallowest parts of rocky ground and the upper edges of fringing reefs around islands (Figure 8). With increasing depth and fading light, the filter-feeding sponges, soft corals, ascidians and bryozoans dominate the seabed communities. High-resolution photos also revealed that very diverse life was often present on submerged rocks and ledges, but many of the organisms were small or encrusting (Figure 9).

Figure 8. Low tide exposes coral and algal zone at the fringe of vast intertidal reef flats on Wildcat Reef at the northern end of the marine park—quite typical for the Kimberley region.

Figure 9. A still image from one of the towed video surveys showing a mixed filter-feeding community (including encrusting bryozoans, sponges and soft corals) growing on a rock outcrop.

'Thanks to the combined efforts of all those aboard the *Solander* and the *Linnaeus* this month,' said Dr Heyward, 'we're beginning to understand a lot more about what the seafloor of the Lalang-garram-Camden Sound Marine Reserve looks like, and the benthic biodiversity that lives there.' A follow-up cruise in the same region was planned for March 2015 to further the seabed characterisation using cameras and multi-beam, and begin collection of representative biota that will form the project's biodiversity collection, to be held at the Western Australian Museum. Initial sampling confirms the patterns seen on the towed video cameras, with many areas supporting limited larger biota and a few places with abundant and diverse life (Figure 10). The researchers anticipate that many new species, both large and small, will be discovered once samples are identified at the Western Australian Museum.

To complement the ship-based surveys, the scientists will also work with Indigenous groups of the Kimberley coast, including the sea rangers, to gather additional information about shallow, nearshore areas more readily accessible from smaller boats.

As with all Western Australian Marine Science Institution projects, the data and outputs will be freely available to everyone with an interest in the marine environments of the Kimberley.

Figure 10. Seabed biodiversity samples on the RV Solander, prior to sorting for Western Australian Museum analysis, collected during the second cruise, Camden Sound, March 2015.

DELIVERY AGAINST STATED GOALS

AIMS' core role is to provide the research and knowledge of Australia's tropical marine estate required to support growth in its use, effective environmental management and protection of its unique ecosystems.

Through engagement with stakeholders across government and industry, AIMS' objective is to continue to produce excellent science, while ensuring that its multidisciplinary science capability, infrastructure and research investment remain focused on, and address, national needs and aspirations.

In meeting its core objective, AIMS has a number of reporting obligations:

- External reporting requirements are to the Australian Government Portfolio Budget Statements (PBS) 2014–15 and national research priority areas.[3]
- Internal reporting requirements are to the *Australian Institute of Marine Science Act 1972* requirements and corporate goals as outlined in the AIMS *Strategic Plan 2015–25*.

These reporting obligations, and how AIMS has addressed these requirements, are outlined below.

Subsequent sections give more detailed information on AIMS' performance in terms of:

- scientific publications and reports
- scientific leadership
- research and stakeholder partnerships
- stakeholder engagement
- research capability (that is, skills development)
- research facilities and resources.

Portfolio Budget Statement expectations

Each year the PBS provides parliament with information on how AIMS will use its allocated resources to achieve government outcomes over the current budget and forward years.

The 2014–15 PBS describes AIMS as contributing to Outcome 1: Growth of knowledge to support protection and sustainable development of Australia's marine resources through innovative marine science and technology.

AIMS' activities contribute to the achievement of Outcome 1 through Program 1.1: Marine Research.

3 The Australian Government's Science and Research Priorities were announced in May 2015. Reporting on the alignment of AIMS' activities against these priorities will be included in AIMS' 2015–16 Annual Report.

AIMS' focus in Program 1.1 is on the provision of research and services that enhance Australia's capacity to capture the benefits from its marine estate while ensuring protection of marine and coastal ecosystems through effective environmental management.

To deliver on this objective, AIMS' 2014–15 PBS outlined nine deliverables and seven key performance indicators. These are listed below, with a description of our achievements in each of the areas and a rating of how well AIMS is tracking against each deliverable.

Marine program deliverables

*Rating legend: +++ meeting all expected outcomes, ++ meeting most expected outcomes, + meeting some expected outcomes

Deliverable	Performance	Rating*
Test predictive models of reef resilience related to global and local pressures on reef systems	Throughout the year AIMS has conducted targeted research both in the field and in the laboratory, particularly in AIMS' National Sea Simulator, to examine the individual and interactive cumulative effects of global and local pressures on key components of tropical marine ecosystems in order to develop models of the resilience of reef systems. Specifically, the research has examined: • changes in the thresholds for global change stressors (temperature increase, ocean acidification) due to elevated local stressors • the performance of reef organisms under a variety of future scenarios • mechanisms for adaptation and potential adaptive capacity of key reef organisms (see Key Outcome on page 13) • the role of microbes (bacteria and viruses) in the health, adaptive capacity, resilience and susceptibility to disease and bleaching of key reef organisms, particularly corals and sponges • historical influences of terrestrial inputs to the inshore Great Barrier Reef • novel techniques to detect the presence of crown-of-thorns starfish larvae in the water column using species-specific DNA markers.	+++

Deliverable	Performance	Rating*
Play a lead role in the development and implementation of a fully integrated Monitoring Programme and Adaptive Management Framework for the Great Barrier Reef World Heritage Area (GBRWHA)	AIMS has played a significant role in the development of the recently released *Reef 2050 Long-Term Sustainability Plan* for the Great Barrier Reef, having contributed as a member of the Partnership Group and associated expert workshops that guided the development of key outcomes, objectives, targets and actions of the Plan. A critical element of the *Reef 2050 Long-Term Sustainability Plan* is the Reef Integrated Monitoring and Reporting Program (RIMREP). AIMS has been appointed to the Steering Group, co-chairs the Program Design Working Group and contributes to the Synthesis and Reporting, and Data Systems and Management working groups. AIMS continues to implement the Long-term Monitoring Program (LTMP), which has now accumulated 40 years of data describing the condition of the Great Barrier Reef, making it the most comprehensive reef monitoring program in the world. This program provides early warning of crown-of-thorns starfish outbreaks, monitors the performance of the Great Barrier Reef World Heritage Area zoning plan and made significant contributions to the Great Barrier Reef Marine Park Authority's Outlook Report 2014 and the Strategic Assessment of the Great Barrier Reef World Heritage Area. AIMS also delivers components of the *2050 Long-Term Sustainability Plan's* Marine Monitoring Program (MMP). This program provides critical information on the response of coastal ecosystems to changes in catchment practices, industrial development activities along the coast (in particular, dredging) and seasonal processes, such as river flooding and winds.	+++

Deliverable	Performance	Rating*
Develop a risk assessment and decision-support system for the Great Barrier Reef World Heritage Area to identify the most effective options for management interventions in a changing environment	During 2014–15, AIMS has assisted with the development of decision-support systems that have: • assisted the Department of the Environment with the prioritisation of candidate Reef Trust investments • helped the Great Barrier Reef Marine Park Authority evaluate options for targeting investment in crown-of-thorns starfish control • facilitated greater understanding of the factors influencing seagrass condition in the Mackay–Whitsunday region.	+++
Develop ecosystem function–based approaches to identify and document the impacts of human activity on the health and resilience of coastal systems	AIMS continues to lead research confirming the benefits of marine reserves as a mechanism to promote sustainable use of reef resources. During 2014–15, AIMS published several key papers demonstrating healthier reef fish populations, particularly of species targeted by fishing, in no-take zones compared with fished reefs, and that the application of some form of fisheries management regime contributed to maintaining critical fish-related ecosystem functions (see Key Outcome on page 15). In addition, AIMS has used a number of different techniques to: • reconstruct a history of Burdekin River flows into the Great Barrier Reef to examine changes in flood patterns over the last approximately 350 years • establish specific quantitative relationships between changes in terrestrial run-off to the Great Barrier Reef and intra- and inter-annual variation in coastal water clarity along the Queensland coast • provide integrated information on physical processes, sediment transport and biogeochemistry to greatly enhance the capacity of decision-makers to strategically manage the Great Barrier Reef. This capability is provided through eReefs, which is a collaborative initiative involving AIMS, the Great Barrier Reef Foundation, Bureau of Meteorology, Queensland Government and CSIRO.	+++

Deliverable	Performance	Rating*
Develop risk assessments and models of the impacts of coastal development, including ports, based on empirical data	AIMS has been heavily involved in a number of programs examining the impact on marine ecosystems of pollutants introduced by industry activities and the sedimentation and turbidity associated with ports, including construction and dredging operations. AIMS and the Great Barrier Reef Marine Park Authority convened an expert scientific panel to synthesise current information on the effects of dredging and marine spoil disposal on the Reef. The panel documented existing knowledge, identified aspects of dredging that were scientifically contentious, and identified the key gaps in our knowledge. The panel's findings assist with the ongoing development of policies and best practice guidelines and in assessing proposed developments that involve dredging, and will guide future research into the effects of dredging and disposal. In addition, AIMS leads the Dredging Node of the Western Australian Marine Science Institution. In collaboration with industry and research partners, AIMS is assessing the impact of dredging activities on marine environments. The research establishes quantitative relationships between dredging-related pressures and the response of tropical marine organisms. This information can be used to predict the possible effects of dredging at the environmental impact assessment stage and to monitor impacts during dredging. This, in turn, facilitates adaptive management and optimisation of programs to minimise impacts. With funding provided by the National Environmental Research Programme, AIMS and its collaborative partners have also investigated: • the effects of herbicides and increased sea surface temperature on seagrasses and corals; and the threshold toxicity of herbicides on inshore biota • the efficacy of managing low-level, chronic herbicide exposure on seagrass • the impacts of chronic herbicide exposure on coral recruitment • the impacts of herbicides at multiple temperatures relevant to those in flood plumes • the toxicity of herbicide breakdown products.	+++

Deliverable	Performance	Rating*
Establish and commence implementation of a coordinated regional assessment framework for North-West Australia reefs and shoals	By leading a number of initiatives, AIMS has developed a greater understanding of the biodiversity and condition of reefs and shoals on Australia's North-West Shelf. AIMS leads the Kimberley Benthic Biodiversity node of the Western Australian Marine Science Institution, and during 2014–15 conducted two trips to characterise the biodiversity of the Kimberley coast, particularly in areas identified as potential marine reserves. These voyages successfully completed more than 200 km of towed video and thousands of kilometres of multi-beam seafloor mapping in the Camden Sound area. Additional fieldwork was completed in partnership with Indigenous traditional owners and sea rangers at Cygnet Bay, Cape Leveque and Sunday Island (see Key Outcome on page 22). In partnership with industry, particularly the oil and gas industry, AIMS has conducted surveys to a number of reefs and shoals in the North-West Shelf region, specifically to Heywood and Echuca shoals, Scott and Ningaloo Reefs and the Rankin Bank. In addition, in April 2015 AIMS joined forces with the University of Western Australia and Stanford University to survey the physical oceanography and habitat structure of the South Scott Reef lagoon aboard the RV *Falkor* and AIMS' vessel, the RV *Solander*. The collaborative, multidisciplinary team surveyed deep-water (30–60 m) coral communities using remotely operated vehicles. They also established a network of sensors in between North and South Scott Reef, at depths ranging from 200 m to 400 m, and on shallow reef margins. Data from the sensor network, combined with data collected through intensive 24/7 water column sampling during the cruise, will help further refine a very high-resolution circulation and mixing model for the reef. This model, combined with data on coral recruitment and genetics, will explore fine-scale patterns of connectivity among sites across Scott Reef (see Key Outcome on page 19).	+++

Deliverable	Performance	Rating*
Identify the location and significance of critical sites for key threatened and endangered species (e.g. sharks, turtles, whales)	During the year, AIMS has conducted work investigating the movements of predators in reef environments on Australian's east and west coasts. Real-time acoustic receiver arrays have been installed at Heron Island and other focal reefs on the Great Barrier Reef, and at Rowley Shoals, Ningaloo and Scott Reef off the west coast. In addition, annual fieldwork was completed to describe whale sharks': • migratory pathways at Ningaloo Reefs • demography and trends in population size and structure and stock differentiation • oceanographic drivers of distribution patterns. AIMS completed analysis of positional satellite data for turtle hatchlings in the nearshore.	+++
Develop and commence implementing new automated monitoring and assessment methods for the Great Barrier Reef and North-West Shelf	AIMS continued to be a significant partner in the delivery of Australia's Integrated Marine Observing System (IMOS). During the year AIMS: • serviced moorings and sensor networks on the Great Barrier Reef, Darwin and North-West Shelf • designed and deployed four coastal moorings for monitoring reef water quality • released a new version of the oceanographic deployment and instrument database to the IMOS moorings community • provided streamed satellite data (L+X bands) to the Australian Oceans Distributed Active Archive Centre (AO-DAAC) and on the IMOS Ocean Portal • serviced Australian Animal Tagging and Monitoring System (AATAMS) receiver arrays at Rowley Shoals, Ningaloo and Scott Reef on the west coast.	+++

Deliverable	Performance	Rating*
Develop a cross-platform electronic knowledge-delivery system for our northern marine areas directly informing industry, government and the public	During 2014–15, AIMS continued to expand its eAtlas knowledge-delivery system. The eAtlas is the designated data repository for the National Environmental Research Program Tropical Ecosystems Hub. The eAtlas was also expanded to: • house and deliver data to the Torres Strait in a culturally sensitive manner • incorporate data from the oceanic shoals of the North-West Shelf using funding from PTTEP. Further, AIMS developed a Data and Information Management System for the Gladstone Healthy Harbour Partnership, and has worked with collaborators to develop a report card describing the condition of Gladstone Harbour.	+++

Marine program key performance indicators

*Rating legend: +++ meeting all expected outcomes, ++ meeting most expected outcomes, + meeting some expected outcomes

Key performance indicator	Performance	Rating*
Maintain or increase the transfer of new knowledge to users of marine science as measured by the trend in the number of publications and other information products, and by the uptake, use and application of AIMS' advice, data holdings, decision-support tools, practices and processes	AIMS produced 218 publications (including journal articles, book chapters, conference papers, technical reports, reports for clients, theses and others) in the 2014 calendar year, down from 241 in 2013 (see Publications p39). The AIMS website is a major avenue by which our data is delivered to stakeholders, and during the 2014 calendar year data searches increased 12 per cent from 2013, reef weather searches increased by 23 per cent and demand for coral factsheets increased by 3 per cent (see Data management and dissemination p56).	++
Maintain or increase scientific excellence and innovation, as measured by the number of peer-reviewed scientific journal papers	AIMS scientists published 168 peer-reviewed scientific journal articles in 2014 compared with 186 in 2013. Although slightly lower than the previous year's output, the number of papers published in 2014 equals the annual average over the last 5 years and is better than the 10-year average (see Publications p39).	++

Key performance indicator	Performance	Rating*
Maintain or improve science excellence and impact as assessed through a rolling program of expert peer review	During 2014–15, AIMS developed a new *Strategic Research Plan* that identified research priorities for the next decade. AIMS tracks its research performance against a range of indicators and its science excellence is demonstrated by maintaining a high rank among similar Australian and international organisations. AIMS has continued to enhance the impact of its science by continuing to publish in high-impact journals, through strategic partnerships with industry, and through the provision of impartial scientific advice to government through numerous state and national panels and committees (see AIMS Strategic Research Plan 2015–25, p37).	+++
Form and maintain national and international collaborations to increase critical mass and research capabilities, as measured by the number of collaborative research papers and grants	During 2014, AIMS scientists collaborated in 186 research projects that were conducted in 30 countries across the globe. This represents an increase of 18 projects from 2013–14. During 2014, AIMS scientists published 168 journal articles. Of these, 152 (91 per cent) involved collaborators either at other Australian (95 articles; 57 per cent) or international research organisations (57 articles; 34 per cent), which maintains the high proportion of collaborative papers reported previously in 2013 (91 per cent) and 2012 (89 per cent) (see Collaboration p51).	+++
Form and maintain partnerships to increase research capacity and impact, as measured by the number of joint ventures and strategic alliances	AIMS maintained, and in some cases expanded, its major joint ventures and strategic alliances, including the Arafura Timor Research Facility, the North Australia Marine Research Alliance, the Reef 2050 Long-Term Sustainability Plan Marine Monitoring Program, the National Environmental Research Program Tropical Ecosystems and Marine Biodiversity Hubs, National Environmental Science Program Tropical Water Quality and Marine Biodiversity Hubs, the Integrated Marine Observing System, the Western Australian Marine Science Institution, the Indian Ocean Marine Research Centre, AIMS@JCU, the Australian Research Council (ARC) Centre of Excellence for Coral Reef Studies, and the ARC Centre of Excellence for Mathematical and Statistical Frontiers of Big Data, Big Models, New Insights (see Partnerships p43).	+++

Key performance indicator	Performance	Rating*
Enhance Australia's future capabilities in marine science by AIMS' contribution to training as measured by the number of jointly supervised postgraduate students and of postdoctoral researchers	During the reporting period 13 co-funded postdoctoral fellowships were completed (ARC Super Science, National Environmental Research Programme Marine Biodiversity Hub, Indian Ocean Marine Research Centre). At 30 June 2015, AIMS supported 16 postdoctoral fellows. Of these, 14 were co-funded under a partnership arrangement. AIMS scientists supervised 77 postgraduate students in 2014–15, the same as in 2013–14. Theses were submitted by 21 postgraduate students, with 12 postgraduate degrees being conferred within 2014–15 (see Fostering research capability p49). In addition, the AIMS@JCU joint venture has made a tangible contribution in training the next generation of marine scientists, with ten PhDs being awarded at the James Cook University (JCU) graduation ceremony in March 2015. This represented one-quarter of all PhDs awarded by JCU at that ceremony.	+++
Enhance Australia's marine research capabilities by effective delivery of new infrastructure capacity provided by facilities such as the National Sea Simulator	The National Sea Simulator (SeaSim) is a world-leading experimental aquarium facility that provides researchers with unprecedented experimental control of a range of variables, providing a step-change in capability compared with previous technologies. AIMS has made up to 50 per cent of the SeaSim capability available to scientists and research institutions from around Australia and the world to work on collaborative research projects with AIMS staff. During 2014–15, construction continued on the Indian Ocean Marine Research Centre, a state-of-the-art marine research facility located on the University of Western Australia (UWA) Crawley campus, where AIMS, UWA and CSIRO marine researchers will be co-located under a collaborative agreement. AIMS continues to lead the Queensland Node of IMOS, and the Institute has been the major operator deploying IMOS equipment across tropical Australia. The data streams collected by IMOS equipment are provided freely to the marine community (see Research partnerships p46).	+++

*Rating legend: +++ meeting all expected outcomes, ++ meeting most expected outcomes, + meeting some expected outcomes

AIMS Strategic Plan

The *AIMS Strategic Plan 2015–25* was guided by national priorities and the research needs of key end users to address several strategic issues.

AIMS will focus on three high-level outcomes over the next decade.

- A healthy and resilient Great Barrier Reef
- Sustainable coastal ecosystems and industries across northern Australia
- Environmentally sustainable offshore oil and gas development

Highlights of research undertaken within each high-level outcome area during 2014–15 are outlined here.

A healthy and resilient Great Barrier Reef

- Making significant contributions to the Strategic Assessment of Great Barrier Reef World Heritage Area and the Great Barrier Reef Marine Park Authority's *Outlook Report 2014*
- Discovering that corals living in warmer waters are naturally adapted to their native environment and can pass on their temperature tolerance to their offspring
- Determining that fish populations on the Great Barrier Reef were in a relatively healthy state compared with other reefs around the world, in part because of established fishing regulations on the Great Barrier Reef
- Determining that coral trout density, mean length and biomass were greater in no-take zones compared with fished reefs, and that even after the disturbance of a severe cyclone, biomass on no-take reefs remained significantly greater

Sustainable coastal ecosystems and industries across northern Australia

- Leading the synthesis of current information on the effects of dredging and marine spoil disposal on the Great Barrier Reef, in partnership with Great Barrier Reef Marine Park Authority
- Initiating controlled experiments in the National Sea Simulator to establish the quantitative relationships between dredging-related pressures and the response of tropical marine organisms
- Discovering that aragonite saturation was lower and carbon dioxide levels were higher in the waters of inshore reefs than offshore reefs, which suggests that inshore reefs may be more vulnerable to the impacts of ocean acidification
- Reconstructing historical flows from the Burdekin River over the last 350 years to show an increase in high flow (flood) events from 1 in 20 years before European settlement to 1 in 6 years during the last 60 years

Environmentally sustainable offshore oil and gas development

- Implementing a collaborative, multidisciplinary, applied research program to establish environmental baselines on the North-West Shelf
- Characterising the biodiversity along the Kimberley coast, particularly in areas identified as potential marine reserves
- Undertaking multidisciplinary surveys of the physical oceanography and habitat structure of Scott Reef aboard the RV *Falkor* and AIMS' vessel the RV *Solander*

In addition to the research directed towards the three high-level outcomes, AIMS also focuses on areas of research activity that tackle key underlying questions. Highlights of such work in 2014–15 that supports our three outcomes are outlined here.

Improving our underlying capability

- Continuing significant contributions to the delivery of Australia's Integrated Marine Observing System, which collects ocean observations across northern Australia from the Ningaloo Marine Park in Western Australia to the bottom of the Great Barrier Reef in Queensland
- Developing a Data and Information Management System for the Gladstone Healthy Harbour Partnership
- Continuing to expand the eAtlas to include data from the Great Barrier Reef and Torres Strait generated by the National Environmental Research Program Tropical Ecosystems Hub, and the reefs and shoals of the north-west shelf region of Western Australia.

RESEARCH

Publications

AIMS has a strong publication record within its fields of expertise, namely, climate change and ocean acidification, biodiversity, ecosystem processes, ecosystem status and trends, water quality and marine microbiology. These fields align closely with the needs of our major stakeholders and end users.

AIMS scientists produced 218 publications in the 2014 calendar year[4], including high-profile articles in some of the world's most prestigious multidisciplinary journals (see Appendix 1). The publications comprised:

- 168 journal articles
- 8 book chapters
- 31 reports
- 11 theses.

The average (Thomson ISI) impact factor for all the journal articles was 4.2. Of these, 44 (26 per cent) were in journals with impact factors greater than four.

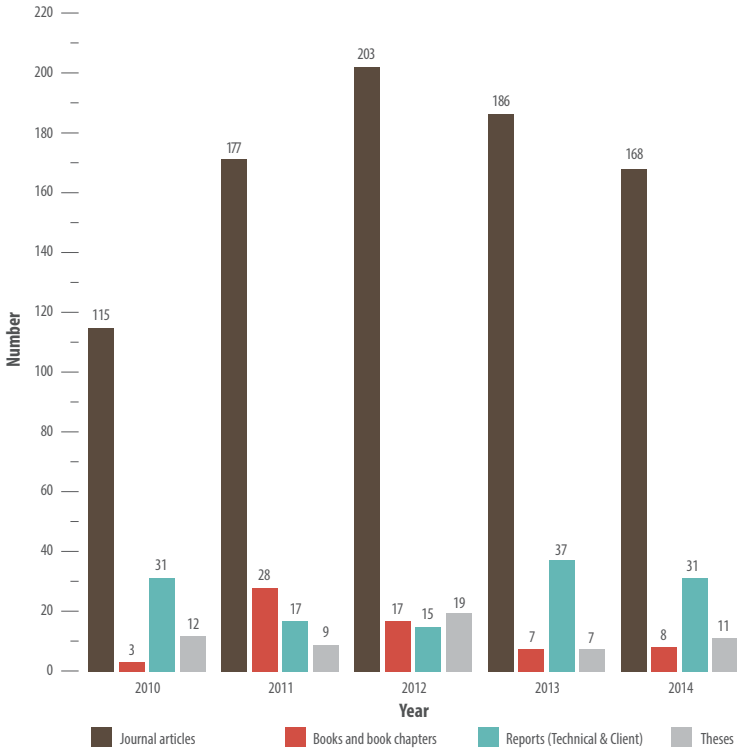


Figure 11. Number of AIMS publications by year

4 The majority of AIMS publication information (including collaboration data) is based on information collected across the calendar, rather than financial, year.

Leadership

AIMS plays a number of important science leadership roles, including setting research agendas through strategic research workshops on key issues, giving keynote talks at international symposiums, and contributing to issues of national importance through input to government committees and policy projects. Here we outline some key leadership roles.

Contributing to issues of national importance

Soil and Water Expert Working Group (National Science and Research Priority Area)

John Gunn was appointed Chair of a Soil and Water expert working group established by the Chief Scientist to identify national science and research priorities and practical challenges. Dr Britta Schaffelke was a member of the Soil and Water working group.

National Marine Science Plan

AIMS provided strong leadership in the development of the *National Marine Science Plan 2015–25: Driving the development of Australia's blue economy* (the Plan) through the direct involvement of the following staff:

- John Gunn, Chair National Marine Science Committee (NMSC)
- Dr Jamie Oliver, co-lead author Energy Security
- Dr Peter Doherty, co-lead author Biodiversity Conservation and Ecosystem Health
- Dr Lyndon Llewellyn, co-lead author Research Infrastructure
- Dr Terry Walshe, co-lead of Resource Allocation
- Dr Gillian Treloar, lead NMSC Secretariat
- AIMS Communication, lead production and digital content.

The *National Marine Science Plan* addresses the national marine science challenges identified in the *Marine Nation 2025* position paper. It highlights areas where national collaborations will strengthen both science and end user communities, and recommends investment in national research infrastructure and high-priority science programs. By doing this, the marine science sector is able to maximise its contribution to support the growth of Australia's $47 billion 'blue economy'.

The *National Marine Science Plan* works hand-in-hand with the national strategic science and research priorities set by the Commonwealth Science Council, and with a number of other national and international efforts to prioritise ocean, earth system and climate science.

The Plan is a truly nationally collaborative approach to planning marine science in Australia. It is being led by the National Marine Science Committee, which is made up of 23 representatives of research institutions, universities and government departments with a stake in marine science (including the Department of Industry and Science, Geoscience Australia and CSIRO) and is chaired by AIMS. The NMSC has consulted widely across the industry and government sectors that use marine science. A community white paper process, with input from over 400 individuals from industry, research and government, underpinned a National Marine Science Symposium attended by over 160 delegates. The draft *National Marine Science Plan* was distributed to over 650 key stakeholders for comment, and the final Plan was released in August 2015.

Reef 2050 Long-Term Sustainability Plan

The *Reef 2050 Long-Term Sustainability Plan* aims to maintain and enhance the Reef's health and resilience while allowing ecologically sustainable development. Specifically, the *Reef 2050 Long-Term Sustainability Plan* aims to ensure the Outstanding Universal Value of the Great Barrier Reef continues to improve each decade between now and 2050, ensuring the Reef remains a natural wonder for successive generations. It sets out concrete targets, actions, objectives and outcomes, and was developed in close collaboration with a partnership group involving government, key industry organisations, traditional owners, environment groups, researchers and the community.

AIMS provided strong leadership in the development of the *Reef 2050 Long-Term Sustainability Plan* through the direct involvement of the following staff: John Gunn, member of the Great Barrier Reef Partnership Group that developed the *Reef 2050 Long-Term Sustainability Plan*, and one of four invited independent external reviewers for Great Barrier Reef Strategic Assessment; Dr Jamie Oliver led consultations on science and monitoring inputs with leaders of Great Barrier Reef science community; Dr Britta Schaffelke was an invited member of Commonwealth and state Independent Expert Panels. In addition, AIMS contributed institutional submissions and the synthesis of expert input, from AIMS, CSIRO, James Cook University, the University of Queensland and the Great Barrier Reef Marine Park Authority, examining the effectiveness of the medium-term objectives and short-term targets within the Ecosystem Health and Biodiversity themes.

Dredging Synthesis Report

The *Synthesis of current knowledge of the biophysical impacts of dredging and disposal on the Great Barrier Reef* was produced by a 19-member panel of experts, brought together through a joint initiative of the Great Barrier Reef Marine Park Authority and AIMS.

The technical and scientific experts—with skills ranging from oceanographic modelling to coral ecology—were asked to review and synthesise existing studies and data on the biophysical effects of dredging and disposal, and to identify key knowledge gaps.

The outcome is an independent compilation of knowledge about the impacts of dredging and sediment disposal on habitats, such as coral reefs and seagrass meadows, and on fish and species of conservation concern, such as dugong and marine turtles, within the Great Barrier Reef World Heritage Area.

The publication is part of ongoing efforts by the Great Barrier Reef Marine Park Authority and AIMS to improve understanding of the effects of dredging and dredge disposal, which will enable better management of the risks associated with these activities. The work of the panel has helped in updating best practice guidelines, and in assessing proposed developments that involve dredging and disposal in the World Heritage Area.

The full report of the independent panel of experts is available at www.gbrmpa.gov.au and www.aims.gov.au.

Contributing to issues of international importance

UNESCO delegates

In June 2015, the UNESCO World Heritage Committee considered the state of conservation of the Great Barrier Reef World Heritage Area. In the lead-up to that meeting, AIMS hosted several technical delegations from numerous member states, including the Philippines, Peru, Serbia, Poland, Croatia, Vietnam, Japan, Portugal and Senegal. In each case, AIMS briefed the delegations on the research that AIMS was conducting and provided impartial advice on the status of the Great Barrier Reef and the science being used to underpin its continued management and conservation.

