Australian Government

AIMS: Australia's tropical marine research agency.

Australian Institute of Marine Science

annual report

2009 | 2010

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 AIMS research are invited to contact the CEO at the Townsville address below.

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

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

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ISSN 1037-3314

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7 September 2010

Senator the Hon Kim Carr
Minister for Innovation, Industry, Science and Research
Parliament House
Canberra ACT 2600

Dear Minister

On behalf of the Council of the Australian Institute of Marine Science, we have pleasure in presenting the Institute's 38th Annual Report for the year ended 30 June 2010. The report is forwarded in accordance with Section 9 of the *Commonwealth Authorities and Companies Act 1997* (CAC Act).

This report provides information so that you, the Parliament and users of the Institute's research output can make an informed judgment about AIMS performance during the 2009-10 financial year.

The report has been prepared in accordance with the *Commonwealth Authorities and Companies Orders (Financial Statements for Periods Ending on or after 1 July 2008)* made by the Finance Minister under the authority of Section 48 of the CAC Act. The Council endorsed the content of the AIMS Annual Report by a resolution on 7 September 2010.

Yours sincerely

Mr Wayne Osborn
Chairman
Australian Institute of Marine Science

Dr Ian Poiner
Chief Executive Officer
Australian Institute of Marine Science

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A SNAPSHOT OF THE YEAR

- Australian Institute of Marine Science (AIMS) staff and assets were deployed to investigate and survey damage in the aftermath of the *Shen Neng 1* grounding in the southern Great Barrier Reef (GBR) and the Montara oil spill in far northwest Australia.
- With funding from the Great Barrier Reef Foundation, AIMS conducted a pilot study to determine whether artificial spawning between corals from the northern and southern GBR produces hybrids with greater tolerance for the warmer temperatures expected as a result of climate change.
- AIMS received six of 34 *Super Science Marine and Climate initiative* fellowships awarded nationally, the maximum number possible for one organisation, for studies of the impact of climate change upon reef building processes and the health of GBR corals.
- A prestigious national prize, the Dorothy Hill Award, recognising young, female scientists was won by an AIMS researcher, Dr Nicole Webster for her work on the potential impact of climate change on marine sponges. This is the second time in five years an AIMS scientist has won this national award.
- AIMS scientists participated in a multinational voyage by the Indonesian research vessel *R.V. Baruna Jaya VIII* to survey oceanography and food webs in the Arafura and Timor Seas with researchers from Indonesia and Timor Leste.
- AIMS ecologists collaborated with scientists from Geoscience Australia and the University of Sydney Centre for Field Robotics to map the South Scott Lagoon. The resulting detailed bathymetry maps and high quality photo mosaics of habitats and biodiversity will be used as baseline data for long-term monitoring of deep water coral communities (30-70 m) that are inaccessible to divers.
- A new AIMS study provided strong empirical support to the hypothesis that primary Crown-of-thorns starfish outbreaks are predominantly controlled by phytoplankton availability, supporting initiatives out of the Reef Water Quality Protection Plan, which will benefit the whole of the GBR.
- AIMS won the award for Best Workplace Health and Safety Management System at the 2009 Australian Government Safety, Rehabilitation and Compensation Commission Safety Awards and a matching award at the 5th Annual National Safe Work Australia Awards.
- An international workshop convened by Dr Christine Schöenberg of AIMS, brought together specialist scientists in Perth, identifying a treasure trove of marine sponges. The researchers confirmed unexpectedly high biodiversity in deep Western Australian waters off Ningaloo Reef.
- The Australian Government announced support for the construction of an Indian Ocean Marine Research Centre at the University of Western Australia (UWA). This joint AIMS, CSIRO and UWA facility will be funded from Round 3 and the Sustainability Round of the Education Investment Fund. The total cost of the project is $63 million with $34 million from the Education Investment Fund.

- A landmark Memorandum of Understanding was signed between AIMS, Charles Darwin University, The Australian National University and the Northern Territory Government (NTG) for the management of the Arafura Timor Research Facility. The Memorandum detailed a framework of cooperative research, academic and training activities, and expanded research infrastructure, helping to ensure sustainable and community-friendly development of tropical marine resources.
- Dr Ian Gould completed his term as Chair of the Council of the AIMS. Business leader Mr Wayne Osborn was appointed as the new Chair of Council by Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research. Mr John Grace, Professor Sandra Harding and Ms Elizabeth Montano were re-appointed as members.
- Dr Ian Gould, then Chair of the AIMS Council launched the *Index of Marine Industry.* The Index valued Australia's marine industries for 2007-08 at $48.4 billion compared to $43.3 billion for the agricultural sector in the same period.
- The Australian Biological Resources Survey (ABRS) and CReefs, with support from the GBR Foundation, provided funding to five scientists from Australian museums and other research organisations to work with the AIMS-led CReefs project that has so far seen over 1,000 new species, including bryozoans, soft corals and polychaete worms discovered.
- BHP Billiton Petroleum allocated significant funding to AIMS for three years starting in 2010 to extend e-Atlas, which is a data repository and knowledge centre developed by AIMS to serve environmental information from the GBR and to encompass similar information from the Ningaloo Reef Marine Park, Western Australia.
- Scientists from AIMS and Geoscience Australia completed their second joint voyage of discovery committed under a Memorandum of Understanding for collaboration based on sharing infrastructure (RV *Solander* and advanced geophysical equipment). The 2009 joint voyage was to unexplored areas of the Joseph Bonaparte Gulf west of Darwin and revealed rich marine communities living on the edge of underwater canyons with swift tidal currents as well as unusual geological features (seabed pock marks) considered indicative of cold gas seeps.
- As a result of further investment in the Integrated Marine Observing System by the Australian Government in the 2009 Budget, the GBR Ocean Observing System will be enhanced and extended to 2013. New investments include robotic glider missions to measure heat content of the Coral Sea and the establishment of a new National Reference Station off Brisbane that will be used by CSIRO colleagues to monitor the impacts of the East Australian Current upon local water quality and biology. In Western Australia, AIMS deployed five oceanographic moorings across the Joseph Bonaparte Gulf as the first stage of a comprehensive program for monitoring the full-depth transport of the Indonesian Through Flow (ITF). The ITF is a major transfer of tropical water from the Pacific to the Indian Ocean that is crucial to accurate climate modelling.
- This year the Institute's aquaculturists have successfully managed to rear lobster larvae, called phyllosomas, through the full hatchery cycle on an entirely artificial feed formulated by AIMS scientists after analysing the natural diets of these oceanic animals. This is thought to be a world first and a major step towards the development of a hatchery technology for commercially viable aquaculture of lobsters.
- Great progress has been made with the development of the $55 million AIMS Tropical Marine Research Facilities Project (ATMRFP) including planning for the construction phase of the new aquarium facility, which is due for completion in 2012. Together these projects will guarantee our place as the leading centre for marine science in Australia.

ABOUT AIMS

Our mission: "To generate and transfer knowledge to support the sustainable use and protection of the marine environment through innovative, world class scientific and technological research."

AIMS is a Commonwealth statutory authority established by the *Australian Institute of Marine Science Act 1972.* To ensure that it is meeting the challenges facing marine ecosystems and the requirements of stakeholders, AIMS surveys and documents marine life from microbes to whole-of-ecosystems, and the processes that sustain them; monitors changes and identifies trends in the marine environment; and develops molecular tools and ocean technologies.

Fisheries, offshore oil and gas, mining, reef tourism and aquaculture industries have all benefited from AIMS research that is geared towards the protection and sustainable development of marine resources. These benefits will underwrite protection of Australia's marine biodiversity and new areas of the economy into the future.

OUR PEOPLE

AIMS employs more than 200 science and support staff to deliver 12 Key Result Areas (KRAs). Many of our scientists are world authorities in their field and have achieved international acclaim for their research. Support staff provide specialised skills in data management, information technology, engineering, field operations, information services, science communication and corporate services. A variety of AIMS services, such as vessel crewing, catering, cleaning and maintenance, are carried out by about 30 contractors. AIMS maintains a strong educational program, particularly through the AIMS@JCU joint venture, and co-funded postdoctoral positions at three universities.

OUR RESEARCH

The Institute's expertise in tropical marine ecosystems, combined with a multidisciplinary capability, makes possible the full spectrum of scientific investigation from the seafloor to the laboratory bench. AIMS works collaboratively with national and international organisations and researchers to improve understanding of complex marine ecosystems. The Institute carries out internationally renowned research in marine biodiversity, impacts and adaptation to climate change, water quality and ecosystem health, tropical aquaculture and the emerging area of marine microbiology.

OUR LOCATIONS

AIMS headquarters near Townsville is adjacent to the centre of the GBR and surrounded by a 207 hectare national park and marine reserve. It is free from development, biosecure and has access to clean seawater and a protected harbour. Using an injection of Australian Government infrastructure funding, the Institute is greatly expanding its research facilities at the Townsville site with the construction of the new, $32 million aquarium complex. This new building will provide unprecedented ability to extend global

understanding of the impacts of climate change and ocean acidification. New vessel berthing facilities will also be built in Townsville. AIMS Northern Territory research is based at the Arafura Timor Research Facility (ATRF) adjacent to the campuses of Charles Darwin University (CDU) and the Australian National University (ANU). Due to its existing academic and other infrastructure and because it is on the doorstep of the Timor Sea, Darwin was chosen as the site for this Major National Research Facility because of its national and international scientific and commercial advantages for marine and coastal research. AIMS' Darwin research facilities are being expanded to enable more joint research with its Northern Territory based collaborators. In Western Australia, AIMS is co-located with UWA Oceans Institute at the University's Perth campus. AIMS has established research partnerships with a range of WA research institutions including the Western Australian Marine Science Institution (WAMSI). AIMS and CSIRO have partnered with UWA in the recently announced development of the Indian Ocean Marine Research Centre. This facility will be funded from Round 3 and the Sustainability Round of the Australian Government's Education Investment Fund. The total cost of the project is $63 million.

OUR FACILITIES

AIMS facilities include:

- Modern chemistry, biology, microbiology, oceanography and remote sensing laboratories;
- A range of analytical facilities including a sophisticated biomolecular analysis facility;
- The new GBR Ocean Observing System and other observing infrastructure at Scott Reef and Ningaloo Reef in Western Australia;
- The AIMS Data Centre, providing online interactive visualisation and access to high value research data;
- Seawater aquaria and controlled environment rooms;
- A microbiological and genetic research facility;
- Weather stations deployed at various marine locations;
- Engineering workshops for the development of instrumentation required for research activities;
- An extensive library containing current and historical marine science information;
- A bioresource library;
- An aquaculture centre;
- An X-band satellite receiver;
- The AIMS Coral Core Archive.

The AIMS research fleet provides access to all of 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 for long research trips, such as:

- On-board dive compressors including a dive chamber on the RV *Solander* to provide diving support;
- A-frame, hydrographic and CTD winches;
- Wet and dry laboratories;
- Flow-through aquaria;
- Large deck spaces;
- Inflatable tenders;
- Sophisticated navigation, satellite communication and computing facilities.

During the reporting period, AIMS conducted 148 field trips.

Vessel statistics:

RV *Solander*	19 research trips; 253 research days in the field; steamed approx 25,191NM
RV *Cape Ferguson*	30 research trips; 269 research days in the field; steamed approx 18,289NM
RV *Apollo*	21 research trips totaling 26 days
RV *Aquila*	9 research trips totaling 36 days
RV *Capricornus*	5 research trips totaling 84 days

Diving: In 2009, there were 110 trips involving diving and snorkeling, and 3395 SCUBA and SSBA dives were performed.

The RV Solander *at Kimberley Coast, northwest Australia. Image: Steve Clarke.*

Colonial ascidians at Night Island. Image: Eric Matson.

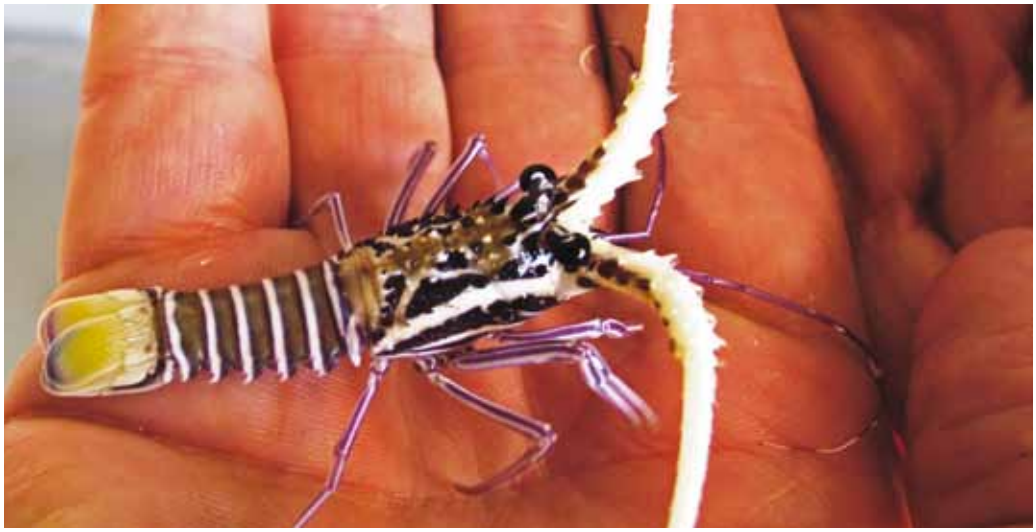
HIGHLIGHTS

WORLD FIRST: ARTIFICIAL FOOD FOR LARVAL MARINE LOBSTERS

In the race to domesticate wild Australian lobster species for the seafood trade through aquaculture, 2009-10 has seen AIMS make major progress towards helping crack this very high value and globally sought after delicacy. On a per kilogram basis the spiny, or rock, lobsters are the most valuable of seafood, even more lucrative than the highly-prized bluefin tuna.

This year the Institute's researchers have successfully managed to get the lobster larvae, called phyllosomas, through the hatchery cycle on an artificial feed formulated and developed at our Townsville headquarters. This is thought to be a world first and a major step towards the development of a commercially viable hatchery technology for mass production of lobsters.

Artificial feeding is a major breakthrough on at least three fronts. It means the expensive and labour intensive food used until now – *Artemia,* also known as brine shrimp or sea monkeys – can be replaced with the readily available artificial feed formula. Secondly it reduces the risk of the introduction of potentially deadly pathogens because brine shrimp are ready carriers of a range of bacteria known to cause disease in lobsters. Thirdly, the shift to an artificial diet has also improved survival. This development is a major step forward towards up-scaling larval rearing and raises the possibility of being able to make sure that the artificial feeds contain probiotics – much as yoghurt consumed by humans contains 'good bacteria'.



A juvenile lobster in the AIMS aquaculture facility being considered as a candidate for the lucrative aquarium trade. Image: James Woodford.

NEW SPECIES OF PATHOGENIC BACTERIA

AIMS researchers identified of a new species of pathogenic bacterial strain, *Vibrio owensii*, recovered from moribund and dying cultured phyllosoma. Found throughout the world's oceans, in the hatchery, it can cause ~80-90% mortality of early stage larvae. The strain is closely related to the bacterial species *Vibrio harveyi* and *Vibrio campbellii*, which also cause large economical losses in the aquaculture industry worldwide.

Apart from identifying these new pathogenic bacteria, AIMS researchers have developed a fluorescent labelling technique to track them in real time, during infection and within the lobster larvae. 'Now we know the species that causes disease we have the ability to fluoro tag them,' says research team leader Dr Mike Hall. 'Tagging them allows us to understand how these pathogens are getting into the system and causing illness in the lobsters and allows us to implement microbial management methods to control and eliminate disease in the hatchery.'

A VOYAGE OF SCIENTIFIC AND DIPLOMATIC DISCOVERY

In May this year two AIMS scientists, Daniel Alongi and Lindsay Trott, participated in an inaugural voyage aboard the Indonesian research vessel *R.V. Baruna Jaya VIII* as part of a two week expedition surveying the Arafura and Timor Seas with 18 Indonesian and four Timor Leste scientists.

The Arafura Sea lies between Indonesia and Northern Australia. It has approximately 1850 km of coastline with an average depth of 50 – 80 m. The Timor Sea covers an area of 615,000 km^2 located Southeast of Timor Island and North West of Australia. The Arafura and Timor Seas fit the definition of a semi-enclosed sea under Article 122 and 123 of the United Nation Convention of the Law of the Sea (UNCLOS 1982).

To manage its vast resources requires close cooperation between nations surrounding the ocean such as Australia, Indonesia,Timor Leste and Papua New Guinea. Realising the uniqueness of the area and its importance to local communities, the Arafura and Timor Seas Expert Forum (ATSEF) was established with the objective of assisting stakeholders achieve the goals of sustainable development.

The May 2009 expedition was designed to survey the physical and biological resources of the deep Timor Sea and the northern Arafura Sea with a view to understanding the physical forces and food chains supporting the abundant fisheries in the region. AIMS scientists sampled both deep-sea and shallow water habitats in close collaboration with both Timor Leste and Indonesian scientists to determine rates of carbon and nutrient cycling in these areas, and their links to coastal upwelling and the export of material from the immense rivers off the southwestern coast of West Papua.

MARINE MICROBES, CLOUDS AND THE WORLD'S CLIMATE

The importance of coral reefs to industries such as tourism and fishing is well known but few people realise they also play an important role in the formation of clouds and hence are critical to the world's climate.

AIMS scientists are at the forefront of research into the remarkable links between coral, bacteria, clouds and reef health. At the heart of this process is the role of organic sulfur compounds in driving coral bacterial associations. Living within every colony of coral are millions of bacteria and other microscopic organisms. Our researchers have gained new insights into the important relationships between coral, bacteria and various sulfur compounds – one of which (dimethylsulfide) is particularly important in climate regulation owing to its role in cloud formation.