Global Ocean Observing System Steering Committee meeting

John Gunn, AIMS CEO, hosted a UNESCO–IOC (Intergovernmental Oceanographic Commission) Global Ocean Observing System (GOOS) Steering Committee meeting in May 2015 in Townsville in his role as Co-Chair of the steering committee, which is responsible for guiding development and use of a $3 billion per annum investment in global ocean observing. The meeting discussed key challenges and opportunities related to physical, biogeochemical and biological ocean observations from in situ and space systems, and the delivery of information through scientific analysis and model systems. The meeting gave Australia the chance to highlight to the global ocean observing system community the value of the Integrated Marine Observing System and approaches to monitoring of Australia's marine estate. It was timed to align with the Group on Earth Observations Blue Planet Symposium held in Cairns in late May 2015. AIMS is also a major supporter and host of the GOOS Biology and Ecosystems Panel Secretariat.

Expert advice

AIMS gave expert advice to groups and reviews:

- John Gunn was appointed to the Reef 2050 Long-Term Sustainability Plan Partnership Group.
- John Gunn was appointed to the Reef 2050 Long-Term Sustainability Plan Reef Integrated Monitoring and Reporting Program Steering Group.
- Dr Britta Schaffelke was appointed to the Australian Government's Great Barrier Reef Independent Expert Advisory Panel.
- Dr Britta Schaffelke was appointed to the Queensland Government's Great Barrier Reef Water Science Task Force.
- Dr Michelle Heupel completed her tenure on the Australian Government's Threatened Species Scientific Committee.
- AIMS made a submission to the Commonwealth Marine Reserves Review.
- AIMS contributed to the Publicly Funded Research Agencies joint paper on *Securing the future of Australia's National Research Infrastructure Portfolio*.
- AIMS contributed to the Australian Government Department of Industry review of the Cooperative Research Centres Programme.
- AIMS contributed to the Australia's draft model for implementing the Nagoya Protocol in Australia.
- AIMS responded to the Australian Government Department of Education's Discussion Paper *Boosting the commercial returns from research*.
- AIMS made a submission on the Australian Government's Energy Green Paper.
- AIMS made a submission on the Draft *Reef 2050 Long-Term Sustainability Plan* for the Great Barrier Reef World Heritage Area.
- AIMS made a submission to the Joint Select Committee on Northern Australia's Inquiry into Opportunities for Expanding the Aquaculture Industry in Northern Australia.
- AIMS contributed to the United Nations Framework Convention on Climate Change taskforce on the setting of Australia's post-2020 target for greenhouse emissions.

Partnerships

AIMS has created, or participated in, an array of joint ventures, strategic alliances and significant collaborations that maximise the Institute's ability to deliver high-quality science. These arrangements increase the critical mass and diversify the skill base that can be applied to answer complex questions about the sustainable use, management and protection of marine resources. In 2014–15, the majority of AIMS' scientific tasks received external co-investment involving stakeholders and partners who have actively participated in the research design, implementation and knowledge dissemination.

AIMS is a member of the following partnerships:

- The Arafura Timor Research Facility
- The North Australia Marine Research Alliance
- The ARC Centre of Excellence for Coral Reef Studies
- The Reef 2050 Plan Marine Monitoring Program
- The National Environmental Research Program Tropical Ecosystems Hub
- The National Environmental Science Program Tropical Water Quality Hub
- The National Environmental Science Program Marine Biodiversity Hub
- The Integrated Marine Observing System
- The Western Australian Marine Science Institution
- The Indian Ocean Marine Research Centre
- AIMS@JCU
- The ARC Centre of Excellence for Mathematical and Statistical Frontiers of Big Data, Big Models, New Insights

A brief synopsis of each of these partnerships is detailed below.

The Arafura Timor Research Facility (ATRF) was initiated in 2006, as a joint venture between AIMS and the Australian National University, with a mission to support marine science across northern Australia and other countries bordering the Arafura and Timor Seas (namely, Indonesia, New Guinea and East Timor). With construction funding as a Major National Research Facility provided by the Australian Government, the ATRF consists of an office and laboratory complex in Darwin, adjacent to the campus of Charles Darwin University. A $5 million upgrade during 2011–12, under the Australian Government's Super Science (Marine and Climate) Initiative, added a seawater research aquarium, modern meeting facilities, workshop facilities to support oceanographic research, and additional offices to house, among others, postdoctoral fellows and PhD students under the North Australia Marine Research Alliance.

At the end of June 2014, AIMS assumed sole management of the ATRF and has initiated upgrades to improve efficiency of operation: a new chiller unit has been installed and solar panels on the roof will follow shortly. Science activities have continued to revolve around Darwin Harbour, but with a renewed focus on the Gulf of Carpentaria. Enhancing the aquaria facility has brought about exciting advances in tropical ecotoxicology. The Institute perceives a bright future for marine research in the region, and finds itself well placed to realise this with the ATRF.

Further details at www.atrf.org.au.

The North Australia Marine Research Alliance (NAMRA) brings together AIMS, Charles Darwin University, the Australian National University and the Northern Territory Government to build marine research capacity and capability in northern Australia. The NAMRA partnership focuses on postdoctoral fellowships and PhD scholars. The Alliance partners are currently negotiating to establish a fresh long-term agreement to build on the successes of the first phase (2010–15).

Further details at www.namra.net.au

The ARC Centre of Excellence for Coral Reef Studies (Coral CoE) was established in 2005, and in 2013 received a further seven years and $28 million of ARC funding. AIMS' CEO John Gunn is a member of the Centre's Advisory Board, and two senior AIMS scientists, Drs Janice Lough and Madeleine van Oppen, are Partner Investigators in the Centre. AIMS and the Centre jointly support several postdoctoral fellowships over the life of the Centre.

The Coral CoE undertakes world-best integrated research to provide the scientific knowledge necessary for sustaining ecosystem goods and services of the world's coral reefs. The renewed Centre seeks to build bridges between the natural and social sciences, strengthening capacity and informing and supporting transformative changes in coral reef governance and management. The Centre involves 30 Chief and Partner Investigators from 10 organisations including James Cook University, AIMS, the University of Queensland, the Australian National University, the University of Western Australia, the Great Barrier Reef Marine Park Authority, the WorldFish Center, Stanford University, the International Union for Conservation of Nature and the National Centre for Scientific Research.

The Centre cements Australia's global leadership in coral reef sciences, and fosters stronger collaborative links between the major partners and international collaborators from 40 countries.

Further details at www.coralcoe.org.au

The Reef 2050 Plan Marine Monitoring Program (MMP) Managing water quality remains a strategic priority for the Great Barrier Reef Marine Park Authority, to ensure the long-term protection of the coastal and inshore ecosystems of the Great Barrier Reef. A key management tool is the *Reef Water Quality Protection Plan* (Reef Plan), with the actions being delivered through the *Reef 2050 LongTerm Sustainability Plan*. The Marine Monitoring Program was designed and developed by the Great Barrier Reef Marine Park Authority in collaboration with science agencies, and is currently funded by the *Reef 2050 Long-Term Sustainability Plan*. The MMP forms an integral part of the *Paddock to Reef Integrated Monitoring, Modelling and Reporting Program* (Paddock to Reef Program), which is a key action of Reef Plan and is designed to evaluate the efficiency and effectiveness of implementation, and report on progress towards the *Reef 2050 Long-Term Sustainability Plan* goals and targets. A key output of the Paddock to Reef Program is an annual report card, including an assessment of Reef water quality and ecosystem condition, to which the MMP contributes assessments and information (available at www.reefplan.qld.gov.au).

Since 2005, AIMS has provided the Marine Monitoring Program with data from monitoring inshore water quality and the condition of inshore coral reefs. A formal review in 2014 led to a number of design changes which were implemented in early 2015. AIMS, in partnership with JCU, now surveys the water quality of the receiving waters at 28 fixed sites along more than 700 km of coastline 3-11 times per year. The main sampling platform is the new purpose-built AIMS small RV *Aquarius*; the RV Cape Ferguson is also used. These surveys are supplemented by small boat–based diving operations that monitor the health of 36 coastal and inshore coral reefs from the Wet Tropics to the Fitzroy Region.

Ten years of monitoring provide clear evidence of large-scale changes in the quality of Reef waters. The findings indicate that the mechanisms controlling the carbon and nutrient cycle in the Great Barrier Reef lagoon have

undergone dramatic changes in the monitored regions, with large increases in turbidity and the concentrations of dissolved organic carbon and dissolved inorganic nitrogen. The coincidence of these changes with a period of elevated run-off after periods of high rainfall suggests that these fundamental cycles respond to terrestrial inputs. Coral reef resilience indicators declined to low levels following a prolonged period of high run-off to the Great Barrier Reef lagoon. These changes were broadly similar along regions and across environmental gradients. A consistent response was found across a diversity of taxonomic groups, which demonstrates the importance, and the broad 'footprint', of run-off within the inshore Great Barrier Reef lagoon. Improvements in the coral health index in 2014 coincided with a return to lower levels of run-off in most regions, which provides encouragement that coral communities respond to reduced loads of contaminants in run-off and thereby supports the continued efforts of Reef Plan.

A summary of the Marine Monitoring Program's overall goals and objectives and a description of the subprograms are available at http://www.gbrmpa.gov.au/managing-the-reef/how-the-reefs-managed/reef-2050-marine-monitoring-program and http://e-atlas.org.au/rrmmp

The **Tropical Ecosystems Hub** of the **National Environmental Research Program** (NERP) completed its tasks in 2014. In 2015, it was replaced by a **Tropical Water Quality Hub** in north Queensland as part of a new **National Environmental Science Programme** (NESP) funded by the Australian Government Department of the Environment. The NERP Tropical Ecosystems Hub provided applied environmental science solutions over four years for stakeholders of the Great Barrier Reef, the rainforests of the Wet Tropics World Heritage bioregion, and the marine and terrestrial habitats of the Torres Strait. It's research was designed to: improve environmental decision-making processes in regionally based natural resource management agencies (including the Torres Strait Regional Authority, the Wet Tropics Management Authority and the Great Barrier Reef Marine Park Authority); to influence the formation of environmental policy by Australian governments; and to inform and influence other stakeholders (industries, nongovernment organisations and Indigenous organisations).

The NESP Tropical Water Quality Hub shares similar objectives and the same transdisciplinary research model with its NERP predecessor, albeit with a sharper focus for the next six years on the water quality of the Great Barrier Reef and the Torres Strait. In April 2015, the new Hub distributed $2 million of funding to small shovel-ready projects and, after July, will call for proposals for major multi-year projects to start in 2016. The Tropical Water Quality Hub is a collaboration among researchers from AIMS, CSIRO and four Queensland universities (Central Queensland University, Griffith University, James Cook University, and the University of Queensland), and will be administered by the Reef and Rainforest Research Centre in Cairns.

Further details at rrrc.org.au/nesp

The National Environmental Science Programme Marine Biodiversity Hub is a collaborative partnership supported by funding from the Australian Government's National Environmental Science Programme, which is administered by the Department of the Environment. The Marine Biodiversity Hub will research Australian oceans and marine environments, including temperate coastal water quality and marine species, with funding of $23.88 million through the University of Tasmania (UTAS). The Marine Biodiversity Hub is a collaboration among researchers from AIMS, Charles Darwin University, CSIRO, Geoscience Australia, the Integrated Marine Observing System, the Museum of Victoria, NSW Department of Primary Industries, NSW Office of Environment and Heritage, UTAS and the University of Western Australia.

Research will be conducted within four themes: Improving the management of marine threatened and migratory species; Supporting management decision-making; Improving our understanding of pressures on the marine environment; and, Improving our understanding of the marine environment including biophysical, economic and social aspects.

The Integrated Marine Observing System (IMOS) was established in 2006 by the Australian Government with five years of funding from the National Collaborative Research Infrastructure Strategy (NCRIS). IMOS provides infrastructure and an open-access data portal for a national system of sustained observations on ocean variability, with data streams collected throughout the Australian marine territories (see Figure 12). Two further tranches of annual funding allocated in the last Federal budget (2015–16, 2016–17) will see IMOS pass a decadal milestone, and a current review of national research infrastructure convened by Australia's Chief Scientist, Professor Ian Chubb, is expected to make recommendations to the Australian Government about enduring funding models.

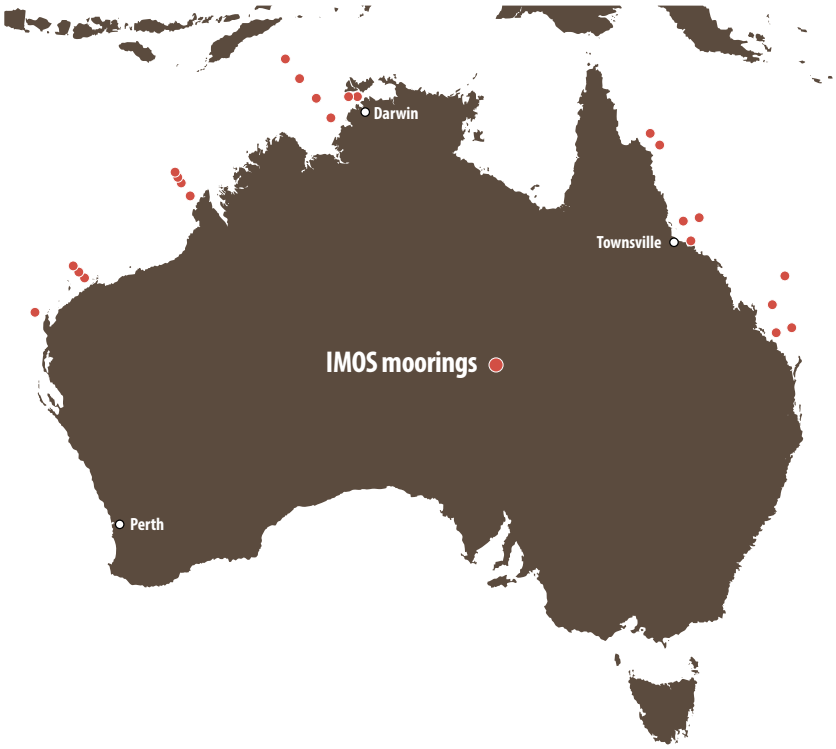


Figure 12. Integrated Marine Observing System (IMOS) moorings

Since the establishment of IMOS, AIMS has led its Queensland Node and been the major operator deploying IMOS equipment across tropical Australia. The data streams collected by IMOS equipment are provided freely to the marine community. They provide critical information about ocean currents and conditions that determine fisheries catches and the trajectory of marine pollution discharges, as well as extreme events like tropical cyclones and marine heat waves that can have major impacts on marine populations and ecosystem performance. The observations are increasingly being taken up in operational products that will enhance marine management, improve weather prediction in the sea and on the land, and reveal the critical contribution of the oceans to our ever changing climate.

Further details at www.imos.org.au

The Western Australian Marine Science Institution (WAMSI) is a partnership of four Western Australian (WA) universities (the University of Western Australia, Murdoch University, Edith Cowan University, and Curtin University);

a major resource company (Woodside Energy Ltd); three Commonwealth organisations (CSIRO, AIMS and the Bureau of Meteorology); four WA Government departments (Departments of Parks and Wildlife, Premier and Cabinet and Fisheries, and the Environmental Protection Authority); the Western Australian Museum; ChemCentre; and a regional ocean observing network for the Indian Ocean (WA Global Ocean Observing System) established to improve knowledge and understanding of Western Australia's marine environment for better resource development, management and conservation outcomes. WAMSI was launched in May 2007 with an initial investment of $21 million over five years from the State Treasury. In 2011–12, the Western Australian Government provided $12 million over six years for the Institution's continued development. In each case these funds generated matching investments from WAMSI research partners, providing substantial leverage of the Treasury funds to target high-priority marine science needs in Western Australia.

WAMSI's ability to deliver programs, such as the $30 million Kimberley Marine Research Program, draws on the capability of 200 scientists from 11 partner organisations. Importantly, the projects in the Kimberley region have been developed to have significant engagement and partnership with local Indigenous groups. Indigenous traditional owners and sea rangers are now taking part in the field components of the WAMSI Kimberley program at Cygnet Bay, Cape Leveque and Sunday Islands and Camden Sound.

WAMSI also partners with industry to deliver programs that benefit both industry and the community, such as the $18 million Dredging Science Node. The Dredging Science Node was established in 2011–12 to understand and mitigate the impacts of coastal dredging, which is a critical component of most major marine infrastructure developments in Western Australia. In order to meet the objectives of the Node, AIMS researchers have established a series of experiments in the new National Sea Simulator aquarium facility in Townsville to examine the impacts of dredging sediment on key marine taxa, such as corals and sponges.

Further details at www.wamsi.org.au

The Indian Ocean Marine Research Centre (IOMRC) is a joint venture that unites the four leading Australian research organisations working in and around the Indian Ocean (AIMS, CSIRO, the University of Western Australia and the Western Australian Department of Fisheries).

The collaboration includes developing new multidisciplinary research teams and creating a graduate training environment that will significantly advance Australia's marine science capacity, capability and profile.

The start of construction of works for the Crawley building was officiated by the Hon Julie Bishop, MP, on Friday 30 May 2014. Due for completion in mid-2016, the new building will contain the largest concentration of marine research capability in the Southern Hemisphere, and the largest research capability in marine research on the Indian Ocean Rim.

The Department of Fisheries' Watermans Bay Marine Centre is undergoing significant refurbishments, including upgrades to the internal laboratories, offices and marine cultural facilities, with direct access to quality seawater. Occupancy is expected in 2015.

These building projects were initiated in the 2010–11 financial year with the University of Western Australia awarded $34 million from the Australian Government through the Education Investment Fund Round 3 for the IOMRC project, and co-investment of $29 million.

Further details at www.oceans.uwa.edu.au/iomrc

AIMS@JCU is a strategic partnership between two global leaders in tropical marine science—AIMS and James Cook University (JCU). It was created to enhance opportunities for the joint supervision of postgraduate students in tropical marine sciences, and also to facilitate sharing of research infrastructure in Townsville. The unincorporated joint venture began in 2004 with a special allocation of funds from the Australian Government.

AIMS@JCU has made a tangible contribution towards training the next generation of marine scientists. Ten PhDs were awarded at the JCU graduation ceremony in March 2015, one-quarter of all PhDs awarded by JCU at that ceremony.

The AIMS@JCU program is currently focused on addressing the skills gap in quantitative marine science by making available four new four-year PhD scholarships each year in this area. The additional year of scholarship (standard PhD scholarships are for three years) allows each postgraduate student to complete 120 hours of professional development in quantitative marine science, some of which may need to be undertaken interstate or overseas.

In addition to the sponsored PhD scholarships, the AIMS@JCU program facilitates a wide range of PhD projects at James Cook University that lie within AIMS' research strategy and are co-supervised by an AIMS staff member.

AIMS@JCU currently has 244 members, of which 102 are JCU postgraduate and undergraduate students co-supervised by an AIMS staff member. Fifteen of these students are recipients of an AIMS@JCU scholarship.

Further details at aims.jcu.edu.au

The ARC Centre of Excellence for Mathematical and Statistical Frontiers of Big Data, Big Models, New Insights successfully attracted seven years of funding from the Australian Government in December 2013. The Centre commenced operation this financial year with launches at both the University of Melbourne and the Queensland University of Technology. The Centre will tackle the massive amounts of data collected daily in a variety of forms and from a multitude of sources. Many of the resulting datasets have the potential to make vital contributions to society, business and government, but are so large or complex they are difficult to process and analyse using traditional tools.

The new Centre, which is led by the University of Melbourne, will bring AIMS scientists together with a world-class set of collaborators and partner organisations, including the University of California, Berkeley; Queensland University of Technology; University of Adelaide; University of Oxford; University of Technology Sydney; University of New South Wales; University of Queensland; Harvard School of Public Health; CSIRO; Sax Institute; Australian Bureau of Statistics; Mathematics of Information Technology and Complex Systems, Canada; University of British Columbia; Vic Roads; and AT&T Labs-Research.

The aim of this centre is to create innovative mathematical and statistical models that can uncover the knowledge concealed by the size and complexity of these big datasets. From a marine science perspective, the collaboration will let AIMS, and others, add value to the data collected on the Great Barrier Reef in order to increase our knowledge of the Reef and its processes, and improve Reef management. A workshop in May 2015 brought together researchers from AIMS and the Centre of Excellence to explore potential collaborations that could help address analytical issues important to AIMS. Possible areas of collaboration include exploring: hidden Markov models of shark behaviour; Gompertz models of coral cover trajectories; functional analysis using ordination with uncertainty; and the transferability of predictive models of biodiversity.

Further details at: acems.org.au

Fostering research capability

AIMS is committed to early-career research training to help develop the research and innovation capacity needed to meet the opportunities and challenges facing the marine environment, and to keep Australia globally competitive. AIMS maximises its impact by providing a number of opportunities to develop a research career, including:

- postdoctoral studies
- postgraduate studies
- scholarship funding for postgraduates
- occupational trainees
- careers in marine science for Indigenous high school students.

Postdoctoral research

During the reporting period 13 co-funded fellowships were finished (they were partnered by ARC Super Science, the National Environmental Research Programme Marine Biodiversity Hub and the Indian Ocean Marine Research Centre).

At 30 June 2015, AIMS supported 16 postdoctoral fellows (also see Figure 13):

- five under the North Australia Marine Research Alliance partnership
- one under the Indian Ocean Marine Research Centre partnership (round 3)
- two supported by the ARC Centre of Excellence Coral Reef Studies
- one funded by Mitsubishi
- one funded by the Northern Research Futures Collaborative Research Network
- one supported by the Northern Territory Research and Innovation Board/ Rio Tinto Alcan
- one funded by the John Stocker Postdoctoral Fellowship fund (located at the University of Queensland)
- two under the AIMS–Queensland University of Technology Memorandum of Understanding
- two at AIMS.

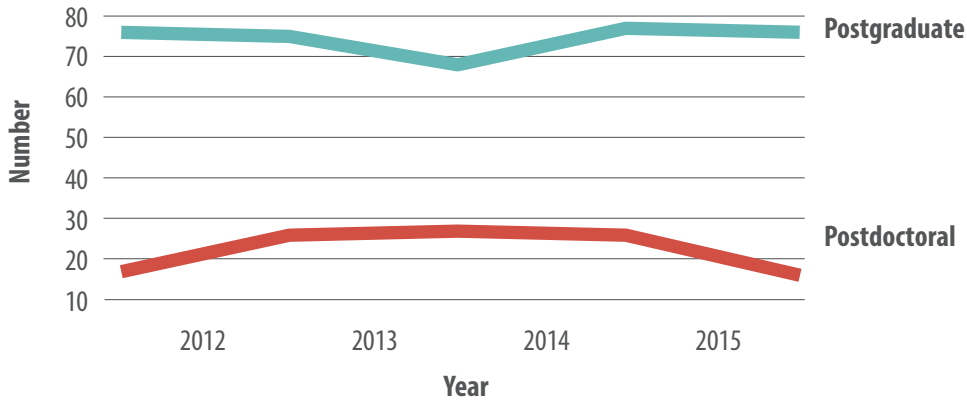


Figure 13. Number of AIMS postgraduate and postdoctoral researchers

Postgraduate studies

AIMS' involvement in early-career researcher training is reflected in the fact that 26 staff members hold adjunct academic appointments at Australian and/or international institutions, including at:

- James Cook University, primarily within the ARC Centre of Excellence Coral Reef Studies and the School of Marine and Tropical Biology
- the University of Queensland
- the University of Western Australia
- Charles Darwin University
- Queensland University of Technology
- Swinburne University of Technology
- the Bermuda Institute of Ocean Sciences, Bermuda
- Dalhousie University, Canada
- the University of Windsor, Canada
- the University of Auckland, New Zealand
- Victoria University, New Zealand.

Most of these adjunct positions reflect a large personal contribution to postgraduate supervision.

AIMS staff supervised 77 postgraduate students during 2014–15 (see Figure 13), comprising:

- 27 at AIMS Townsville
- 6 at UWA Oceans Institute
- 44 studying externally at their respective universities.

Number of AIMS postgraduate students

Postgraduate student	2010–11	2011–12	2012–13	2013–14	2014–15
AIMS science staff enrolled in postgraduate studies	2	1	0	0	0
Students working at AIMS supervised by AIMS staff	28	29	26	31	34
Students working externally supervised by AIMS staff	46	45	42	46	43

Twenty-one postgraduate students submitted theses during 2014–15, with 12 postgraduate degrees being conferred (see Appendix 1: Science publications p124).

Andrew Chin, a 2014 graduate, was awarded the Dean's Award at James Cook University for demonstrated excellence in a research higher degree for his PhD thesis entitled *The biology and ecology of the Blacktip Reef Shark* Carcharhinus melanopterus *(Quoy & Gaimard, 1824) and implications for management*. Andrew was supervised by Dr Michelle Heupel (AIMS), Professor Colin Simpfendorfer and Dr Andrew Tobin (James Cook University).

Occupational trainees

AIMS supported 18 trainees who improved their occupational skills through on-the-job training with AIMS researchers and technicians.

Trainee	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15
Occupational trainees	9	15	18	13	9	18

Careers in marine science for Indigenous high school students

AIMS continued to co-sponsor the Aboriginal and Torres Strait Islanders in Marine Science initiative, which gives 40 Townsville-based Indigenous students the opportunity to participate in a four-week course in marine science, and fosters linkages between western and traditional knowledge. The students participate in classroom-based presentations, spend a day at AIMS engaging with scientists and make a two-night excursion to Orpheus Island Research Station. The final module is to learn about career opportunities available at James Cook University.

Research collaboration

AIMS has a strong culture of collaborating with external organisations worldwide (see Figure 13), which helps us leverage our science capabilities and capacity. Across the reporting period, AIMS scientists participated in 186 collaborative projects with Australian and international scientists (Figure 14).

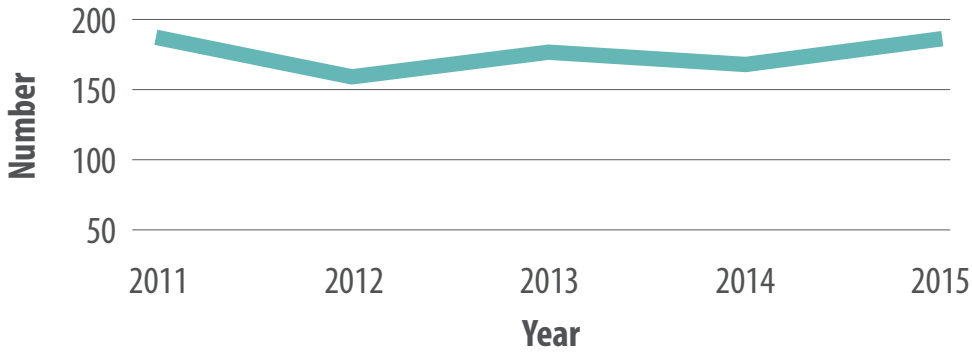


Figure 14. Number of AIMS collaborative projects by year[5]

5 AIMS collaboration data is based on information collected across the calendar, rather than financial, year.

The statistics are impressive. In 2014, AIMS scientists were involved in:

- 186 collaborative projects
- conducted in 23 countries
- involving 166 Australian scientists
- from 47 Australian organisations[6]
- with 100 overseas colleagues
- from 73 overseas organisations
- involving scientists from 30 countries (see Figure 15).

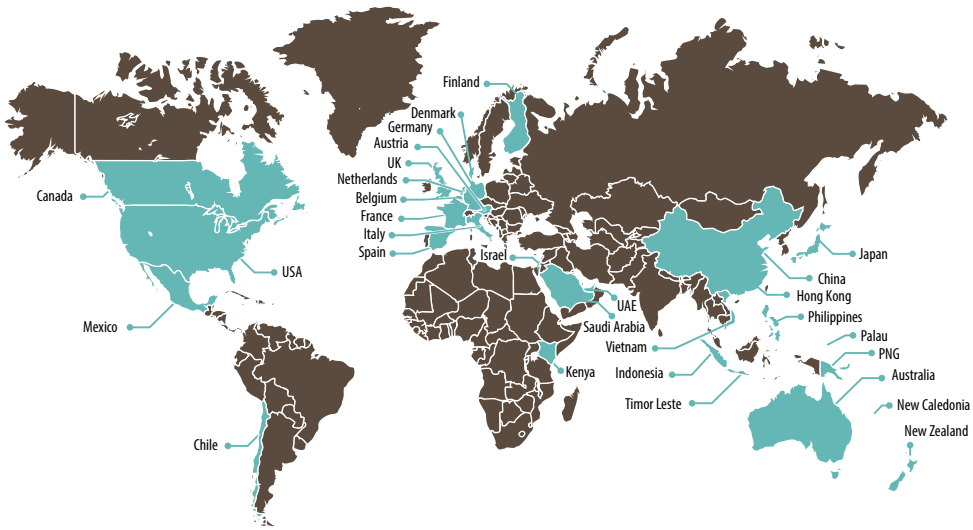


Figure 15. Location and intensity of AIMS' international collaborations

Figure 16. Proportion of collaborative publishing

6 This figure includes five organisational units within CSIRO, namely, CSIRO Land and Water; CSIRO Information and Communication Technologies; and CSIRO Marine in Hobart, Perth and Brisbane.

Collaborative research accounts for a high proportion of our scientific publications: out of the 168 journal articles published by AIMS scientists, 95 (57 per cent) had co-authors from other Australian research organisations and 57 (34 per cent) involved international colleagues. Only 16 articles (9 per cent) were solely authored by AIMS staff (Figure 16).

In addition to these research collaborations, in 2014–15 AIMS signed memorandums of understanding with one international and two Australian research organisations:

- Hainan Academy of Ocean and Fisheries Sciences, to collaborate in marine science
- Griffith University, to negotiate an agreement for the transferal of AIMS' Bioresources library to the Eskitis Institute at Griffith University
- Queensland Museum, to enable collaboration in research in areas of mutual interest.

Science quality assurance

AIMS uses a centralised Milestone Reporting System to ensure it remains on track to deliver on its research to stakeholders and end users. The nature and timing of milestones are agreed between AIMS and external clients and partners.

More than 60 per cent of AIMS' external contract milestones were completed by the original negotiated date. The remaining milestones were delayed; mostly due to setbacks beyond AIMS' control, such as bad weather and delayed delivery by collaborators and/or suppliers. In all cases, acceptable alternative arrangements and revised milestone dates were successfully negotiated with the external party.

AIMS deploys, maintains and uses data gathered by an array of remote environmental monitoring systems. Image: AIMS

DATA MANAGEMENT AND DISSEMINATION

A Data and Technology Innovations Research Program underpins AIMS' other three research programs by supporting, promoting and advancing the Institute's research data management capability. AIMS has a dedicated Research Data Centre that manages and secures the Institute's data and ensures it is globally accessible via the AIMS data portal. Our metadata and maps of AIMS' research data are also included in the Australian Ocean Data Network Portal and the Research Data Australia data catalogue, giving AIMS' research assets greater exposure to the broader research community.

AIMS also collects data from a wide array of Integrated Marine Observing System (IMOS) infrastructure across the tropical domain and delivers it to the IMOS data portal, which is also a part of the Australian Ocean Data Network. Data are captured from: ships-of-opportunity; AIMS' two research vessels; numerous oceanographic moorings off the north-western Australia coast, Darwin Harbour, Beagle Gulf and throughout the Great Barrier Reef; wireless sensor networks at seven reefs in the Great Barrier Reef; our satellite data receiving station; and numerous acoustically tagged animals and underwater listening stations.

Among its data assets, AIMS maintains some landmark datasets critical to national and international stakeholders in marine science. These include:

- The AIMS Long-term Monitoring Program, which has been surveying numerous reefs throughout the Great Barrier Reef for several decades. To date, this database includes more than three decades of observations and measurements from 164 reefs.
- Data for the Reef 2050 Marine Monitoring Program (see p 41), an initiative within the *Reef 2050 Long-Term Sustainability Plan*. Some of the most substantial data holdings at end of 2014 are shown in the table below.

Measurements	Number of sites	Number of records	Increase in record number from 2013–14
Chlorophyll, turbidity and temperature	19	4 918 288	11 per cent
Particulate and dissolved carbon and nitrogen levels in seawater	963	43 063	8 per cent

The eAtlas, an interactive mapping tool developed at AIMS to help users display, access and interrogate marine data and information. Several versions have been tailored to the needs of specific stakeholders, the largest being that for the National Environmental Research Programme Tropical Ecosystems Hub (see p 42). The eAtlas currently hosts over 3482 data layers produced from 44 projects involving 15 organisations.

- eReefs, a $25 million, five-year collaboration, which started in January 2012, to develop a whole-of-Reef model that will provide information for the Reef akin to that provided by the Bureau of Meteorology for weather. This model will benefit government agencies, Reef managers, policymakers, researchers, industry and local communities. eReefs links models of catchments, rivers, estuaries and the marine environment to enable simulations of the effects and impacts of terrestrial activities and events. AIMS data both informs model development and validates model outputs.

Our website is one of the major avenues by which data is delivered to stakeholders. Some examples of the intensity of access to our data during 2014 are provided below:

Purpose	Number of visitor sessions (change from previous year)	Number page views (change from previous year)
Data searches	13400 (12 per cent increase)	20200 (13 per cent increase)
Reef weather	184600 (23 per cent increase)	459500 (7 per cent increase)
Coral factsheets	99500 (3 per cent increase)	408000 (9 per cent decrease)

AIMS also engages with our data stakeholders in national efforts dedicated to achieving a nationally consistent approach to Australia's environmental data. For example, AIMS staff are members of the Australian Ocean Data Network Technical Advisory Group and the Australian Government Science ICT Network Committee, and are proactive with IMOS quality control and assurance efforts.

STAKEHOLDER ENGAGEMENT

A suite of operating principles guide AIMS' research, internal and external relationships, and the organisational ethos. They inform and underline the Institute's focus on supporting its key stakeholders.

Our guiding principles are:

- **Trust**—AIMS is a trusted adviser, delivering independent, evidence-based scientific advice to our stakeholders for the economic, environmental and social good of Australia.
- **Focused research**—AIMS executes focused research plans with identified pathways to impact.
- **Knowledge transfer**—AIMS documents and widely disseminates findings through a variety of mechanisms and formats to a wide range of stakeholders and collaborators.
- **Excellence and innovation**—AIMS undertakes high-calibre research.
- **Return on investment**—AIMS maximises the returns on investment in marine science through collaborations, co-investment and contracting of industry-funded research.
- **Health, safety and environment**—AIMS leads the way in providing safe working conditions and ensuring that our activities are planned to minimise any adverse environmental impacts.

AIMS works closely with stakeholders to identify their needs, and develop research programs with the highest possible value to these stakeholders, over both short and longer timeframes. We achieve this by mapping how the research will be used and who will benefit, then reviewing outcomes and completed research programs. Within this process, AIMS takes a big-picture view of Australia's marine science challenges, asks questions, anticipates future needs and strategically invests in research targeted at reducing future uncertainty.

Stakeholders benefiting from AIMS' activities in 2014–15 include those listed in the table below.

Stakeholder category	Sector/organisation	Examples of AIMS' support
Industry	North-western Australia oil and gas industry	• Developing environmental baselines that help industry plan and manage their environmental risks and regulatory compliance • Providing a rapid response research capability to optimise the management actions should a spill occur • Providing guidance on minimising the adverse environmental impacts of dredging operations, as a member of industry expert panels
Industry	Commodity ports/ Northern Territory Government, Darwin Ports Corporation	• Developing systems to improve Darwin Harbour operational efficiency, and environmental research to inform development decisions • Researching the impacts of dredging to develop better risk-based dredging protocols
Industry	Coastal industries	• Researching inputs to monitoring programs for regulatory compliance • Applying new technologies for in situ monitoring to more effectively manage dredging operations and environmental regulatory compliance • Studying water quality to validate hydrodynamic modelling of effluent diffusion
Public and government	Australian government and public	• Developing a framework to assess the cumulative impact of natural and development stresses on the Great Barrier Reef • Researching coral health in a variable and changing marine environment to assess coral reef resilience, and potential intervention and management options • Researching ecosystem processes and crown-of-thorns starfish outbreaks to increase our understanding of outbreak impacts and improve our ability to forecast and manage outbreaks • Developing a mapping system for presenting environmental research data in an accessible form that promotes greater information use • Assessing the impact of saltwater intrusion on floodplain soil communities in the Northern Territory • Educating the public and stakeholders, via the website and with site tours, on the state of environmental knowledge and any gaps and risks • Supporting postgraduate students as a means of enhancing the marine research workforce in tropical Australia

Stakeholder category	Sector/organisation	Examples of AIMS' support
Public and government	Queensland Government and public	• Researching the impact of changed land use practices on water quality in the Great Barrier Reef Marine Park
Public and government	Western Australia Government and public	• Identifying and characterising biodiversity patterns and underlying processes in the Kimberley to aid effective management • Surveying sensitive seabed organisms to evaluate impacts of dredging operations
Managers and regulators	Great Barrier Marine Park Authority	• Monitoring the health of the Great Barrier Reef in ongoing surveys • Providing specialist advice to, and peer review of, development activity impacts

AIMS Open Day attracted more than 10,000 people to the Cape Ferguson site near Townsville. Image: Lee Bona

"Coralsville", a science play written, produced and presented by AIMS staff, was a popular attraction at Open Day. Image Steve Clarke © AIMS

Community Engagement

AIMS values its community connections and accords high importance to community outreach activities. In its three locations, of Townsville, Perth and Darwin, it contributes to local economies through job creation and investment in local products and services, but also seeks to engage with the local community in a range of other ways, including by working with schools, local business and diverse community organisations, to build productive relationships and promote and raise awareness of AIMS' work and its value to Australia. In celebration of these relationships and to help build an even stronger local constituency, a highlight of the 2014-2015 reporting period was the holding of a large-scale public engagement event, "AIMS Open Day 2015".

This Open Day - the first to be held for a decade - was held at the AIMS' headquarters in Cape Ferguson over a three day period: June 11, 12 & 14th.

Science Excellence in Schools – June 11 & 12, 2015

In recognition of the importance of actively engaging students in the sciences, AIMS initiated a "Science Excellence in Schools" mini-symposium in conjunction with the larger Open Day event. The program created a special opportunity for local secondary students to explore the headquarters and connect with the breadth of science undertaken by AIMS scientists, as well as the innovative technology underpinning the facility. Close to three hundred students from across seven local area schools participated over the two days.

AIMS Open Day – June 14, 2015

In the interest of raising awareness, improving knowledge and understanding of its operations and boosting local support, the Institute opened its doors to the local community on Sunday, June 14, 2015. The event was an outstanding success, with over 10,000 attendees.

Visitors enjoyed 24 scientific displays on topics including ocean acidification, crown-of-thorns starfish, and ocean observing tools. Close to 4,000 people enjoyed access to the world's "smartest aquarium" – the National Sea Simulator-as well as the opportunity to hear 23 scientific presentations by some of AIMS most prominent marine scientists. The science theatre production "Coralsville" was a popular feature, attracting healthy crowds at each of its four shows.

The Hon Karen Andrews MP, Parliamentary Secretary to the Minister for Industry and Science, officiated at the AIMS Open Day. The Council Chairman and members were in attendance, to assist with welcoming Ms Andrews, other Federal and State politicians and local community leaders and to support AIMS staff in managing the event. Mr Randal Ross provided a warm welcome to country.

The Open Day event augments the weekly public tours delivered at the Cape Ferguson facility from March to November.

New technologies provide a different perspective on the reef. Image: Joe Gioffre © AIMS

REVENUE

AIMS' operations were supported by a mix of Commonwealth Government appropriation funding and non-appropriation funding from state and territory governments, competitive research funds, environmental regulators and the private sector.

AIMS' total revenue for 2014–15 was $62.3 million, representing an improvement of 18 per cent on 2013–14 revenue (Figure 17). The $9.6 million increase was mainly due to securing additional Australian Government appropriation for operations, including $5.5 million for the National Sea Simulator; a $0.5 million increase in external funding, and $4.5 million in non-cash revenue from the acquisition of a 50 per cent share of Arafura Timor Research Facility at no cost; and forgiveness of debt by the Queensland Government as part of long-term loan repayment.

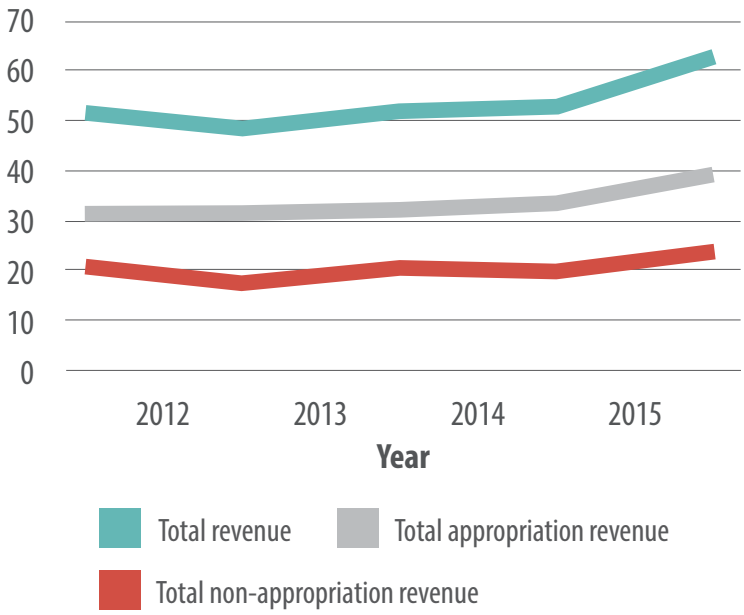


Figure 17. AIMS' revenue over time

External revenue

External funding is critical for AIMS to maintain its present level of scientific research. In 2014–15, revenue from external sources was $17.4 million, which accounted for 28 per cent of AIMS' total revenue. This represented an increase of 3 per cent on 2013–14 (Figure 18).

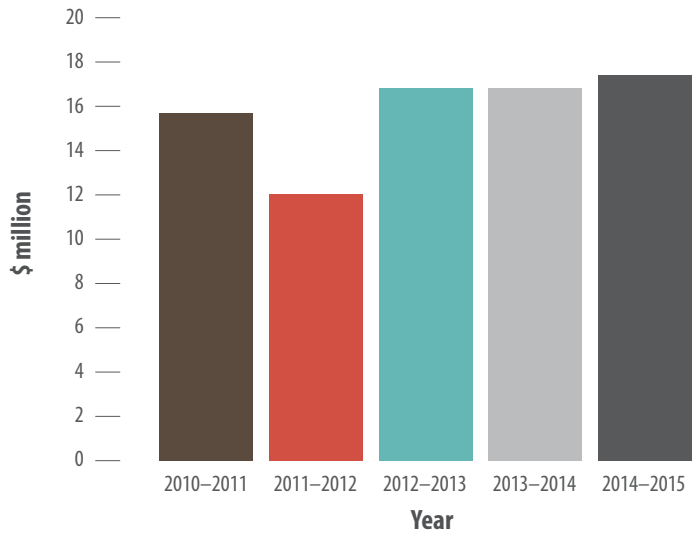


Figure 18. Total external revenue earned by AIMS during the last five financial years.

Source of co-investment funding for 2014–15

Australian Government departments and agencies and Australian industry partners together provide 79 per cent of AIMS' total external revenue (that is, funds earned on top of AIMS' appropriation allocation) through major grants and project contracts (Figure 19).

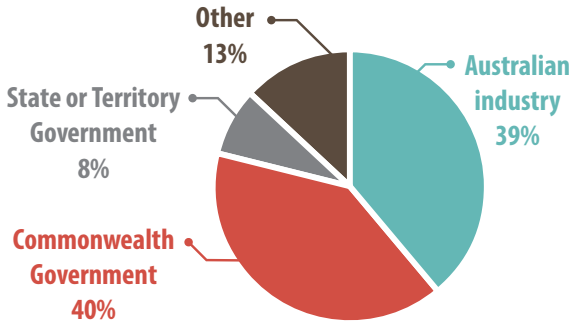


Figure 19. Relative proportion of major sources of external revenue to AIMS in 2014–15

See Part Three (p 79-122) for AIMS' detailed financial statements.

FACILITIES AND RESOURCE MANAGEMENT

Research facilities

AIMS' research activities primarily focus on Australia's tropical marine environments, from the southern end of the Great Barrier Reef on the east coast to Shark Bay and the Abrolhos Islands in the west. Field activities are supported by laboratory and administrative facilities located at Townsville, Darwin and Perth.

AIMS' headquarters at Cape Ferguson, about 50 km south of Townsville, is close to the centre of the Reef and surrounded by national park and marine reserve. AIMS' Darwin facility is the Arafura Timor Research Facility, located on a satellite campus of the Australian National University, immediately adjacent to the Charles Darwin University campus. In Western Australia, AIMS is co-located with the UWA Oceans Institute at the university's Crawley campus in Perth.

In January 2014, construction commenced on the Indian Ocean Marine Research Centre, a state-of-the-art marine research facility, located on the University of Western Australia (UWA) Crawley campus, where AIMS, UWA and CSIRO marine researchers will be co-located under a collaborative agreement. The collaboration includes developing new multidisciplinary research teams and creating a graduate training environment that will significantly advance Australia's marine science capacity, capability and profile. The new facility is due to be completed late 2016.

The National Sea Simulator is a world-leading experimental aquarium facility that provides researchers with unprecedented experimental control of a range of variables, allowing investigation of individual and combined effects on tropical marine ecosystems and organisms. It provides a step-change in capability compared with previous technologies, and is an essential element for the success of all of our research programs. AIMS has made up to 50 per cent of the National Sea Simulator capability available to scientists and research institutions from around Australia and the world to work on collaborative research projects with AIMS staff.

Marine operations

AIMS' field activities are supported by a research fleet that provides access across Australia's tropical marine environments. Two large purpose-built ships, the RV *Cape Ferguson* and the RV *Solander*, and a number of smaller vessels, take researchers to the diverse habitats that make up Australian waters.

AIMS' major vessels are equipped with a wide range of facilities essential for long research trips, such as:

- on-board dive compressors
- a recompression chamber on the RV *Solander*
- a-frame, hydrographic and connectivity, temperature and depth winches
- wet and dry laboratories
- flow-through aquaria
- large deck spaces
- inflatable tenders
- sophisticated navigation, satellite communication and computing facilities.

AIMS researchers took part in 147 field trips during the 2014–15 financial year, of which 89 (60 per cent) were on AIMS vessels, 32 (22 per cent) were on charter vessels and 26 (18 per cent) were based from research stations or did not involve boating. Eighty-seven (87) trips involved diving and snorkelling, with a total of 3070 scuba dives performed.

AIMS vessels were highly used, and researchers were very busy in the field, during the reporting period. Research trips involving the two largest AIMS vessels (the RV *Solander* and RV *Cape Ferguson*) covered nearly 40000 nautical miles (see Figure 20). Together, the entire fleet of AIMS research vessels was involved in 89 field trips conducted by 462 research personnel during 604 days in the field.

The table below gives a summary of the number of trips taken by each AIMS vessel during the reporting period.

AIMS vessel	Research trips	Number of researchers involved on field trips	Time in the field	Distance travelled	Researcher days in field
RV *Solander*	18	144	237 days	27999 nautical miles	1969
RV *Cape Ferguson*	24	164	269 days	11467 nautical miles	1665
RV *Apollo*	25	84	26 days	N/A	129
RV *Pisces*	9	39	31 days	N/A	62
RV *Aquarius*	10	23	26 days	N/A	53
RV *Capricornus*	3	8	15 days	N/A	33
Total	89	462	604 days	–	3911

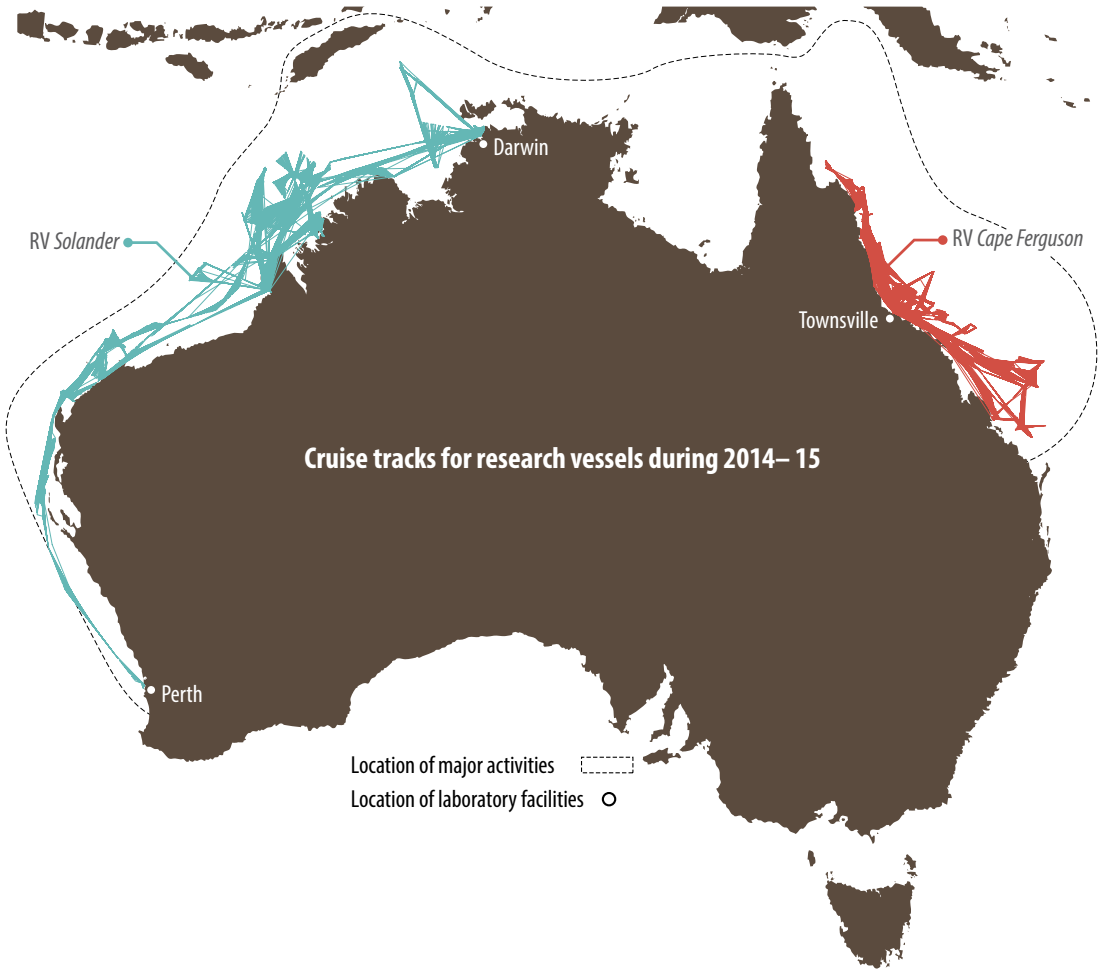
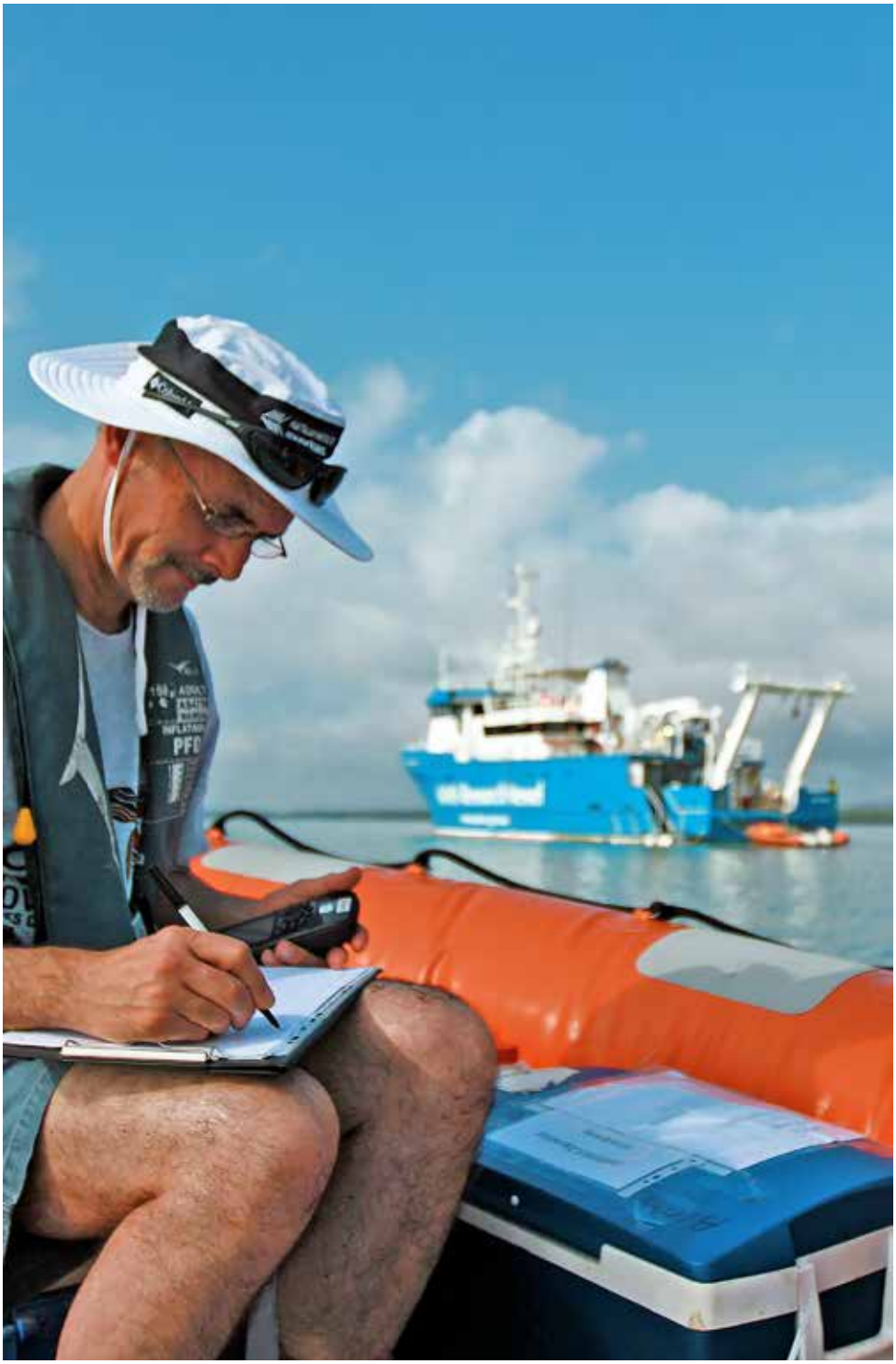


Figure 20. Activities of the major research vessels

Seabed sampling provides important information about marine environments. Image: AIMS

PART TWO: OUR ORGANISATION



AIMS science leader in the Northern Territory, Dr Ed Butler, gathering environmental data at a nearshore location east of Darwin. Image: Sue Lim © AIMS

MANAGEMENT AND ACCOUNTABILITY

The Australian Institute of Marine Science (AIMS) has in place a comprehensive system of corporate governance practices that provide control, disclosure and accountability of its activities.

Role and legislation

AIMS was established by the Australian Institute of Marine Science Act 1972 (AIMS Act) and is a corporate Commonwealth entity under the *Public Governance, Performance and Accountability Act 2013* (PGPA Act).

The Institute's functions and powers are set out in Sections 9 and 10 of the AIMS Act (see Appendix 3 on page 173). AIMS has two main roles under its governing legislation:

- to carry out research and development in relation to
  - marine science and marine technology
  - the application and use of marine science and marine technology
- to encourage and facilitate the non-commercial and commercial application of the results arising from such activities.

On 1 July 2014, the PGPA Act replaced the *Commonwealth Authorities and Companies Act 1997* (CAC Act) and the *Commonwealth Authorities and Companies Regulations 1997*. The PGPA Act is the cornerstone of the Australian Government's Commonwealth Resource Management Framework, which governs how the Commonwealth public sector uses and manages public resources. A summary of changes to the AIMS Act that were implemented along with the introduction of the PGPA Act are detailed in Appendix 3 (see Amendments to enabling and other legislation).

The PGPA Act sets out reporting, accountability and other rules for AIMS' operations, management and governance. In relation to AIMS' requirement to produce an annual report of operations (that is, Parts 1, 2, 4 and 5 of this annual report), Schedule 1, Section 7AB of the *Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Amendment (Annual Reports) Rule 2015* sets out the requirements for annual reports under Section 46 of the PGPA Act for the 2014–15 financial year (that is, this annual report).

Section 7AB notes that, for the purpose of 2014–15 annual reporting, directions under the Finance Ministers *Commonwealth Authorities (Annual Reporting) Orders 2011* still apply, and in the same way as they applied to the annual report of a Commonwealth authority for the financial year ending on 30 June 2014 (that is, last year's AIMS Annual Reporting requirements)—see Part 5 Index of Annual Report Requirements on page 179 for more details.

The annual financial statements (see Part Three on pages 97-144) have been prepared in accordance with the PGPA Act Sections 42 and 43, and the *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015*.

Responsible Minister

For the reporting period of this annual report (that is, 1 July 2014 to 30 June 2015), AIMS' responsible Minister was the Hon Ian Macfarlane, MP, Minister for Industry (1 July 2014 to 23 December 2015) and then Minister for Industry and Science (23 December 2014 to 30 June 2015). As of her appointment on 23 December 2014, Parliamentary Secretary to the Minister for Industry and Science, the Hon Karen Andrews MP, supports the Minister in this role as responsible Minister for AIMS.