Once in the atmosphere dimethylsulfide is oxidized into various sulfur compounds, which in turn create aerosols around which clouds can condense.

Research to which AIMS scientists have significantly contributed demonstrates that these sulfur compounds also act as nutrient sources for coral-associated bacteria and that they are likely to play a role in structuring bacterial communities in corals, with important consequences for the health of both corals and coral reef ecosystems.

REGIONAL CORAL HYBRID BABIES PRODUCED BY IN VITRO FERTILISATION

Under the "assisted colonisation" scenario, suggested as one way to ameliorate the possible impacts of climate change, coral populations and/or species adapted to warmer temperatures would be translocated onto cooler, but warming, southern reefs. Through interbreeding, warm-adapted genes would then be incorporated into the receiving population, possibly increasing resilience to rising temperatures.

In a new project, co-funded by the GBR Foundation, AIMS conducted a pilot study to address the following questions: (1) Can translocated corals interbreed with native corals? (2) Does inter-population breeding result in increased fitness in regional hybrids compared to purebred offspring?

Increased fitness in regional hybrids may occur as new and beneficial genes and/or gene combinations are introduced into the receiving populations. This is a desired outcome of the assisted colonisation strategy. Alternatively, the fitness of hybrid offspring may be lower than that of the offspring of the native corals. If this weakening of genetic stock was to occur as a result of translocation it would clearly not be a desirable conservation outcome.

The results obtained so far show that *Acropora millepora* and *A. tenuis* corals from Orpheus Is (central GBR) can interbreed with colonies from the Keppel Islands (southern GBR) under laboratory conditions, producing normal-looking offspring.

NEW EVIDENCE LINKS OUTBREAKS OF CROWN-OF-THORNS STARFISH TO HIGHER LARVAL FOOD AVAILABILITY

Population outbreaks of the coral-eating Crown-of-thorns starfish *Acanthaster planci*, continue to kill more coral on Indo-Pacific coral reefs than other disturbances, but the causes of these outbreaks have not been resolved.

AIMS conducted experiments where larvae were reared on natural phytoplankton. We also examined long-term data of river floods, chlorophyll concentrations and starfish outbreaks on the GBR. Computer simulations investigated the relationship between the frequency of outbreaks and larval food availability.

Crown-of-thorns infestation, GBR. New evidence points to a link between outbreaks of the starfish and water quality. Image: AIMS Long-term Monitoring Team.

The experiments showed that the odds of *A. planci* larvae completing development increases ~8-fold with every doubling of chlorophyll concentrations up to 3 µg L^{-1}. Field data and the population model showed that river floods and regional differences in phytoplankton availability are strongly related to spatial and temporal patterns in *A. planci* outbreaks on the GBR. The model showed that, given plausible historic increases in river nutrient loads over the last 200 years, the frequency of *A. planci* outbreaks on the GBR has likely increased from one in 50 – 80 years to one every 15 years, and that current coral cover of reefs in the central GBR may be 30 – 40% of its potential value. This study adds new and strong empirical support to the hypothesis that primary *A. planci* outbreaks are predominantly controlled by phytoplankton availability, strongly supporting proposed reductions in terrestrial runoff through the Government's Reef Rescue initiative.

COMPLETION OF FIELD WORK FOR SCOTT REEF RESEARCH PROJECT

In 2008 AIMS commenced a comprehensive research program with Woodside Energy Ltd and its Joint Venture Partners at Scott Reef. This three year Scott Reef Research Project (SRRP) builds on 15 years of previous co-invested research and focuses on the processes influencing the ecology of the reef. There are three specific projects: 1) shallow-water coral and fish communities; 2) deep-water (30-70m) benthic communities, and 3) physical and biological oceanography (20-200m). Many aspects of the SRRP field work required innovative technology and new methods and procedures, ranging from the transition from SCUBA to Surface Supplied Breathing Apparatus, deploying instrument arrays, and sampling deep-water plankton and coral, while continually reviewing operational health and safety.

Vast amounts of data have been collected over three years of field work, totaling over 450 days at sea. Examples of these data include:

- Thousands of coral and fish counted and measured, hundreds genotyped;
- The reproductive state of over 5000 corals quantified and over 3500 colonies tagged and re-surveyed annually;
- Hundreds of coral colonies sampled for genetic and physiological studies using ROV technology from beyond safe diving depths of over 50m;
- 44 instrument arrays deployed around shallow and deep-water habitats at roughly 3 month intervals, logging hundreds of hours of data;
- Plankton communities sampled and photographed across hundreds of meters of depth using new technology.

The final field trip to Scott Reef is in October 2010 and the final report summarizing the work across the three research projects is due in June 2011.

To date, results indicate that:

- Benthic communities in shallow water (<20m) are resilient to natural disturbances, due to periods of high growth and survival and high water quality;
- The fish communities respond to the changes in the benthos, but may also be influenced by unregulated fishing;
- Biological communities rely primarily on local populations to seed recovery after disturbances;
- There are extensive areas of high coral cover in the deep lagoon of south Scott Reef, dominated by flat plate growth forms, and these communities are unique within the region;
- Deep water corals exist at 1% of surface light by using a variety of adaptations that rely on high water quality for success;
- Internal waves up to 110m in height in the deep-water channel between north and south Scott Reef inject nutrients into the lagoon and stimulate plankton growth, but these are primarily bacteria and viruses that cycle daily within the water column and do not fall to the deep-water benthos as a food source;
- With the completion of field work in 2010, Scott Reef will be one of the most intensively studied oceanic reefs.

AIMS RESEARCHER WINS PRESTIGIOUS NATIONAL AWARD

A prestigious national award recognising the work of young, female scientists was won by AIMS sponge researcher, Dr Nicole Webster. The Dorothy Hill Award is announced annually by the Australian Academy of Science and recognises excellence by female researchers in the field of earth and marine sciences. For Dr Webster, the award was particularly sweet, as she has raised three small children while breaking new ground in her field of expertise, where she is now considered a world leader.

Though primitive animals, sponges play a significant role in marine ecosystems. Sponges host a complex community of microbes in a mutually-beneficial relationship. Scientists such as Dr Webster are trying to understand how these microbes interact with their hosts and how the relationships are affected by environmental stress.

The work is being done through the AIMS Centre for Marine Microbiology and Genetics. A priority for the Centre is understanding the relationship between marine microbes, the smallest creatures known, and their marine hosts. These relationships drive many of the vital systems of life.

Dr Webster is now a leader in the AIMS research program titled "Understanding the role of microbes in the functioning of healthy and stressed reefs."

Nicole Webster during a research trip to Antarctica. Image: Andrew Negri.

AIMS NAILS TOP NATIONAL HEALTH AND SAFETY AWARD

AIMS has taken out a prestigious national award for leading the way in occupational health and safety associated with a major marine science research project at a remote reef off the Western Australian Kimberley coast.

The National Safety, Rehabilitation and Compensation Commission (SRCC) named AIMS the winner of its award for the Best Workplace Health & Safety Management System for the Institute's safety practices as part of the Scott Reef Research Project.

Dave Williams accepts the award. Image: Safe Work Australia.

The awards recognise and reward excellence in workplace health and safety. According to the SRCC, award winners are chosen for their demonstrated high level of passion, energy and commitment to making workplaces safer. The research project is a major undertaking over three years to better understand the biological and physical characteristics of an environmentally and economically significant coral reef system. Working in such a remote and potentially hazardous location poses a complex array of health and safety challenges to ensure that all personnel involved are at minimal risk.

Marine science is carried out in ocean environments that often involve special safety requirements and AIMS has long-standing expertise in dealing with the unique challenges of the marine realm.

The research project is funded by the Browse Liquid Natural Gas Development operated by Woodside Energy Ltd and the work is carried out by AIMS staff including scientists, technicians and their collaborators.

SHARK MOTHERS PROVIDE CRITICAL LIFE SUPPORT FOR NEWBORN PUPS

Sharks have experienced widespread overfishing in recent decades, with coastal and pelagic species undergoing substantial declines in many areas. Yet much concerning the basic life history of sharks is unknown and successful efforts to rebuild their populations require substantially improved understanding of their reproductive cycles.

Live born shark pups are found in litters ranging from 10-20 individuals that are released from the womb with no post-partum maternal care. The first few weeks of life are critical as they entail the highest risk of mortality and are a time when shark pups must learn to forage for food. The pups are not without help however; a collaborative team from AIMS, the University of Bangor (Wales), and the Natal Sharks Board (South Africa) analysed 40 years of catch records from shark control nets in South Africa to demonstrate that shark mothers provision their pups with enlarged 'super livers' that the pups utilize for energy during the first few weeks of life. The study also revealed that the reproductive output of female sharks peaks below their maximum size, indicating that larger, older sharks are not necessarily the most fecund. This suggests that key size ranges can be targeted for conservation to maximize the reproductive potential of many coastal shark species.

The Dusky shark (Carcharhinus obscurus). *Image: Dennis King.*

ABUNDANCE OF SPONGES SHOWS WA WATERS TEEMING WITH BIODIVERSITY

An international workshop convened by Dr Christine Schöenberg of AIMS, brought sponge taxonomists together in Perth to identify marine sponges collected from Ningaloo Reef. The researchers confirmed that the deeper marine habitats of Western Australia contain unexpectedly high biodiversity of these primitive and ancient animals.

More than 1,000 sponge samples were obtained from a joint voyage to Ningaloo Reef in 2008 by scientists from AIMS and Geoscience Australia. This voyage of discovery was funded by the Marine Biodiversity Hub of the Commonwealth Environment Research Facilities (CERF) initiative that supports public-good environmental research throughout Australia.

Rachel Przeslawski, GA and Andrzej Pisera, Poland. Image: Christine Schöenberg.

The samples complement more than 600 invertebrate species that have been collected from deep waters of Ningaloo Reef through previous expeditions to the area by AIMS with support from the Western Australia Marine Science Institution (WAMSI) and the Western Australian Museum.

The workshop also included sponge taxonomists from museums and marine institutes in Queensland, Victoria, South Australia, Western Australia and the Northern Territory.

The new collections of sponges were gathered from the sea floor in waters between 20 and 120 metres deep and were accompanied by a rich profusion of other floor-dwelling marine life including corals, sea whips, sea fans and basket stars.

$48 BILLION MARINE INDUSTRIES WORTH MORE THAN AGRICULTURE

Australia's $48 billion marine industries are worth more to the nation than agriculture, according to analysis released this year by AIMS. Australia's marine industries include oil and gas exploration and extraction, tourism, fishing, boatbuilding, shipping, ports and numerous others.

Launched by then Chairman of the AIMS Council, Dr Ian Gould, the AIMS Index of Marine Industry valued Australia's marine industries for 2007-08 at $48.4 billion compared to $43.3 billion for the agricultural sector in the same period.

Dr Gould said: "The analysis shows Australia's marine industries make a major contribution to the economy. However this contribution is often unrecognised and undervalued - the aim of the marine index is to redress that.

"The first marine index was launched last year, and already the data shows a dramatic jump in the value of marine industries, up from $38 billion in 2006-07 to $48.4 billion in 2007-08."

NEW ERA FOR MARINE RESEARCH IN THE NORTHERN TERRITORY

Understanding of the north's rich tropical marine endowment was enhanced this year following the signing of a landmark Memorandum of Understanding between Charles Darwin University, AIMS, The Australian National University and the NTG.

The Memorandum detailed a framework of cooperative research, academic and training activities, and expanded research infrastructure, helping to ensure sustainable and community-friendly development of tropical marine resources.

In announcing the new agreement, the Federal Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr, said $5.5 million in extra funding had been allocated to upgrade infrastructure and equipment at Darwin's Arafura Timor Research Facility (ATRF). The new resources have been made available through the Federal Government's *Super Science Marine and Climate initiative*. Senator Carr said Australia had the third largest ocean territory in the world, but too little was known about its marine estate. Under the MOU the following programs and activities will be encouraged:

- Appointment of appropriate AIMS and NTG staff to adjunct academic positions at CDU and/or ANU;
- Appointment of appropriate CDU, ANU and NTG staff to adjunct research positions at AIMS;
- Cooperative and collaborative research activities;
- Access to research infrastructure and equipment;
- Funding of joint appointments of research staff;
- Joint research training activities including the funding of scholarships for Higher Degree by Research students;
- Joint supervision of Higher Degree by Research students.

AUSTRALIA AND TAIWAN COLLABORATE ON MARINE SCIENCE

In April this year delegates from AIMS and the National Science Council (NSC) of Taiwan signed a memorandum supporting future collaborative exchanges of Australian and Taiwanese researchers.

The CEO of AIMS, Dr Ian Poiner said: "International scientific collaboration is the key to unlocking many of the secrets of our oceans. The oceans cover 71 per cent of the Earth's surface but are less studied, less known and less understood than the land. Sixty four percent of the oceans are outside national jurisdictions in the open oceans and deep sea areas, which highlights the need for international scientific cooperation in studying the oceans."

"Through this memorandum, we will encourage our respective researchers to embark on collaborative research projects, mutual visits and joint workshops, all focussed on marine science."

Dr Poiner said researchers from both organisations were already exploring potential projects that would benefit marine science in both nations.

The Memorandum of Understanding between the National Science Council and AIMS was signed by Deputy Minister of NSC Dr Wen-Chang Chang and CEO of AIMS Dr Ian Poiner.

The Taiwan National Science Council delegation arriving at AIMS Townsville for the signing of the MOU. Image: Tim Simmonds.

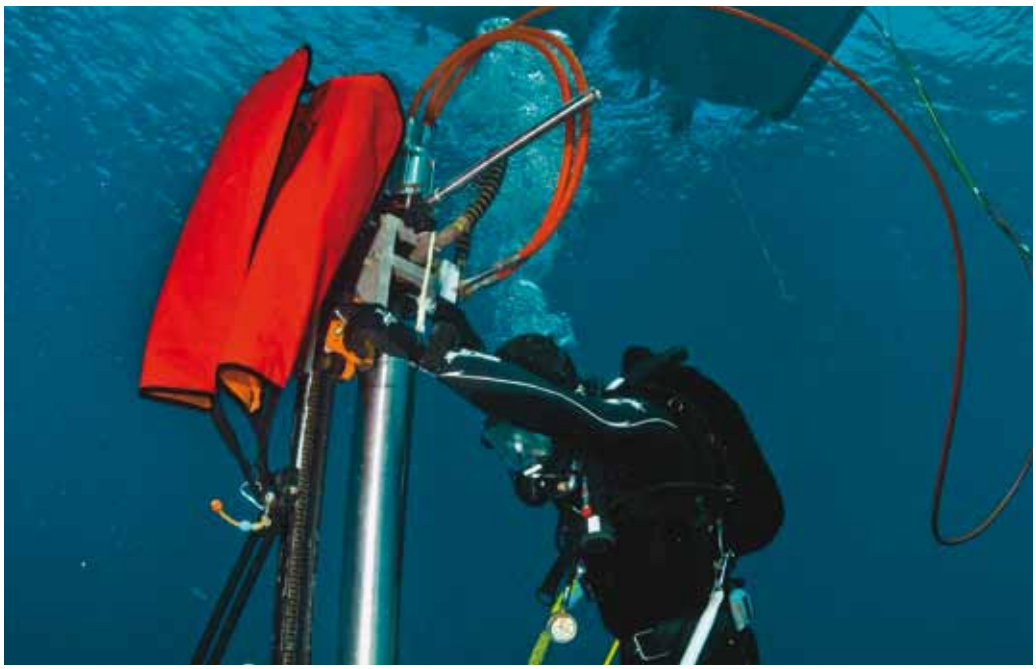
MASSIVE CORALS HELP UNLOCK CLIMATE CHANGE SECRETS IN WESTERN AUSTRALIA

Massive corals are being used by marine scientists to unravel the effects of climate and environmental change on coral reefs in Australia's remote north-west. Often referred to as the Methuselah's of coral reefs because they can be older than 500 years, these massive corals grow by adding a new layer to their surface each year, which creates a reliable calendar that stores a wealth of information about the past environment experienced by the colony. It is the old skeletal material contained deep within the coral that allows researchers to compare present day growth rates with those pre-dating the industrial revolution and hence examine the consequences of climate change on coral reefs.

The team of scientists, led by Eric Matson and Dr Tim Cooper from AIMS, returned in late 2009 from Rowley Shoals, approx 300km west of Broome. The cores the team collected were up to 350 years old, meaning the corals were growing about the time when the first Dutch sailors in square-riggers were exploring the west coast of Australia.

Coral reefs are confronting a serious crisis in the face of a changing climate. "Since the industrial revolution, levels of atmospheric carbon dioxide have risen from approximately 280 ppm to current day levels of 390 ppm," said Dr Cooper. "As a consequence, seawater temperatures have risen over the past 200 years and evidence is emerging that part of this extra CO_2 may be absorbed by the oceans making them more acidic," he said. "These processes have already had a measurable effect on coral growth rates in some parts of the world, including the GBR, but virtually nothing is known about the climate history or growth rates of corals on reefs along Australia's west coast," said Dr Cooper.

Specialised commercial diving equipment was needed to carefully remove a biopsy of coral skeleton with only minimal stress to the massive corals. "The only living part of massive corals is a thin layer of tissue 0.5-1 cm thick that deposits the coral skeleton beneath it as the coral grows upwards" said Mr Matson. "We use a hydraulic drill with a diamond-studded bit to remove the core and the hole is plugged when we're finished to promote a quick recovery from the procedure," he said. "The coral will continue growing and show no effects that a sample of skeleton has been removed from it," said Mr Matson.



Extracting a coral core at Rowley Shoals. Image: Eric Matson.

APPOINTMENTS STRENGTHEN AIMS COUNCIL

Business leader Mr Wayne Osborn was this year appointed by Senator the Hon Kim Carr to chair the Council of AIMS.

Three current members of Council (Mr John Grace, Ms Elizabeth Montano, and Professor Sandra Harding) were re-appointed for another term of five years.