Ministerial directions and statutory requirements

On 15 July 2014, Minister Macfarlane issued a directive for the Institute to implement and comply with the Australian Government Public Sector Workplace Bargaining Policy when bargaining for new workplace arrangements in relation to AIMS employees.

Minister Macfarlane provided the AIMS Council with a Statement of Expectations on 4 June 2015. This Statement outlines the Minister's expectations regarding the quality and focus of AIMS' research and its contribution to Australian Government priorities and initiatives, and AIMS' governance and communication responsibilities. AIMS' 2015–16 annual report will include a statement on progress against these expectations.

The Australian Government's Science and Research Priorities were announced in May 2015. Reporting on the alignment of AIMS' activities against these priorities will also be included in AIMS' 2015–16 Annual Report.

General policies of the Australian Government: Under Section 22 of the PGPA Act, the Finance Minister may make a government policy order that specifies a policy of the Australian Government that is to apply in relation to one or more corporate Commonwealth entities.

Government policy orders that applied to AIMS under the reporting period are the:

- Commonwealth Fraud Control Policy
- Australian Government Foreign Exchange Risk Management Guidelines
- Commonwealth Procurement Rules.

AIMS participated in consultation processes relating to arrangements for engagement between Commonwealth bodies and the Parliamentary Budget Office and the Australian Government's Protective Service Policy Framework. These processes, which may lead to the making of General Policy Orders, were ongoing as of 30 June 2015.

AIMS did not form, or participate in the formation of, any new companies, trusts or partnerships.

The Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Act 2014 amended the AIMS Act to support the implementation of the PGPA Act and its related rules and instruments. Amendments focused on aligning terminology, removing provisions covered by the PGPA Act and clarifying the Institute's responsibilities.

In accordance with Senate Standing Order 25 (20), AIMS' Annual Report 2013–14 was submitted to the Senate Economics Legislation Committee for review. In its document Annual Reports (No. 1 of 2015), dated 17 March 2015, the committee confirmed that AIMS' annual report was prepared in accordance with reporting obligations under the CAC Act, the Finance Minister's *Commonwealth Authorities (Annual Reporting) Orders 2011*, and requirements set out in the AIMS Act.

CORPORATE GOVERNANCE

AIMS is governed by a Council that reports to the relevant Minister.

Role of Council

The AIMS Council sets AIMS' key objectives and research strategies, and oversees AIMS' management. The Council regularly advises the Minister and the Department of Industry and Science of AIMS' progress against the four-year research plan. The Minister is also provided with advice on developments of significance, as appropriate.

The PGPA Act requires the AIMS Council, as the 'accountable authority' of AIMS, to comply with the following specific duties:

- the duty to govern the Commonwealth entity
- the duty to establish and maintain systems relating to risk and control
- the duty to encourage cooperation with others
- the duty in relation to requirements imposed on others
- the duty to keep the responsible Minister and Finance Minister informed.

The AIMS Council is required to provide an annual compliance report regarding AIMS' compliance with these specific duties and the Act in general. Internal procedures are in place to support this declaration.

AIMS met all PGPA Act compliance requirements during 2014–15. The AIMS Audit Committee was responsible for monitoring financial and non-financial risks and making recommendations to Council. Internal auditors carried out quarterly reviews of various functions within the Institute. AIMS management assisted Council in ensuring that AIMS complied with the requirements of the PGPA Act.

Council members

The AIMS Council consists of a Chairman, AIMS' CEO, a member nominated by James Cook University, and four other members. The AIMS Act requires that at least three members of Council must have scientific qualifications. All members of Council, with the exception of the CEO, are non-executive appointments made by the Governor-General on the nomination of the Minister. Appointments can be up to five years and re-appointment is permissible. The CEO is appointed by the Council for a period not exceeding five years and is eligible for re-appointment.

Current Council

The Honourable Penelope Wensley AC, HFEIANZ

Council Chairman: 01 January, 2015 – 31 December, 2019

Penny Wensley served as the 25th Governor of Queensland 2008–14, completing her six year term on 29 July, 2014.

Her appointment as Governor followed a long and distinguished career as a career diplomat, representing Australia in a wide range of overseas postings and senior policy positions in Canberra. Born in Toowoomba, and graduating from the University of Queensland (UQ) (BA 1st Class Hons 1967), Ms Wensley joined the then Department of External Affairs in 1968. Her first posting was to France (1969–73), followed by Mexico (1975–77), then New Zealand (1982–85). Her first Head of Mission appointment was as Consul-General, Hong Kong (1986–88). Subsequent ambassadorial appointments included Ambassador to the United Nations (UN), Geneva (1993–95), Ambassador for the Environment (1992–96), Ambassador to the UN, New York (1997–2001), High Commissioner to India, with non-resident accreditation as Ambassador to Bhutan (2001–04), and Ambassador to France, with non-resident accreditation as Ambassador to Algeria, Morocco, Mauritania and Monaco (2005–08). In Canberra, in the Department of Foreign Affairs and Trade, Ms Wensley served variously as Head, East Asia Branch; Head, Post Liaison and Guidance, Executive Secretariat; Head, North Asia Division; Head, International Organisations and Legal Division; and Head, Europe Division.

Ms Wensley has achieved national and international recognition for her contribution to the United Nations. She played a key role in the negotiation of several major international treaties, including the UN Framework Convention on Climate Change and the UN Convention to Combat Drought and Desertification. She also chaired or co-chaired a number of major UN conferences and processes, including the First UN Special Session on HIV/AIDS, the UN Conference on the Sustainable Development of Small Island Developing States, and the UN Budget and Finance Committee. She also helped launch the International Coral Reef Initiative.

Ms Wensley was made an Officer of the Order of Australia (AO) in 2001, a Grand Officer of the Order of Merit of France in 2009, and a Companion of the Order of Australia (AC) in 2011. She has been awarded Honorary Doctorates by the University of Queensland (1994), Griffith University (2008), the Queensland University of Technology (2011) and James Cook University (2013). She is a Fellow of both The Women's College and Kings College, within the University of Queensland, and an Honorary Fellow of the Environment Institute of Australia and New Zealand, recognised for her outstanding contribution to the environment profession in the fields of environmental policy development and implementation, particularly in the areas of climate change and sustainable development, and in the promotion of environmental knowledge and awareness. She is the national patron of Soil Science Australia.

In June, 2015, at the joint invitation of the Australian Minister for the Environment and the Queensland Minister for Environment and Heritage Protection and Minister for National Parks and the Great Barrier Reef, Ms Wensley accepted appointment as Chairman of the Reef 2050 Advisory Committee, one of the principal mechanisms established by the two governments to support implementation of the *Reef 2050 Long-Term Sustainability Plan* for the protection and management of the Great Barrier Reef.

Ms Wensley is married to fellow Queenslander and UQ graduate, Stuart McCosker, a retired veterinary surgeon.

Professor Sandra Harding, BSc (Hons), MPubAdmin, PhD, Hon Doc (JIU), FACE, FQA, FAICD, FAIM

Council member: 10 May, 2007 – 27 May, 2020

Sandra Harding represents James Cook University on the Board, and maintains links with the wider education sector. As Vice-Chancellor and President of the University since 2007, she is responsible for ensuring clear and effective leadership and management across all operating sites, including campuses in Townsville, Cairns and Singapore. Professor Harding has extensive academic and academic leadership experience. An economic sociologist by training, her areas of enduring academic interest include markets and organisational change.

Professor Harding also has a keen interest in public policy, particularly education policy and other policy domains affecting higher education. She is Director of Regional Australia Institute, Director of North Queensland Cowboys NRL club, and Director of two regional economic development bodies, Townsville Enterprise and Advance Cairns.

Dr Brian Fisher AO, PSM, BScAgr (Hons), PhD, DScAgr

Council member: 26 September, 2007 – 25 March, 2017

Brian Fisher is a practised director and board member with wide experience in agricultural science and economics.

He has been Executive Director of the Australian Bureau of Agricultural and Resource Economics (ABARE), Vice-President at CRA International and CEO of Concept Economics. He is Managing Director of economic consulting firm BAEconomics Pty Ltd. Dr Fisher was previously Professor of Agricultural Economics and Dean of Agriculture and is Adjunct Professor of Sustainable Resources Development at the University of Sydney. He has published over 280 papers and monographs. He has been an Associate Commissioner of the Productivity Commission, Chairman of the Prime Minister's Exports and Infrastructure Taskforce in 2005 and served as a member of the expert panel on renewable energy in 2014.

Dr Fisher received the Farrer Memorial Medal for agricultural science in 1994, became a Fellow of the Academy of Social Sciences in Australia in 1995, was awarded the Public Service Medal in 2002 and received an Order of Australia in 2007. He holds a PhD in agricultural economics and a DScAgr from the University of Sydney.

Ms Diana Hoff, BSc Petroleum Engineering

Council member: 16 December, 2014 – 15 December, 2019

Diana Hoff is an executive in the oil and gas industry with more than 25 years of experience with major and independent companies, including Santos, Chevron and Amoco. She has held leadership and technical roles in Australia and the United States, spanning operations across offshore and onshore projects in both countries as well as Indonesia, Vietnam and Bangladesh. Over her career, Ms Hoff has had responsibility for drilling and completions engineering and operations, production and facilities engineering, major projects, and safety and environment.

Ms Hoff holds a Bachelor of Science, Petroleum Engineering (magna cum laude) from Marietta College, Ohio, USA. Her career has included engineering and management, with significant focus on performance improvement and regulatory processes, including environmental approvals, stakeholder engagement and mitigations to lessen impacts to air quality, water quality and surface disturbance.

Dr Stephen Morton, BSc (Hons), PhD, GAICD

Council member: 16 December, 2014 – 15 December, 2019

Stephen Morton has extensive expertise in conservation, land management and ecological sustainability. He is currently an Honorary Fellow with CSIRO Land and Water. Dr Morton holds a Bachelor of Science (Honours) and a Doctor of Philosophy in animal ecology, both from the University of Melbourne, and has published more than 150 scientific papers, book chapters, books, refereed reports and popular articles.

In the final decade of his career at CSIRO, he held senior positions as Chief of CSIRO Sustainable Ecosystems and then as Group Executive for Environment and Natural Resources (with responsibility for marine science), for Energy and Environment, and for Manufacturing, Materials and Minerals. In the latter role, Dr Morton oversaw the development of long-term, multimillion dollar research and development alliances with General Electric, Orica and BHP Billiton.

Since leaving CSIRO in 2011, Dr Morton has worked as an independent consultant, taking on several advisory roles, including Chair of the Scientific Advisory Panel to the Lake Eyre Basin Ministerial Forum (Canberra, ACT), Deputy Chair of Territory Natural Resource Management (Darwin, NT), Chair of the Arid Recovery Advisory Board (Roxby Downs, SA), and member of the expert reference panel undertaking a formal review of the *Water Act 2007* (Cwlth) on behalf of the Department of Environment (Canberra, ACT).

Mr Roy Peterson, BCom, FCA, FTI

Council member: 11 December, 2014 – 10 December, 2019

Roy Peterson holds a Bachelor of Commerce degree from the University of Queensland. He is a chartered accountant with strong governance and audit committee experience, including internal audit, risk management, process improvement and taxation. Mr Peterson has worked in audit and finance positions for more than 32 years including 26 years as a Partner with PricewaterhouseCoopers (PwC).

Mr Peterson is currently the Chairman of the AIMS Audit Committee. He is a member of a number of audit and finance committees, government bodies and not-for-profit organisations, has chaired the North Queensland committee for the Australian Institute of Company Directors, and was a member of the Taxation Institute National Taxation Liaison committee. He is a Fellow of the Institute of Chartered Accountants and a Fellow of the Taxation Institute of Australia.

Mr John Gunn, BSc (Hons), FTSE, MAICD

Council member: 28 November, 2011 – 27 November, 2016

John Gunn is the CEO of AIMS. Mr Gunn has significant experience in leading development of strategy, scientific research and capability, and stakeholder engagement across a research portfolio encompassing marine ecology, fisheries, coastal systems, physical and chemical oceanography, atmospheric chemistry and climate science. Mr Gunn joined AIMS from the position of Chief Scientist of the Australian Antarctic Program, where he played a key role in developing the *Australian Antarctic Science Strategy Plan: 2011–2021*. Prior to this, he was Deputy Chief of CSIRO's Marine and Atmospheric Research Division.

Mr Gunn has broad experience on high-level advisory and policy development boards and advisory committees, including the UNESCO–IOC Global Ocean Observing System Steering Committee, the National Marine Science Committee, and Australia's Integrated Marine Observing System Board.

Alongside his executive experience, Mr Gunn has an extensive academic record. He has authored over 150 peer-reviewed publications, papers and technical reports, and presented at more than 100 conferences and symposiums, in many instances as the keynote speaker. He has an international reputation in pelagic fish ecology and in the development of marine biology observation technology and systems.

Previous Council members

Mr Wayne Osborn, Dip Eng, MBA, FTSE, FAICD

Council Chairman: 1 January, 2010 – 31 December, 2014

Wayne Osborn retired as Managing Director of Alcoa of Australia Ltd in 2008 and has since pursued non-executive director roles. He started his career in telecommunications and moved to the iron ore industry in the mid-1970s. He joined Alcoa in 1979 and worked in a variety of roles and locations across the Australian business sector, including accountability for Alcoa's Asia–Pacific operations prior to being appointed Managing Director in 2001. Mr Osborn is currently a non-executive director at Wesfarmers Ltd, Iluka Resources Ltd and Alinta Energy Pty Ltd.

Mr Osborn has an interest in whale conservation and wildlife photography. He was elected an International Fellow of the New York-based Explorers Club in 2004 for his work in marine science and archaeology. His support of the arts though the Australian Business Arts Foundation was recognised with the 2007 Business Leadership Award at the Western Australia Business and the Arts Partnership Awards.

Mr John Grace, BSc, FTSE, FAICD

Council member: 16 December, 2004 – 15 December, 2014

John Grace has worked for 40 years in industry, primarily biotechnology, for 20 years of which he was a CEO. His particular skill is dealing with the complexities of commercialisation of research, particularly from the public sector. He has applied this experience in organisations ranging from Burns Philip to CSIRO and AMRAD, where he served as Managing Director for 11 years. Mr Grace is an experienced director of listed and private companies. He operates a consulting business TechAdvisory Pty Ltd that offers services in research planning and commercialisation. He is Chair of ITEK Ventures Pty Ltd, which is the commercial arm of the University of South Australia, and a Director of the Cooperative Research Centre (CRC) for Polymers.

Formerly Mr Grace has been a director of a number of private companies and served on a number of federal and state government boards and committees. His previous committees include: TransTasman Commercialisation Fund (as Director), the Australia–India Strategic Research Fund Committee, Academy of Technological Sciences and Engineering (Vice-President), AMRAD Corporation Ltd, CRC for Cellular Growth Factors, Victorian Science Agenda investment fund (Chair), the Australian Research Council, the Victorian Premier's Knowledge Innovation Science and Engineering Task Force, the Industry Research and Development Board, and the Australian Biotechnology Association (President/Director).

Ms Elizabeth Montano, BA, LLB, FAICD

Council member: 16 December, 2004 – 15 December, 2014

Elizabeth Montano has worked in senior positions in the private and public sectors for over 30 years, and was Chair of the AIMS Audit Committee until the expiration of her second term as Council member. Ms Montano has extensive senior experience in regulation, natural resource management, financial services and legal practice. She runs an advisory business focusing on strategy, governance, change management, culture, assurance and risk, and is currently the Chair and member of various Commonwealth Audit and Risk Committees.

Ms Montano's non-executive roles have included Commissioner of the Australian Fisheries Management Authority, Chairman of the Board of Management of Centrelink, Chair of Centrelink's Audit and Risk Committee, Strategic Adviser to the Chief Federal Magistrate, Federal Magistrates Court of Australia, independent member of the Executive Management Board and Strategic Leadership Group of the Australian Federal Police (AFP) and independent member of the AFP's Security and Audit Committee.

Ms Montano is a former CEO of AUSTRAC, Australia's anti–money laundering regulator and financial intelligence unit. She was Head of Australia's Delegation to the OECD's Financial Action Task Force, and the first Head of regulatory policy at the Australian Securities Commission (ASIC's predecessor). Ms Montano was previously a consultant and senior financial services lawyer with leading law firm, Mallesons Stephen Jaques (now King & Wood Mallesons).

Ms Montano holds Bachelor of Arts, majoring in Industrial Relations, and Bachelor of Laws degrees from the University of New South Wales. Ms Montano was awarded the Centenary Medal in recognition of her services to the Commonwealth.

Education and performance review processes for Council members

Council members are provided at their induction with a comprehensive set of documents, including: the AIMS *Code of Conduct*; the Australian Government's *Corporate Governance Handbook for Company Directors and Committee Members*; the PGPA Act; the AIMS *Research Plan*, *Business Continuity Plan*, *Enterprise Agreement* and *Fraud Control Plan*; *AIMS Strategic Directions*; and the AIMS Act.

Council members are encouraged to maintain their membership with the Australian Institute of Company Directors (AICD).

Council members' performance is reviewed regularly, alternately by the Chair and by an external reviewer. During 2014–15, a review of Council performance was undertaken by the AICD. The review assessed the governance of the Institute and found that AIMS had a very 'mature' board with no significant shortcomings.

Ethics

Council members are briefed and required to sign the AIMS *Code of Conduct*. Council members must also abide by the Code of Conduct for Directors published by the AICD.

Disclosure of interest

Section 29 of the PGPA Act provides for the disclosure of material personal interests in a matter that is being considered by the Council, and prohibits participation, deliberation and decision-making by any member on such matters, unless so resolved by the Council or entitled by the Minister. Details of such disclosure are recorded in the minutes of the meeting. All of these requirements are currently being met.

Council attendance

Attendance	22 August 2014 (telecon)	15 September 2014	4 December 2014	9 April 2015	15 June 2015
Mr Wayne Osborn	Yes	Yes	Yes	N/A	N/A
Mr John Grace	Yes	Yes	Yes	N/A	N/A
Ms Elizabeth Montano	Yes	Yes	Yes	N/A	N/A
Prof Sandra Harding	Yes	Yes	Yes	Yes	Yes
Dr Brian Fisher AO	Yes	Yes	Yes	Yes	Yes
Mr John Gunn	Yes	Yes	Yes	Yes	Yes
The Hon Penelope Wensley AC	N/A	N/A	N/A	Yes	Yes
Dr Stephen Morton	N/A	N/A	N/A	Yes	Yes
Ms Diana Hoff	N/A	N/A	N/A	Yes	Yes
Mr Roy Peterson	N/A	N/A	N/A	Yes	Yes

Audit committee

The Audit Committee is a formal subcommittee of the Council that meets quarterly. The 2014–15 Audit Committee members were:

- Ms Elizabeth Montano (Chair to November 2014)
- Mr Roy Peterson (independent member to January 2015; Chair from February 2015)
- Mr John Grace (member to December 2014)
- Professor Sandra Harding (member from December 2014 to February 2015)
- Dr Brian Fisher (member from December 2014 to February 2015)
- Ms Diana Hoff (member from February 2015)
- Ms Margaret Walker (independent member from February 2015).

The AIMS CEO, Chief Operating Officer (COO) Chief Finance Officer (CFO), representatives of the Australian National Audit Office (ANAO), and Internal Auditor attend all meetings, or relevant parts of all meetings, by invitation.

In accordance with best practice, all Council members receive copies of Audit Committee agendas and meeting minutes, and can attend meetings as a right.

The Audit Committee is responsible for providing independent assurance and assistance to Council on:

- financial reporting
- performance reporting
- systems of risk oversight and management
- systems of internal control
- internal audit
- external audit.

Four full meetings of the committee were held during 2014–15 (see Audit Committee attendance table).

Audit Committee attendance

Attendance	11 August 2014	13 November 2014	27 February 2015	1 June 2015
Members				
Ms Elizabeth Montano (outgoing Chair)	Yes	Yes	N/A	N/A
Mr Roy Peterson (independent member and incoming Chair)	Yes	Yes	Yes	Yes
Mr John Grace (Council member)	Yes	Yes	N/A	N/A
Prof Sandra Harding (Council member)	N/A	N/A	Yes	N/A
Dr Brian Fisher AO (Council member)	N/A	N/A	Yes	N/A
Ms Diana Hoff (Council member)	N/A	N/A	N/A	Yes
Ms Margaret Walker (independent member)	N/A	N/A	N/A	Yes
Invitees				
Mr John Gunn (CEO)—AIMS management representative	No	No	Yes	No
Mr David Mead (AIMS Chief Operating Officer)—representing John Gunn	Yes	Yes	Yes	Yes
Mr Vic Bayer (AIMS Chief Finance Officer)	Yes	Yes	Yes	Yes
Ms Pamela Giese (AIMS Finance Team Leader)	Yes	Yes	Yes	Yes
Mr Chris King (HLB Mann Judd Internal Auditor)	Yes	Yes	No	Yes
Mr Ron Wah (Australian National Audit Office)	No	No	No	No
Ms Serena Buchanan (Australian National Audit Office)	Yes	No	No	No
Mr John Zabala (Moore Stephens, ANAO External Auditor)	Yes	No	No	Yes

Independent professional advice

The Council has the right to obtain, at AIMS' expense, relevant independent professional advice in connection with the discharge of its responsibilities. They did not seek such advice in 2014–15.

Fraud control

AIMS remains committed to mitigating incidences of fraud and managing risks. AIMS has developed a *Fraud Control Plan* using the *Commonwealth Fraud Control Framework 2014* and in adherence to Section 10 of the PGPA Rules 2014. AIMS has reported its 2014–15 fraud data to the Australian Institute of Criminology. The AIMS Council and management are not aware of any proven instances of fraud in 2014–15. However, one potential case is under investigation and, if proven, will be reported in the 2015–16 annual report.

Financial reporting

AIMS' financial statements are prepared in accordance with:

- the Financial Reporting Rule (FRR) for reporting period effective from 1 July 2014
- Australian Accounting Standards and Accounting Interpretations issued by the Australian Accounting Standards Board that apply for the reporting period.

The financial statements are accompanied by a signed Statement by the Directors, CEO and CFO, declaring that the statements comply with the accounting standards and any other requirements prescribed by the PGPA Rules, and present fairly the entity's financial position, financial performance and cash flows (Section 42 PGPA Act).

There were no related entity transactions during financial years 2013–14 or 2014–15.

Performance reporting

The preparation of performance statements in accordance with Section 39 of the PGPA Act applies from 2015–16. The Audit Committee responsibilities in relation to performance reporting will be reviewed when the *Public Governance, Performance and Accountability Amendment Rule 2015* is finalised.

Systems of risk oversight and management

The Audit Committee has been is responsible for reviewing AIMS' risk framework (and monitoring management's compliance with that framework) and making recommendations to Council.

System of internal control

The Audit Committee responsibilities included to review the audit plan and all the internal audit reports and make recommendations to Council and management to address significant issues raised. The Committee also reviewed whether the internal audit coverage aligned with AIMS' key risks. The internal audit function was performed by HLB Mann Judd during the year. The Internal Auditor is responsible for independently reviewing risk in accordance with the annual plan.

External audit

Under Section 43 of the PGPA Act, the Commonwealth Auditor-General, through the ANAO, is the external auditor for AIMS. The Audit Committee reviewed the ANAO audit plan and reported to, and met with, ANAO representatives prior to recommending to the Council that the annual financial statements be accepted and the Statement by Council be signed.

Investing and financing activities

AIMS invested its surplus money in accordance with Section 59 the PGPA Act, and in accordance with AIMS' policy on investments.

Indemnities and insurance premiums for officers

During the reporting period there were no liabilities to any current or former officers. No premium was paid (or was agreed to be paid) against a current or former officer's liability for legal costs. AIMS paid premiums for the Directors' and Officers' insurances, as required.

Compliance

AIMS conducts its affairs in accordance with the requirements of all applicable laws and regulations, including the PGPA Act and prescribed rules, the applicable policies of the government, and the policies of AIMS. Any policies of the government notified to AIMS are carried out in relation to AIMS so far as practicable (PGPA Act Section 22).

Duty to inform and Ministerial notifications

The Minister is informed of any significant events/issues that are affecting AIMS (PGPA Act Section 19).

Consultancy services

AIMS engages individuals and companies as external consultants from time to time where it lacks specialist expertise, or when independent research, review or assessment is required.

Consultants are engaged to: investigate or diagnose a defined issue or problem; carry out defined reviews or evaluations; or, provide independent advice, information or creative solutions to assist in AIMS' decision-making.

Decisions to engage consultants take into consideration the skills and resources required for the task, the skills and/or resources available internally and the cost-effectiveness of these options. Engagement of a consultant is made in accordance with AIMS' Procurement Policy and Procedures and other relevant internal policies.

AIMS spent $87, 000 (excluding GST) on consultancies during 2014–15.

Public accountability

Judicial decisions and reviews by outside bodies

No judicial decisions relating to AIMS were handed down during the reporting period.

Ombudsman

No issues relating to AIMS were referred to the Commonwealth Ombudsman during the reporting period.

Industrial relations

No significant industrial issues arose during the reporting period.

Customer service charter

AIMS has a formal service charter for dealing with clients, a copy of which is posted on the website. AIMS welcomes feedback on how well it is delivering services against the standards set in this charter. Both the charter and details about how to provide feedback may be found at www.aims.gov.au/docs/about/corporate/service-charter.html.

Privacy principles

To ensure the proper management, administration and safety of its officers, employees, visitors, volunteers and contractors, AIMS is required to collect personal, and occasionally sensitive, information. AIMS is committed to the Australian Privacy Principles contained within the *Privacy Act 1988* (Cwlth) and has formal processes to manage privacy, as detailed in the AIMS Privacy Policy and Procedures. AIMS has a Privacy Officer (privacy@aims.gov.au), who is responsible for ensuring that AIMS' privacy policy and procedures are adhered to, and are in accordance with the Privacy Act 1988.

Freedom of information (FOI) requests, reviews, decisions and statements

One request was made for documents under the provisions of the *Freedom of Information Act 1982 (FOI Act)*, and this request was duly complied with.

In 2014–15, no applications were received:

- for internal review of decisions made under the FOI Act
- for external review by the Administrative Appeals Tribunal of decisions made under the FOI Act
- to amend records under the FOI Act.

No reports were produced on the operations of AIMS by the Auditor-General (except for on AIMS' Financial Statements), a parliamentary committee or the Commonwealth Ombudsman.

FOI operations

Agencies subject to the FOI Act are required to publish information to the public as part of the Information Publication Scheme (IPS). This requirement is in Part II of the FOI Act and has replaced the former requirement to publish a Section 8 Statement in an annual report.

The documents listed in AIMS' IPS Agency Plan are generally freely available to any person requesting them. The availability of other information is subject to assessment, which is made on a case-by-case basis in accordance with the relevant provisions of the FOI Act as supplemented and explained in the fact sheets and guidelines published on the website of the Office of the Australian Information Commissioner (www.oaic.gov.au/freedom-of-information/foi-resources/all/). The grounds for assessment include considerations of commercial confidentiality, legal professional privilege and personal privacy. The FOI Act and the above website explain these and other exemptions and conditional exemptions contained in the current legislation.

Requests for any such information must be made in writing, addressed to the relevant person, and must contain the information set out under 'How do I make an FOI request?' in FOI fact sheet 6 *Freedom of information—How to apply* on the above website. The request should be addressed to the Freedom of Information Officer at the address below. There is no fee payable for the request. However, fees and charges may apply, and if they do will be set in accordance with Part 4 of the FOI Guidelines, which are available from the FOI website.

Information Publication Scheme

AIMS continues to undertake actions consistent with compliance requirements under the Information Publication Scheme introduced in May 2011 pursuant to the relevant provisions in the FOI Act. The IPS encourages governments and government agencies to provide open, accountable and transparent information in formats that are easy to understand and freely accessible.

Contact

All enquiries and requests for information, or concerning access to documents or any other matters relating to FOI, should be directed to:

Freedom of Information Officer
Australian Institute of Marine Science
PMB No 3, Townsville Mail Centre MC, Qld 4810
Telephone: (07) 4753 4444
Facsimile: (07) 4772 5852
Email: privacy@aims.gov.au

Risk management

AIMS has a comprehensive corporate risk management strategy which includes processes to identify and assess new risks to AIMS, and to refine existing control measures.

Operational risk management is established across the Institute, with processes, procedures and systems of work in place to manage health and safety risks that may affect AIMS workers. AIMS participates in the annual Comcover risk management benchmarking survey, and in 2014–15 revised its risk management policy and framework in line with the PGPA Act, and findings of an independent review that was completed in 2013–14.

Health and safety

AIMS understands its responsibilities under Schedule 2 of the *Work, Health and Safety Act 2011*, and is committed to complying with work health and safety legislation and approved codes of practice; the ongoing implementation of the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* and National Standards for Commercial Vessels.

AIMS is committed to protecting the health and safety of its workers and other persons against harm to their health, safety and welfare through eliminating or minimising risks arising from work. AIMS recognises the importance of a providing a safe work environment, a robust and accessible health and safety management system and an ongoing focus on the development of AIMS' safety culture.