Mr Osborn is an experienced executive and company director with strong links to the business community of Western Australia. His extensive experience, most recently as Managing Director of Alcoa Australia, will be of great benefit to AIMS, and to marine science as a whole.

Mr Grace will continue to play a strong role in Intellectual Property management and research performance monitoring. His understanding of the AIMS business model is extremely valuable.

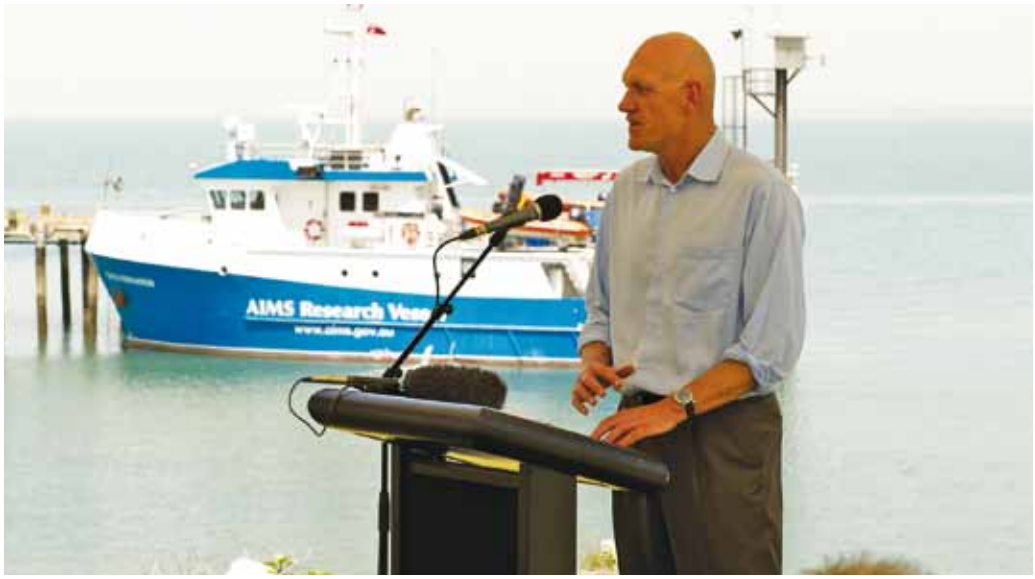
Ms Montano's experience in corporate governance and risk management are vital to AIMS. She is a valued member of the AIMS Audit Committee and as a Commissioner of the Australian Fisheries Management Authority (AFMA) also brings to AIMS a natural resource management perspective.

Professor Sandra Harding is the President and Vice Chancellor of James Cook University in Townsville. Given the high level of collaboration and co-operation between AIMS and JCU (e.g. the AIMS@JCU joint venture in research training), the University was granted a permanent seat on the AIMS Council and this has been filled by the Vice-Chancellor since.

MINISTER GARRETT ANNOUNCED MULTIMILLION DOLLAR BOOST TO CREEFS

An influx of resources worth a total of $2.7 million to support the ambitious CReefs project that is systematically surveying life on Australian reefs was announced at AIMS by the Minister for Environment Protection, Heritage and the Arts the Hon Peter Garrett AM MP.

The Australian Biological Resources Survey (ABRS) and CReefs, with support from the GBR Foundation, provided funding to five scientists from Australian museums and other research organisations to work on the AIMS-led CReefs project that is bringing new marine life to the surface. The grants, worth collectively



The Hon Peter Garrett AM MP announces funding boost to CReefs. Image: John de Rooy.

$1.2 million over three years, are joined with cash and in-kind contributions from the scientists' host institutions to make a total contribution of $2.7 million.

CReefs is an international multi-agency collaboration, led by AIMS, the Smithsonian Institution and the Pacific Islands Fisheries Science Center of the US National Oceanic and Atmospheric Administration. CReefs Australia is funded through a deal brokered by the GBR Foundation with BHP Billiton providing $3.2 million to the project over four years. Many hundreds of species thought to be new to science have already been discovered on CReefs expeditions to Lizard and Heron Islands on the GBR and Ningaloo Reef off Western Australia.

The wealth of marine science knowledge turning up on well-visited reefs has amazed even its leader, AIMS Principal Research Scientist Dr Julian Caley, and has provided solid evidence that our knowledge of the marine world remains very incomplete. The riches of the oceans are myriad and the scientific challenges unparalleled.

FUNDING FOR CLIMATE CHANGE RESEARCH ON CORAL REEFS

AIMS was awarded nearly $1.67 million for six early-career researchers to carry out research on the impacts of climate change on the GBR.

AIMS was amongst 20 Australian institutions to receive the *Super Science Marine and Climate initiative* Fellowships, announced by the Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr. The Fellowships are part of the Governments $387.7 million *Super Science Marine and Climate initiative* to improve Australia's ability to respond to climate change and to protect and understand our 13.5 million square kilometres of marine territory. Marine research is central to understanding how and when our climate is likely to change, and managing the impact on precious environments like the GBR.

The fellowships are designed to support exceptional young researchers to further their careers in areas of scientific importance.

AIMS' CEO, Dr Ian Poiner said the funding would help young researchers continue to develop the growing body of research on the impacts of climate change on the GBR.

"The fundamental reef-building process involves the laying down of calcium deposits," Dr Poiner said. "But ocean acidification, warming water temperatures and increased freshwater will impact on that reef-building process.

"Using the *Super Science Marine and Climate initiative* funding, AIMS will lead a collaborative team of international researchers from CSIRO, James Cook University, University of Queensland, and the University of British Columbia (Canada) to supervise six early career researchers who will make integrated studies of the processes of coral reef construction and estimate some of the likely impacts of climate change on reef-building corals.

AIMS SCIENTISTS WIN PRIZE FOR PAPER ON GREAT BARRIER REEF'S FISH

What happens to fish on the GBR when their coral homes are devastated by bleaching, crown-of-thorns starfish and cyclones? The surprising answer - from a team of researchers, including scientists from the AIMS Long-term Monitoring Team - has won this year's prize for the best paper in the international journal, *Coral Reefs* (Coral Reefs 2009 Vol 28: pages 3–14).

"This study examined the effects of habitat disturbances on species richness of coral reef fish assemblages using annual surveys of habitat and 210 fish species from 10 reefs on the GBR," says the paper. "Over a period of 11 years, major disturbances, including localised outbreaks of crown-of-thorns

sea star (*Acanthaster planci*), severe storms or coral bleaching, resulted in coral decline of 46–96% in all the 10 reefs". Another 38 reefs in the study that had remained steady or increased their coral cover were excluded from the analysis.

Of the 10 degraded reefs, the paper reports that "Despite declines in coral cover, structural complexity of the reef framework was retained on five and species richness of coral reef fishes maintained on nine of the disturbed reefs. Results of this study clearly demonstrate that a decline in coral cover does not necessarily lead to a decline in structural complexity or species richness of coral reef fishes. Coral cover varied from 0 to 60%, yet species richness of the fish community changed by only 6–8%."The paper does point out, however, that this 6-8% does involve losses to a key group of fish species with a strong dependence on corals for food or shelter.

The team also included scientists from the School of Marine Science & Technology, University of Newcastle, Newcastle-upon-Tyne (UK) and the ARC Centre of Excellence for Coral Reef Studies, James Cook University, Townsville.

Herbivores working over dead, algae covered branching corals. Image. AIMS Long-term Monitoring Team.

Digitate Acropora *coral on a reef crest at the Swains. Image: AIMS Long-term Monitoring Team.*

REPORT OF OPERATIONS

- Certification of Report of Operations
- Report from AIMS Chair, Mr Wayne Osborn and AIMS CEO, Dr Ian Poiner
- Introduction
- Contribution to National Research Priority Goals
- The 2007-2011 Research Plan
- Performance Measurement
- Role, Legislation and Minister
- Staffing and Structure
- Corporate Governance
- Public Accountability

Australian Government | Australian Institute of Marine Science | TOWNSVILLE | DARWIN | PERTH

CERTIFICATION OF REPORT OF OPERATIONS

The Council of the Australian Institute of Marine Science is responsible under Section 9 of the *Commonwealth Authorities and Companies Act 1997* (CAC Act) for the preparation and content of the Australian Institute of Marine Science's Report of Operations, in accordance with the Finance Minister's Orders.

Council endorsed the content of the Report of Operations by a resolution on 7 September 2010.

Mr Wayne Osborn
Chairman
Australian Institute of Marine Science

Dr Ian Poiner
Chief Executive Officer
Australian Institute of Marine Science

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REPORT FROM AIMS CHAIR, MR WAYNE OSBORN, AND CEO, DR IAN POINER

As AIMS' infrastructure has continued to expand nationally we have strengthened our capacity to be a hub for scientific advice, emergency response and groundbreaking, internationally-significant research to support the development and sustainable use of Australia's tropical marine resources. AIMS' research teams have increased our understanding of our coasts and seas, continued to investigate what the marine environment's future may be, gathered baseline data from our monitoring activities and looked at how some of the effects of climate change, water quality and resource usage may be mitigated. It is our role to provide independent scientific advice and, this year, our staff have excelled on this front, with rapid-response assistance in times of crisis and, at other times, more strategically, to government, industry and the community.

As we look more to the oceans that surround our continent and the importance of the industries located there, we are certain our expertise and assets will be called on more often. AIMS' skills and knowledge will continue to broaden. There is, for example, a real need for Australians to understand the important role that ports and shipping play in connecting us to the rest of the world and consequently a need for more work to be done to provide information about how development in Northern Australia might proceed, while safeguarding ecosystems.

Many facets of our work are less tangible but equally, if not more, important such as ensuring national and international audiences fully understand current and future pressures on marine environments, and the need for sustainable management and stewardship of our precious places.

It has been a year in which both climate change science and climate change policy have come under immense public scrutiny. In such a contentious and politically charged area as climate change it is essential for community leaders, including scientists, to maintain the trust of those that rely on the guidance. We must always adhere to the highest standards of rigour and openness – not only about how results are obtained but also how findings are presented to the public. Our record in this regard is impeccable and it remains one of the achievements of which we at AIMS are most proud.

It is also important that we do not lose sight of the threats and scientific challenges posed by more 'traditional' problems, such as our relatively poor understanding of ocean life and the processes that sustain it along with the ongoing issues of water quality and Crown-of-thorns starfish. These are threats that have not gone away. Our monitoring work, underpinned by rigorous science, ensures that we are on the ground, superbly placed to increase our knowledge of and detect changes in our tropical marine environment.

SUPER SCIENCE MARINE AND CLIMATE INITIATIVE FELLOWSHIPS

This year AIMS was awarded nearly $1.67 million for six early-career researchers to study the impacts of climate change on the GBR These jobs are a key part of our commitment to constantly rejuvenating AIMS. AIMS was amongst 20 Australian institutions to receive the Super Science Fellowships, announced by the

Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr. The Fellowships are part of the Government's $387.7 million *Super Science Marine and Climate initiative* to improve Australia's ability to respond to climate change and to protect and understand our 13.5 million square kilometres of marine territory. Marine research is central to understanding how and when our climate is likely to change, and managing the impact on precious environments like the GBR.

It is easy to think of these announcements in terms of numbers and dollars but it is far more exciting to think of the new people, new skills and new ideas that such an announcement will bring to the Institute and to Australia. One of our jobs at AIMS is to help ensure the constant revitalisation of marine science, and these six new positions will play a critical role in the renewal of our ability to provide the best advice on the latest issues.

A RICH AND DIVERSE CENTRE OF KNOWLEDGE

Our commitment to maintaining our place as a hub of knowledge for national leaders, industry, members of the community and other researchers is demonstrated by the diversity of scientific knowledge to be found at AIMS. There has been a vast range of subjects on which our staff have published in the scientific literature during this reporting period – from marine microbes, 'assisted colonisation' of corals, reconstructing past climates from coral cores, , aquaculture and Crown-of-thorns starfish to and water quality. The diversity of our 'Highlights' and 'Snapshot' sections, at the beginning of this document, emphasise the breadth of our scientific endeavours in the past twelve months. And the importance of our work with our industry partners cannot be over-empahsised - the more we learn about the environments in which business operates, the greater the chance they will be managed sustainably.

In order to better address the multitude of questions raised by both the traditional challenges of marine science and the newer one of climate change, work is continuing apace to take our new $32 million aquarium facility off the drawing board. By next year this project will be well underway.

JOBS WELL DONE

Two of our big joint research projects – CReefs (with BHP-Billiton and the GBR Foundation) and the Scott Reef Research Project (with Woodside Energy Ltd, as operator of the Browse LNG Development)[1] will conclude in the coming year. From both of these massive scientific and logistical efforts have come some amazing results and findings. So far CReefs has turned up around 1,000 new species and we now have baseline collections of many thousands of specimens from Heron and Lizard Islands and also from Ningaloo Reef. At Scott Reef we have learned a lot about the oceanography that has made this isolated reef off the Western Australian coast so special. We have also learned that as an ecosystem it operates very differently to the GBR, being much less connected to outside sources of biological replenishment, meaning it is both protected from distant disturbances but slow to recover if directly impacted. This information will greatly assist our continued research into the extensive and biodiverse oceanic shoals of northwest Australia, an area of priority for AIMS in the future.

OUR LEADERSHIP ROLE

Our influence on matters of Australia's marine policy extends far beyond our operational centres of Townsville, Darwin and Perth. Oceans Policy is a national priority, requiring a co-ordinated response by the marine science community AIMS has played a leading role in the Oceans Policy Science Advisory Group (OPSAG) with both the Chair and the Secretariat being hosted by AIMS. OPSAG continues to promote coordination and information sharing between Australian Government marine science agencies and across the broader Australian marine science community and provides advice and support to government agencies and advisory groups.

AIMS is also leading the way in Occupational Health and Safety. Demonstrating our leadership in this regard, the National Safety, Rehabilitation and Compensation Commission (SRCC) named AIMS as the

[1] *A joint venture partnership involving Woodside Energy Ltd, BHP Billiton (North West Shelf) Pty Ltd, BP Developments Australia Pty Ltd., Chevron Australia Pty Ltd, Shell Development Australia Pty Ltd.

winner of its award for the Best Workplace Health & Safety Management System for the Institute's safety practices as part of the Scott Reef Research Project.

A TEAM FOR THE NATION TO TURN TO

Another achievement this year was our response to issues of national significance. At 1am on Easter Sunday AIMS received a call from our colleagues at the Great Barrier Reef Marine Park Authority (GBRMPA) that the ship the *Shen Neng 1* was aground on Douglas Shoal within the GBR Marine Park. Within hours we had a team in place ready to provide advice to the government and assistance with the emergency response. Our ship, *RV Cape Ferguson* with a compliment of highly experienced scientists, was dispatched to the scene of the grounding once the *Shen Neng 1* was re-floated. This team included divers who were able to gather samples, collect photographic and video imagery and assess damage to, and contamination of, the Shoal, preparing a comprehensive report on the environmental consequences of the ship's grounding.

Organisations like AIMS are important not just because of the research we do and the scientific advice we provide but also because we have the capability ready to rapidly respond to emergencies such as *Shen Neng 1*. The story was very similar with the Montara (West Atlas) oil spill. AIMS was immediately in a position to provide emergency advice and assistance with impact assessment. We are one of the very few organisations that can respond to such situations. In 2009 it was our ability to rapidly assess the damage to the reef following Cyclone Hamish that was a critical service.

We can never predict what form these disasters will take - the only certainty is that our tropical marine jurisdiction is so diverse that crises are almost certain. Whatever natural or man-made disasters are thrown at the tropical marine environment AIMS will continue to be well placed to respond promptly and professionally.

PUNCHING ABOVE OUR WEIGHT

It has been another year in which our staff have set the highest levels of excellence, carrying out AIMS' mission efficiently and effectively. Our team provides a national service in scientific research, community consultation, training, communication and transfer of results, science support and administration. We offer our thanks and congratulations to the diverse range of specialists that fill the ranks of our 200-plus staff.

We maximise our capabilities through joint ventures and other linkages – nationally and internationally. To name just a few – with James Cook University, Charles Darwin University, the Australian National University, the NTG, CSIRO, University of Western Australia and the Western Australian Marine Science Institute.

In April this year, as part of our effort to strengthen our networks overseas, delegates from AIMS and the National Science Council (NSC) of Taiwan signed a memorandum supporting future collaborative exchanges of Australian and Taiwanese researchers.

AIMS continues to take a leadership role in the Census of Marine Life. Started in the year 2000, the Census of Marine Life is a decade-long international collaboration uniting thousands of scientists worldwide to assess and explain the diversity, distribution and abundance of life in the seas. The Census of Marine Life will present and discuss its final results in London in October 2010.

We have continued the effort of consolidating AIMS as a truly national organisation with new funding for Darwin's Arafura Timor Research Facility (ATRF) and signing agreements with the University of Western Australia's Oceans Institute. In announcing the new ATRF agreement, the Federal Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr, said $5.5 million in extra funding had been allocated to upgrade infrastructure and equipment at the ATRF.

AIMS, the University of Western Australia and the CSIRO joined together for a successful bid to the Commonwealth Education Investment Fund for the construction of the $63 million Indian Ocean Marine Research Centre, to be based at the University of Western Australia. We very much look forward to growing our relationship with Geoscience Australia to help provide the best possible information as the offshore oil

and gas industry continues to grow. There are also our industry partners, such as Woodside Energy Ltd and BHP-Billiton, who have made projects like the Scott Reef Research Project and CReefs possible.

We have a come a long way since the 1970s when we were an institute with a humble toehold on a few buildings at Cape Pallarenda. This year has arguably been our biggest in terms of building our national infrastructure and linkages.

AUSTRALIA LOOKS TO THE SEA

Australia is a marine nation. We lay claim to the third largest marine jurisdiction on Earth. Eighty-five percent of us live within 50km of the coast and two-thirds of us make our homes in coastal towns and cities. Australia's marine industries include oil and gas exploration and extraction, tourism, fishing, boatbuilding, shipping, ports and numerous others.