AIMS uses active communication and consultation processes to involve its workforce in safety discussions and decision-making processes. Workers are engaged and have input through safety meetings, targeted working groups, safety briefings, proactive hazard identification and incident reporting.

All risks and hazards are assessed in line with the complexities of the research work, activities and supporting functions required. The Institute fosters a 'stop work and speak up' culture to ensure that all personnel feel able to delay or stop work where an unacceptable risk may be present or develop.

AIMS holds that 'safe science is good science', and that safety is a shared value embedded in everything we do. Management is committed to understanding and managing our health and safety risk profile, and dedicates significant resources towards continual improvement projects and strategies.

Key areas of focus include:

- new systems implementation—learning management and incident reporting
- risk management
- training and competency assessments
- audit and inspection
- laboratory management
- diving systems
- ergonomics and manual task management
- health, fitness and wellbeing
- incident reporting and investigation.

Our commitment to the ongoing health and safety of all of our workers is demonstrated by the number and diversity of roles, resources and training dedicated to health and safety management at AIMS. Roles include:

- three dedicated Health and Safety Officers
- six Health and Safety Representatives and a Safety Committee
- Chief Emergency Warden, Deputy Emergency Wardens and House Wardens
- Diving Officer (safety focus)
- Boating Officer (safety focus)
- Laboratory Operations Manager, with each laboratory having a dedicated manager
- staff with advanced medical care training
- staff with first aid qualifications (a high percentage)
- contracted emergency response and first aid providers
- Harassment Contact Officers
- Quarantine Officer (statutory position)
- Radiation Safety Officer (statutory position)
- Biosafety Officer (statutory position)
- Fire Safety Adviser (statutory position)
- Return-to-Work and Rehabilitation Officer.

Recent training provided includes:

- Participative Ergonomics For Manual Tasks (PErForM)
- general manual task training
- crane operations
- working at height
- elevated work platform operations
- first aid and advanced resuscitation
- elements of shipboard safety
- coxswains training and assessment
- rescue diver
- ADAS commercial diving accreditation
- site-specific inductions.

Continuous improvement

AIMS identified and implemented a range of improvements to our Health, Safety and Environmental Management System (HSEMS), to improve our performance and position ourselves for accreditation with AS/NZ 4801:2001 Occupational Health and Safety Management Systems. Improvements ranged from developing a new operational risk management process to improving chemical management and implementing an injury management and prevention plan designed to reduce the frequency of workplace injuries related to manual tasks.

Incidents and hazard reporting

During 2014–15, 112 potential safety matters were formally recorded in our incident management system, of which a significant proportion (32 per cent) were hazards. Appropriate preventative actions were implemented, demonstrating a commitment to continuously improve safety at AIMS.

No incidents were notified to Comcare, the workplace health and safety regulator, under the requirements of Part 3, Sections 36 and 37 of the *Work Health and Safety Act 2011* (Cwlth), in relation to serious injury or illness and dangerous incident.

Two workers' compensation claims were made under the Comcare Workers' Compensation Scheme.

Monitoring change in reef environments is core business for AIMS. Image: LTMP © AIMS

ENVIRONMENTAL PERFORMANCE

In its 40-year history, AIMS has demonstrated an extensive commitment to environmental protection and biodiversity conservation. The Institute has worked with industry, government, the community and other scientific institutions and agencies on programs and projects dedicated to conserving and sustainably managing tropical marine resources. As a community leader in tropical Australia and a Commonwealth statutory authority, AIMS has both a moral obligation and a statutory obligation, under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), to protect and maintain the biodiversity and heritage under its control.

In addition to our many activities contributing to environmental protection and biodiversity conservation, we are committed to minimising any adverse effects on the environment arising from our own activities.

Reducing AIMS' environmental impacts

The green@AIMS program, which commenced in 2008, continues to deliver energy efficiencies for AIMS. The energy monitoring system commissioned in June 2010 has established consumption baselines and trends, which allows targeted energy reduction programs and initiatives.

A new off-peak chilled water plant, a component of the AIMS Tropical Marine Research Facilities Project, was nearing completion in June 2015. Predicted electricity savings from the installation of new air-conditioning chillers, which are 40 per cent more efficient than those used previously, have been confirmed. However, commissioning issues with the thermal energy storage tank have delayed benefits associated with moving electrical demand for air-conditioning into off-peak periods.

As well as focusing on step-change improvements in electricity consumption, AIMS continues to promote energy efficiency among the workforce.

AIMS operates a car-pooling program whereby staff are provided with access to shared vehicles. Approximately 91per cent of all staff, visitors and students travel to and from AIMS each day in a commuter vehicle. The vehicles AIMS selects for the commuter fleet must achieve a Green Vehicle Guide rating of 10.5 or higher. It is estimated that the commuter program reduces the number of vehicles travelling to and from AIMS each day by between 80 and 100.

Water usage

AIMS has used 64.1 ML of water this financial year, a reduction from 81.1 ML the previous year.

Recycling

AIMS continues to operate an active recycling program, including paper, cardboard, batteries, printer cartridges, lubricants and metals. In 2015–16 we will investigate including glass and plastic in the recycling program.

Energy usage

AIMS Cape Ferguson's site electricity consumption for 2014–15 is forecast to be 7.997 gigawatts for the year, compared with 7.613 gigawatts in 2013–14. The increase results from operating the thermal energy storage tank and ramping up experimental operations of the National Sea Simulator.

Radiation safety

AIMS continues to hold a source licence issued by the Australian Radiation Protection and Nuclear Safety Agency. This licence is subject to conditions, including quarterly reporting, maintaining a source inventory, and complying with relevant regulations, codes and standards.

Gene technology

One new proposal for dealing with a Genetically Modified Organism (GMO) was assessed by the AIMS Biosafety Committee as an exempt dealing, meaning it is considered very low risk and not requiring a specified level of containment. One project defined as *Notifiable Low Risk Dealings* (NLRD) was completed. With ongoing projects, AIMS now has one licensed GMO project, five GMO projects that are defined by the Office of the Gene Technology Regulator as NLRDs, and eight defined as exempt.

STAFF

Our people

AIMS employed an average core of 210.2 full-time equivalent (FTE) science and support staff during the 2014–15 financial year, including 3.1 FTE casuals and 8.8 FTE temporary staff. In addition, AIMS employed 42.0 FTE staff via outsourced functions (see Figure 21).

Many of our scientists are world authorities in their field and have achieved international acclaim for their research. The work of the research scientists is supported by a variety of professional research support staff skilled in research, laboratory services, data collection and data management. Technical and corporate support staff deliver commercial services, intellectual property portfolio management, engineering services, field operations, information technology, information services, science communication, financial, human resource, supply, facility and general management services. Where appropriate, AIMS contracts services; currently these include catering, clearing, site maintenance and crewing marine research vessels.

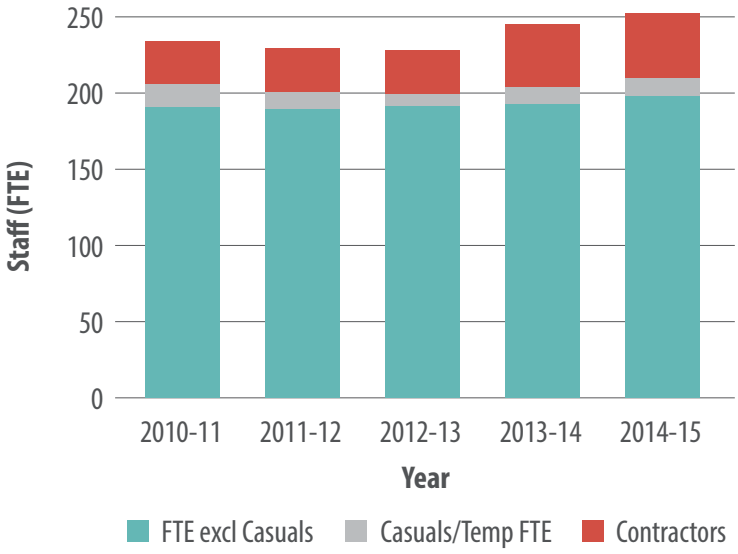


Figure 21. Total staff numbers

AIMS core staff numbers

Staff category	2010–11	2011–12	2012–13	2013–14	2014–15
Total FTE, excluding casual and temporary staff	190	189	191	192	198
Casual/temp FTE	15	11	7	11	12
Postdoc researchers included in total FTE	(5)	(10)	(13)	(11)	(11)
Total FTE	205	200	198	203	210

Number of contractors engaged by AIMS

	2010–11	2011–12	2012–13	2013–14	2014–15
Contractors	30	30	30	42	42

Organisational structure

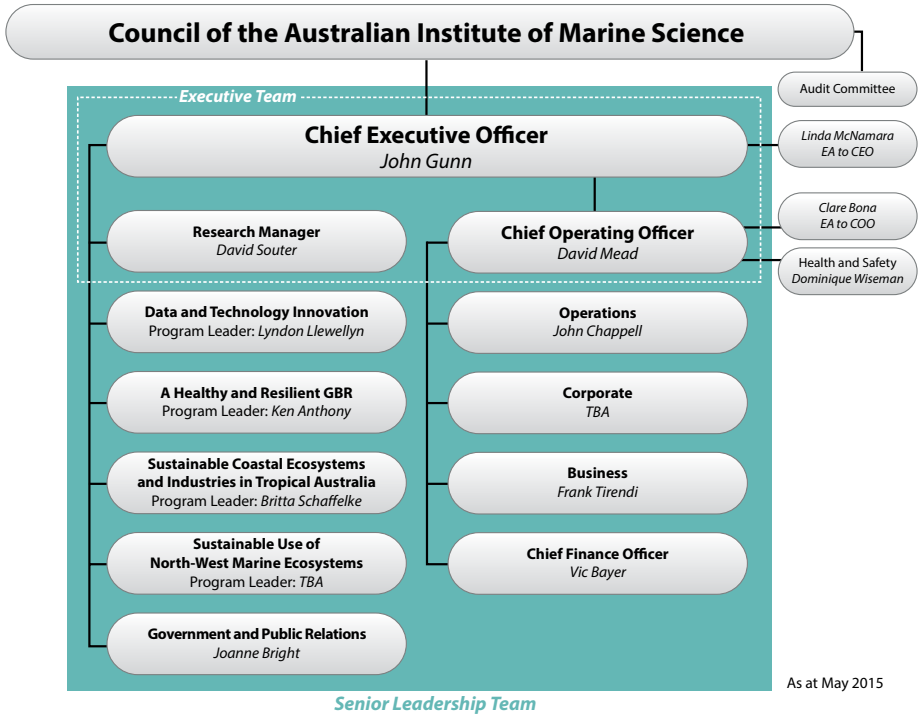


Figure 22. Organisational structure of the Australian Institute of Marine Science as of May 2015

Women in science

The goal of the Women@AIMS Reference Group is to promote diversity and equity within the organisation. The group formed in 2009 and seeks opportunities for creating a flexible and family-friendly work environment. In particular, it identifies issues and barriers that are specific to women in the workplace and aims to provide solutions. Originally this was a focus group for AIMS' female scientists, but in late 2010 it was modified to include all women at AIMS.

AIMS core staff (FTE) by gender 2014–15 (2013–14)

Category	Female	Male	Total
Research scientists	19 (18)	28 (32)	47 (50)
Research support	21 (21)	49 (46)	70 (67)
Technical and corporate support	35 (29)	58 (57)	93 (86)
Total staff	75 (68)	135 (135)	210 (203)

During 2014–15 members of the group continued with the coaching and mentoring program. In addition, a number of members participated in personal development workshops. AIMS was also represented at the Science in Australia Gender Equity (SAGE) Forum in late 2014.

Staff consultation

Staff consultation and communication take place via a range of mediums, such as all-staff meetings, emails and newsletters. The Joint Consultative Committee, comprising AIMS CEO (Chair), a management representative (COO), the Human Resources Manager, Community and Public Sector Union (CPSU) representatives (internal), a CPSU organiser (external), and a staff representative, met four times in 2014–15. This committee provides a forum for discussion and consultation between management and staff representatives on issues which may affect staff conditions and entitlements.

Equal employment opportunity and workplace diversity

AIMS' Workforce Diversity Policy acknowledges differences and adapts work practices to create an inclusive work environment in which diverse skills, perspectives and cultural backgrounds are valued.

AIMS' staffing policies and procedures align with the requirements of the *Equal Employment Opportunity (Commonwealth Authorities) Act 1987*. Designed to ensure that workplace diversity and equality of opportunity are fundamental operating principles for AIMS, they include:

- regularly reviewing employment policies and practices, and taking steps to implement ongoing instruction for user groups
- promoting AIMS as an equal opportunity employer in all recruitment advertisements placed in online media and on AIMS' website
- supporting equity of access and providing amenities for people with disabilities in AIMS' public access facilities, such as conference rooms, theatre, library, canteen and display areas
- constructing new facilities that support equity of access
- catering to those with a disability, and providing a wheelchair if required, on public tours of AIMS
- having mechanisms in place to handle complaints and grievances (formal and informal) to address issues and concerns raised by staff and visitors.

EEO status by full-time equivalent

EEO category	Per cent of total staff (2013–14 figures in brackets)
Aboriginal and Torres Strait Islander	0.5 per cent (0.5 per cent)
Non–English speaking background	16.3 per cent (15.2 per cent)
Staff with disability	1.9 per cent (1.8 per cent)
Women	35.7 per cent (33.5 per cent)

Code of conduct

AIMS has a code of conduct to which the Council, management, staff and visitors are required to adhere. The code complies with Division 4 of the *Commonwealth Authorities and Companies Act 1997*. New Council members, staff and visitors are briefed on the code during induction. Council members abide by the *Code of Conduct for Directors* published by the Australian Institute of Company Directors.

Harassment

Management, staff and visitors at AIMS share the responsibility of providing and working in an environment free of harassment and other unacceptable forms of behaviour. In accordance with the AIMS *Code of Conduct*, staff are required to treat others with courtesy, respect, dignity, fairness and equity, and to have concern for their rights, freedoms and individual needs. A high standard of behaviour is expected, and AIMS has a set of principles outlining the way staff are expected to behave towards others.

Workplace Harassment Contact Officers are available throughout AIMS to discuss, in confidence, matters of concern regarding harassment and associated issues raised by a staff member. AIMS had no formal reported cases of harassment in 2014–15.

Public interest disclosure (whistleblower policy)

This policy aims to facilitate the effective notification, assessment and management of the disclosure of serious wrongdoings in accordance with the *Public Interest Disclosure Act 2013* (Cwlth).

AIMS strongly encourages the reporting of serious wrongdoing, and will take appropriate and necessary action to uphold the integrity of the Institute and promote the public interest. To achieve our goals and obligations in this regard, AIMS is committed to creating and maintaining an environment and culture in which the disclosure of serious wrongdoings is fully supported and protected. AIMS had no formal reported public interest disclosure cases in 2014–15.

Disability strategy

AIMS is committed to ensuring that people with disabilities are given opportunities for independence, access and full participation. AIMS assesses cases individually and endeavours to implement the most appropriate measures to assist people with disabilities.

All vacancy advertisements placed in online media and on the AIMS website clearly state that AIMS is an equal opportunity employer.

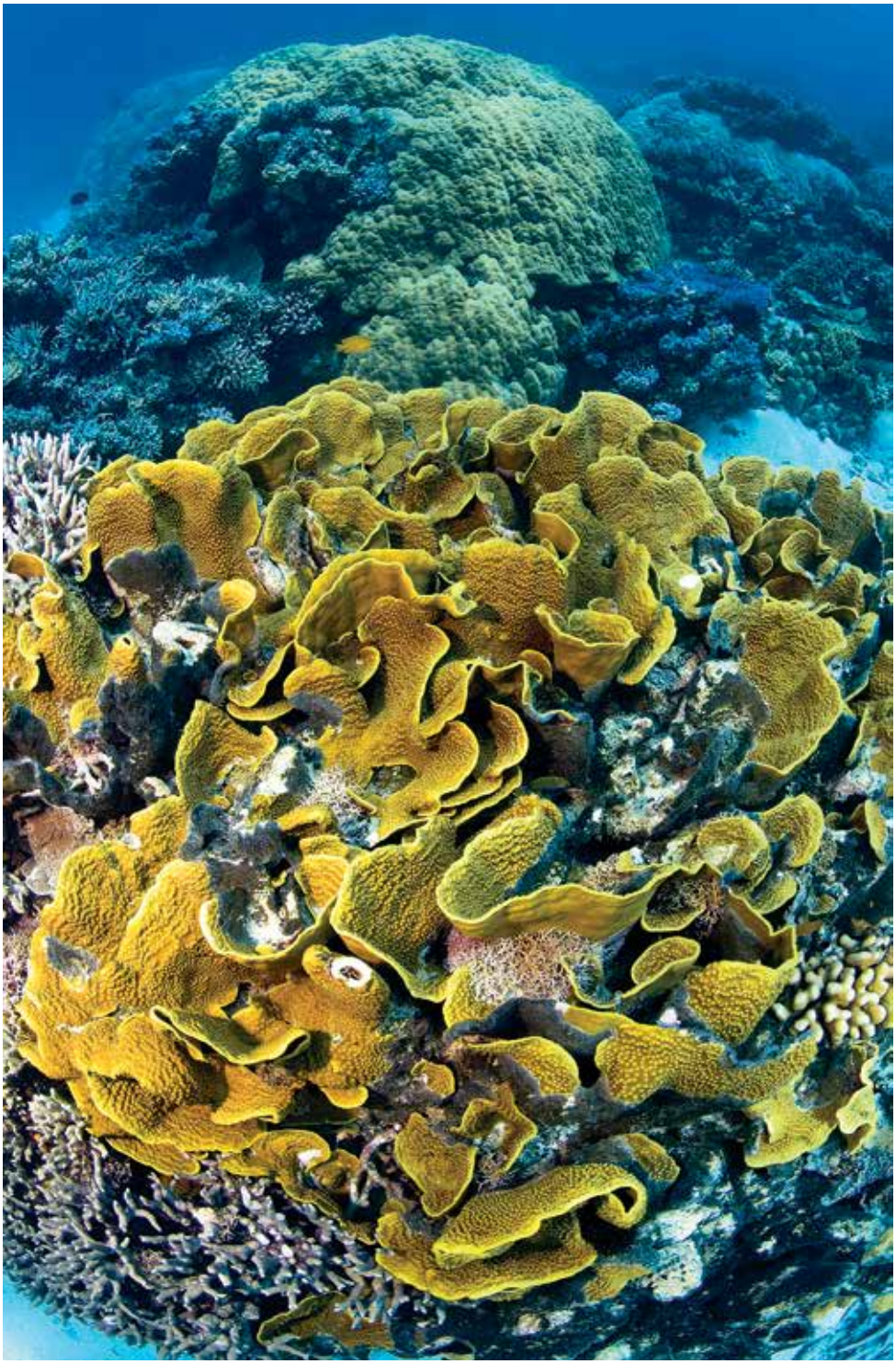
AIMS' physical resources continue to be upgraded to meet access needs for people with disabilities, which includes provision for people with a disability in building modifications and in the construction of new facilities.

Employee assistance program

Optum Health and Technology Pty Ltd (formerly PPC Worldwide) are contracted by AIMS to provide an independent employee assistance program (EAP). The EAP is free to staff, their family members and authorised visitors, and provides for up to ten sessions to assist with issues that may arise in the following areas:

- relationship and family problems
- maximising personal potential and/or performance
- financial and legal concerns
- conflict and communication
- work–life balance
- changes at work, home or elsewhere
- coping skills in dealing with a range of pressures.

Participants can refer themselves or be encouraged by a colleague, a supervisor, human resource staff or occupational health and safety staff to access the program. Seventeen staff accessed the counselling service during the reporting period, an increase on the previous year when 14 people used the service. Analysis reveals that staff accessed the service primarily for issues of a personal nature.



A healthy and diverse coral community on the Great Barrier Reef. Image: Jürgen Freund © AIMS

PART THREE: FINANCIAL STATEMENTS

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Industry and Science

I have audited the accompanying annual financial statements of the Australian Institute of Marine Science for the year ended 30 June 2015, which comprise:

- Statement by the Accountability Authority, Chief Executive Officer and Chief Finance Officer;
- Statement of Comprehensive Income;
- Statement of Financial Position;
- Statement of Changes in Equity;
- CashFlow Statement;
- Schedule of Commitments; and
- Notes comprising a Summary of Significant Accounting Policies and other explanatory information.

Accountable Authority's Responsibility for the Financial Statements

The Accountable Authority of the Australian Institute of Marine Science is responsible under the *Public Governance, Performance and Accountability Act 2013* for the preparation and fair presentation of annual financial statements that comply with Australian Accounting Standards and the rules made under that Act. The Accountable Authority is also responsible for such internal control as is necessary to enable the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. I have conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These auditing standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers

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19 National Circuit BARTON ACT
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internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the Accountable Authority of the entity, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Independence

In conducting my audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

Opinion

In my opinion, the financial statements of the Australian Institute of Marine Science:

(a) comply with Australian Accounting Standards and the *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015*; and

(b) present fairly the financial position of the Australian Institute of Marine Science as at 30 June 2015 and its financial performance and cash flows for the year then ended.

Australian National Audit Office

S. Buchanan

Serena Buchanan
Executive Director

Delegate of the Auditor-General

Canberra
28 August 2015

STATEMENT BY THE DIRECTORS, CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER

In our opinion, the attached Financial Statements for the year ended 30 June 2015 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, as amended.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Australian Institute of Marine Science will be able to pay its debts as and when they become due and payable.

This statement is made in accordance with the resolution of the Directors.

Signed

The Hon Penelope Wensley AC
Chairman
28 August 2015

Signed

Mr John Gunn
Chief Executive Officer
28 August 2015

Signed

Mr Victor Bayer
Chief Finance Officer
28 August 2015

STATEMENT OF COMPREHENSIVE INCOME
for the period ended 30 June 2015

	Notes	2015 $'000	2014 $'000
NET COST OF SERVICES			
Expenses			
Employee benefits	3A	**26,841**	24,354
Suppliers	3B	**22,673**	22,188
Depreciation and amortisation	7C,E	**11,870**	10,365
Foreign exchange losses		**44**	33
Losses from sale of assets		**95**	246
Total expenses		**61,523**	57,186
LESS:			
Own-Source Income			
Own-source revenue			
Rendering of services	4A	**17,396**	16,909
Interest on deposit		**1,367**	1,612
Other revenue	4B	**1,152**	753
Total own-source revenue		**19,915**	19,274
Gains			
Gains from sale of assets		**43**	127
Gain from donation of ATRF building		**3,544**	-
Total gains		**3,587**	127
Total own-source income		**23,502**	19,401
Net cost of services		**(38,021)**	(37,785)
Revenue from Government		**38,796**	33,280
Surplus/(Loss)		**775**	(4,505)
OTHER COMPREHENSIVE INCOME			
Changes in asset revaluation surplus	7C,E	**567**	-
Total other comprehensive income		**567**	-
Total comprehensive income (loss)		**1,342**	(4,505)

The above statement should be read in conjunction with the accompanying notes.

STATEMENT OF FINANCIAL POSITION
as at 30 June 2015

	Notes	2015 $'000	2014 $'000
ASSETS			
Financial assets			
Cash and cash equivalents	6A	**7,829**	1,991
Trade and other receivables	6B	**4,459**	5,433
Other investments	6C	**26,700**	32,600
Total financial assets		**38,988**	40,024
Non-financial assets			
Buildings	7A,C	**91,162**	87,512
Infrastructure, plant and equipment	7B,C	**62,184**	67,778
Intangibles	7D,E	**2,611**	2,439
Inventories		**172**	170
Other non-financial assets	7F	**1,847**	1,488
Total non-financial assets		**157,976**	159,387
Total assets		**196,964**	199,411
LIABILITIES			
Payables			
Suppliers	8A	**1,757**	3,314
Other payables	8B	**3,126**	4,400
Total payables		**4,883**	7,714
Non-interest bearing liabilities			
Loans	9A	**-**	1,500
Total non- interest bearing liabilities		**-**	1,500
Provisions			
Employee provisions	10A	**9,628**	9,086
Total provisions		**9,628**	9,086
Total liabilities		**14,511**	18,300
Net assets		**182,453**	181,111
EQUITY			
Contributed equity		**86,607**	86,607
Reserves		**68,266**	67,699
Retained surplus		**27,580**	26,805
Total equity		**182,453**	181,111

The above statement should be read in conjunction with the accompanying notes.

STATEMENT OF CHANGES IN EQUITY

for the period ended 30 June 2015

	Retained earnings		Asset revaluation surplus		Contributed equity/capital		Total equity	
	2015	2014	**2015**	2014	**2015**	2014	**2015**	2014
	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Opening balance								
Balance carried forward from previous period	**26,805**	31,310	**67,699**	67,699	**86,607**	86,607	**181,111**	185,616
Adjusted opening balance	**26,805**	31,310	**67,699**	67,699	**86,607**	86,607	**181,111**	185,616
Comprehensive income								
Other comprehensive income	**-**	-	**567**	-	-	-	**567**	-
Surplus (Deficit) for the period	**775**	(4,505)	**-**	-	-	-	**775**	(4,505)
Total comprehensive income	**775**	(4,505)	**567**	-	**-**	-	**1,342**	(4,505)
Closing balance as at 30 June	**27,580**	26,805	**68,266**	67,699	**86,607**	86,607	**182,453**	181,111

The above statement should be read in conjunction with the accompanying notes.

CASHFLOW STATEMENT
for the period ended 30 June 2015

	Notes	2015 $'000	2014 $'000
OPERATING ACTIVITIES			
Cash received			
Receipts from Government		**38,796**	33,280
Rendering of services		**18,801**	16,516
Interest		**1,377**	1,552
Net GST received		**1,085**	1,435
Other		**123**	753
Total cash received		**60,182**	53,536
Cash used			
Employees		**26,401**	23,797
Suppliers		**27,318**	25,398
Total cash used		**53,719**	49,195
Net cash from operating activities	11	**6,463**	4,341
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		**178**	228
Total cash received		**178**	228
Cash used			
Purchase of property, plant and equipment		**6,232**	8,680
Transfer of funds to/from investments		**(5,900)**	(800)
Total cash used		**332**	7,880
Net cash used by investing activities		**(154)**	(7,652)
FINANCING ACTIVITIES			
Cash used			
Repayment of loan		**471**	-
Total cash used		**471**	-
Net cash from financing activities		**(471)**	-
Net increase (decrease) in cash held		**5,838**	(3,311)
Cash and cash equivalents at the beginning of the reporting period		**1,991**	5,302
Cash and cash equivalents at the end of the reporting period	6A	**7,829**	1,991

The above statement should be read in conjunction with the accompanying notes.

SCHEDULE OF COMMITMENTS

as at 30 June 2015

	2015	2014
BY TYPE	**$'000**	$'000
Commitments receivable		
Insurance claims	**856**	340
Net GST recoverable on commitments[1]	**2,435**	2,260
Total commitments receivable	**3,291**	2,600
Commitments payable		
Capital commitments		
Building [2]	**1,334**	2,765
Infrastructure, plant and equipment[3]	**1,232**	1,038
Total capital commitments	**2,566**	3,803
Other commitments		
Operating lease[4]	**1,773**	1,790
Other[5]	**22,444**	19,266
Total other commitments	**24,217**	21,056
Total commitments payable	**26,783**	24,859
Net commitments by type	**23,492**	22,259
BY MATURITY		
Commitments receivable		
Capital commitment income		
Within 1 year	**856**	536
Between 1 to 5 years	**-**	150
Total capital commitment income	**856**	686
Other commitments receivable		
Within 1 year	**1,034**	1,147
Between 1 to 5 years	**1,205**	565
More than 5 years	**196**	202
Total other commitments receivable	**2,435**	1,914
Total commitments receivable	**3,291**	2,600
Commitments payable		
Capital commitments		
Within 1 year	**1,741**	2,153
Between 1 to 5 years	**825**	1,650
Total capital commitments	**2,566**	3,803
Operating lease commitments		
Within 1 year	**75**	73
Between 1 to 5 years	**301**	294
More than 5 years	**1,397**	1,423
Total operating lease commitments	**1,773**	1,790

The above statement should be read in conjunction with the accompanying notes.

SCHEDULE OF COMMITMENTS (cont'd)

as at 30 June 2015

	2015	2014
	$'000	$'000
Other Commitments		
Within 1 year	**9,553**	12,545
Between 1 to 5 years	**12,136**	5,918
More than 5 years	**755**	803
Total other commitments	**22,444**	19,266
Total commitments payable	**26,783**	24,859
Net commitments by maturity	**23,492**	22,259

Note:

1. Commitments are GST inclusive where relevant.
2. Indian Ocean Marine Research Centre at the University of Western Australia.
3. Purchase orders for the construction of the Great Barrier Reef Ocean Observing System, scientific equipment and vehicles.
4. Operating lease refers to Port of Townsville Ltd , water leases, library franking machine and the ANU licence for the ATRF land for 20 years from 1 July 2015.
5. Purchase orders for scientific research, contractual obligations for support services and externally funded research.