The latest edition of the AIMS Index of Marine Industry conservatively valued Australia's marine industries, based on latest available data (2007-08), at $48.4 billion compared to $43.3 billion for the agricultural sector in the same period. From 2001-02 to 2007-08, the marine industry value has increased by around 80 per cent, with a 27 per cent increase occurring between 2006-07 and 2007-08 alone.

STRONG LEADERSHIP FROM OUR COUNCIL

This year AIMS has been fortunate to be able to continue to attract leading members of the community to maintain the strength of its Council. Business leader, former Chair and Managing Director of Alcoa Australia, Mr Wayne Osborn was appointed to the role of Chair of the Council of AIMS by Senator the Hon Kim Carr. We also welcomed the reappointment of Mr John Grace, Professor Sandra Harding and Ms Elizabeth Montano, all three of whom will continue to make valuable contributions to the affairs of the Council and the Institute.

PLANNING FOR THE CHALLENGES AHEAD

The Institute's current research planning and delivery cycle is scheduled for completion in June 2011. Accordingly, there will be a significant focus on review and benchmarking of our science and its impact, and planning and development of a revised research plan during the 2010 – 2011 financial year.

In 2010–2011, AIMS will move forward with construction of new infrastructure funded by the Marine and Climate Super Science initiative. Planning is now well underway and construction of the new aquarium facility in Townsville will be completed during 2011. The tremendous investment in the Arafura Timor Research Facility in Darwin and commitment to build the Indian Ocean Marine Research Centre in Perth will provide greatly increased infrastructure to support our research activities in these important areas. Soon it will be time to staff and run these facilities.

As Senator the Hon Kim Carr made clear when he announced the Australian Government's $55 million in capital expenditure for AIMS, we will also need funding to support the operational activities associated with this infrastructure. We estimate this funding to be in the order of $65 million. While sourcing the necessary operational funds will be a significant challenge, it is important to note that such funding will unlock the true value of the investment in this world-leading infrastructure development, especially the aquarium facility which will allow scientists unprecedented ability to run experiments studying a vast range of marine environmental parameters.

Another major challenge ahead is securing a second round of funding for the Western Australian Marine Science Institution. WAMSI is a collaboration of State and Federal Government agencies, and industry and academic bodies, researching climate change, biodiversity, sustainable fisheries, biotechnology and oceanography. We need support from the West Australian and Australian Governments to to ensure that current investment made by Aust Govt agencies including AIMS and CSIRO can be maintained. WAMSI is

superbly placed to co-ordinate research between these diverse collaborators in a state where the marine environment and its sustainable use is critical to the national economy.

An important issue to us at AIMS is the ongoing challenge of ensuring we retain and enhance our reputation as a workplace of choice for women – not just marine scientists but across our workforce. A committee comprised of a cross-section of AIMS science and support staff is reviewing the FASTS report on women in science and other documents from leading research institutes about supporting women in science.

As this year's two most prominent resource industry marine accidents – Montara (West Atlas) and *Shen Neng 1* - have shown, a very big challenge is for Australia to have better information available about Australia's marine estate and on the impacts of such crises. Both of these incidents could have had much more serious consequences if circumstances had been even just slightly different. We need to think on a larger scale to ensure that we have an appropriate baseline of scientific information and that regulation and science keep in step with each other. We also need to have a coordinated approach to situations where the future of critical resource industries is so closely associated with our precious marine environment.

AIMS will produce an updated version of the AIMS Index of Marine Industry, with new data and an even more comprehensive view of this crucial industry sector. Both the CReefs Project and the Scott Reef Research Project will conclude and the results published.

Dr Poiner has commenced the final year of his tenure as AIMS CEO and our Council has begun the process of succession planning.

DEVELOPMENTS SINCE 30 JUNE 2010

Dr Brian Fisher was reappointed as a member of AIMS Council until 25 September 2015 and Mr Nicholas Mathiou reappointed as a member of AIMS Council until 31 August 2013. These reappointments are welcomed by the AIMS community and will help to ensure continuity within Council during the crucial research planning process.

Minister Carr visited Townsville on 8 July 2010 to announce a competition for Townsville residents to find a name for the $32 million aquarium facility. He boarded RV *Cape Ferguson* for the announcement. On 22 July 2010, the CReefs project was announced as one of three finalists for the 2010 Sherman Foundation Eureka Prize for Environmental Research.

Finally we want to thank again the entire AIMS Team. To them all goes our deep appreciation and thanks. It has been your extraordinary skill, dedication and commitment that continues to progress and sustain our institution's position at the leading edge of marine scientific research.

Anemone fish at Raine Island. Image: Eric Matson.

INTRODUCTION

More than 70 per cent of Australia's territory is under water and much of this country's wealth and identity is bound up with its coastline and surrounding oceans. Australia has the potential to be an oceanic and environmental superpower, but its marine territory is yet to be fully explored and understood. There are many scientific challenges in its extensive waters and great rewards for pursuing them.

The marine sector contributes significantly to our national economy (at least 8 per cent of GDP and growing faster than other sectors), through food and energy production, recreation and tourism. Australia's oceans have iconic environmental significance and stunning biodiversity, much of it endemic to our region. Our oceans also have great social value, holding a special place in the national psyche, particularly because 85 per cent of our population lives within 50km of the coast.

Right along the broad northern expanse of our island continent's waters, from the irreplaceable wonder of the GBR across the Top End and around to the burgeoning northwest coast, down to the pristine Ningaloo Reef, AIMS leads the field in researching this nation's tropical marine domain. Each region contains unique assemblages of organisms and is influenced by widely different oceanographic and coastal conditions. At AIMS, we identify the key ecological drivers for these ecosystems and work towards understanding how they may be connected, to generate knowledge for national benefit.

This is a time of unprecedented focus on the marine estate for energy, tourism, food, security and climate forecasting, and on emerging challenges such as climate change and ocean acidification.

Robust legislative and regulatory requirements at both Commonwealth and State level govern how users interact with marine ecosystems. However, a thorough understanding of the ocean's complex environmental settings and the drivers of pattern and change in its ecological communities is often lacking.

Through investing in expertise and infrastructure at AIMS, the Australian Government is supporting the development and application of new knowledge for sustainable use of marine resources while safeguarding those resources and the marine environment into the future. The Institute adds value to this investment through national and international collaborations, strategic alliances and strong links to industry and community.

AIMS consults with users of marine science and technology to develop its research program, which is prioritised within the framework established by our resources and capabilities, user needs and Commonwealth Government research priorities. This research, the goals of which are described in the *Research Plan 2007-2011*, is delivered through multidisciplinary teams working in: biodiversity assessment; environmental change and impacts; status and trends of marine ecosystems; sustainable coastal development; water quality of the GBR World Heritage Area (GBRWHA); tropical aquaculture; and marine microbiology (see page 37).

AIMS employee Greg Coleman retrieving the 'arms' on a CReef fieldtrip. Image: Gary Cranitch.

CONTRIBUTION TO NATIONAL RESEARCH PRIORITY GOALS

AIMS mission aligns strongly with the National Research Priority Goals ((NRP) and most of the AIMS budget is dedicated to research supporting the National Priority of achieving "An Environmentally Sustainable Australia".

Within this Priority, seven goals have been articulated (see below) and the Institute's research portfolio matches four of them. We also recognise secondary delivery to some of the NRP Goals required to transform Australian industry and society.

The National Priorities and their subordinate but enabling goals are shown below. Below this, a table maps connections between our 2009-10 Research Teams and the relevant Goals with the strength of the match shown as highly relevant (■), very relevant (■) or relevant (■). Finally, we illustrate our delivery to the NRP through examples.

NATIONAL RESEARCH PRIORITY GOALS

(for detail see Appendix 2)

A. An Environmentally Sustainable Australia

1. Water – a critical resource
2. Transforming existing industries
3. Overcoming soil loss, salinity and acidity
4. Reducing and capturing emissions in transport and energy generation
5. Sustainable use of Australia's biodiversity
6. Developing deep earth resources
7. Responding to climate change and variability

B. Promoting and Maintaining Good Health

1. A healthy start to life
2. Ageing well, ageing productively
3. Preventive healthcare
4. Strengthening Australia's social and economic fabric

C. Frontier Technologies for Building and Transforming Australian Industries

1. Breakthrough science
2. Frontier technologies
3. Advanced materials
4. Smart information use
5. Promoting an innovation culture and economy

D. Safeguarding Australia

1. Critical infrastructure
2. Understanding our region and the world
3. Protecting Australia from invasive diseases and pests
4. Protecting Australia from terrorism and crime
5. Transformational defence technologies

National Priority	An Environmentally Sustainable Australia				Frontier Technologies for Building and Transforming Australian Industries			Safeguarding Australia	
Priority Goal	A1 Water - a critical resource	A2 Transforming existing industries	A5 Sustainable use of Australia's biodiversity	A7 Responding to climate change and variability	C1 Breakthrough Science	C2 Frontier technologies	C4 Smart information use	D1 Critical infrastructure	D2 Understanding our region and the World
Research Teams (2008-11)									
Exploring Marine Biodiversity									
Supporting Sustainable Use of Marine Biodiversity									
Measuring Water Quality & Ecosystem Health									
Responding to Climate Change									
Understanding Marine Microbes & Symbioses									

Key

	Highly Relevant – intended outcomes and planned activity directly focused on priority goals.
	Very Relevant – intended outcomes and activity closely related to priority goals, but also focused in related areas.
	Relevant – intended outcomes and planned activity related and likely to contribute to priority goals.

Note: Table includes only NRP Goals relevant to the expertise of, and addressed by, AIMS.
A full list of NRP Goals is provided on pages 133-134.

EXAMPLES OF NATIONAL RESEARCH PRIORITY OUTCOMES

Marine monitoring crucial to success of the Reef Water Quality Protection Plan

Output

The GBR Water Quality Protection Plan (ReefPlan) is a joint Commonwealth and Queensland Government initiative to halt and reverse the decline of water quality in inshore sections of the GBR Marine Park. In 2009-10, AIMS completed the fifth year of measuring water quality parameters and coral reef health along the far northern Queensland coast as its contribution to the multi-institutional Marine Monitoring Program (MMP) to support this decadal program. The 2010 wet season, although not as wet as the record one of the previous year, was another year with above average rainfall. Satellite remote sensing revealed extensive flood plumes in the GBR Lagoon and these river flows are the major conduit for flushing sediments, nutrients, and contaminants into the coastal sea.

Outcome 1

The MMP has established that levels of turbidity, dissolved phosphorus and chlorophyll are the indicators of water quality most likely to impact on reef health. AIMS is monitoring these variables with a network of autonomous samplers at 14 coastal sites as land management practices are changed in the coastal catchments with funding of at least $400 million from the two Governments. The MMP provides essential feedback from the receiving waters to evaluate the performance of adaptive terrestrial management actions.

Outcome 2

The ultimate goal of ReefPlan is to decrease the loads of sediments, nutrients and organic contaminants in terrestrial runoff, which should improve the resilience of inshore coral reefs to other stressors like fishing, floods (above) and climate change.

A2	A5	A7	C4

Seabed surveys for performance assessment of Ningaloo Reef Marine Park zoning

Output

In 2008-09, AIMS and Geoscience Australia jointly surveyed over 1,000km^2 of the deeper sections of the Ningaloo Marine Park by deploying GA's multi-beam habitat mapper from the RV *Solander*. The project was supported by funding from the CERF Marine Biodiversity Hub, a joint venture between AIMS, CSIRO, Geoscience Australia, Museum Victoria and the University of Tasmania. The Hub seeks to predict patterns of marine biodiversity and develop tools for managing Australia's marine biodiversity. The project developed biophysical surrogates from intensive sampling of the biology and environment at 160 sites, which were then used to predict biodiversity values over the full 1,000km^2 seascape.

In 2009-10, a lot of detailed work was done by staff in laboratories at three organisations (AIMS, Geoscience Australia, and the Western Australian Museum) to describe and catalogue the biodiversity collected by the CERF-funded voyage of discovery. The sponges proved to be particularly challenging because there were so many different types. In 2010, specialist sponge taxonomists got together in Perth for an intensive, week-long workshop to finalise the naming of specimens. The workshop confirmed an unexpectedly high diversity of these primitive and ancient life forms in the deeper sections of the Ningaloo Reef Marine Park; the final tally was about 200 different species including new distributional records and some possible new species.

Outcome 1

The map of habitats and biodiversity values predicted by the survey will be used to assess whether the current marine protected areas within the Ningaloo Marine Park meet the conservation objectives of the Marine Park Plan, which were developed without information from deep water habitats.

Outcome 2

The ultimate goal of this research is to enable managers to refine the Ningaloo Reef Marine Park Management Plan to optimise the balance between human use and conservation of the Park's resources, while preserving maximum resilience in the system to face the challenges of climate change.

A2	A5	A7	C4

Domestication of tropical rock lobsters draws nearer with each discovery

Output

During 2008-09, AIMS scientists collected plankton including live larval lobsters from oceanic waters and conducted ship-board experiments in the Coral Sea to establish the dietary preferences of these animals in their natural environment. The knowledge gained from these experiments and others has improved the quality of artificial feeds and brought larval growth rates in hatchery-reared animals into line with those in the wild.

In 2009-10, the first cohort of larval lobsters was reared through the complete early life history nourished only by an artificial-formulated feed based upon the dietary analysis of healthy wild animals. This world-first breakthrough will lower the cost of food production; eliminate the risk of pathogens associated with traditional live feeds; and provide an opportunity to boost the current formulation using probiotics.

A second breakthrough made during the year was the discovery of a new species of *Vibrio* bacterium affecting the health of larvae. Now that this new pathogen has been isolated and identified, it is possible to create a simple diagnostic test to monitor its presence in the hatchery system and to detect harmful levels in time to apply appropriate prophylactics.

Outcome

Lobsters are considered a challenging but highly desirable target for domestication and mass aquaculture. The challenge is the animal's lengthy and fragile larval development. The need is the almost insatiable global demand for this high unit-value food product. Continuous improvements in larval performance in hatchery environments are closing the gap on the development of a new, profitable export industry for Australia.

A2	A5	C1	C2	C4

The role of coral reefs in the global Sulfur Cycle

Output

Although they are likely to be the first responders to climate change, not nearly enough attention has been paid to the role of microbes in the functioning of coral reef ecosystems. While the importance of coral reefs in the carbon and nutrient biogeochemical cycles of shallow, tropical waters is well established, their contribution to biogenic sulfur cycling is largely unknown. In 2009, AIMS scientists reported that a large proportion of the bacteria isolated from coral mucus have the ability to metabolise dimethylsulfoniopropionate (DMSP). This is a key molecule in the biogeochemical sulfur cycle and a precursor of dimethylsulfide (DMS), which is a volatile gas implicated in cloud formation through the formation of cloud condensation nuclei and is long suspected of exerting a major cooling effect on climate.

Outcome

DMSP is produced in the coral animals and their symbionts holobiont by their dinoflagellate symbionts at levels equivalent to dense plankton blooms, which means that coral reefs should be significant emitters of biogenic sulfur to the atmosphere. However, most coral reefs also grow in oceanic waters with very low levels of phytoplankton and nutrients, which means that reef-associated bacterial communities have evolved to be efficient recyclers of nutrients and trace elements. The next stage of the research is to

quantify the bacterial scavenging of DMSP and DMS to calculate what proportion of the production of these key molecules escapes to the atmosphere where it may have an effect on climate. Once this is known, global climate models can be adjusted to include this effect, enhancing the ability to make useful forecasts about climate futures.

A5	A7	C1	C2	C4	D2

Tropical Ocean Observing System enhanced and extended

Output

In 2007-08, AIMS began deploying infrastructure along the GBR as part of Australia's Integrated Marine Observing System (http://www.imos.org.au) funded by the Commonwealth and Queensland Governments to observe the impact of the Coral Sea upon the function and future of coastal ecosystems. GBROOS was justified on prior evidence that oceanic inflows (upwelling) drive the productivity of regional fisheries and sea temperatures (anomalies) drive the risk of bleaching and disease for GBR corals. The future of the GBR will be influenced by the changing heat loads and chemistry of the waters emanating from the western Pacific Ocean and GBROOS has been created to monitor these changes.

In 2009-10, the Australian Government doubled its investment in IMOS which provided for extension of the observing system to 2013 as well as some enhancements. On the Queensland coast, enhancements included the ability for the first time to monitor the partial pressure of carbon dioxide dissolved in seawater through new instrumentation added to the National Reference Station deployed near Townsville; a new autonomous glider capable of diving to 1000 metres, which has already collected more information on the properties of the upper kilometre of water in the Coral Sea than has been collected by all previous research; and the creation of a new National Reference Station, near Brisbane, that will allow CSIRO scientists to monitor the dynamics of the East Australian Current and its impacts on local ecosystems.

In Western Australia, the new funds enabled the filling of an important gap in ocean observations that existed in the north-west Marine Domain. In 2010, five oceanographic moorings were laid across the Joseph Bonaparte Gulf west of Darwin to form the inshore end of a national system to monitor the full-depth transport of the Indonesia Through Flow past Timor Leste.

Outcome 1

The enhancement of the observing infrastructure in north Queensland will monitor changes in the heat content and ocean chemistry of water coming from the Coral Sea thought likely to affect the future function of the GBR ecosystem. The study of anomalies between the seasonal patterns of successive years will be our best opportunity to understand the impacts at landscape scales and hence to forecast the long-term impacts expected to come with climate change. The inclusion of new observing methods (e.g. the robotic glider) is an attempt to drive down the cost of observations.

Outcome 2

The deployment of the mooring array in northwest Australia signals the start of comprehensive monitoring of the full-depth transport of the Indonesian Through-Flow(ITF).

The ITF is a major exchange of hot tropical water from the Pacific to the Indian Ocean and better knowledge of the volume transports and heat fluxes in this flow are required to improve the accuracy and reliability of global models for ocean forecasting and climate prediction.

A2	A5	A7	C2	C4	D2

THE 2007-2011 RESEARCH PLAN

AIMS is currently operating under a four-year research plan that came into effect in July 2007. This plan was formulated following an extensive set of external performance reviews of the quality and impact of AIMS research done during the previous funding period. The outcomes of these external reviews were reported in the 2006-2007 Annual Report.

The AIMS *Research Plan 2007-11* is based in large part upon continuing three core strengths of AIMS research identified by the external review panels as having superior quality and impact: the assessment and monitoring of biodiversity values, the measurement of water quality and environmental health and the understanding of ecological impacts of climate change.

In 2006-2007, the Institute created an internal AIMS Strategic Science Team independent of management and charged it with reviewing and recommending revision of our Strategic Directions. The outcome was validated through consultations with key stakeholders. This process confirmed the assessments of the independent review panels about enduring core strengths but also identified new needs and opportunities for research into marine microbiology, which included deeper understanding of the symbiosis between corals and their microbial symbionts. Since this time the new team delivering research into marine microbes and symbioses has grown and strengthened.

AIMS *Research Plan 2007-2011* is guided by the following 12 Key Result Areas (KRAs):

1.1 Assessments of tropical marine biodiversity
1.2 Accurate and timely information on issues and threats to coral reefs
1.3 Sustainable tropical aquaculture
1.4 Sustainable supply of bioresources
2.1 Human impacts on tropical water quality and ecosystem health
2.2 Tropical marine ecosystem processes and land-sea interactions
3.1 Marine climate history of northern Australia
3.2 Resilience and risk mapping in space and time
3.3 Ecological responses to climate change
3.4 Ocean Observing Systems to Monitor the Physical Environment
4.1 Understanding and predicting the responses of reef symbioses to environmental change
4.2 Understanding the role of microbes in the functioning of healthy and stressed reefs

The first number in the KRA index indicates a high level theme like biodiversity or water quality. The second number in the index indicates a significant stream of related research questions within the theme. The 12 KRAs will be the units of review at the end of the four-year period.

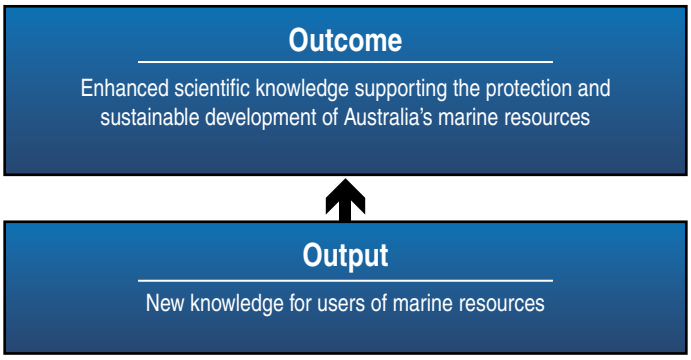
Dendronephthya soft coral at feather reef off Innisfail. Image: AIMS Long-term Monitoring Team.

PERFORMANCE MEASUREMENT

AIMS provides high quality research for the protection and sustainable use of Australia's marine territory. This research directly supports Australian and State Government initiatives such as *Australia's Oceans Policy,* the *National Research Priorities,* the *Reef Water Quality Protection Plan,* the *Ningaloo Marine Park Management Plans* and the sustainable development of northern Australia's coastal resources. It is also attuned to the needs and priorities of industry, such as identification of new marine resource opportunities for industry and tropical aquaculture, and community aspirations, including the identification and protection of Australia's marine biodiversity.

The Institute measures its performance against indicators (described in Appendix 3). This report documents AIMS performance in the third year of the AIMS *Research Plan 2007-2011.* Regular review of performance and capabilities is a central feature of planning and continuous improvement at AIMS. Performance against agreed targets (AIMS Key Performance Goals) is reviewed regularly by the Management Group and Council and is reported annually to Parliament.

AIMS has established a number of performance indicators that are intended to maximise quality, efficiency, delivery and effectiveness of our science. This section of the report describes our achievements against these indicators (see Appendix 3, p 133) and demonstrates contributions to the AIMS Outcome which is in agreement with the Australian Government as part of the outcome-output framework (see figure below).



NEW KNOWLEDGE AND COLLABORATIVE R&D

Shift of resources to priority areas

AIMS is about to undergo some major changes to meet future challenges. As part of the Commonwealth Government's Marine and Climate Super Science Initiative, we will be constructing several key pieces of infrastructure that will significantly increase research capacity in the Australian tropics. We will be doubling the size of the Arafura-Timor Research Facility (ATRF) at the main campus of Charles Darwin University in Darwin. To enhance research within the ATRF, a substantial research collaboration between AIMS, Charles Darwin University, the Australian National University and the NTG is being established. At our headquarters in Townsville, we will be building a new wing to house the Australian Coral Core Archive and the climate change researchers that extract knowledge about long-term changes in our climate and coastal water quality that are recorded within these coral cores. This building will also improve access by other researchers to this globally precious source of climate data. A radical and once-in-a-lifetime upgrade of our seawater experimental facilities will elevate it from the current collection of high quality climate controlled aquaria rooms to a critical national research facility. This facility will allow us to undertake long-term simulations of existing and projected seawater conditions that marine biodiversity will be exposed to in coastal and oceanic locations. Once completed we will be better placed to understand how coral reefs and other marine ecosystems are likely to respond to changed environmental conditions.

AIMS also partnered with the University of Western Australia and CSIRO in a successful bid to the Commonwealth Education Investment Fund for the construction of the Indian Ocean Marine Research Centre, to be based at the University of Western Australia. The new centre will allow our Perth-based researchers to be located with scientists from the University of Western Australia's Oceans Institute and the CSIRO. Research will initially focus on mapping the biodiversity of Australia's western coastline and prediction of ecosystem responses to climate change and resource development, both of which will reduce climate-change risk for the public and private sectors.

We are also our expanding our knowledge of precious West Australian marine reserves by replicating the e-ATLAS (Australia's Tropical Land and Seas - http://e-atlas.org.au/), which initially focussed on the GBR, to now cover the Ningaloo Reef region. The e-ATLAS approach provides an interactive interface to display datasets across large regions and identify patterns and possible linkages within within and between disparate and various datasets. This expansion received the valuable support of BHP-Billiton Petroleum.

We have also commenced expanding the Australian Coral Core Archive (ACCA) by obtaining corals cores from along the Western Australian coastline. The ACCA is dominated by cores from the GBR but the expansion into tropical Western Australia will take us another step towards being able to provide an historical climatology for Australia's tropics. Projections of how climate will change in the tropics over coming decades are acknowledged to be far more uncertain than other regions in the world.

AIMS also received six of the 34 Marine and Climate Super Science Fellowship positions awarded in 2010 by the Australian Research Council. These fellowships were nationally competitive and highly sought after by universities and publicly funded research agencies. The funded projects involve collaborations with esteemed research partners and will address the key questions of whether the 21st century will be an era of growth or dissolution for Australia's GBR and how environmental stressors such as water quality, temperature and pH will affect the coral-zooxanthellae symbiosis that enables coral reefs to exist. These six Fellows will be some of the best young early career researchers recruited from within Australia and abroad who will not only contribute to our knowledge of climate change and coral reefs but will also be mentored along a career path where they can make valuable contribution to the knowledge we need to manage our marine estate.

While much of our research effort in the ocean off the West Australian coast has focussed on oceanic reefs like Scott Reef, we are building more knowledge about the Western Australian coastline, most

notably, the Ningaloo Reef region and the Kimberley coast. Both regions are subject to increasing activity such as tourism and coastal development, and a great deal more knowledge is needed to enable sustainable development of oil, gas and mineral industries within these regions.

As Australia's tropical marine research agency, AIMS responded promptly and efficiently to two major marine events with potential to damage to two of our major marine ecosystems, namely the Montara oil spill in the Arafura-Timor Sea and the *Shen Neng I* ship grounding on the GBR near Gladstone. Teams of AIMS scientists visited both of these locations and conducted surveys to assess the scale and severity of any damage. Similarly, our increased presence in Darwin with a focus on skills critical to coastal water quality and environmental chemistry enabled a rapid response to a copper sulphate spill within Darwin Harbour, an event of major concern to members of the public, the NTG and local industry.

As the Integrated Marine Observing System moves into its next phase, AIMS is providing a service beyond the GBR with the successful deployment of a National Reference Station adjacent to Darwin and the deployment of an array of five oceanographic moorings across the Joseph Bonaparte Gulf. This will form the inshore end of a national system funded by IMOS to monitor the full-depth transport of the Indonesia Through Flow (ITF) past Timor Leste. The ITF is a major exchange of hot tropical water from the Pacific to the Indian Ocean and better knowledge of the volume transports and heat fluxes in this flow are required to improve the accuracy and reliability of global models for ocean forecasting and climate prediction. In the next year or two, AIMS will complement this initial cross-shelf array of moored instruments with similar lines perpendicular to the Kimberley and Pilbara Coasts of Western Australia to capture the oceanographic environment affecting Australia's most productive oil and gas industry.

On the east coast, new funding for IMOS delivered in the 2009 budget of the Australian Government will extend the Great Barrier Reef Ocean Observing System (GBROOS) to 2013 as well as enhance our current capacity to monitor changes in the ocean. For example, a new robotic glider controlled from a desktop in Western Australia and capable of diving to 1000 metres has already collected more information on the properties of the upper kilometre of water in the Coral Sea than has been collected by all the ship-based missions to the region in the past.

In responding to the opportunities presented by a larger IMOS, AIMS proposed that GBROOS be embedded in a new Node (Queensland's Integrated Marine Observing System, Q-IMOS), which will eventually cover all parts of the State. The IMOS Board pre-empted this decision by funding a new National Reference Station off Brisbane and the priority in the Q-IMOS vision is to augment the NRS with a cross-shelf array extending eastwards into deep water (5000 m) to monitor the full-depth transport of the East Australian Current. The latter is the equivalent of the ITF in Western Australia except that the EAC is already known to influence climate, extreme weather events, and fisheries production down the eastern seaboard of Australia as far south as Tasmania.

In addition to deploying mature technologies, AIMS is exploring new technologies to monitor the marine environment. The icon project at the forefront of these new approaches to marine science is the creation of wireless sensor networks around four island research stations providing electronic coverage to two-thirds of the GBR. As places offering accommodation and facilities, the island research stations are major gateways for students and researchers from Australia and overseas. The wireless sensor networks are "plug and play" systems that will capture data in real time from compliant instruments deployed on the reef. This new capacity is expected to revolutionise our capacity to understand the link between coral and environment by allowing many simultaneous measurements from different micro-habitats and by allowing long-term monitoring using standardised measurements. In addition, AIMS has been developing inexpensive sensors that are tracked by satellites as they drift with surface currents. Their trajectories will be used to improve and validate ocean forecasting models. If any proof is required of the connectivity of marine systems, drifters released from the southern GBR were in an eddy off Sydney and moving back towards Coffs

Harbour in Northern NSW after three months at liberty. One drifter released in the Gulf of Carpentaria was eventually entrained in the Indonesian Throughflow, skirting Timor Leste and was approaching Christmas Island in the Indian Ocean in the same period.

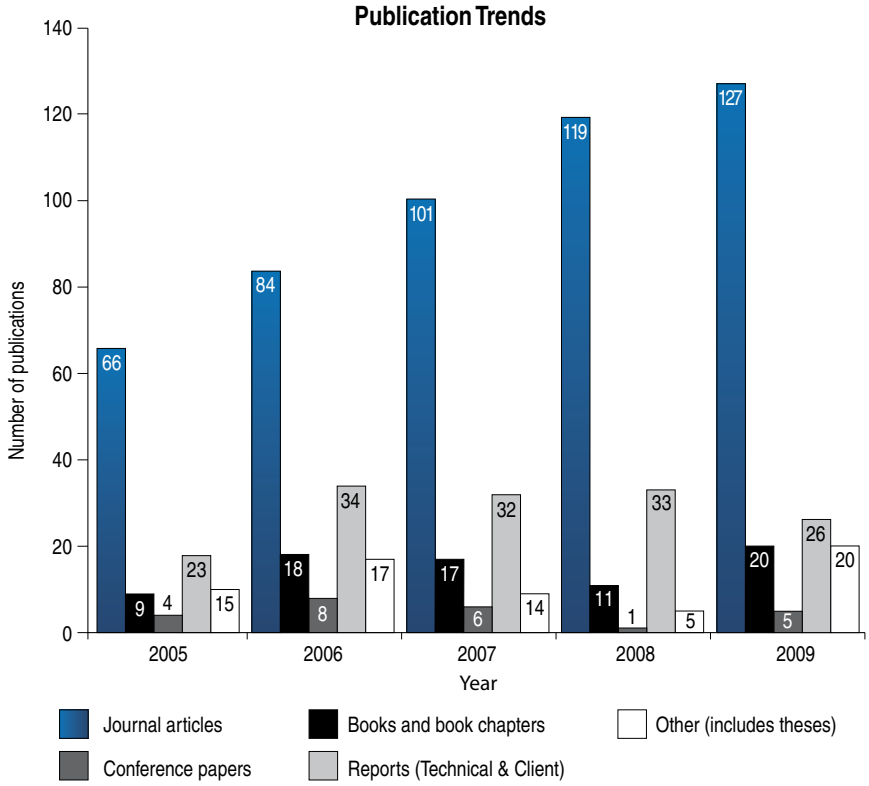
Scientific publications

We again increased our publication numbers compared to previous years, publishing 6% more than the number of journal articles in 2008. On a per capita basis, this is an average of three journal articles per research scientist in addition to the publication of book chapters (20) and major reports to clients and stakeholders (28).

Greater support for early career researchers through our three major university partners, James Cook University, University of Western Australia and Charles Darwin University has contributed to this publication effort. Teaming early career researchers with senior scientists provides them with training and mentoring that will stand them in good stead for their future careers and helps them make significant contributions as their careers unfold. The injection of their new ideas and skills also contributes to research innovation and is excellent for staff development (see staff development section).

Forty per cent of our publications have higher degree students or postdoctoral fellows as the first author. This is an increase on last year and reflects the completion of 20 MSc and PhD theses that were submitted in 2009.

Our peer-reviewed publications appeared in over 72 different journals across many different scientific disciplines, reflecting our ability to undertake science on scales ranging from microorganisms to ecosystems and coastal oceanography.



AIMS researchers contributed strongly within our core areas of climate change, biodiversity, water quality and marine microbiology, as can be seen in the following examples: (full list in Appendix 4, page 135-145):

- The editorial board of the journal *Coral Reefs* voted an AIMS publication as the best paper published in the journal for the year 2009 (Wilson, Dolman, Cheal, Emslie, Pratchett, Sweatman (2009) Maintenance of fish diversity on disturbed coral reefs. *Coral Reefs* 28: 3-14.). This is the third year in a row that AIMS science has captured best paper for this journal.
- One of our postgraduate students, Felipe Gusmão, was awarded the 2009 Cushing Prize for his paper, "Sex ratios, intersexuality and sex change in copepods" in the *Journal of Plankton Research.* This award recognises the best paper by an early career scientist published in the journal during the previous year.
- Another study argued that a synergistic effect between heat stress and nutrient availability was revealed by the regional patterns of coral bleaching across the GBR in the major bleaching episodes of 1998 and 2002. This analysis supports the commonly held view that improved coral reef management will enhance regional-scale survival prospects of coral reefs to global climate change (Wooldridge, Done 2009 Improved water quality can ameliorate the effects of climate change on corals. *Ecological Applications* Vol 19: pages 1492-1499).
- The paper (De'ath, Fabricius 2010 Water quality as regional driver of coral biodiversity and macroalgal cover on the GBR. *Ecological Applications* Vol 20: pages 840-850) was one of the largest-ever studies of the impacts of water quality pollution on coral reefs on the GBR, indicating that poor water quality, as characterised by high turbidity and nutrients, increases the amount of seaweed and reduces the biodiversity of corals.
- Most discussions about the impacts of climate change overlook the vital role of microorganisms. Much of the microbiology research undertaken at AIMS is conducted within a climate change context and this is exemplified by the review article (Webster, Bourne, Blackall (2009) Impact of global climate change on marine bacterial symbioses and disease. *Microbiology Australia* Vol 30: pages 78-81).
- Other work during the year investigated whether a species of fast growing coral could cope with warmer climates by changing its suite of symbiotic zooxanthellae to a strain which is more temperature tolerant. The study suggested that it could not without sacrificing significant growth (Jones, Berkelmans 2010 Potential costs of acclimatization to a warmer climate: growth of a reef coral with heat tolerant vs. sensitive symbiont types. *PLoS ONE* Vol 5: e10437).
- A project sponsored by the CERF Marine Biodiversity Hub demonstrated that distance from the coast is a strong predictor of fish community structure (Mellin, Bradshaw, Meekan, Caley 2010 Environmental and spatial predictors of species richness and abundance in coral reef fishes. *Global Ecology and Biogeography* Vol 19: pages 212-222).
- Another project discovered a new species of bacteria which causes disease in cultured rock lobster. This is a key discovery of a pathogen that will need to be controlled before mass culture of larval lobsters can be made a commercial reality (Cano-Gomez, Goulden, Owens, Høj 2010 *Vibrio owensii* sp. nov., isolated from cultured crustaceans in Australia. *FEMS Microbiology Letters* Vol 302: pages 175-181).
- We reported that coenzyme Q, a natural product well known to many for its reputed health benefits due to its antioxidant properties, did not occur within fish species from polar and tropical regions in a pattern that would be expected solely if it were meeting demands for antioxidant protection. This study hints at coenzyme Q having other key functions in fish than initially thought (Gagliano, Dunlap, de Nys, Depczynski 2009 Ockham's razor gone blunt: coenzyme Q adaptation and redox balance in tropical reef fishes. *Biology Letters* Vol 5: pages 360-363).
- Genetic analysis showed that the oceanic reefs of north-west Australia (Ashmore, Scott, Rowley Shoals) are weakly connected by larval dispersal and hence reliant upon local spawning stock for their resilience to disturbance (Underwood 2009 Genetic diversity and divergence among coastal and offshore reefs in a hard coral depend on geographic discontinuity and oceanic currents. *Evolutionary Applications* Vol 2: pages 222-233).