Table of Contents - Notes

Note 1: Summary of Significant Accounting Policies

1.1 Objective of Australian Institute of Marine Science

Australian Institute of Marine Science (AIMS) is an Australian Government controlled entity. It is a not-for-profit entity. The objective of AIMS is to undertake scientific research in support of the protection and sustainable development of Australia's marine resources.

AIMS is structured to meet one outcome:

Outcome 1: Growth of knowledge to support protection and sustainable development of Australia's marine resources through innovative marine science and technology.

The continued existence of AIMS in its present form and with its present programs is dependent on Government policy and on continuing funding by Parliament for AIMS administration and science research programs.

1.2 Basis of preparation of the financial statements

The Financial Statements are general purpose financial statements and are required by section 42 of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act).

The financial statements have been prepared in accordance with:

- Financial Reporting Rules (FRR) for reporting periods ending on or after 1 July 2014; and
- Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial statements are presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

Unless an alternative treatment is specifically required by an accounting standard or the FRR, assets and liabilities are recognised in the statement of financial position when and only when it is probable that future economic benefits will flow to the entity or a future sacrifice of economic benefits will be required and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under executory contracts are not recognised unless required by an accounting standard. Liabilities and assets that are unrecognised are reported in the schedule of commitments or the contingencies note.

Unless alternative treatment is specifically required by an accounting standard, income and expenses are recognised in the Statement of Comprehensive Income when and only when the flow, consumption or loss of economic benefits has occurred and can be reliably measured.

1.3 Significant accounting judgements and estimates

In the process of applying the accounting policies listed in this note, AIMS has made the following judgements that have the most significant impact on the amounts recorded in the financial statements:

i) Fair value of buildings, plant and equipment

The buildings, plant and equipment have been valued at depreciated replacement cost by an independent valuer. The independent valuer deemed that the assets would seldom trade on the open market due to their specialised nature and have therefore adopted this revaluation approach.

ii) Remaining useful lives of buildings, infrastructure, plant and equipment

The independent valuers have undertaken an assessment of the remaining useful lives of buildings, infrastructure, plant and equipment based on their condition and expected usage. The remaining useful lives have been reviewed and adopted by AIMS.

iii) Recognition of revenue for rendering of services

Revenue recognised for rendering of services is accounted for on a percentage completed basis which determines the timing of revenue recognition and amount of revenue recognition. The determination of the percentage of complete requires judgements in relation to determining the costs to date of the project, budgeted costs to complete and contract values including variations.

iv) Impairment of trade receivables

Collectability of trade receivables is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off as an expense. An allowance account (provision for impairment of trade receivables) is used when there is objective evidence that AIMS will not be able to collect all amounts due according to the original terms of the receivables.

v) Employee Entitlement Provision

The liability for employee benefits includes provision for annual leave and long service leave.

The liability for long service leave has been determined by reference to the work of an actuary as at 30 June 2015. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

vi) Contingent liabilities and contingent assets

Contingent liabilities and contingent assets are not recognised in the statement of financial position but are reported in the relevant notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

1.4 New Australian Accounting Standards

Adoption of New Australian Accounting Standard Requirements

No accounting standard has been adopted earlier than the application date as stated in the standard.

The following new standards, revised standards, interpretations, amending standards were issued prior to the signing of the statements by the Chairman of Council, Chief Executive Officer and Chief Financial Officer, were applicable to the current reporting period and had impact as to disclosure on AIMS financial statements.

i) ***AASB 2012-3: Amendments to Australian Accounting Standards – Offsetting Financial Assets and Financial Liabilities*** (applicable for annual reporting periods commencing on or after 1 January 2014).

This Standard provides clarifying guidance relating to the offsetting of financial instruments, which is not expected to impact the AIMS's financial statements.

ii) ***AASB 2013-3: Amendments to AASB 136 – Recoverable Amount Disclosures for Non-Financial Assets*** (applicable for annual reporting periods commencing on or after 1 January 2014).

This Standard amends the disclosure requirements in AASB 136: Impairment of Assets pertaining to the use of fair value in impairment assessment and is not expected to significantly impact the AIMS's financial statements.

iii) **AASB 1055 Budgetary Reporting** (effective 1 January 2014)

AASB 1055 sets out budgetary disclosure requirements for the whole-of-government, the General Government Sector (GGS) and for not-for-profit entities within the GGS of each government.

AASB 1055 requires:

- disclosure of any entity's original budgeted financial statements reflecting controlled items and administered items;
- explanations of major variances between the actual amounts presented in the financial statements and the corresponding original budgeted amounts for departmental and administered items; and
- disclosure of the budgeted information on the same presentation and classification bases adopted in the financial statements for departmental and administered items.

The explanations of major variances required to be disclosed are those relevant to an assessment of the discharge of accountability and to the analysis of performance of an entity. They include high-level explanations of the cause of major variances rather than merely the nature of the variance.

Any revised budget that is presented to parliament during the reporting period may be disclosed in the financial statements in addition to the original budget and might need to be referred to in the explanations of major variances.

If the disclosure of budgeted financial statements is not consistent with the presentation and classification bases adopted in the financial statements of controlled and administered items, the budgeted statements are restated for disclosure purposes to align with presentation and classification bases in the financial statements.

Comparative budgetary information in respect to the previous reporting is not required to be disclosed. AIMS has adopted this standard from 1 July 2014.

Other new standards, revised standards, interpretations, amending standards that were issued prior to the sign-off date and are applicable to the current reporting period did not have a financial impact, and are not expected to have a future financial impact on AIMS' financial statements.

Future Australian Accounting Standard Requirements

i) ***AASB 2010-7 Amendments to Australian Accounting Standards arising from AASB 9 (December 2010)***

AASB 2010-7 makes changes to a number of Standards and Interpretations resulting from the re-issuance of AASB 9 Financial Instruments in December 2010. These changes ensure other standards remain consistent with the new requirements of revised AASB 9 (effective from 1 July 2015)

ii) ***AASB 2013-9 Amendments to Australian Accounting Standards – Conceptual Framework, Materiality and Financial Instruments***

AASB 2013-9 makes changes to AASB Financial Instruments to incorporate the latest amendments to IRFS 9, updates references to the Conceptual Framework, and deletes references to AASB 1031 Materiality in other

standards. The main changes are including a new chapter of Hedge Accounting and deferring the mandatory effective of AASB 9 from 1 January 2015 to January 2017.

iii) ***AASB 15 Revenue from Contracts with Customers*** (applicable for annual reporting periods commencing 1 July 2017).

AASB 15 will have a significant impact on future revenue recognition for AIMS, and that each material revenue stream would be assessed individually for compliance with this new standard.

(iv) ***AASB 2015-6 (Amendments to Australian Accounting Standards – Extending Related Party Disclosures to Not-for-Profit Public Sector Entities*** (applicable for annual reporting periods commencing on or after 1 July 2016).

The key impact of the amendments is to specify consistent related party disclosure requirements for the Australian Government and will have impact on future disclosures in AIMS financial statements

Other new standards, revised standards, interpretations, amending standards that were issued prior to the sign-off date and are applicable to future reporting periods are not expected to have a future material impact on AIMS' financial statements.

1.5 Revenue

Revenue from the sale of goods is recognised when:

- the risks and rewards of ownership have been transferred to the buyer;
- AIMS retains no managerial involvement or effective control over the goods;
- the revenue and transaction costs incurred can be reliably measured; and
- it is probable that the economic benefits associated with the transaction will flow to AIMS.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- the amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- the probable economic benefits associated with the transaction will flow to AIMS.

The stage of completion of contracts at the reporting date is determined by reference to the proportion that costs incurred to date bear to the estimated cost of the transaction. Where losses are anticipated they are provided for in full.

Receivables include trade receivables and contract works in progress based on stage of completion.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any impairment allowance account. Collectability of debts is reviewed as at the end of reporting period. Allowances are made when collectability of the debt is no longer probable.

Interest revenue is recognised using the effective interest method as set out in AASB 139 *Financial Instruments: Recognition and Measurement.*

Revenue from Government

Funding received or receivable from agencies (appropriated to AIMS as a non-corporate body payment item) is recognised as revenue from Government unless they are in the nature of an equity injection or loan.

1.6 Gains

Sale of Assets

Gains from disposal of assets are recognised when control of the asset has passed to the buyer.

1.7 Transactions with the Government as owner

Equity Injections

Amounts appropriated that are designated as 'equity injections' for a year are recognised directly in contributed equity in that year.

Other Distributions to Owners

The FRR require that distributions to owners be debited to contributed equity unless it is in the nature of a dividend. In 2014-15, by agreement with the Department of Finance, AIMS did not relinquish control of any surplus output appropriation funding.

1.8 Employee benefits

Liabilities for 'short-term employee benefits' (as defined in AASB 119 *Employee Benefits*) and termination benefits due within twelve months of the end of reporting period are measured at their nominal amounts.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.Other long-term employee benefits are measured as net total of the present value of the defined benefit obligation at the end of the reporting period minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly.

Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of the entity is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied at the time the leave is taken, including AIMS' employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave as at the end of June 2015 has been determined by the short hand method and reference to the work of the Australian Government Actuary (AGA). The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Separation and redundancy

Provision is made for separation and redundancy benefit payments. AIMS recognises a provision for termination when it has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

Superannuation contributions

AIMS' staff are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS), the PSS accumulation plan (PSSap), Uni Super, Australian Super (AUS), Australian Ethical and Sunsuper.

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap, Uni Super, AUS, Australian Ethical and Sunsuper are defined (accumulation funds) contribution schemes.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported in the Department of Finance's administered schedules and notes.

AIMS makes employer contributions to the employees' superannuation scheme at rates determined by an actuary to be sufficient to meet the current cost of the superannuation entitlements of AIMS employees to the Government. AIMS accounts for the contributions as if they were contributions to defined contribution plans.

The liability for the superannuation recognised as at 30 June represents outstanding contributions for the final pay of the year.

1.9 Cash

Cash is recognised at its nominal amount. Cash and cash equivalents include:

- cash on hand, and
- demand deposits in bank accounts with an original maturity of 3 months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value.

1.10 Financial assets

AIMS classifies its financial assets in the following categories:

- held-to-maturity investments, and
- loans and receivables.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Financial assets are recognised and derecognised upon trade date.

Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturity dates that the group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are recorded at amortised cost.

Loans and receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables". Loans and receivables are measured at amortised cost.

Impairment of financial assets

Financial assets are assessed for impairment at the end of each reporting period.

Financial assets held at amortised cost - if there is objective evidence that an impairment loss has been incurred for loans and receivables or held to maturity investments held at amortised cost, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the statement of comprehensive income.

1.11 Financial liabilities

Financial liabilities are classified as either financial liabilities at 'fair value through profit or loss' or other financial liabilities. Financial liabilities are recognised and derecognised upon 'trade date'.

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss are initially measured at fair value. Subsequent fair value adjustments are recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability.

Other financial liabilities

Other financial liabilities, including borrowings, are measured at fair value, net of transaction costs.

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.12 Acquisition of assets

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income at their fair value at the date of acquisition, unless acquired as consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor's accounts immediately prior to the restructuring.

1.13 Property, plant and equipment

Asset recognition threshold

Purchases of property, plant and equipment are recognised initially at cost in the statement of financial position, except for purchases costing less than $2,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

Revaluations

Fair values for each class of asset are determined as shown below:

Class of Asset	Fair value measured at
Buildings	Depreciated Replacement Cost
Plant and equipment	Open Market Value where such a market exists or Depreciated Replacement Cost
Computer equipment	Open Market Value where such a market exists or Depreciated Replacement Cost
Vehicles	Open Market Value where such a market exists or Depreciated Replacement Cost
Office equipment	Open Market Value where such a market exists or Depreciated Replacement Cost
Ships, launches and vessels	Open Market Value where such a market exists or Depreciated Replacement Cost
Library books	Open Market Value where such a market exists or Depreciated Replacement Cost

Following initial recognition at cost, property, plant and equipment are carried at fair value less subsequent accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depended upon the volatility of movements in market values for the relevant assets but are carried out at least every three years.

Revaluation adjustments are made on a class basis. Any revaluation increment are credited to equity under the heading of asset revaluation reserve except to the extent that it reversed a previous revaluation decrement of the same asset class that was previously recognised in the surplus/deficit. Revaluation decrements for a class of assets are recognised directly in the surplus/deficit except to the extent that they reversed a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

Depreciation

Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the entity using, in all cases, the straight-line method of depreciation. Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current and future reporting periods, as appropriate.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

Class of Asset	**2015**	2014
Buildings	**9 – 69 years**	9 – 69 years
Plant and equipment	**3 – 47 years**	3 – 47 years
Computer equipment	**3 – 28 years**	3 – 28 years
Vehicles	**3 – 20 years**	3 – 20 years
Office equipment	**4 – 56 years**	4 – 56 years
Ships, launches and vessels	**4 – 25 years**	4 – 25 years
Library books	**3 – 100 years**	3 – 100 years

Impairment

All assets were assessed for impairment at 30 June 2015. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if AIMS was deprived of the asset, its value in use is taken to be its depreciated replacement cost.

1.14 Intangibles

AIMS' intangibles comprise software. These assets are carried at cost less accumulated amortisation and accumulated impairment losses.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives of the AIMS' software are 2 to 10 years (2013-14: 2 to 10 years).

All software assets were assessed for indications of impairment as at 30 June 2015.

1.15 Inventories

Inventories held for distribution are valued at cost, adjusted for any loss of service potential.

Costs incurred in bringing each item of inventory to its present location and condition are assigned as follows:
- raw materials and stores – purchase cost on a first-in-first-out basis; and
- finished goods and work-in-progress – cost of direct materials and labour plus attributable costs that can be allocated on a reasonable basis.

1.16 Taxation

AIMS is exempt from all forms of taxation except Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST).

Revenues, expenses and assets are recognised net of GST except:
- where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- for receivables and payables.

1.17 Foreign currency

Transactions denominated in a foreign currency are converted at the exchange rate at the date of the transaction. Foreign currency receivables and payables are translated at the exchange rate as at the balance date. Associated currency gains and losses are not material.

1.18 Research, development and intellectual property

Costs associated with research and development, intellectual property, patents and trademarks are expensed as incurred unless it can be established that they are recoverable beyond reasonable doubt.

1.19 Contract research

AIMS has entered into various agreements with external parties for the research and development of technologies and scientific knowledge. Details of the ownership of intellectual property vary from agreement to agreement. These arrangements do not involve sharing in common of liabilities and interest in assets, other than assets represented by intellectual property to which AIMS does not attribute any value in the Financial Statements.

1.20 Consultancies and Grants

Various consultancies and grants have been made to AIMS for specific research projects, seminar, workshops and employment assistance. Monies are paid either in advance or in arrears and the difference at 30 June is reflected as either creditors or receivables respectively.

1.21 Change in accounting policy

There has been no change in accounting policy in respect of transactions with the Government as owner.

Note 2: Events after the reporting period

AIMS is not aware of any material events that have occurred since balance date.

Note 3: Expenses

	2015 $'000	2014 $'000
Note 3A: Employee Benefits		
Wages and salaries	**19,601**	18,421
Superannuation:		
Defined contribution plans	**1,562**	1,446
Defined benefit plans	**1,715**	1,535
Leave and other entitlements	**3,206**	2,952
Redundancies	**757**	-
Total employee benefits	**26,841**	24,354
Note 3B: Suppliers		
Goods and services supplied or rendered		
Contracting and servicing	**2,215**	2,271
Consulting	**87**	-
Consumables	**1,805**	1,450
Electricity	**1,339**	1,264
Fuel, oil and gas	**946**	1,125
Hire of equipment	**1,014**	1,273
Repairs and maintenance	**3,195**	2,368
Support for Post-Doctorate positions	**1,801**	2,349
Travel and accommodation	**1,485**	1,353
Vessel management and staffing	**3,436**	3,399
Other	**5,279**	5,294
Total goods and services supplied or rendered	**22,602**	22,146
Goods supplied in connection with		
External parties	**5,235**	5,461
Total goods supplied	**5,235**	5,461
Services rendered in connection with		
Related parties	**3,473**	2,342
External parties	**13,894**	14,343
Total services rendered	**17,367**	16,685
Total goods and services supplied or rendered	**22,602**	22,146
Other suppliers		
Operating lease rentals - external parties:		
Minimum lease payments	**4**	4
Workers compensation expenses	**67**	38
Total other suppliers	**71**	42
Total suppliers	**22,673**	22,188

Note 4: Income

OWN-SOURCE REVENUE	Notes	2015 $'000	2014 $'000
Note 4A: Rendering of Services			
Rendering of services in connection of			
Related entities		**6,130**	7,760
External parties		**11,266**	9,149
Total rendering of services		**17,396**	16,909
Note 4B: Other Revenue			
Insurance claims		**92**	623
Qld Government debt forgiveness	12	**1,029**	-
Other		**31**	130
Total other revenue		**1,152**	753

The following tables provide an analysis of assets and liabilities that are measured at fair value.
The different levels of the fair value hierarchy are defined below.

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at measurement date.
Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
Level 3: Unobservable inputs for the asset or liability.

Note 5A: Fair Value Measurements, Valuation Techniques and Inputs Used

	Fair value measurements at the end of the reporting period			For Levels 2 and 3 fair value measurements			
	2015 $'000	2014 $'000	**Category (Level 1, 2 or 3)**	**Valuation technique(s)**	**Inputs used**	**Range (weighted average)**	**Sensitivity of the fair value measurement to changes in unobservable inputs**
Non-financial assets[3]							
Buildings	**91,162**	87,512	Level 3	Cost Approach	Replacement cost rates –New (price per square metre)	Range $255/m² -$16,305/m² Total cost ($4,040-$28,157,565) 3.33%-50% (4.29%) per annum	The significant unobservable inputs used in the fair value measurement of the AIMS buildings are replacement cost rates and the consumed economic benefit/asset obsolescence (depreciation). A change in building replacement costs rates might result in a significant higher or lower fair vaule measurement and a change in consumed economic benefit/obsolescence might result in a significantly higher or lower fair value measurement.e.g. Significant increases (decreases) in any of those inputs in isolation would result in a significantly lower (higher) fair value measurement.
Plant and equipment	**38,120**	38,367	Level 3	Cost Approach	Adjustments for consumed economic benefit/asset obsolescence (depreciation)	3.33%-50% (9.76%) per annum	The significant unobservable inputs used in the fair value measurement of the AIMS plant and equipment is the consumed economic benefit/asset obsolescence (depreciation). A change in this input to a different amount might result in a significant higher or lower fair vaule measurement e.g. Significant increases (decreases) in any of those inputs in isolation would result in a significantly lower (higher) fair value measurement.
Ships, launches and vessels	**19,828**	20,080	Level 3	Cost Approach	Cost based on building the two main vessels locally. Professional judgement. Adjustments for consumed economic benefit/asset obsolescence (depreciation)	Cost of 2 vessels range $8,000,000-$26,000,000.	The significant unobservable inputs used in the fair value measurement of the AIMS ships and vessels are replacement cost rates and the consumed economic benefit/asset obsolescence (depreciation). A change in vessels replacement costs rates might result in a significant higher or lower fair vaule measurement and a change in consumed economic benefit/obsolescence might result in a significantly higher or lower fair value measurement.e.g. Significant increases (decreases) in any of those inputs in isolation would result in a significantly lower (higher) fair value measurement.
Plant and equipment	**795**	5,454	Level 2	Market approach	Observable market data	Not applicable	Not applicable
Computer equipment	**1,499**	1,635	Level 2	Market approach	Observable market data	Not applicable	Not applicable
Vehicles	**1,428**	1,403	Level 2	Market approach	Observable market data	Not applicable	Not applicable
Office equipment	**85**	89	Level 2	Market approach	Observable market data	Not applicable	Not applicable
Ships, launches and vessels	**328**	450	Level 2	Market approach	Observable market data	Not applicable	Not applicable
Library books	**102**	299	Level 2	Market approach	Observable market data	Not applicable	Not applicable
Total non-financial assets	**153,347**	155,289					A change in building replacement costs rates might result in a significantly higher or lower fair value measurement
Total fair value measurements of assets in the statement of financial position	**153,347**	155,289					

AIMS does not measure any liabilities at Fair Value on a recurring basis.
AIMS borrowings are measured at amortised cost. The Fair Value of borrowing disclosed in Note 9A is provided by the Queensland Government (Level 2).

The carrying amounts of trade receivables and trade payables are assumed to approximate their Fair Values due to their short term nature (Level 2).

Fair value measurements - highest and best use differs from current use for non-financial assets (NFAs)
Statement at disclosure that during valuation review management determined that for all asset carried at fair value there is no difference between highest and best use from current use.

Note 5: Fair Value Measurements (contd)

Note 5B: Level 1 and Level 2 Transfers for Recurring Fair Value Measurements

There were no transfer between level 1 and level 2 for recurring assets.

Recurring Level 3 fair value measurements – valuation processes

For assets that Pickles Valuation Services (PVS) were unable to identify a market comparison an alternative approach was required. These assets were tested by a Cost approach valuation, a depreciated replacement cost (DRC) approach, containing Level 3 Inputs. In doing so, PVS reviewed the estimated replacement cost, total useful lives (TUL), and remaining useful lives (RUL) were in line with industry standards to ensure the DRC calculation was accurate. Within the review, PVS tested the new replacement costs obtained from manufactures to ascertain if the most current replacement costs and utilities of the asset were the same or had there been some impairment for technological or functionally factors. Furthermore, from a macro viewpoint the review approached certain economic drivers that may have increased new price e.g. steel price or labour costs. The TUL and RUL of these components were also reviewed as they affect the formula used to ascertain Fair Value, and fall under the Level 3 inputs (DRC). PVS compared market recommended lives for similar assets and trends in the market.

Recurring Level 3 fair value measurements – sensitivity of inputs

The unobservable inputs used in the fair value measurement of the level 3 other property, plant and equipment items are expected useful lives and any adjustment for obsolesce. Increases (decreases) in expected useful lives would result in higher (lower) fair value measurement and increases (decreases) in adjustments for obsolesce would result in lower (higher) fair value measurement.

Note 5C: Reconciliation for Recurring Level 3 Fair Value Measurements

Recurring Level 3 fair value measurements - reconciliation for assets

	Non-financial assets					
	Plant & Equipment		**Ship & Vessels**		**Total**	**Total**
	2015	2014	**2015**	2014	**2015**	2014
	$'000	$'000	**$'000**	$'000	**$'000**	$'000
As at 1 July	**38,367**	37,986	**20,080**	19,652	**58,447**	57,638
Purchases	**1,801**	381	**840**	428	**2,641**	809
Transfers out of Level 3	**(2,048)**	-	**(1,092)**	-	**(3,140)**	-
Total as at 30 June	**38,120**	38,367	**19,828**	20,080	**57,948**	58,447

1. No Change in valuation technique occurred during the period.
2. There were no significant unobservable inputs used in any of the valuations for level 3 assets.

The entity's policy for determining when transfers between levels are deemed to have occurred can be found in Note 1.

Note 6: Financial Assets

	Notes	2015 $'000	2014 $'000
Note 6A: Cash and Cash Equivalents			
Cash on hand		**6**	6
Cash on deposit		**7,823**	1,985
Total cash and cash equivalents	11	**7,829**	1,991
Note 6B: Trade and Other Receivables			
Services receivables in connection with			
Related parties		**957**	861
External parties		**2,832**	3,832
Total services receivables		**3,789**	4,693
Other receivables:			
Interest		**439**	449
GST Receivable from Australian Taxation Office		**201**	290
Other		**30**	1
Total other receivables		**670**	740
Total trade and other receivables (gross)		**4,459**	5,433
Trade and other receivables (net) expected to be recovered			
No more than 12 months		**4,459**	5,433
Total trade and other receivables (net)		**4,459**	5,433
Trade and other receivables (gross) aged as follows:			
Not overdue		**3,724**	4,831
Overdue by:			
0 to 30 days		**465**	564
31 to 60 days		**209**	29
61 to 90 days		**61**	9
Total trade and other receivables (gross)		**4,459**	5,433

Credit terms for services were within 30 days (2013: 30 days).

Note 6C: Other Investments			
Deposits		**26,700**	32,600
Total other investments		**26,700**	32,600
Total other investments are expected to be recovered in:			
No more than 12 months		**26,700**	32,600
Total other investments		**26,700**	32,600

Note 7: Non-Financial Assets

	2015 $'000	2014 $'000
Note 7A: Buildings		
Buildings:		
Fair value	**91,896**	90,494
Work in progress	**317**	609
	92,213	91,103
Less accumulated depreciation	**(1,051)**	(3,591)
Total buildings	**91,162**	87,512

No buildings are expected to be sold or disposed of within the next 12 months.

Note 7B: Infrastructure, Plant and Equipment		
Plant and equipment:		
Fair value	**39,040**	47,088
Work in progress	**1,073**	697
	40,113	47,785
Less accumulated depreciation	**(1,198)**	(3,964)
Total plant and equipment	**38,915**	43,821
Computer equipment		
Fair value	**1,536**	2,034
Work in progress	**86**	133
	1,622	2,167
Less accumulated depreciation	**(123)**	(532)
Total computer equipment	**1,499**	1,635
Vehicles		
Fair value	**1,506**	1,851
Work in progress	**64**	40
	1,570	1,891
Less accumulated depreciation	**(142)**	(488)
Total vehicles	**1,428**	1,403
Office equipment		
Fair value	**98**	107
Less accumulated depreciation	**(13)**	(18)
Total office equipment	**85**	89
Ships, launches and vessels:		
Fair value	**20,313**	21,664
Work in progress	**168**	180
	20,481	21,844
Less accumulated depreciation	**(326)**	(1,314)
Total ships, launches and vessels	**20,155**	20,530
Library books		
Fair value	**114**	337
Less accumulated depreciation	**(12)**	(38)
Total library books	**102**	299
Total infrastructure, plant and equipment:		
Gross carrying value (at fair value)	**62,607**	73,082
Work in progress	**1,391**	1,050
	63,998	74,132
Less accumulated depreciation	**(1,814)**	(6,354)
Total infrastructure, plant and equipment	**62,184**	67,778

No infrastructure, plant or equipment is expected to be sold or disposed of within the next 12 months.

Note 7: Non-Financial Assets (cont'd)

Note 7C: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment (2014-15)

	Buildings $'000	Infrastructure Plant and Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Ships, Launches & Vessels $'000	Library Books $'000	Total $'000
As at 1 July 2014								
Gross book value	**91,103**	**47,785**	**2,167**	**1,891**	**107**	**21,844**	**337**	**165,234**
Accumulated depreciation and impairment	**(3,591)**	**(3,964)**	**(532)**	**(488)**	**(18)**	**(1,314)**	**(38)**	**(9,945)**
Net book value 1 July 2014	**87,512**	**43,821**	**1,635**	**1,403**	**89**	**20,530**	**299**	**155,289**
Additions:								
By purchase	**2,301**	**1,753**	**384**	**473**	**-**	**840**	**-**	**5,751**
Reclassifications / cost adjustments	**3,543**	**-**	**-**	**-**	**-**	**-**	**-**	**3,543**
Depreciation/amortisation expense	**(4,287)**	**(4,683)**	**(542)**	**(548)**	**(25)**	**(1,345)**	**(41)**	**(11,471)**
Revaluation Reserve - cost write back	**(4,734)**	**(9,322)**	**(919)**	**(642)**	**(9)**	**(2,188)**	**(223)**	**(18,037)**
Revaluation Reserve - depreciation write back	**6,827**	**7,446**	**946**	**853**	**30**	**2,332**	**67**	**18,501**
Disposals	**-**	**(100)**	**(5)**	**(111)**	**-**	**(14)**	**-**	**(230)**
Net book value 30 June 2015	**91,162**	**38,915**	**1,499**	**1,428**	**85**	**20,155**	**102**	**153,346**
Net book value as of 30 June 2015 represented by:								
Gross book value	**92,213**	**40,113**	**1,622**	**1,570**	**98**	**20,481**	**114**	**156,211**
Accumulated depreciation and impairment	**(1,051)**	**(1,198)**	**(123)**	**(142)**	**(13)**	**(326)**	**(12)**	**(2,865)**
Net book value as of 30 June 2015 represented by:	**91,162**	**38,915**	**1,499**	**1,428**	**85**	**20,155**	**102**	**153,346**

Revaluations of non-financial assets

All revaluations were conducted in accordance with the revaluation policy stated in Note 1. On 31st March 2015 independent valuers, Pickles Valuation Services conducted the revaluations. No indicators of impairment were found for buildings, infrastructure, plant and equipment and other non-financial assets.

The valuation process was reviewed in June 2015 and was in compliance with AASB13. The valuation was deemed reasonable; therefore no adjustments required.