- An international collaboration, led by AIMS, reviewed bacterial disease as an emerging threat to coral reef health in a warming ocean (Bourne, Garren, Work, Rosenberg, Smith, Harvell 2009 Microbial Disease and the coral holobiont. *Trends in Microbiology* Vol 17: pages 554-562).
- The majority of coral larvae acquire their algal symbionts at the point of settlement and metamorphosis into a single polyp. The mix of strains taken up at that time reflects the ability of different zooxanthellae strains to infect the coral rather than their availability in the environment, which has implications for the ability of corals to become more tolerant of warmer temperatures arising from climate change (Abrego, van Oppen, Willis 2009 Highly infectious symbiont dominates initial uptake in coral juveniles. *Molecular Ecology* Vol 18: pages 3518–3531).
- Another international collaboration challenged a common view that many coral reefs have become dominated by seaweeds and converted to algal reefs (Bruno, Sweatman, Precht, Selig, Schutte 2009 Assessing evidence of phase shifts from coral to macroalgal dominance on coral reefs. *Ecology* Vol 90: pages 1478-1484).
- The journal *Marine Pollution Bulletin* annually reports uptake and use by others of articles published by the journal over the previous 5 years. The 2009 analysis showed that two papers by AIMS scientists merited "Highly Cited" Awards:
    - Alongi, McKinnon (2005) The cycling and fate of terrestrially-derived sediments and nutrients in the coastal zone of the Great Barrier Reef shelf. *Marine Pollution Bulletin* 51: 239-252;
    - Fabricius, De'ath, McCook, Turak, Williams (2005) Changes in algal, coral and fish assemblages along water quality gradients on the inshore Great Barrier Reef. *Marine Pollution Bulletin* 51: 384–398.

The following paper by an AIMS scientist was the most cited paper of all of the articles in Marine Pollution Bulletin for the period 2005-2009:

- Fabricius, K.E. (2005) Effects of terrestrial runoff on the ecology of corals and coral reefs: Review and synthesis *Marine Pollution Bulletin* 50, 125-146.
- In addition to journal publications, AIMS scientists contributed to the Marine Climate Change Impacts and Adaptation Report Card for Australia 2009 (National Climate Change Adaptation Research Facility Publication 05/09 - www.oceanclimatechange.org.au). This report card is sponsored by the CSIRO Climate Adaptation Flagship, the Australian Climate Change Science Programme and the National Climate Change Adaptation Research Facility and aims to clearly and concisely communicate state-of-the-art knowledge on climate change impacts, knowledge gaps and adaptation strategies to a broad audience.

AIMS researchers delivered over 150 presentations to stakeholders, scientific and industry conferences held in Australia and overseas. We continued a long association with both the Australian Marine Sciences Association and Australian Coral Reef Society with many of our scientists giving presentations at their 2009 annual meetings held in Sydney and Darwin, respectively.

AIMS scientists explained the new opportunities presented by the Integrated Marine Observing System, in particular the creation of a GBR Ocean Observing System, to marine scientists at the following international conferences:

- Oceans'10 (Sydney), an international conference run under the auspices of the Institute of Electrical and Electronics Engineers, which is the World's largest technological society;
- OceanObs '09, which was a meeting of 600 scientists from 36 nations held in Venice, Italy, with the aim of building a common vision for sustained observing of the marine environment;
- Workshops between the National Ocean and Atmosphere Administration of the USA and University of Queensland focussing on the global Coral Reef Watch program;
- the Australia-India Ocean Colour Remote Sensing Workshop held in Ahmedabad, India and;
- the 7th "ADCPs in Action" Users' Conference held in San Diego, USA.

AIMS scientists also explained their work, often through invitations to give Keynote and Plenary speeches, to diverse audiences at other international conferences, including:

- Conference on Sustainability on Coastal and Deltaic Systems held in Xiamen, China and sponsored by the Australian Academy of Science, Australian Academy of Technological Sciences and Engineering and the Chinese Academy of Sciences;
- 5th Biennial Global Environment Facility International Waters Conference;
- International Conference on Recent Advances in Lobster Biology Aquaculture and Management held in Chennai, India;
- 4th International Symposium on Fish Otolith Research and Application, Monterey, USA;
- GeoHab 2010 in Wellington, New Zealand. GeoHab is an international forum developing new tools to link mapping and geological sampling to marine biology to underpin sustainable ocean management
- The 2nd Asia Pacific Coral Reef Symposium which was hosted in Phuket, Thailand;
- VIBRIO 2009 (Rio de Janeiro, Brazil), one of an annual series of international meetings focussing on one of the most ubiquitous bacteria in the world, which causes many different diseases in humans and animals.

AIMS continued its role as a key science provider to the Commonwealth Environment Research Facility program through the Marine and Tropical Science Research Facility and the National Marine Biodiversity Hub. Since CERF funding expired in 2010, many AIMS scientists summarised their final conclusions to the final Annual MTSRF Conference in Cairns and the final national CERF conference in Canberra. Both conferences were designed to inform users and stakeholders of the outcomes achieved by these 'public good' environmental research Hubs.

Citation analysis

AIMS always looks for independent assessment of the quality and relevance of its research. In 2009, an analysis of the Scopus® (Elsevier) database of international research literature, undertaken by the European research consortium SCImago, ranked AIMS first among Australian non-medical research organizations and universities in terms of several of their measures of citation of scientific papers.

Further benchmarking and research quality assessment will be done in 2010, when we will be inviting a panel of eminent international scientists to review our performance in delivering the vision of the AIMS *Research Plan 2007-11.* Apart from benchmarking the quality and impact of our science, the findings of the review will inform our next forward-looking research plan.

Recognition by peers (prizes and invitations)

Awards and prizes to staff, students and associates

- The Scott Reef Research Project Safety Management System won the Best Workplace Health and Safety Management System Category at the 2009 Australian Government Safety, Rehabilitation and Compensation Commission Safety Awards and the Best Workplace Health and Safety Management System in the Public Sector category at the 5th Annual National Safe Work Australia Awards. These national safety awards recognised our commitment to continuous improvement of workplace health and safety through the implementation of integrated systems approaches, for a major marine science research project in a remote region.
- One of our research scientists, Dr Nicole Webster received the 2010 Australian Academy of Science Dorothy Hill Award for female researchers in the Earth sciences, including reef science. Nicole has researched many aspects of reef bacterial symbioses, including the specificity of symbiotic relationships and the impact of environmental stressors on these sensitive partnerships where as many as 3000 different bacterial types can be found living in one sponge colony. Dr Webster was also awarded the Australian Academy of Science Rod Rickards Fellowship which will enable her to collaborate with colleagues at the University of Vienna.

- For the third year in a row, the editorial board of the journal Coral Reefs voted an AIMS publication as the best paper published in the journal for the previous year (Wilson, Dolman, Cheal, Emslie, Pratchett, Sweatman 2009 Maintenance of fish diversity on disturbed coral reefs. Coral Reefs Vol 28: pages 3-14).
- PhD student, Felipe Gusmão won the Peter Holloway award for best student presentation in oceanography at the 2009Australian Marine Sciences Association Conference for his presentation entitled "The use of Aminoacyl-tRNA synthetases (AARS) activity as an index of mesozooplankton growth off the Western Australian coast".
- At the 2009 Australian Coral Reef Symposium, Emily Howells won the Vicki Harriott Memorial Prize for the best student presentation "Population dynamics of *Symbiodinium* and the resilience of coral symbioses on the Great Barrier Reef" and Yui Sato won the ACRS Student Presentation Prize for his talk on the dynamics of black band disease affecting *Montipora* species. Both of these students are supported through the AIMS@JCU joint venture. Emily Howells also took out first place at the AIMS@JCU Student Presentation Day for her talk on "Genetic resilience of Symbiodinium populations: The role of coral endosymbionts in adaptation to climate change".
- At the end of 2009, the *Courier Mail*, the state newspaper for Queensland named its "Top of the State". This is their annual review naming 50 high achievers among the state's entrepreneurs, medical doctors, sports achievers, artists and scientists. Dr Julian Caley was recognised on this list, especially for his scientific contributions via CReefs Australia, part of the global Census of Marine Life initiative.
- The Australian Node of the international CReefs Project, a collaboration connecting AIMS, BHP Billiton, Census of Marine Life, and the GBR Foundation, was a finalist in the 2010 Eureka Prizes in the Environmental Research section. The project was also a finalist in the United Nations Australia Association World Environment Day Awards in the category of "Biodiversity".
- Another 2010 Eureka Prize finalist in the category of Advancement of Climate Change Knowledge is the Marine Climate Change Report Card. This report card is sponsored by the CSIRO Climate Adaptation Flagship, the Australian Climate Change Science Programme and the National Climate Change Adaptation Research Facility and aims to clearly and concisely communicate state-of-the-art knowledge on climate change impacts, knowledge gaps and adaptation strategies to a broad audience. It provides useful information to environmental managers, fishing communities, marine users, scientists and students. Several AIMS research scientists are among the 70 scientists that formulated the report card.
- Sue Codi King won the Marine Pollution Bulletin award for best oral presentation by a PhD student at the 6th International Conference on Marine Pollution and Ecotoxicology in Hong Kong (31 May to 3 June 2010). Presentation: The Indo-Pacific Rock Oyster (Saccostrea sp) as a Biomonitor for Water Quality in Northern Tropical Australia. S Codi King, C Streten, D Parry, J Mondon, D Raftos and K Gibb.

Invited lectures

- Several of our research staff were invited participants as part of an Australian Academy of Science and Australian Academy of Technological Sciences and Engineering delegation to attend the Sixth China-Australia Symposium: Towards Sustainable Coastal & Deltaic Systems under Climate Change. Invited presentations included :
    - Scott Bainbridge "The application of sensor networks to coastal systems: an example from the Great Barrier Reef";
    - Chris Battershill "Biodiscovery and sustainable production of bioresources";
    - Nicole Webster "Exploring the diversity and roles of microorganisms in coastal wetlands and assessing potential impacts from climate change";
    - Andrew Negri "Environmental pollution and public health: Bioaccumulation, biomagnification and risk".

- Janice Lough gave an invited presentation entitled "A changing climate for the Great Barrier Reef" at Tom Wigley Symposium, National Center for Atmospheric Research, Boulder Colorado, USA; the Woods Hole Oceanographic Institution, Woods Hole MA, USA and at the Research School of Earth Sciences at ANU;
- Ian Poiner and Janice Lough were invited speakers at the ARC Centre of Excellence for Reef Studies workshop "Securing Coral Reef Futures: linking ecosystems, societies and economies";
- David McKinnon gave an invited presentation "Tropical aquaculture and the environment: Scientific outcomes and policy impact" to the Australian Barramundi Farmers Association / Australian Prawn Farmers Association joint meeting;
- Mike Hall gave an invited presentation "Diet and microbial interactions in Palinurid lobster larvae" at LARVI09 5th Fish and Shellfish Larviculture Symposium, Ghent, Belgium;
- Madeleine van Oppen gave an invited presentation "Capacity for acclimatization and adaptation in coral" at the Institute of Zoology and Cell Biology, Ecology and Evolution group, Hannover, Germany;
- Chris Battershill gave an invited talk to a workshop focussed on marine innovation in South Australia, hosted by the SARDI CEO with the Chief Scientist and marine industry leaders in attendance;
- Britta Schaffelke was invited by IFREMER, the French Research Institute for Exploitation of the Sea to present at a workshop in Noumea on planning of monitoring activities in the New Caledonian lagoon, a newly declared World Heritage site. Britta gave two presentations: "Large-scale monitoring in the Great Barrier Reef lagoon" and "Indicators for monitoring of marine water quality and coral reef health".

Plenaries and keynote lectures

AIMS researchers delivered the following keynote and plenary addresses:

- David McKinnon gave a plenary session overview entitled "Zooplankton connectivity: Environmental and trophic linkages" at AMSA 2009, 6-9 July Adelaide;
- Monica Gagliano presented a Thematic Keynote Speech (Life History and Management) at the Fourth International Symposium on Fish Otolith Research and Application (Monterey CA, USA) "When the going gets tough: fish populations in a changing climate";
- Ray Berkelmans was a Keynote Speaker at the ACRS Annual Conference in Darwin "Climate change: What will tomorrow's GBR look like?";
- Ian Poiner ("The Census of Marine Life: a decadal program to assess and explain the diversity, distribution and abundance of life in the oceans") and Chris Battershill ("Evolutionary implications of the prevalence of asexual reproduction in metazoans") were keynote speakers at Darwin 200: Evolution and Biodiversity (the combined Australian Entomological Society's 40th AGM and Scientific Conference and the Society of Australian Systematic Biologists and 9th Invertebrate Biodiversity & Conservation Conference);
- Terry Done delivered the opening Keynote Address "Coral Triangle Initiative: Performance Indicators and Climate Change" at Coral Reef Management Symposium: Coral Triangle Area Jakarta, 12 - 13 October 2009;
- Ian Poiner "Introduction: technologies and their application to GEF-IW Projects" at the 5th Biennial GEF International Waters Conference (IWC5), Cairns 24-29 October. IWC5 involved 293 participants from government, IW project managers, international organisations, NGOs, the private sector with 73 countries represented. Britta Schaffelke and Andrew Negri also participated in the pre-conference technical workshops on marine ecosystems and technologies;
- David Bourne presented a plenary talk "Vibrios associated with corals: Friends or foes?" at the Vibrio 2009 in Rio de Janeiro, Brazil.

Expert committees

AIMS provided expert advice to many State, Commonwealth and international Standing Committees or Working Groups (full list at Appendix 5) including:

- Ian Poiner was the Chair of Oceans Policy Science Advisory Group (OPSAG);
- Ian Poiner continued his role as Chair of the International Scientific Steering Committee of the Census of Marine Life;
- Ian Poiner and Linda Blackall were appointed to the Antarctic Science Advisory Committee, which is a high level source of strategic advice to the Australian Antarctic Division of the Department of Environment, Water, Heritage and the Arts;
- Ian Poiner, Peter Doherty, Andrew Negri and Richard Brinkman were members of GBRMPA's Scientific Advisory Panel for the *Shen Neng 1* grounding incident;
- Peter Doherty is a member of the Reef Water Quality Protection Plan Independent Science Panel. The Independent Science Panel provides strong independent science based and technical advice to the Intergovernmental Operational Committee on Reef Plan science needs, including review of the integrated monitoring and reporting program;
- Peter Doherty was appointed to GBRMPA's Ecosystem Research Advisory Committee;
- Peter Doherty, Hugh Sweatman, Madeleine van Oppen were members of expert working groups (Solutions, Adaptions, e-Reefs) convened by the GBR Foundation;
- Britta Schaffelke is a member of the Fitzroy Partnership for River Health Science Panel;
- Linda Blackall is a member of the Board of the International Society for Microbial Ecology;
- David Parry was appointed to the Darwin Harbour Advisory Committee (DHAC);
- Julian Caley was appointed to the Steering Committee of the International Year of Biodiversity Australia Project;
- Richard Brinkman was appointed a member of the Organising Committee for the 2010 UK-Australia Frontiers of Science meeting on Marine Science, which is a joint activity of the British Royal Society and the Australian Academy of Science;
- Jamie Oliver gave advice to the Department of Environment, Water, Heritage and the Arts on the design of the monitoring program for the Montara oil spill;
- A number of AIMS research staff, deemed "Expert Assessors of International Standing", provided peer-review of grant applications for the Australian Research Council.

The importance of AIMS' long term research was recognised by its uptake in the first Outlook Report for the GBR. This report was produced by GBRMPA following a recent update of the Authority's legislation. These reviews will now be produced every five years. The inaugural report included multiple references to AIMS to support its assessments about the condition and trend of reef assets, current and future risks to ecosystem health and amenity values, and general prognosis for the future.

In addition, advice was shared through the following actions:

- AIMS research has contributed directly to the development of:
    - GBRMPA Water Quality Guidelines;
    - "Scientific consensus statement on water quality in the Great Barrier Reef" published as part of the GBR Water Quality Protection Plan (ReefPlan);
    - The design of Reef Rescue, and new regulations set by the Queensland Government.
- Andrew Negri was invited by BHP Billiton Iron Ore to contribute to a workshop "Environmental impacts associated with dredging and spoil disposal" in Perth;
- Britta Schaffelke contributed to the planning of the Paddock to Reef Monitoring and Modelling Program, and the RWQPP Marine Monitoring Program is now part of Queensland's Paddock to Reef Program;
- Britta Schaffelke was invited to organise a pre-conference "Marine ecosystems technical workshop" and also contribute to a Technologies Session by the UNEP Scientific and Technical Advisory Panel at the GEF International Water Conference in Cairns;

- Katharina Fabricius presented at " Essential Science" sessions in Canberra to brief targeted groups of end users about research funded by the Marine and Tropical Sciences Research Facility;
- Julian Caley provided advice on the Environment Protection and Biodiversity Conservation Act Technical Working Group for the listing of endangered marine habitats;
- Mike Hall was a panel member and contributor to the National Primary Industries, Research Development and Extension Framework for "Working Together: the National Fishing and Aquaculture RD&E Strategy";
- Chris Battershill and Miles Furnas contributed to the Southern Surveyor Replacement Vessel Technical Advisory Group meetings;
- Britta Schaffelke and Hugh Sweatman reported on AIMS GBR monitoring projects at the Monitoring and Reporting Workshop organised by the Marine and Coastal Council R&D Committee Working Group;
- David McKinnon, Richard Brinkman and Miles Furnas convened a workshop entitled "Towards a biological oceanography research program for the Kimberley Region" at the UWA Oceans Institute on 3-4 November. The workshop was attended by over 30 scientists from the WA universities, CSIRO and AIMS and representatives from WA Government and the oil and gas industry;
- Systems have been developed for quality assurance and quality control of ocean moorings data through the development of an oceanographic deployment database and a Matlab processing toolbox. This approach has been adopted the Australian National Mooring Network, which is a major facility of the Integrated Marine Observing System.