The following revaluation increments / (decrements) were credited to the asset revaluation surplus by asset class and included in the equity section of the balance sheet. $13,168 relating to library books was expensed in 2015 (2014: nil)

	2015 **$'000**	2014 $'000
Buildings	**2,093**	-
Plant and equipment	**(1,876)**	-
Computer equipment	**27**	-
Vehicles	**211**	-
Office equipment	**21**	-
Ships, launches and vessels	**144**	-
Library books	**(143)**	-
Computer Software	**90**	-
Asset Revaluation Reserve increment	**567**	-

Note 7: Non-Financial Assets (cont'd)

Note 7C: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment (2013-14)

	Buildings $'000	Infrastructure Plant and Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Ships, Launches & Vessels $'000	Library Books $'000	Total $'000
As at 1 July 2013								
Gross book value	82,269	50,353	1,366	1,462	109	21,417	655	157,631
Accumulated depreciation and impairment	-	-	-	-	-	-	-	-
Net book value 1 July 2013	82,269	50,353	1,366	1,462	109	21,417	655	157,631
Additions:								
By purchase	5,981	381	810	596	6	428	-	8,202
Reclassifications / cost adjustments	3,079	(2,888)	(34)	(68)	-	-	-	89
Depreciation/amortisation expense	(3,769)	(3,826)	(503)	(504)	(18)	(1,315)	(38)	(9,973)
Donations	-	-	-	-	-	-	(318)	(318)
Disposals	(48)	(199)	(4)	(83)	(8)	-	-	(342)
Net book value 30 June 2014	87,512	43,821	1,635	1,403	89	20,530	299	155,289
Net book value as of 30 June 2014 represented by:								
Gross book value	91,103	47,785	2,167	1,891	107	21,844	337	165,234
Accumulated depreciation and impairment	(3,591)	(3,964)	(532)	(488)	(18)	(1,314)	(38)	(9,945)
Net book value as of 30 June 2014 represented by:	87,512	43,821	1,635	1,403	89	20,530	299	155,289

Note 7: Non-Financial Assets (cont'd)

	2015 $'000	2014 $'000
Note 7D: Intangibles		
Computer software:		
Internally developed – in use	**2,317**	2,804
Internally developed – in progress	**182**	3
Purchased	**212**	352
Sub-total	**2,711**	3,159
Less accumulated amortisation	**(100)**	(720)
Total computer software	**2,611**	2,439

No intangibles are expected to be sold or disposed of within the next 12 months.

Note 7E: Reconciliation of the Opening and Closing Balances of Intangibles (2014-15)

	Computer software internally developed $'000	Computer software purchased $'000	Total $'000
As at 1 July 2014			
Gross book value	**2,807**	**352**	**3,159**
Accumulated amortisation	**(540)**	**(180)**	**(720)**
Net book value 1 July 2014	**2,267**	**172**	**2,439**
Additions:			
Internally developed	**428**	**-**	**428**
Purchased	**-**	**53**	**53**
Revaluation movements	**47**	**43**	**90**
Amortisation	**(321)**	**(78)**	**(399)**
Net book value 30 June 2015	**2,421**	**190**	**2,611**
Net book value as of 30 June 2015 represented by:			
Gross book value	**2,499**	**212**	**2,711**
Accumulated amortisation	**(78)**	**(22)**	**(100)**
Net book value 30 June 2015	**2,421**	**190**	**2,611**

Note 7: Non-Financial Assets (cont'd)

Note 7E: (Cont'd) Reconciliation of the Opening and Closing Balances of Intangibles (2013-14)

	Computer software internally developed $'000	Computer software purchased $'000	Total $'000
As at 1 July 2013			
Gross book value	2,515	261	2,776
Accumulated amortisation	(243)	(87)	(330)
Net book value 1 July 2013	2,272	174	2,446
Additions:			
Internally developed	291	-	291
Purchased	-	99	99
Disposal	-	(5)	(5)
Amortisation	(296)	(96)	(392)
Net book value 30 June 2014	2,267	172	2,439
Net book value as of 30 June 2014 represented by:			
Gross book value	2,807	352	3,159
Accumulated amortisation	(540)	(180)	(720)
Net book value 30 June 2014	2,267	172	2,439

Note 7: Non-Financial Assets (cont'd)

	2015 $'000	2014 $'000
Note 7F: Other Non-Financial Assets		
Prepayments	**1,847**	1,488
Total other non-financial assets	**1,847**	1,488
Total other non-financial assets - are expected to be recovered in:		
No more than 12 months	**335**	313
More than 12 months	**1,512**	1,175
Total other non-financial assets	**1,847**	1,488

No indicators of impairment were found for other non-financial assets.

Note 8: Payables

	2015 $'000	2014 $'000
Note 8A: Suppliers		
Trade creditors and accruals	**1,757**	3,314
Total suppliers	**1,757**	3,314
Suppliers expected to be settled within 12 months:		
Related parties	**412**	240
External parties	**1,345**	3,074
Total suppliers	**1,757**	3,314

All suppliers are expected to be settled within 12 months.

Settlement was usually made within 30 days.

Note 8B: Other Payables		
Unearned revenue	**2,331**	3,511
Salaries and wages including oncosts	**795**	889
Total other payables	**3,126**	4,400
Total other payables are expected to be settled in:		
No more than 12 months	**3,126**	4,400
Total other payables	**3,126**	4,400

Note 9: Non-Interest Bearing Liabilities

	2015 $'000	2014 $'000
Note 9A: Non-Interest Bearing Loans		
Loan from Government	-	1,500
Total non-interest bearing loans	-	1,500
Loans expected to be settled:		
In more than five years	-	1,500
Total non-interest bearing loans	-	1,500

Loan Information:

The loan was provided on 7th November 2007 by the Queensland Government Department of Tourism, Regional Development and Industry, with repayments commencing after 10 years. Early repayment of the loan was made in December 2014.

For further information regarding loan from Government refer Note 12.

Note 10: Provisions

	2015 $'000	2014 $'000
Note 10A: Employee Provisions		
Annual leave	**3,094**	3,027
Long service leave	**5,293**	4,910
Superannuation on annual and long service leave	**1,221**	1,130
Workers compensation on annual and long service leave	**20**	19
Total employee provisions	**9,628**	9,086
Employee provisions are expected to be settled in:		
No more than 12 months	**3,279**	3,217
More than 12 months	**6,349**	5,869
Total employee provisions	**9,628**	9,086

Note 11: Cash Flow Reconciliation

	2015 $'000	2014 $'000
Reconciliation of cash and cash equivalents as per statement of financial position to cash flow Statement		
Cash and cash equivalents as per:		
Cash flow statement	**7,829**	1,991
Statement of financial position	**7,829**	1,991
Discrepancy	**-**	-
Statement of financial position comprises of:		
Cash and cash equivalents	**7,829**	1,991
Total	**7,829**	1,991
Reconciliation of net cost of services to net cash from operating activities:		
Net cost of services	**(38,021)**	(37,785)
Add revenue from Government	**38,796**	33,280
Adjustments for non-cash items		
Depreciation / amortisation	**11,870**	10,365
Gain on disposal of assets	**(43)**	(127)
Loss on disposal of assets	**95**	246
Loss on revaluation of an asset	**13**	-
Gain from donation of ATRF building	**(3,544)**	-
Other non-cash items	**(1,029)**	318
Movement in assets / liabilities		
Assets		
(Increase) / decrease in net receivables	**974**	(1,621)
(Increase) / decrease in inventories	**1**	(13)
(Increase) / decrease in prepayments	**(360)**	(1,140)
Liabilities		
Increase / (decrease) in employee provisions	**542**	418
Increase / (decrease) in supplier payables	**(2,831)**	400
Net cash from operating activities	**6,463**	4,341

Note 12: Contingent Assets and Liabilities

	Debt Forgiveness		Guarantees		Total	
	2015	2014	**2015**	2014	**2015**	2014
	$'000	$'000	**$'000**	$'000	**$'000**	$'000
Contingent assets						
Balance from previous period	**500**	500	**331**	319	**831**	819
New contingent assets recognised	**-**	-	**-**	19	**-**	19
Guarantees expired	**(500)**	-	**(9)**	(7)	**(509)**	(7)
Total contingent assets	**-**	500	**322**	331	**322**	831

Quantifiable Contingencies

AIMS holds performance guarantees of $322,000 (2014: $331,000)

In 2014 a contingent asset of $500,000 was reported in respect of a non-current liability funded by the Queensland Government Department of Tourism, Regional Development and Industry for $1.5 million. The contingent asset of $500,000 is a forgiveness amount providing certain criteria is met over the life of the loan to 7 November 2037. The loan was paid in January 2015 and the contingent asset ceased.

Unquantifiable Contingencies

At 30 June 2015, AIMS had a 24 year lease on a berthing facility with Port of Townsville. At the expiry of the lease AIMS is required to carry out at its own cost remediation work necessary to return the level of contamination in the leased land to a level as prescribed by Assessment and Management of Contaminated Land in Queensland (May 1998.) AIMS is unable to reliably estimate the cost of any future remediation.

Significant Remote Contingencies

AIMS had no significant remote contingencies.

Note 13: Senior Management Personnel Remuneration

	2015 $	2014 $
Short-term employee benefits:		
Salary	**2,001,431**	1,882,229
Performance bonuses	**150,648**	237,249
Motor vehicle and other allowances	**184,471**	159,456
Total short-term employee benefits	**2,336,550**	2,278,934
Post-employment benefits:		
Superannuation	**337,222**	316,058
Total post-employment benefits	**337,222**	316,058
Other long-term benefits:		
Annual leave	**216,947**	211,227
Long-service leave	**48,370**	61,559
Total other long-term employee benefits	**265,317**	272,786
Total senior executive remuneration expenses	**2,939,089**	2,867,778

The total number of senior management personnel that are included in the above table are 22 individuals (2014: 18 individuals) During 2015 there was a change-over of directors which resulted in an increase in senior executives for the year.

During the year AIMS paid $Nil in termination benefits to senior executives (2014: Nil).

Note 14: Related Party Disclosures

Loans to Directors (Members of Council) and Director-Related Entities
There were no loans made to any Director or Director-related entities during the period (2014: Nil)

Other transactions with Directors (Members of Council) or Director-Related Entities
There were no other transactions with Directors or Director- related entities during the period (2014: Nil).

Note 15: Remuneration of Auditors

	Notes	2015 $'000	2014 $'000
Financial statement audit services were provided to AIMS.			
Fair value of the services provided:			
Financial statements audit services		**53**	52
Total fair value of services received		**53**	52

No other services were provided by the auditors of the financial statements.

Note 16: Financial Instruments

		2015 $'000	2014 $'000
Note 16A: Categories of Financial Instruments			
Financial Assets			
Held-to-maturity:			
Investments		**26,700**	32,600
Total held-to-maturity investments	6C	**26,700**	32,600
Loans and receivables:			
Cash at bank	11	**7,829**	1,991
Services receivables		**3,789**	4,693
Other receivables		**439**	449
Total loans and receivables		**12,057**	7,133
Total financial assets		**38,757**	39,733
Financial Liabilities			
At amortised cost:			
Trade creditors		**1,757**	3,314
Unearned revenue		**2,331**	3,511
Loan from Government		**-**	1,500
Total financial liabilities		**4,088**	8,325
Note 16B: Net Income and Expense from Financial Assets			
Held-to-maturity			
Interest revenue		**1,367**	1,612
Net gain/(loss) from financial assets		**1,367**	1,612

Note 16: Financial Instruments (cont'd)

Note 16C: Fair Value of Financial Instruments

	Carrying amount 2015 $'000	Fair value 2015 $'000	Carrying amount 2014 $'000	Fair value 2014 $'000
Financial Assets				
Cash at bank	**7,829**	**7,829**	1,991	1,991
Services receivables (net)	**3,789**	**3,789**	4,693	4,693
Other receivables	**439**	**439**	449	449
Investments	**26,700**	**26,700**	32,600	32,600
Total	**38,757**	**38,757**	39,733	39,733
Financial Liabilities				
Trade creditors	**1,757**	**1,757**	3,314	3,314
Unearned revenue	**2,331**	**2,331**	3,511	3,511
Loan from Government	**-**	**-**	1,500	1,500
Total	**4,088**	**4,088**	8,325	8,325

The fair values disclosed in the above table have been determined based on the following methodology: Cash and cash equivalents, receivables for goods and services, trade and other payables are short-term instruments in nature whose carrying value is equivalent to fair value. Trade and other payables excludes amounts relating to the provision of annual leave, which is not considered a financial instrument.

Note 16D: Credit Risk

AIMS is exposed to minimal credit risk as the majority of receivables is cash. The maximum exposure to credit risk is the risk that arises from potential default of a debtor. This amount is equal to the total amount of trade receivables (2015: $3,788,635and 2014: $4,692,637).

AIMS manages its credit risk by entering into contracts with external parties prior to establishing a debtor relationship.

In addition, AIMS has policies and procedures that guide employees debt recovery techniques that are to be applied.

The following table illustrates the entity's gross exposure to credit risk, excluding any collateral or credit enhancements.

	2015 $'000	2014 $'000
Financial assets		
Receivables for services	**3,789**	4,693
Total	**3,789**	4,693

AIMS holds no collateral to mitigate against credit risk.

Note 16: Financial Instruments (cont'd)

Note 16D: Credit Risk (continued)

Credit quality of financial instruments not past due or individually determined as impaired

	Not past due nor impaired	Not past due nor impaired	**Past due or impaired**	Past due or impaired
	2015	2014	**2015**	2014
	$'000	$'000	**$'000**	$'000
Investments	**26,700**	32,600	**-**	-
Cash at bank	**7,829**	1,991	**-**	-
Receivables for services	**3,053**	4,091	**736**	602
Total	**37,582**	38,682	**736**	602

Credit risk related to balances with banks is managed by the management committee in accordance with approved council policy. Such policy requires that surplus funds are only invested with Commonwealth Bank of Australia, Westpac Banking Corporation, National Australia Bank and Australia and New Zealand Banking Group Ltd. The maximum amount invested with an eligible authorised deposit-taking institution shall not exceed 50% of total investments.

Ageing of financial assets that were past due but not impaired for 2015

	0 to 30 days	**31 to 60 days**	**61 to 90 days**	**Total**
	$'000	**$'000**	**$'000**	**$'000**
Receivables for services	**465**	**210**	**61**	**736**
Total	**465**	**210**	**61**	**736**

Ageing of financial assets that were past due but not impaired for 2014

	0 to 30 days	31 to 60 days	61 to 90 days	Total
	$'000	$'000	$'000	$'000
Receivables for services	564	29	9	602
Total	564	29	9	602

Note 16F: Liquidity Risk

AIMS financial liabilities are payables, consultancies and grants, joint ventures and Loan from government. The exposure to liquidity risk is based on the notion that AIMS will encounter difficulty in meeting its obligations associated with financial liabilities. This is highly unlikely due to the appropriation funding available to AIMS. The following table illustrates the maturities of financial liabilities.

Maturities for non-derivative financial liabilities 2015

	On demand	**within 1 year**	**1 to 2 years**	**2 to 5 years**	**> 5 years**	**Total**
	$'000	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**
Trade creditors	**-**	**1,757**	**-**	**-**	**-**	**1,757**
Unearned Revenue	**-**	**2,331**	**-**	**-**	**-**	**2,331**
Loan from Government	**-**	**-**	**-**	**-**	**-**	**-**
Total	**-**	**4,088**	**-**	**-**	**-**	**4,088**

Maturities for non-derivative financial liabilities 2014

	On demand	within 1 year	1 to 2 years	2 to 5 years	> 5 years	Total
	$'000	$'000	$'000	$'000	$'000	$'000
Trade creditors	**-**	3,314	**-**	**-**	-	3,314
Consultancies and grants	**-**	3,511	-	-	-	3,511
Loan from Government	**-**	-	-	-	1,500	1,500
Total	**-**	6,825	-	-	1,500	8,325

AIMS has no derivative financial liabilities in both the current and prior year.

AIMS receives appropriation funding from the Australian Government. AIMS manages its budgeted funds to ensure it has adequate funds to meet payments as and when they fall due. In addition, AIMS has policies in place to ensure timely payments are made when due and has no past experience of default.

Note 16: Financial Instruments (cont'd)

Note 16G: Market Risk

AIMS holds basic financial instruments that do not expose AIMS to certain market risks such as "currency risks" and other "price risks". AIMS is moderately exposed to an 'interest rate risk' but is not significantly exposed to 'other price risk' and 'currency risk'.

The only interest-bearing items on the balance sheet are the cash at bank and investments. Interest earned on cash at bank and investments may be effected by changes in market interest rates. The following table represents the effect to the profit and loss and equity. 0.4% is anticipated to be a reasonable estimate of the maximum movement in market interest rates in financial year 2014-15.

Sensitivity of the analysis that the entity is exposed to for 2015

	Change in risk variable	**Effect on**	
		Profit and loss	**Equity**
	%	**$'000**	**$'000**
Interest rate risk	**0.4%**	**160**	**160**
Interest rate risk	**(0.4%)**	**(160)**	**(160)**

Sensitivity of the analysis that the entity is exposed to for 2014

	Change in risk variable	Effect on	
		Profit and loss	Equity
	%	$'000	$'000
Interest rate risk	0.6%	196	196
Interest rate risk	(0.6%)	(196)	(196)

Note 17: Financial Assets Reconciliation

	2015	2014
	$'000	$'000
Financial assets		
Total financial assets as per balance sheet	**38,988**	40,024
Less: non-financial instrument components:		
Other receivables	**231**	291
Total non-financial instrument components	**231**	291
Total financial assets as per financial instruments note	**38,757**	39,733

Note 18: Reporting of Outcomes

Note 18A: Net Cost of Outcome Delivery

	OUTCOME 1	
	2015	2014
	$'000	$'000
Expenses	**61,523**	57,186
Income from non-government sector		
Rendering of services	**17,396**	16,909
Interest	**1,367**	1,612
Gain from disposal of assets	**43**	127
Gain from donation of ATRF building	**3,544**	-
Other revenue	**1,152**	753
Total	**23,502**	19,401
Net cost of outcome delivery	**(38,021)**	(37,785)

Note 19. Budgetary reports and Explanations of Major Variances

STATEMENT OF COMPREHENSIVE INCOME
for the period ended 30 June 2015

	Notes	Actual 2015 $'000	Budget Estimate Original 2015 $'000	Variance[1] 2015 $'000
NET COST OF SERVICES				
Expenses				
Employee benefits	3A	**26,841**	**26,225**	(616)
Supplier	3B	**22,673**	**28,173**	5,500
Depreciation and amortisation	7C,E	**11,870**	**12,271**	401
Foreign exchange losses		**44**	**-**	(44)
Losses from asset sales		**95**	**-**	(95)
Total expenses		**61,523**	**66,669**	5,146
LESS:				
Own-Source Income				
Own-source revenue				
Rendering of services	4A	**17,396**	**22,324**	(4,928)
Interest		**1,367**	**1,149**	218
Other revenue	4B	**1,152**	**150**	1,002
Total own-source revenue		**19,915**	**23,623**	(3,708)
Gains				
Sale of assets		**43**	**-**	43
Gain from donation of ATRF building		**3,544**	**-**	3,544
Total gains		**3,587**	**-**	3,587
Total own-source income		**23,502**	**23,623**	(121)
Net cost of services		**38,021**	**43,046**	5,025
Revenue from Government		**38,796**	**38,796**	-
Total revenue from Government		**38,796**	**38,796**	-
Surplus / (Deficit)		**775**	**(4,250)**	5,025
OTHER COMPREHENSIVE INCOME				
Changes in asset revaluation surplus		**567**	**-**	567
Total other comprehensive income		**567**	**-**	567
Total comprehensive income		**1,342**	**(4,250)**	5,592

[1] ***Variances in brackets represent unfavourable variances.***

The above statement should be read in conjunction with the accompanying notes.

Note 19. Budgetary reports and Explanations of Major Variances (contd)

STATEMENT OF FINANCIAL POSITION
as at 30 June 2015

	Notes	Actual 2015 $'000	Budget Estimate Original 2015 $'000	Variance[1] 2015 $'000
ASSETS				
Financial Assets				
Cash and cash equivalents	6A	**7,829**	**250**	7,579
Trade and other receivables	6B	**4,459**	**4,563**	(104)
Other investments	6C	**26,700**	**30,545**	(3,845)
Total financial assets		**38,988**	**35,358**	3,630
Non-Financial Assets				
Fixed Assets	7A,C	**155,957**	**158,054**	(2,097)
Inventories		**172**	**190**	(18)
Other non-financial assets	7F	**1,847**	**1,923**	(76)
Total non-financial assets		**157,976**	**160,167**	(2,191)
Total assets		**196,964**	**195,525**	1,439
LIABILITIES				
Payables				
Suppliers	8A	**1,757**	**3,495**	1,738
Other payables	8B	**3,126**	**5,033**	1,907
Total payables		**4,883**	**8,528**	3,645
Non-Interest Bearing Liabilities				
Loans	9A	**-**	**1,500**	1,500
Total non- interest bearing liabilities		**-**	**1,500**	1,500
Provisions				
Employee provisions	10A	**9,628**	**9,752**	124
Total provisions		**9,628**	**9,752**	124
Total liabilities		**14,511**	**19,780**	5,269
Net assets		**182,453**	**175,745**	6,708
EQUITY				
Contributed equity		**86,607**	**86,607**	-
Reserves		**68,266**	**67,699**	567
Retained surplus		**27,580**	**21,439**	6,141
Total equity		**182,453**	**175,745**	6,708

[1] ***Variances in brackets represent unfavourable variances.***

The above statement should be read in conjunction with the accompanying notes.

Note 19 Budgetary reports and Explanations of Major Variances (contd)

STATEMENT OF CHANGES IN EQUITY

for the period ended 30 June 2015

	Retained earnings			Asset revaluation			Contributed			Total equity		
	Actual	Budget Estimate		Actual	Budget Estimate		Actual	Budget Estimate		Actual	Budget Estimate	
		Original	Variance		Original	Variance		Original	Variance		Original	Variance
	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Opening balance												
Balance carried forward from previous period	**26,805**	**25,689**	1,116	**67,699**	**67,699**	-	**86,607**	**86,607**	-	**181,111**	**179,995**	1,116
Adjusted opening balance	**26,805**	**25,689**	1,116	**67,699**	**67,699**	-	**86,607**	**86,607**	-	**181,111**	**179,995**	1,116
Comprehensive income												
Other comprehensive income	-	-		-	-	-	-	-	-	-	-	-
Surplus (Deficit) for the period	**775**	**(4,250)**	5,025	**567**	-	567	-	-	-	**1,342**	**(4,250)**	5,592
Total comprehensive income	**775**	**(4,250)**	5,025	**567**	-	567	-	-	-	**1,342**	**(4,250)**	5,592
Closing balance as at 30 June	**27,580**	**21,439**	6,141	**68,266**	67,699	567	**86,607**	86,607	-	**182,453**	**175,745**	6,708

Note 19. Budgetary reports and Explanations of Major Variances (continued)

CASHFLOW STATEMENT
for the period ended 30 June 2015

	Notes	Actual 2015 $'000	Budget Estimate 2015 $'000	Variance[1] 2015 $'000
OPERATING ACTIVITIES				
Cash received				
Receipts from Government		**38,796**	**38,796**	-
Rendering of services		**18,801**	**22,306**	(3,505)
Interest		**1,377**	**1,214**	163
Net GST received		**1,085**	**-**	1,085
Other		**123**	**150**	(27)
Total cash received		**60,182**	**62,466**	(2,284)
Cash used				
Employees		**26,401**	**25,558**	(843)
Suppliers		**27,318**	**28,467**	1,149
Total cash used		**53,719**	**54,025**	306
Net cash from operating activities		**6,463**	**8,441**	(1,978)
INVESTING ACTIVITIES				
Cash received				
Proceeds from sales of property, plant and equipment		**178**	**184**	(6)
Total cash received		**178**	**184**	(6)
Cash used				
Purchase of property, plant and equipment		**6,232**	**7,040**	808
Transfer of funds to/from investments		**(5,900)**	**1,585**	7,485
Total cash used		**332**	**8,625**	8,293
Net cash used by investing activities		**(154)**	**(8,441)**	8,287
FINANCING ACTIVITIES				
Cash Used				
Repayment of Borrowings		**471**	**-**	(471)
Total cash used		**471**	-	(471)
Net cash from financing activities		**(471)**	-	(471)
Net increase (decrease) in cash held		**5,838**	-	5,838
Cash and cash equivalents at the beginning of the reporting period		**1,991**	**250**	1,741
Cash and cash equivalents at the end of the reporting period	6A,C	**7,829**	**250**	7,579

[1] ***Variances in brackets represent unfavourable variances.***

The above statement should be read in conjunction with the accompanying notes.

Note 19. Budgetary reports and Explanations of Major Variances (continued)

Affected Line Items	Explanations of major variances

The following tables provide a comparison between the 2014-15 Portfolio Budget Statement (PBS) budget and the final financial outcome in the 2014-15 financial statements. The PBS is not audited.

Variances are considered to be "major" based on the following criteria:

- the variance between budget and actual is greater than 10% and
- the variance between budget and actual is greater than 1% of the relevant category (Income, Expense and Equity totals); or
- an item below this threshold but is considered important for the reader's understanding or is relevant to an assessment of the discharge of accountability and to an analysis of performance of AIMS.

	Statement of Comprehensive Income
Supplier expenses	Supplier expenses reduced in parallel with reduced earnings from external funding of research projects. Fewer contracts were completed resulting in reduced expenses as well as reduction in some operational costs. In addition, the timing of several projects adjusted with expenses have been moved from 2014-15 into 2015-16.
Rendering of services	Decrease in revenue from rendering of services of $4.9 million is due to some of the projects being deferred to 2015-16 and some of the budgeted projects not eventuating.
Other Revenue	Variance of $1.002 million is due to a non-cash revenue item of $1.029 million which contributed to the operating surplus result for the financial year. This represents the forgiveness of a loan as a result of early repayment to the Queensland Government.
Gain from donation of ATRF building	$3.544 million is a non-cash item which contributed to the operating surplus result for the financial year from the donation of the ATRF building.
	Statement of Financial Position
Cash and cash equivalents	The balance as at 30 June 2015 of $7.829 million mainly represents cash being held in short term deposit of 3 months or less. AIMS budgeted for longer term deposits which are classed as investments, not cash.
Suppliers	Variance of $1.738 million to the budget was the result of less than expected invoices being held at year end.
Other Payables	Other payables represents revenue received in advance. The variance of $1.907 million is the result of delayed project expenditure which in turn delays revenue recognition to subsequent financial years.
Loan	Loan from Queensland Government was repaid earlier than budgeted for. Refer Note 12 for further explanation.
	Cashflow Statement
Rendering of services	Variance of $3.505 million in revenue from rendering of services - refer to note on rendering of services in Statement of Comprehensive Income.
Transfer of funds to/from investment	Variance of $7.485 million is the result of transferring funds between short-term and long-term investments.
Cash Used in repayment of borrowings	Variance of $0.471 million - refer to above note on loan in Statement of Financial Position.

Supplementary Financial Information (Unaudited)

Note 1: Revenue Comparison

Note 2: Source of sale of goods and redering of services by sector

Note 3: Cost of output by Research Teams

Note 4: 3B Supplier Expenses

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

NOTE 1:

Revenue Comparison

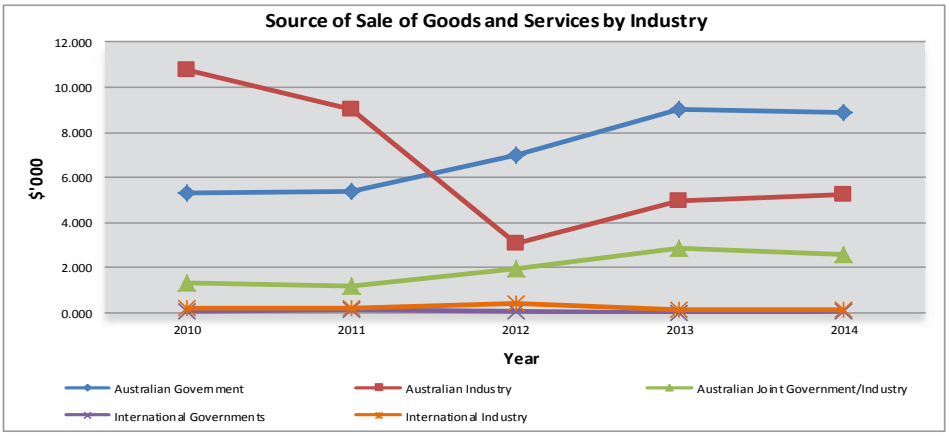
	2010 $'000	2011 $'000	2012 $'000	2013 $'000	**2014 $'000**
Appropriation revenue					
Operating	22,392	22,862	23,224	23,463	**25,259**
Asset replacement	8,021	8,021	8,021	8,021	**8,021**
Total appropriation revenue	30,413	30,883	31,245	31,484	**33,280**
Non-appropriation revenue					
Sale of goods and rendering of services[1]	17,675	15,898	12,435	16,971	**16,909**
Interest	1,703	4,061	4,308	2,623	**1,612**
Revenues from joint ventures					**103**
Other revenue	353	417	296	616	**777**
Total non-appropriation revenue	19,731	20,376	17,039	20,210	**19,401**
Total Revenue	**50,144**	**51,259**	**48,284**	**51,694**	**52,681**
Non-appropriation ratio[2]	**39%**	**40%**	**35%**	**39%**	**37%**

[1]Sale of goods and rendering of services includes consultancies, grants and contract collaborations.