Other outreach

During the year we hosted the following esteemed visitors to provide them with briefings about Australian marine science and our contributions to the national research agenda:

- The Honorable Peter Garrett AM, Minister for Environment Protection, Heritage and the Arts;
- A delegation from the National Science Council of Taiwan to conclude an MOU between AIMS the Taiwanese NSC for future scientific collaboration. The delegation included:
  - Dr Ching-Ray Chang (Director General of Department of International Cooperation);
  - Dr Ching-Fong Chang (Vice President of National Taiwan Ocean University);
  - Dr Mei-Ling Hshieh (Executive Director of Science & Technology Division of Taipei Economic & Cultural Office (TECO) in Australia;
  - Dr Gary S. H. Lin (the Representative of Taiwan in Australia.
- Indonesian Ambassador His Excellency Primo Alui Joelianto;
- Judith Fergin, Consul General of the United States of America;
- Dr Carl Lundin, Head, Global Marine Programme, IUCN;
- The Council of Australasian Museum Directors;
- IMOS Board.

During the year, AIMS provided written submissions on its own behalf including:

- Commission of Inquiry, Montara Well Head Platform Uncontrolled Hydrocarbon Release;
- Review of Island Research Stations owned and operated by the University of Queensland.

We also contributed to submissions collated and used by others, including:

- Statement entitled "Emissions reduction targets and the GBR" which was used by the Federation of Australian Scientific and Technological Societies - Great Barrier Reef Climate Change Alliance to brief Federal politicians at Parliament House in November, 2009;
- "Australia's Fifth National Communication on Climate Change (NC5) a report under the United Nations Framework Convention on Climate Change (NFCCC), published by the Department of Climate Change and Energy Efficiency.

AIMS continued to run popular public tours through its Townsville site, made possible through the invaluable work of a team of committed volunteer guides. The Institute also facilitates specialised tour group visits. During the reporting period, AIMS hosted a total of 64 tour groups.

Research partnerships

AIMS delivers a substantial portion of its science through joint ventures, strategic alliances and significant collaborations. Investing AIMS resources in collaborative projects with willing partners increases the return yielded from every dollar expended. More importantly, it increases critical mass and broadens the skill base required to address complex questions about the sustainable use and protection of marine resources. In 2009-10, the majority of AIMS scientific tasks received some co-investment from partner organisations. More detail on some of the major collaborations follows.

AIMS and James Cook University created **AIMS@JCU** in 2004 to administer a special allocation of funds from the Australian Government to facilitate the sharing of research infrastructure in Townsville and to provide enhanced opportunities for the training of postgraduate students in tropical marine sciences. AIMS@JCU is now in its sixth year and has affiliations with more than 100 researchers from the two organisations. It has continued to foster joint research and student collaboration, providing PhD scholarships to six new students in 2009. Travel support grants were also awarded to 23 students to attend conferences in their field as part of their training and development. Professor Jeffrey Loughran (JCU Faculty Dean of Science and Engineering) was appointed chair of the Management Committee replacing Professor Chris Cocklin. Dr Chaoshu Zeng was appointed as the JCU Leader of the Tropical Aquaculture Program replacing Professor Paul Southgate. The Joint Venture Agreement was extended in March 2010 for another 12 months, while the two organisations act to secure the long-term future of this successful program. Further details at http://aims.jcu.edu.au/AIMS-JCU/home.html

The **Australian Research Council Centre of Excellence for Coral Reef Studies** was established by the Australian Research Council in 2005 creating a partnership among AIMS, the Australian National University, the Great Barrier Reef Marine Park Authority, James Cook University and the Universities of Queensland and Western Australia. The ARC reviewed the Centre's performance in 2008 and allocated another $9.8 million to extend the joint venture to 2013. The review highlighted the Centre's influence as a focal point for national and international collaborations and the Centre's focus on communications and the application of research outcomes to societal problems. The CEO of AIMS is a member of the Centre's Advisory Board and three of the Institute's senior scientists are Partner Investigators (Drs Janice Lough, Madeleine van Oppen and Mark Meekan) in the Centre. AIMS is also currently sharing the cost with the Centre of two postdoctoral fellows in Conservation Planning and Bioinformatics, respectively. In 2010, Dr Line Bay, one of the first Fellows co-funded by AIMS, was awarded funding under the Australian Government's International Linkages-Science Academies Program, which supports Australian scientists collaborating with international partners on leading edge science and technology projects. Dr Bay will work with academics from the University of Texas at Austin and Dr Madeleine van Oppen at AIMS to discover how corals use their genetic material to cope with changes in their environment. Further details at http://www.coralcoe.org.au/

The **Arafura Timor Research Facility** is a joint venture between AIMS and the Australian National University (ANU) enabled by a Major National Research Facility infrastructure grant from the Australian Government. The ATRF is an office/laboratory complex based in Darwin that has been co-located with ANU's Northern Australia Research Unit for terrestrial research on a site that borders Charles Darwin University. The ATRF was created to support world-class scientific research into the resources and uses of the Arafura and Timor Seas through engagement of the Australian public sector, academia, and industry with other countries bordering these northern seas.

In 2009, the Australian Government announced an additional $55M to enhance research infrastructure at AIMS as part of the Super Science (Marine and Climate) Initiative. Ten percent of this was allocated to the expansion of the ATRF to accommodate additional researchers and to provide new infrastructure such as reticulated seawater. The reporting period has been used for consultation, planning and design of the facility enhancements with construction to follow in 2010-11.

In conjunction with the facilities development, AIMS has recruited additional staff to the ATRF to support its domestic program on the impacts of coastal development in northern Australia. In addition to projects involving water quality in Darwin Harbour, AIMS has established a National Reference Station outside the Harbour as part of Australia's Integrated Marine Observing System to monitor long-term changes in marine conditions. AIMS staff also participated in the first international research cruise arising from the Arafura Timor Seas Expert Forum (ATSEF) which is a framework supported by the governments of Australia, Indonesia and Timor Leste for collaboration to develop co-operative ecosystem-based management of natural resources in the region. This cruise aboard the Indonesian research vessel *Baruna Jaya VIII* was funded by the Global Environment Facility to make key measurements of bathymetry and oceanography in support of regional fisheries assessments.

The ATRF is also home to Bioscience North Australia (BNA), a partnership between AIMS, CDU and the NTG managed by a BNA Advisory Group that includes representatives from each of the partners. BNA is an equipment-based facility dedicated to research training and consultancy services in molecular and environmental ecology, biodiversity assessment, phylogeny and diagnostics. Further details at http://www.atrf.org.au/ and http://www.cdu.edu.au/ehs/bna/index.html

The **Census of Coral Reefs (CReefs)** is a major project of the 10-year global "Census of Marine Life" funded by the US-based Sloan Foundation. It is a collaboration between AIMS and two American institutions: the National Oceanic and Atmospheric Administration and the Scripps Institution of Oceanography. It is a global census of life forms on coral reefs with an emphasis on understudied taxonomic groups. AIMS' contribution to the global enterprise is leadership of CReefs (Australia), a partnership between AIMS, BHP Billiton (a major corporate donor), the GBR Foundation, and the Census of Marine Life. The Australian project is being delivered by 50 scientists from 20 national and international institutions including the Australian Museum, the Museum and Art Gallery of the Northern Territory, Museum Victoria, the Queensland Museum, the South Australian Museum and the Western Australian Museum, as well as the University of Adelaide, Murdoch University, the South Australian Herbarium and the Smithsonian Institution. This team of marine scientists and taxonomists will collect and identify samples during repeated field trips to three representative coral reef sites in Australia over four years (ending in 2010-11). At the end of the current reporting period, seven of nine planned expeditions had been completed resulting in the discovery of at least 1100 species new to science and requiring proper description. All biodiversity data generated by the project is being made publicly available through the Ocean Biogeographic Information System (OBIS). Further details at http://www.aims.gov.au/creefs/index.html and http://www.barrierreef.org/OurProjects/ProjectPartnerships/BHPBillitonCReefs.aspx

The **Commonwealth Environment Research Facilities (**CERF) program was a $100M investment by the Australian Government in "public good" environmental research designed to inform environmental public policy objectives and to improve the management of Australia's unique environment. The CERF program was administered by the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) and operated between 2006-2010. As a lapsing program of the Australian Government, DEWHA has announced that CERF will be replaced from 2011 with a slightly reduced program to be renamed the National Environment Research Program (NERP). In the reporting period, AIMS was a partner in two of the Research Hubs funded as part of the CERF program.

The **Marine Biodiversity Hub** was a partnership among AIMS, CSIRO, Geoscience Australia, Museum Victoria, and the University of Tasmania. The CEO of AIMS was a member of the Hub Steering Committee, which provided high level governance of the Program, while the AIMS Research Director was a member of the Management Team. The MBH was funded to develop and deliver tools supporting DEWHA's management of Australia's marine biodiversity. A large part of Hub research included the analysis of existing data on marine biodiversity to determine the appropriate spatial units and models for predicting, protecting and using Australia's marine biodiversity. In addition to contributing genetic and modelling skills to these projects, AIMS also utilised the *RV Solander* to validate surrogate-based prediction models for deepwater sections of the Ningaloo Reef Marine Park and there was an institutional focus on completing this task during the reporting period. As a part of delivering this objective, AIMS worked with the Museums of the Northern Territory and Western Australia to reconcile the nomenclature of diverse sponge collections from northern Australia. Beyond the immediate need, this is the first step towards a nationally consistent database of marine sponges that could be used to support the Australian Government's commitment to comprehensive marine planning of the Australian Marine Jurisdiction by 2012. Further details at http://www.marinehub.org/index.php/site/home/

The **Marine and Tropical Sciences Research Facility (MTSRF)** was the largest of the CERF Hubs. It's four-year program of marine and terrestrial research for the two iconic World Heritage properties of north Queensland (GBR and Wet Tropics Rainforest) was built on foundations created during the previous decade by the Co-operative Research Centres Program, which supported separate Centers for reef and rainforest research. The CEO of AIMS was a member of the Governing Board, which recommended an annual work program to the Minister for Environment, Water, Heritage and the Arts.

As an annual program, the focus of activities in 2009-10 was completing the final approved work plan, which for AIMS represented a portfolio of tasks delivering new knowledge to support the management of marine biodiversity, improve regional water quality, understand the risks and explore adaptation strategies associated with climate change on the GBR. Further details at http://www.rrrc.org.au/mtsrf/index.html

The **Integrated Marine Observing System** is a major program of the National Collaborative Research Infrastructure Strategy (NCRIS) originally funded by the Australian Government for five years (2006-11). IMOS is designed to monitor the impact of changing conditions in the ocean, emphasizing those changes that drive the dynamics of healthy marine ecosystems and influence weather and climate on the Australian continent. The CEO of AIMS is a member of the Board that approves the investment strategy in long-term observations based upon proposals received from the Australian marine science community. In the coastal zone, the initial deployment of observing systems was based on science plans submitted by Queensland, NSW, SA, and WA. AIMS led the proposal from Queensland with a focus on understanding the impact of changes in the Coral Sea upon the normal function and future health of the GBR.

In 2008, the early achievements of IMOS resulted in the Australian Government doubling its investment in this program and extending its life to 2013. Responding to this opportunity, the marine science communities in Townsville and Brisbane presented a proposal to extend the observational coverage from the GBR to the whole of Queensland with a clear priority being to monitor oceanic influences in south-east Queensland and how they impact on other iconic marine ecosystems such as the Great Sandy Marine Park and the Moreton Bay Marine Park. Further details at http://www.imos.org.au/

The **Reef Water Quality Protection Plan** is an historic decadal commitment (2003-13) supported by investments of $400M from the Australian and Queensland Governments to implement actions intended to halt and reverse the decline of water quality entering the GBR Marine Park. The RWQPP **Marine Monitoring Program (MMP)** is a partnership among AIMS, CSIRO, DEEDI, GBRMPA, JCU and UQ. AIMS' contribution to the MMP is to monitor water quality in the GBR Lagoon and the condition of selected inshore coral reefs. In 2009-10, the task team completed the fifth year of measurements to support Reef Plan. Further details at http://www.gbrmpa.gov.au/corp_site/info_services/science_management/marine_monitoring_program

The **Western Australian Marine Science Institution (WAMSI)** is a joint venture among 13 partners including AIMS, CSIRO, the Bureau of Meteorology, the Western Australian Government Departments of Environment and Conservation, Fisheries, and Industry and Resources, the WA Museum, and four Perth-based universities. WAMSI was established in May 2007 with a $21 million grant from the Western Australian government, while the joint venture partners provided a further investment of more than $80 million. WAMSI conducts marine science to underpin the conservation and sustainable management of Western Australia's marine environment and resources. The CEO of AIMS is a member of the WAMSI Board and the WAMSI R&D Committee that approves and oversees the research program.

AIMS brings expertise and knowledge in tropical marine ecosystems, oceanography, and environmental monitoring to WAMSI, along with access to RV *Solander* and the full range of AIMS infrastructure located outside Western Australia. AIMS contributions to WAMSI have produced major benefits to the Ningaloo Marine Park, which is the second largest coral reef ecosystem in Australia after the GBR. Through collaboration with Geoscience Australia, AIMS has mapped 75% of the habitats and biodiversity in the deeper offshore section of the Marine Park. Through collaboration with the Western Australian Department of Environment and Conservation, AIMS has established long-term monitoring sites within the shallower coral reef section of the Park to measure the replenishment of coral and fish populations. With industry co-investment, a satellite tracking program has been implemented to reveal the migrations of whale sharks, which are seasonal visitors to the Ningaloo Marine Park and the cornerstone of a successful ecotourism industry, to neighbouring countries on the Indian Ocean rim. In addition, AIMS physical oceanographers are downscaling ocean forecasting models to predict the impact of future climate change upon the health of the Ningaloo Reef ecosystem.

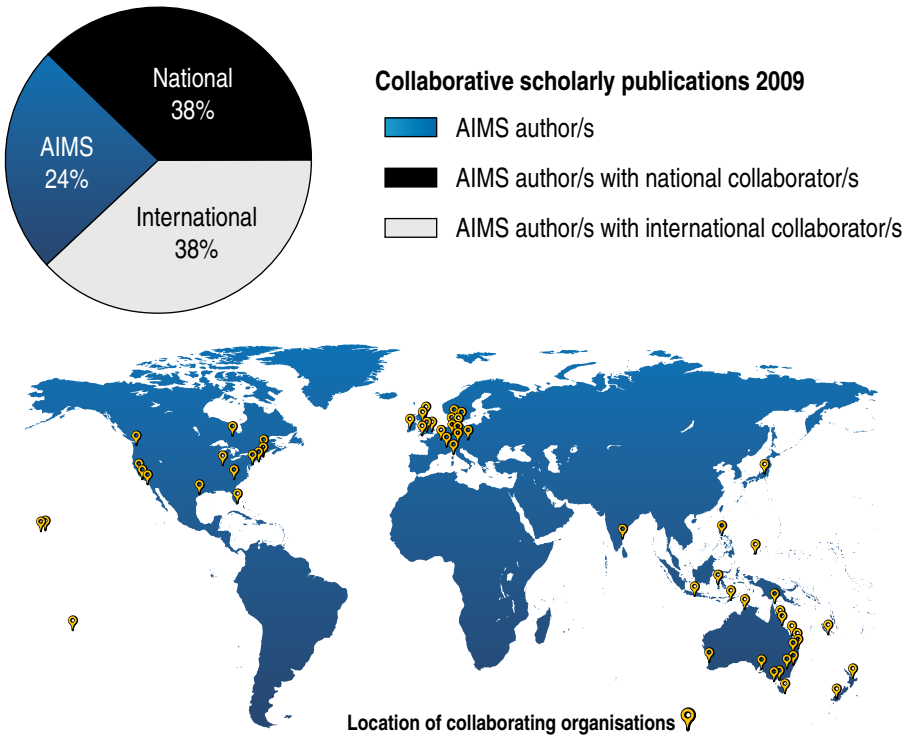
The WAMSI Partnership Agreement expires in 2011 but the partners indicated their desire for renewal with the release in 2008 of a needs analysis for marine research in the tropical Kimberley Region (*Turning of the tide: science for decisions in the Kimberley-Browse marine region*). The WA Government is considering a request from the WAMSI Board for further co-investment to support this refocus of marine research within the State. Further details can be found at http://www.wamsi.org.au/

Number of collaborations

Collaboration is central to our organisational culture and in magnifying our science capabilities and capacity. This is apparent from the fact that less than a quarter of our 2009 publications were authored solely by AIMS staff. Of the remaining collaborative peer-reviewed papers, 38 per cent recognised co-authors at other Australian research organisation while 38 per cent involved international colleagues.

Collaborations are critical not only for our peer-reviewed scholarly publications; just over 40% of our technical reports submitted to clients were also co-authored with collaborators at other organisations.

AIMS has 126 active collaborations with 92 organisations from 21 countries. These collaborations operate within 18 countries. While the majority of these collaborations were within Australia, 46 were with colleagues overseas.



Contracts successfully completed

During the reporting period, AIMS successfully completed 14 research contracts and commenced 28 new research contracts. The quality and usefulness of the contracts is reflected in the high percentage of repeat contracts entered into with pre-existing clients.