[2]Non-appropriation ratio is percentage non-appropriation revenue of total revenue.

NOTE 2:

	$'000	$'000	$'000	$'000	**$'000**
Australian Government	5,302	5,400	6,986	9,027	**8,876**
Australian joint Government/industry	1,271	1,141	1,946	2,844	**2,592**
International governments	63	140	11	2	**74**
Australian industry	10,792	9,006	3,087	4,965	**5,259**
International industry	198	196	404	133	**108**
Sale of goods	49	15	1	-	**-**
	17,675	15,898	12,435	16,971	**16,909**



SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

NOTE 3:

Cost of Output by Research Programs

	Variable	Salaries	Depreciation	Overheads	**Total**
	$'000	$'000	$'000	$'000	**$'000**
Data and Technology Solutions	3,034	2,521	993	4,691	**11,239**
A Healthy and Resilient GBR	3,497	4,935	327	9,183	**17,942**
Sustainable Coastal Ecosystem & Industries in Tropical Australia	2,540	4,564	359	8,493	**15,956**
Sustainable Use of NW Marine Ecosystems	6,402	3,462	81	6,442	**16,387**
Total	**15,473**	**15,482**	**1,760**	**28,809**	**61,524**
Percentage of total expenses	25%	25%	3%	47%	100%

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

Note 4: Supplier Expenses

	2015	2014
Consist of:	**$'000**	$'000
Appointment expenses	**127**	170
Auditing	**53**	51
Catering	**118**	109
Chemical and laboratory supplies	**285**	374
Cleaning and ground maintenance	**432**	370
Communications, telephone and postage	**521**	497
Consultancies	**87**	120
Contracting and servicing	**2,215**	2,271
Consumables	**1,810**	1,450
Electricity	**1,339**	1,264
Equipment and software purchases	**203**	218
Field costs	**578**	512
Freight	**434**	396
Fuel, oil and gas	**946**	1,125
Hire of equipment	**1,021**	1,273
Insurances	**399**	438
Lab Services	**5**	32
Legal	**16**	53
Licences and fees	**496**	350
Loss on revaluation	**13**	-
Operating lease rentals	**4**	4
Publications, journals and subscriptions	**369**	378
Rent	**167**	229
Repairs and maintenance	**3,192**	2,368
Security	**393**	373
Stationery	**37**	50
Support for Post-Doctorate Positions	**1,801**	2,349
Tenders and outboards	**11**	15
Training, seminars and conferences	**317**	266
Travel and accommodation	**1,485**	1,353
Vessels management and staffing	**3,435**	3,399
Victuals	**144**	125
Water	**152**	168
Workers compensation	**67**	38
Total supplier expenses	**22,673**	22,188

PART FOUR: APPENDIXES

APPENDIX 1. SCIENCE PUBLICATIONS

In 2014, AIMS scientists published:

- 168 journal articles - see AIMS publications database[7]
- 8 book chapters - see AIMS publications database
- 31 reports
- 11 theses.

Journal articles

1 Abdul Wahab MA, de Nys R, Webster N, Whalan S (2014) Larval behaviours and their contribution to the distribution of the intertidal coral reef sponge *Carteriospongia foliascens*. PLoS ONE 9(5): e98181

2 Abdul Wahab MA, de Nys R, Webster N, Whalan S (2014) Phenology of sexual reproduction in the common coral reef sponge, *Carteriospongia foliascens*. Coral Reefs 33(2): 381-394

3 Abdul Wahab MA, de Nys R, Abdo D, Webster N, Whalan S (2014) The influence of habitat on post-settlement processes, larval production and recruitment in a common coral reef sponge. Journal of Experimental Marine Biology and Ecology 461: 162-172

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14 Munksgaard NC, Tsang JJ (2014) Review of Trigger Values for Waste Water Discharge Monitoring Program at McArthur River Mine. Report for Glencore Xstrata McArthur River Mine. Charles Darwin University and Australian Institute of Marine Science, Darwin (10 p)

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Theses

1 Abdul Wahab, Muhammad Azmi (2014) A Holistic Approach Towards Understanding Population Dynamics of a Coral Reef Sponge. Thesis (PhD) James Cook University

2 Chin, Andrew (2014) The biology and ecology of the blacktip reef shark, *Carcharhinus melanopterus* (Quoy & Gaimard, 1824) and implications for management. Thesis (PhD) James Cook University

3 Freckelton, Marnie (2014) Quorum Sensing in Australian Soft Coral. Thesis (PhD) James Cook University

4 Lamb, Joleah (2014) Influence of Marine-based Industries on Coral Health and Disease. Thesis (PhD) James Cook University

5 Lema, Anais Kimberley (2014). Diversity, Stability, and Uptake of Diazotrophic Bacterial Communities Associated with Corals of the Great Barrier Reef. Thesis (PhD) James Cook University

6 McLeod, Ian (2014) Effects of Ocean Warming on the Larval Development of Coral Reef Fishes. Thesis (PhD) James Cook University

7 Munroe, Samantha (2014) Habitat and Dietary Selectivity of Nearshore Shark Populations. Thesis (PhD) James Cook University

8 Paley, Allison (2014) Colour Polymorphism and its Role in Stress Tolerance in the Coral *Acropora millepora* on the Great Barrier Reef. Thesis (PhD) James Cook University

9 van de Water, Johannes (Jeroen) (2014) Corals Under Stress – A Focus on the Coral Immune System. Thesis (PhD) James Cook University

10 Vianna, Gabriel (2013/2014). Spatial ecology, socio-economics and anthropogenic interactions with reef sharks in the Palau Shark Sanctuary. Thesis (PhD) University of Western Australia

11 White, James Richard (2014) The Ecology of Shark-like Batoids: Implications for Management in the Great Barrier Reef Region. Thesis (PhD) James Cook University

APPENDIX 2. EXTERNAL COMMITTEES AND NONGOVERNMENT ORGANISATIONS AND POSITIONS

International forums

Arafura Timor Seas Ecosystem Action (ATSEA): Scientific Steering Committee

Arafura Timor Seas Expert Forum (ATSEF): Steering Committee

Association of Official Analytical Chemists (AOAC): Presidential Task Force on Marine and Freshwater Toxins

Blue Carbon Indonesia, Agency for Fisheries and Marine Affairs: Scientific Advisory Committee

Blue Carbon Initiative, Intergovernmental Oceanographic Commission/Conservation International/International Union for Conservation of Nature: Scientific Advisory Committee

Global Environment Fund: Coral Disease Working Group

Global Ocean Observing System (GOOS): Steering Committee, Co-Chair

Global Reporting and Assessment of the State of the Marine Environment (Regular Process), United Nations Oceans & Law of the Sea: Pool of Experts

Great Barrier Reef Foundation: International Scientific Advisory Committee (ISAC)

Great Barrier Reef Foundation: Coral Genomics Consortium, representative on Coral Genomics Advisory Panel to the GBRF International Advisory Panel

International Union for Conservation of Nature (IUCN): Shark Specialist Group, Vice-Chair for Strategy

Intergovernmental Panel on Climate Change (IPCC): Working Group on Coastal Wetlands

IPCC: Greenhouse Gas Inventories Task Group

International Congress on Fish Telemetry: Committee Member

International Oceanographic Commission: Intergovernmental Panel on Harmful Algal Blooms, Australian representative

International Society for Microbial Ecology (ISME): International Board Member

Marine Global Earth Observations (GEO)

Ocean Acidification Expert Review Committee, United Nation's Convention on Biological Diversity

Ocean Tracking Network (Canada): Scientific Advisory Committee

Save Our Seas Foundation: Conservation and Science Advisory Panel

Scientific Committee on Oceanic Research (SCOR), Australian delegate

Wildlife Trust of India: Scientific Advisory Committee

National forums

AIMS@JCU: Management Committee

AIMS@JCU: Scientific Advisory Committee

Antarctic Research Assessment Committee (ARAC): Life Sciences, Chair

Antarctic Science Advisory Committee (ASAC)

ANZLIC Marine Community Profile Metadata Standards: Governance Committee

Arafura Timor Research Facility (ATRF): Governance Group

Australian Government Department of the Environment: Reef 2050 Plan Independent Expert Panel

Australian Government Department of the Environment: Threatened Species Scientific Committee

Australian Hydrographic Office, RAN: Permanent Committee on Tides and Mean Sea Level

Australian Lions Foundation for Medical Research into Species of Medical Importance to Humans: Scientific Advisory Committee

Australian Maritime Safety Authority (AMSA): Marine Pollution Recovery Technical Group

International Indian Ocean Expedition-2: Australian National Committee

Australian Ocean Data Centre Joint Facility

Australian Research Council (ARC) Centre of Excellence for Mathematical and Statistical Frontiers: Big Data, Big Models, New Insights: Governance Advisory Board

ARC Centre of Excellence for Coral Reef Studies: Advisory Board

ARC Centre of Excellence for Coral Reef Studies: Scientific Management Committee

CATAMI Classification Scheme: Adviser on sponge growth forms for benthic surveys

Chevron Australia Pty Ltd: Gorgon Marine Turtle Expert Panel, Independent expert (Ministerial appointment)

Chevron Australia Pty Ltd: Dredging Technical Advisory Panel (DTAP) (Commonwealth expert panel)

Coral Reef Environmental Observatory Network (CREON): Co-Chair

Darwin Harbour Advisory Committee (DHAC)

Darwin Harbour Integrated Monitoring and Research Program (IMRP): Coordination Committee

Darwin Harbour LNG development: INPEX Ichthys Project Dredging Expert Panel (IPDEP)

Darwin Marine Supply Base: Taskforce Advisory Group

eReefs: Board

eReefs: Operations Committee

eReefs: User Reference Group

Fisheries Research and Development Corporation (FRDC): National Research Providers Network, Fishing and Aquaculture RD&E Strategy

FRDC: Physical Oceanographic influences on Queensland reef fish and scallops, 2013–2015 Steering Committee

Fitzroy Partnership for River Health: Science Panel

Great Barrier Reef Marine Park Authority (GBRMPA) and Queensland Government: Reef Integrated Monitoring and Reporting Program

GBRMPA: Crown-of-thorns starfish Advisory Committee

GBRMPA: Ecosystem Reef Advisory Committee (ERAC)

GBRMPA Reef Integrated Monitoring and Reporting Network: Design Working Group

GBRMPA Reef Water Quality Protection Plan (RWQPP): Project Committee

Gladstone Healthy Harbour Partnership (GHHP): Management Committee

GHHP: Science Panel

Great Barrier Reef Coastal Experts Advisory Committee

Great Barrier Reef Foundation: Biophysical Technical Advisory Group

Great Barrier Reef Foundation: Coral Genomics Consortium, representative on Coral Genomics Advisory Panel to the GBRF International Advisory Panel

Healthy Waterways Alliance, Mackay–Whitsunday: Ecosystem Water Quality Think Tank

Integrated Marine Observing System (IMOS): Advisory Committee for the Australian Animal Tagging and Monitoring System

IMOS: Australian National Moorings Network Facility

IMOS: Facility for Automated Intelligent Monitoring of Marine Systems (FAIMMS)

IMOS: National Reference Station Scientific Steering Committee

IMOS: Satellite Remote Sensing Facility

IMOS: Board

IMOS: Steering Committee

James Cook University School of Business: Industry Advisory Panel

Kakadu Research Advisory Committee

Mackay–Whitsunday Healthy Rivers to Reef Report Card: Technical Working Group

Marine National Facility: Future Research Vessel Technical Advisory Group

Marine National Facility Steering Committee (MNFSC)

National Environmental Research Program (NERP) Marine Biodiversity Hub: Steering Committee

NERP Marine Biodiversity Hub: Theme Leader

NERP Tropical Ecosystems Hub: Steering Committee

NERP Tropical Ecosystems Hub: Science Leader

NERP Tropical Ecosystems Hub: GBR Biodiversity Implementation Group

NERP Tropical Ecosystems Hub: Torres Strait Implementation Group

NERP Tropical Ecosystems Hub: Water Quality Implementation Group

National Environmental Science Programme (NESP) Marine Biodiversity Hub: Partners Committee

NESP Tropical Water Quality Hub: Science Advisory Committee

National Marine Science Committee (NMSC): Chair

National Strategic Rural Research and Development Investment Plan

North Australian Marine Research Alliance (NAMRA): Director

NAMRA: Steering Committee

Northern Research Futures Collaborative Research Network (CRN): Partners' Management Committee

Northern Research Futures CRN: Scientific Advisory Committee

Organisation for Economic Co-operation and Development (OECD): Test Guideline Committee

Queensland Integrated Marine Observing System (Q-IMOS): Node Leader

Q-IMOS: Technical Reference Group

Queensland Government: Great Barrier Reef Water Science Taskforce

Queensland Government: Marine Stinger Advisory Committee, Research Working Group

Reef 2050 Advisory Committee

Reef and Rainforest Research Centre Pty Ltd: Board of Directors

Reef Water Quality Protection Plan: Independent Science Panel

SafeFish: Technical Expert

Torres Strait Scientific Advisory Committee

Western Australian Integrated Marine Observing System (WAIMOS): Scientific Reference Group

Western Australian Marine Science Institution (WAMSI): Board

WAMSI: Governor

WAMSI: Node Leader Science

WAMSI: Research and Development Committee

APPENDIX 3. LEGISLATIVE FOUNDATION AND MINISTERIAL POWERS

Enabling legislation

The Australian Institute of Marine Science is a corporate Commonwealth entity, established on 9 June 1972 by the *Australian Institute of Marine Science Act 1972* (AIMS Act).

Functions of Institute

(1) The functions of the Institute are:
- (a) to carry out research and development in relation to:
  - i) marine science and marine technology; and
  - ii) the application and use of marine science and marine technology; and
- (b) to encourage and facilitate the application and use of the results of research and development of that kind; and
- (c) to arrange for carrying out research and development of that kind; and
- (d) to cooperate with other institutions and persons in carrying out research and development of that kind; and
- (e) to provide any other institution or person with facilities for carrying out research and development of that kind; and
- (f) to collect and disseminate information relating to:
  - i) marine science and marine technology; and
  - ii) the application and use of marine science and marine technology; and, in particular, to publish reports and other papers; and
- (g) to produce, acquire, provide and sell goods, and to provide services, in connection with:
  - i) marine science and marine technology; and
  - ii) the application and use of marine science and marine technology; and
- (h) to make available to other persons, on a commercial basis, the knowledge, expertise, equipment, facilities, resources and property of the Institute; and
- (i) to do anything incidental or conducive to the performance of any of the functions in paragraphs (a) to (h).

Powers of Institute

Under Section 10 of the AIMS Act, the Institute is empowered to do all things necessary or convenient to be done for, or in connection with, the performance of its functions, including power:

(a) to enter into contracts;

(b) to acquire, hold and dispose of personal property;

(ba) to take on hire, or to accept on loan, equipment (including vessels) or other goods needed for the purposes of the Institute;

(bb) to lend or to hire out equipment (including vessels) or other goods that are the property of the Institute;

(c) to purchase or take on lease land or buildings, and to erect buildings, necessary for the purposes of the Institute;

(d) to dispose of, or grant leases of, land or buildings vested in the Institute;

(e) to occupy, use and control any land or building owned or held under lease by the Commonwealth and made available for the purposes of the Institute;

(f) to participate in partnerships, trusts, unincorporated joint ventures and other arrangements for sharing profits;
(g) to subscribe for and to purchase shares in, and debentures and other securities of, companies;
(h) to form, and to participate in the formation of, companies;
(ha) to lend money to associated companies of the Institute;
(hb) with the written approval of the Finance Minister, to provide guarantees for the benefit of associated companies of the Institute;
(i) to appoint agents and attorneys, and to act as agents for other persons;
(j) to accept anything given or transmitted to the Institute whether on trust or otherwise, and to act as trustee of money or other property vested in the Institute on trust;
(k) to arrange for displaying material and giving lectures, to the public or otherwise, about:
(i) marine science and marine technology; and
(ii) the application and use of marine science and marine technology.

Ministerial powers of direction

Under Section 10 (1) of the AIMS Act, the responsible Minister (and Finance Minister) has power to direct the Institute in matters of a general or specific nature. These powers pertain particularly to the following:

1. Granting leave of absence to Council members (Sections 13, 16(b));
2. Appointing (and terminating such appointment) a person to act as Chairperson (Sections 17(1) and (3));
3. Appointing (and terminating such appointment) a person to act as a member of Council (Sections 17(2) and (3));
4. Convening a meeting of Council (Section 20(2));
5. The Finance Minister may give directions at any time as to amount and moneys to be paid to the Institute (Section 36(2));
6. Out of money appropriated by the Parliament for the purpose, the Finance Minister has power to lend money to the Institute (Section 42A);
7. The Finance Minister has the power to provide written approval for the Institute to borrow money from persons other than the Commonwealth (Section 42B);
8. The Finance Minister has the power to guarantee borrowings of the Institute (Section 42C)
9. Appointing a Committee to assist Council and approving the terms and conditions of members (Section 45)
10. Delegation of powers by Finance Minister (Section 50)
    (1) The Finance Minister may, by written instrument, delegate to an official (within the meaning of the Public Governance, Performance and Accountability Act 2013) of a non-corporate Commonwealth entity (within the meaning of that Act) the power:
        (a) to approve the provision of guarantees as mentioned in paragraph 10(2)(hb); or
        (b) to approve the borrowing of money on terms and conditions specified in, or consistent with, the ap proval as mentioned in subsection 42B(1); or
        (c) to enter into contracts as mentioned in subsection 42C(1); or
        (d) to make determinations as mentioned in subsection 42C(2).
    (2) In exercising power under a delegation, the official must comply with any directions of the Finance Minister.

Amendments to enabling and other legislation

Changes were made to the AIMS Act on 1 July 2014, as summarised in the *Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Act 2014* Compilation No. 1 Schedule 7 (Amendments to Acts starting with A), dated 14 April 2015.

In summary, these changes involve:

- transfer of the responsibility from the *Commonwealth Companies and Authorities Act 1997* to the *Public Governance, Performance and Accountability Act 2013* with respect to:
    - reporting and the use and management of public resources (Section 7(2))
    - termination of the appointment of an accountable authority or member and of the Chief Executive Officer (CEO) (Sections 16(1) and 27(2)
    - rules regarding investment of surplus money (Section 38(2))
    - the definition of an official (50A(1))
- introduction of new Sections (50B-D) that give the Institute, Council and CEO the authority to delegate in writing all or any of its powers or functions
- exemption from the obligation under PGPA Act subsection 35(3) which deals with Corporate Plan reporting against Australian Government key priorities and objectives.

PART FIVE: INDEXES

Abbreviations

Abbreviation	Description
AATAMS	Australian Animal Tagging and Monitoring System
ABARE	Australian Bureau of Agricultural and Resource Economics
AFP	Australian Federal Police
AICD	Australian Institute of Company Directors
AIMS	Australian Institute of Marine Science
AIMS Act	Australian Institute of Marine Science Act 1972
AMSA	Australian Maritime Safety Authority
ANAO	Australian National Audit Office
ANU	Australian National University
ANZECC	Australian and New Zealand Environment Conservation Council
AOAC	Association of Official Analytical Chemists
AODN	Australian Ocean Data Network
ARAC	Antarctic Research Assessment Committee
ARC	Australian Research Council
ASIC	Australian Securities Commission
ATRF	Arafura Timor Research Facility
ATSEA	Arafura Timor Seas Ecosystem Action
ATSEF	Arafura Timor Seas Expert Forum
CAC Act	Commonwealth Authorities and Companies Act 1997
CDU	Charles Darwin University
CFO	Chief Finance Officer
CO_2	carbon dioxide
COO	Chief Operating Officer
Coral CoE	ARC Centre of Excellence for Coral Reef Studies
CPSU	Community and Public Sector Union
CRC	Cooperative Research Centre
CREON	Coral Reef Environmental Observatory Network
CRN	Collaborative Research Network
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DMSP	dimethylsulphoniopropionate
DTAP	Dredging Technical Advisory Panel
EAP	Employee Assistance Program

Abbreviation	Description
EEO	Equal Employment Opportunity
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
FAICD	Fellow of the Australian Institute of Company Directors
FAIM	Fellow of the Australian Institute of Management
FAIMMS	Facility for Automated Intelligent Monitoring of Marine Systems
FOI	Freedom of Information
FOI Act	Freedom of Information Act 1982
FRDC	Fisheries Research & and Development Corporation
FRR	Financial Reporting Rule
FTE	Full-time equivalent
FTSE	Fellow of the Australian Academy of Technological Sciences and Engineering
GBE	Government Business Enterprises
GBR	Great Barrier Reef
GBRF	Great Barrier Reef Foundation
GBRMPA	Great Barrier Reef Marine Park Authority
GBRWHA	Great Barrier Reef World Heritage Area
GHHP	Gladstone Healthy Harbour Partnership
GMO	Genetically modified organism
GOOS	Global Ocean Observing System
HSEMS	Health, Safety and Environmental Management System
IMOS	Integrated Marine Observing System
IOMRC	Indian Ocean Marine Research Centre
IPCC	Intergovernmental Panel on Climate Change
IPS	Information Publication Scheme
ISI	Institute for Scientific Information
ISME	International Society for Microbial Ecology
IUCN	International Union for Conservation of Nature
JCU	James Cook University
LNG	Liquefied natural gas
LTMP	Long-term Monitoring Program
MMP	Marine Monitoring Program
MTSRF	Marine and Tropical Sciences Research Facility
NAMRA	North Australia Marine Research Alliance

Abbreviation	Description
NCRIS	National Collaborative Research Infrastructure Strategy
NERP	National Environmental Research Program
NESP	National Environmental Science Programme
NLRD	Notifiable Low Risk Dealing
NMSC	National Marine Science Committee
NRM	Natural resource management
OECD	Organisation for Economic Co-operation and Development
OH&S	Occupational Health and Safety
PBS	Portfolio Budget Statement
PGPA Act	*Public Governance, Performance and Accountability Act 2013*
Q-IMOS	Queensland's Integrated Marine Observing System
RDA	Research Data Australia
RIMReP	Reef Integrated Monitoring and Research Program
ROV	Remotely operated vehicle
RV	Research vessel
RWQPP	Reef Water Quality Protection Plan
SAGE	Science in Australia Gender Equity
SCOR	Scientific Committee on Oceanic Research
SPICE	Southwest Pacific Ocean Circulation and Climate Experiment
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UQ	University of Queensland
UTAS	University of Tasmania
UWA	University of Western Australia
WA	Western Australian
WAIMOS	Western Australian Integrated Marine Observing System
WAMSI	Western Australian Marine Science Institution

Index of annual report requirements

AIMS' requirement for annual reporting is outlined under Section 7 (2) of the AIMS Act, where it states 'The *Public Governance, Performance and Accountability Act 2013* applies to the Institute. That Act deals with matters relating to corporate Commonwealth entities, including reporting and the use and management of public resources.'

The index below shows AIMS' compliance with annual report information requirements for corporate Commonwealth entities as stipulated under Section 46 of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act).

The annual financial statements (see Part Three of the annual report) were prepared in accordance with Sections 42 and 43 of the PGPA Act and the *Public Governance, Performance and Accountability (Financial Reporting) Rule 2015*.

The annual report of operations[8], covered in Parts 1, 2, 4 and 5 of this annual report, have been prepared in accordance with Schedule 1, Section 7AB of the *Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Amendment (Annual Reports) Rule 2015* that stipulates that provisional arrangements for the annual reporting requirements for the first reporting period of the entity (that is, 2014–15) are 'to be applied in the same way as they applied to the annual report of a Commonwealth authority for the financial year ending on 30 June 2014'. As such, the report of operations has been prepared in accordance with the *Commonwealth Authorities and Companies Act 1997* (CAC Act), and in particular Part 2 of the Finance Minister's *Commonwealth Authorities (Annual Reporting) Orders 2011*.

This annual report complies with parliamentary standards of presentation and printing, and uses plain English and clear design.

PGPA Act requirements	Source	Page
The accountable authority of a Commonwealth entity must prepare annual financial statements for the entity … and ensure that the annual financial statements comply with the accounting standards and any other requirements prescribed by the rules.	Section 42	97-144
A copy of the annual financial statement and the Auditor-General's report must be included in the Commonwealth entities annual report that is tabled in Parliament.	Section 43 (4)	98-99
The accountable authority of the entity must prepare and give an annual report to the entity's responsible Minister, for presentation to Parliament, on the entities activities during the period, by 15 October. The annual report must comply with any requirements prescribed by the rules (see PGPA Rule).	Section 46	1-182

8 see Schedule 1 clause 1(a) of the CAC Act

PGPA Act requirements	Source	Page
The accountable authority of the entity must include a copy of the annual performance statement in the entity's annual report that is tabled in the Parliament. The annual performance statement must: (a) provide information about the entity's performance in achieving its purpose; and (b) comply with any requirements prescribed by the rules.	Section 39 (1) and (2)	Reporting against the annual performance statement begins in the 2015–16 Annual Report

PGPA (Consequential and Transitional Provisions) Amendment (Annual Reports) Rule 2015 requirements	Source	Page
The annual reporting requirements for the first reporting period of the entity are to be applied in the same way as they applied to the annual report of a Commonwealth authority for the financial year ending on 30 June 2014.	Schedule 1 Section 7AB	1-182

CAC Act requirements	Source	Page
The annual report includes a report of operations prepared by the directors[9] in accordance with the Finance Minister's *Commonwealth Authorities (Annual Reporting) Orders 2011*.	Schedule 1 Section 1(a)	1-95
Finance Minister's Commonwealth Authorities (Annual Reporting) Orders 2011	**Source**	**Page**
The annual report of operations is approved by a resolution of directors, is signed by a director, and includes details of how and when approval was given.	Section 6	vi
The annual report states that directors are responsible for the preparation and contents of the annual report of operations (as required in Section 9 of the CAC Act and in accordance with the Finance Minister's Orders).	Section 6	vi
The annual report complies with parliamentary standards of presentation and printing.	Section 8	179
The annual report uses plain English and clear design.	Section 9	179
Enabling legislation is specified, including a summary of its objectives and functions, as specified in its legislation.	Section 10	171-73
The responsible Minister is specified.	Section 11	72
The annual report provides details of any Ministerial directions, general policies of the Australian Government and government policy orders (under Section 22 of the PGPA Act) issued and requirements of other relevant legislation, including the:	Section 12	72

9 'Directors' are now 'accountable authorities' under the PGPA Act

CAC Act requirements	Source	Page
• *Environment Protection and Biodiversity Conservation Act 1999*	Section 12	89
• *Disability strategy*	Section 12	95
• *Freedom of Information Act 1982*	Section 12	83-84
• *Equal Employment Opportunity (Commonwealth Authorities) Act 1987*	Section 12	94
• *Work Health and Safety Act 2011*	Section 12	85-87
• *Privacy Act 1988*	Section 12	83
Information about directors is provided, including names, qualifications, experience, attendance at Board meetings, and whether the director is an executive or non-executive member.	Section 13	73-78
The annual report provides an outline of:	Section 14	
(a) the organisational structure (including subsidiaries)		92
(b) the location of major activities and facilities, and provides a statement on governance practices, including details on:		65-67
i) board committees and their responsibilities		73, 80-84
ii) education and performance review processes for directors		78
iii) ethics and risk management policies.		78, 81
The annual report discloses the decision-making process undertaken by the Board in relation to transactions with other entities.	Section 15	n/a
The annual report details any key activities and changes that affected the operations or structure, which may include:	Section 16	
a) significant events such as forming or participating in the formation of a company, partnership etc.		n/a
b) operational and financial results		63-64
c) key changes to its status of affairs or principal activities		42
d) amendments to enabling legislation or any other legislation directly relevant to its operation.		173
The annual report includes details of third party reviews including:	Section 17	
a) judicial decisions and reviews by outside bodies		83
b) by the Auditor-General, a Parliamentary Committee, Commonwealth Ombudsman or Australian Information Officer.		83
The annual report includes an explanation if information is missing from a subsidiary that is required to be included in the annual report.	Section 18	n/a

CAC Act requirements	Source	Page
The annual report includes details of any indemnity given to an officer against a liability, including premiums paid, or agreed to be paid, for insurance against the officer's liability for legal costs.	Section 19	82
The annual report satisfies disclosure requirements for Government Business Enterprises (GBE).	Section 20	n/a AIMS is not a GBE
The annual report provides an index of annual report requirements identifying where relevant information can be found in the annual report.	Section 21	179-182

Australian Institute of Marine Science Act 1972 requirements	Source	Page
The *Public Governance, Performance and Accountability Act 2013* applies to the Institute. That Act deals with matters relating to corporate Commonwealth entities, including reporting and the use and management of public resources.	Section 7.2 (d) Note	See Section 46 of the PGPA Act

Other reporting requirements	Source	Page
Fraud control	–	81

ALPHABETICAL INDEX

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Australian Institute of Marine Science

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