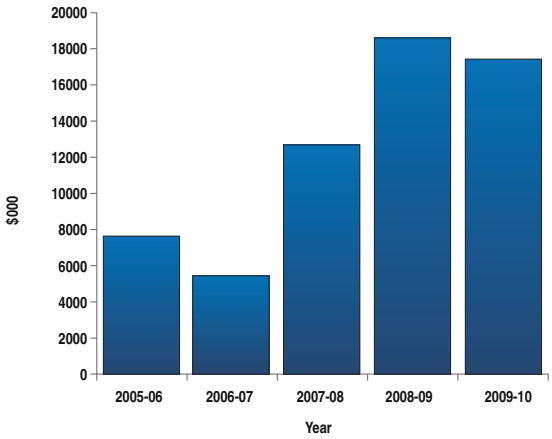
RESEARCH SERVICES, SPECIALISED CONSULTING

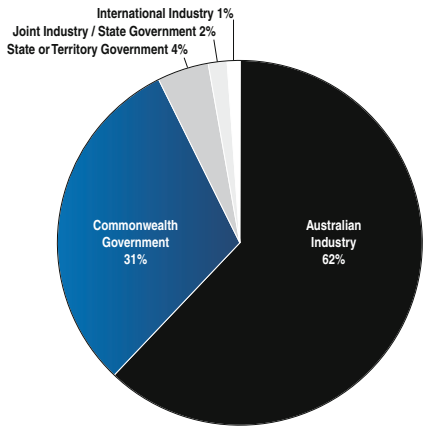
AIMS performs strategic basic research to provide the means to solve or manage existing and future problems involving tropical marine environments. AIMS does little tactical research and does not compete in the commercial consulting sector, only undertaking fee-for-service research when commercial providers do not exist because of the scale of the problem and when the research needs fall within our chosen strategic directions and capabilities. Our funding base includes substantial income from other organisations for co-investment activities of mutual interest. This enables AIMS to maintain the research portfolio needed for informed decision-making by the public and private sector when sustainably developing Australian tropical marine resources.

REVENUE FROM CO-INVESTMENT

Revenue from co-investment is critical to AIMS' financial sustainability and In 2009-10 it represented 35.2% of AIMS' total revenue. Over 50% of co-investment came from the Scott Reef Research Project being undertaken by AIMS with funding from the Browse Basin Joint Venture led by Woodside Energy Ltd.

The first chart compares AIMS' external revenue over the last five years. There was a small decrease in external revenue in 2009-10 in comparison with previous years The second chart shows the breakdown of government and industry co-investment for the reporting period. The amount of co-investment AIMS received from Australian industry has greatly increased and reflects a continued focus on diversifying our revenue sources to enable future growth and buffer ourselves against major changes in the science investment environment.





ADOPTION BY USERS OF PRACTICES, INSTRUMENTS AND PROCESSES

- AIMS research, conducted with other research providers in the Marine and Tropical Sciences Research Facility, was successfully transferred to users as it informed the following:
  - GBRMPA Water Quality Guidelines;
  - "Scientific consensus statement on water quality in the Great Barrier Reef" published by ReefPlan;
  - relevant sections of the GBRMPA Outlook Report 2009;
  - Reef Rescue and Queensland Reef Regulations.
- AIMS continues to embrace web 2.0 initiatives to make its data more readily available to the global community. Part of this approach is make data available using standards and mechanisms targeting discovery by Google, Amazon and Yahoo web 2.0 approaches. AIMS has also made data and content on its web-site available under a Creative Commons by Attribution License. This simplifies the use of AIMS data by others and supports the Australian Government 2.0 Taskforce initiatives;
- A pathogenic bacterial strain that was recovered from dying cultured rock lobster larvae was discovered to be a new species. It has been described. Also, preserved cultures of this bacteria have been lodged in public culture repositories for access by other scientists and the aquaculture industry;
- A hydrodynamic model of Darwin Harbour has been used several times to inform industry users of the harbour about the likely effects of future activities;
- The AIMS Metadata System holds hundreds of metadata records available for searching by time and location. AIMS is also a joint venture partner with the Australian Antarctic Division, Bureau of Meteorology, CSIRO Marine and Atmospheric Research, Geosciences Australia and the Department of Defence (RAN Directorate of Oceanography and Meteorology) to form the Australian Ocean

Data Centre Joint Facility. This Facility is providing a whole-of-government approach to ocean data management to enable Australia to better manage its ocean data resources;

- As part of the Great Barrier Reef Ocean Observing System and the Facility for Automated Intelligent Monitoring of Marine Systems, real time sensor data is being made available to the public and the scientific community-at-large;
- The AIMS satellite receiving station continues to contribute to improved weather forecasting for the Asia-Pacific region through the timely provision of vertical soundings of the atmosphere from Advanced TIROS Operational Vertical Sounder aboard the NOAA AVHRR series of polar orbiting satellites. The data provide critical measurements of atmospheric temperature, water vapour profiles and total ozone content. Data are collected at AIMS and retransmitted through the Bureau of Meteorology in Melbourne;
- Automatic weather stations and temperature loggers along the GBR provide data to numerous external parties through the AIMS web-site using innovative data delivery tools designed by the AIMS Data Centre;
- Data from our automatic weather stations located throughout the GBR are not only accessible to the public-at-large, but an overview of trends and events is provided to the Commonwealth Department of Environment, Water, Heritage and the Arts.

CONTRIBUTION TO AUSTRALIA'S RESEARCH FUTURE THROUGH TEACHING AND TRAINING

AIMS has many links with Australian universities ranging from institutional arrangements to peer-to-peer collaborations. In 2009-10, 26 AIMS staff held adjunct appointments at James Cook University, the ARC Centre of Excellence for Coral Reef Studies; the University of Queensland, University of Western Australia and Charles Darwin University. Most of these adjunct positions reflect a large personal contribution to postgraduate supervision, so that collectively AIMS is a significant provider of research training in the marine sciences.

During the reporting period, a total of 74 postgraduate students carried out research in association with AIMS; 26 at AIMS and 48 externally. During 2009, a total of 20 theses were awarded by 12 Australian and 8 overseas universities and to June 2010, eight students have submitted their theses. There were 9 occupational trainees.

	2005-06	2006-07	2007-08	2008-09	2009-10
AIMS staff enrolled in postgraduate studies	6	8	7	6	3
Students working at AIMS (Townsville) supervised by AIMS staff	34	34	38	44	26
Students working externally supervised by AIMS staff	25	25	38	45	48
Occupational trainees (Australia and overseas)	17	13	14	14	9

In addition to a large number of research students, AIMS has committed to a target of having at least 10 postdoctoral scientists associated with its research programs at any one time. By co-investing with partners and leveraging through other funding schemes, AIMS substantially exceeds this target. During 2009-10, AIMS supported 15 of these early career researchers. Funding partners include University of Western Australia, Charles Darwin University, the ARC Centre of Excellence for Coral Reef Studies, CERF Marine Biodiversity Hub and AIMS@JCU. Other postdoctoral positions were funded under Queensland government Smart State funding programs and Woodside Energy Ltd.

MILESTONE COMPLETION

AIMS maintains a centralised Milestone Reporting System to track progress of projects. Milestones are agreed between AIMS and external clients and partners. Potential delays are identified early to ensure measures such as resource reallocation can be implemented to maximise likelihood of timely delivery. If all reasonable efforts have been undertaken and delay will still result beyond the control of all parties concerned, the milestone is renegotiated with external clients and partners.

During the reporting year, over 91 per cent of our milestones were completed as contracted. The remaining milestones were delayed by bad weather, infrastructure constraints not under staff control, and failure of collaborators and/or suppliers to deliver on schedule. In all cases, acceptable alternative arrangements were successfully negotiated with the external party.

POLICY INPUT

AIMS continually provides strategic input to policy development directly by submission to key reviews and indirectly through provision of expert advice. The latter is facilitated through effective networks with state and federal regulatory bodies and membership of key committees and working groups. As a portfolio agency, we are often asked for advice on a range of matters forwarded by our Department.

Some examples of policy input during the reporting period include:

- Preparation of the OPSAG document "A Marine Nation: National Framework for Marine Research and Innovation". AIMS CEO Ian Poiner was a member of the steering committee that formulated the document;
- The Draft National Adaptation Research Plan on Marine Biodiversity and Resources of the National Climate Change Adaptation Research Facility;
- Mid-Program Consultation Regarding the Australia-India Strategic Research Fund within the Department of Innovation, Industry, Science and Research;
- House of Representatives inquiry into climate change and environmental impacts on coastal communities;
- Parliament of Australia House of Representatives Standing Committee on Industry, Science and Innovation inquiry into long-term forecasting by the Bureau of Meteorology;
- Australian Academy of Sciences National Committee for Earth System Science (NCESS) planning for Decadal Strategic Plan for Australian Earth System Science.

In addition, individuals provided expert advice on important matters requiring professional and technical expertise (see Expert Committees) with strong examples in the areas of climate change impacts, access and benefit sharing arrangements for marine genetic resources, biosecurity and fisheries management arrangements.

PARTNER AND CLIENT FEEDBACK

AIMS proactively seeks feedback from research partners and contractual clients to identify opportunities for improved performance and greater science delivery. Close engagement between project managers and clients and collaborators identifies issues enabling us to reinforce successful effort and rectify problems. Feedback to date is mostly positive. Our expanded investment in Perth and Darwin is a tangible demonstration of our response to feedback by stakeholders and users.

OPERATIONAL EFFICIENCY (KPG EFFECTIVE USE OF RESOURCES)

During the year AIMS maintained its commitment to continuous improvement in the delivery of its research program. This included ongoing effort in developing electronic systems to enhance management processes and provide seamless support across our three geographically dispersed locations of Townsville, Darwin and Perth.

ENHANCE CORE CAPABILITIES (KPG ORGANISATIONAL GROWTH)

During this research plan, AIMS has transformed its performance management mechanism into an Annual Performance Agreement (APA) process. The modified process assists in identification of any training or additional resources needed to achieve agreed work objectives. Development of a capability matrix to support workforce planning for medium to long-term skill set requirements and succession planning moved forward during the reporting period.

DEVELOP STAFF (KPG ORGANISATIONAL GROWTH)

AIMS is committed to staff development to support effective delivery of its research program and associated activities. During 2009-10, most of AIMS' senior managers completed the pilot Leadership Development program (commenced in 2008-09 financial year), which consisted of 3 training blocks of two days and incorporated the following aspects:

- Leadership starts with you;
- Leading with Emotional Intelligence;
- Leading through teams.

Developing future leaders is considered an important priority for AIMS. The Leadership Development program will be fundamental in achieving the transformation needed to meet future challenges and keep AIMS vibrant, relevant and pro-active. In addition to this program, staff attend in-house seminars presented by visiting guest speakers, workshops, conferences, locally, interstate and in some instances off shore. They are also encouraged to take up formal and informal development activities as part of their performance management under the AIMS Annual Performance Agreement (APA) process. In 2009-10, two staff were supported to undertake courses that will lead to an MBA equivalent.

AIMS places a significant focus on early career researchers, for example through sending AIMS representatives to Science Meets Parliament and Women in Science events. AIMS runs a Visiting Scientists Program where researchers from other national and international organisations come to AIMS to provide learning opportunities for our staff. As noted in the publications section of this report another important facet of our commitment to staff is our program of mentoring and supervising doctoral students and early career post-doctoral researchers. While this is clearly of great benefit to students it is also greatly valued by AIMS' research staff.

All of these innovative and well-attended programs contribute greatly to the objective of staff development.

HEALTH, SAFETY AND THE ENVIRONMENT (KPG HEALTH, SAFETY AND ENVIRONMENTAL PERFORMANCE)

OH&S

At AIMS, Safety is an integral part of the work we do with a shared commitment to ensuring the safety and well being of all personnel with the overarching motto of "safe science is good science".

AIMS places a strong focus on communication and empowerment, safety briefings, proactive hazard identification and incident reporting all of which have improved safety culture where all are authorised to stop any work where effective risk management controls are not in place and play an active role in continuous improvement. Personnel routinely question work methods (prior to or during operations), reassess hazards and implement additional and improved control measures.

A focus has also included the enhancement of the AIMS Health & Safety Management Arrangement (HSMA) providing a clear framework by which AIMS manages health and safety, articulating associated standards, roles, responsibilities and accountabilities. A detailed OH&S report is provided on pages 73-74.

Environment

AIMS is committed to operating in an ecologically sustainable manner reducing waste and the use of energy and resources. Environmental considerations are key elements of the Institute's decision-making processes in relation to both scientific activities and site development.

In 2008 AIMS commenced a three-year program called green@aims to evaluate our energy use and in June 2010 a site segregated Energy Monitoring System was commissioned. In addition, AIMS has been approved to participate in the Queensland Government initiative "Network Demand Management Pilot Project" to reduce energy consumption. Further details relating to environment, energy usage and water strategies are provided on pages 75-76.

A spotted morwong and cleaner wrasse at Great Detached Reef. Image: Eric Matson.

ROLE, LEGISLATION AND MINISTER

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

AIMS is a Commonwealth Statutory Authority established by the *Australian Institute of Marine Science Act1972* (AIMS Act). The *Commonwealth Authorities and Companies Act 1997* (CAC Act) sets out reporting, accountability and other rules for AIMS' operations, management and governance. AIMS' functions and powers are set out in sections 9 and 10 of the AIMS Act (see Appendix 1, p 129-130).

The Minister responsible for AIMS during the reporting period is Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research.

AIMS CEO Dr Ian Poiner and Senator the Hon Kim Carr at the launch of the Tropical Marine Research Facility Project. Image: John de Rooy.

A towed underwater video camera, complete with continuous video monitored in real time on the surface and vertical still camera, is prepared for deployment to quantify reef damage in waters too deep or too unsafe to dive. A hydraulic winch is used to 'fly' the camera 1-2m above the substrate. Image: Ray Berkelmans.

STAFFING AND STRUCTURE

The total number of staff employed by the Institute at 30 June 2010 was 215 (by head count). When taking into account hours worked over the reporting period, the full-time equivalent value is 208. All members of staff are employed under the *Australian Institute of Marine Science Act 1972 (amended 2002)*. In addition to those paid from Australian Government appropriation, the Institute periodically employs staff to work on projects funded from external sources.

Positive growth in staff numbers in 2009-10 has been in building an Infrastructure Project Team, AIMS' Futures Science Program and temporary staff employed for periods of less than twelve months to assist in the science effort.

The following tables provide a breakdown of staff numbers and EEO status by head count as at 30 June 2010 (prior year figures have been bracketed):

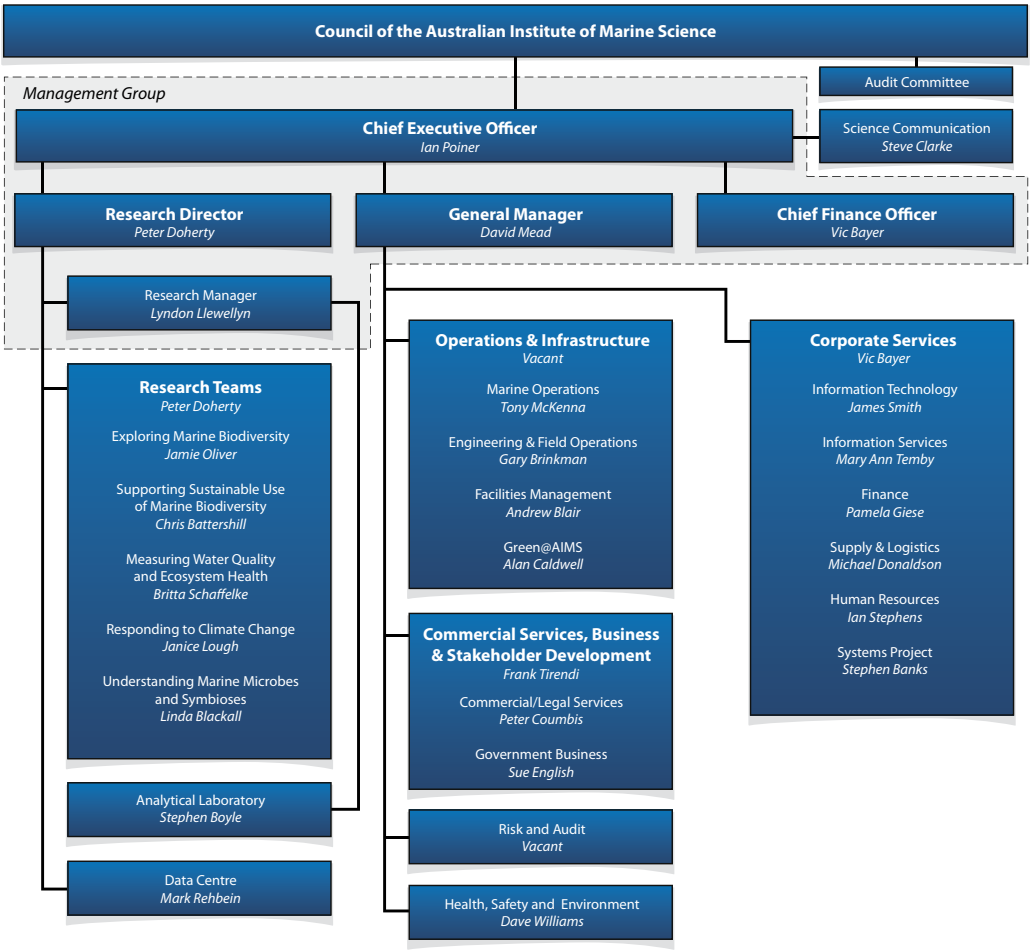
	Female	Male	Total
Research Scientists	(11) 14	(26) 29	(37) 43
Research Projects	(25) 31	(42) 49	(67) 80
Other (Research and Corporate Services)	(36) 38	(53) 54	(89) 92
Total Staff	(72) 83	(121) 132	(193) 215

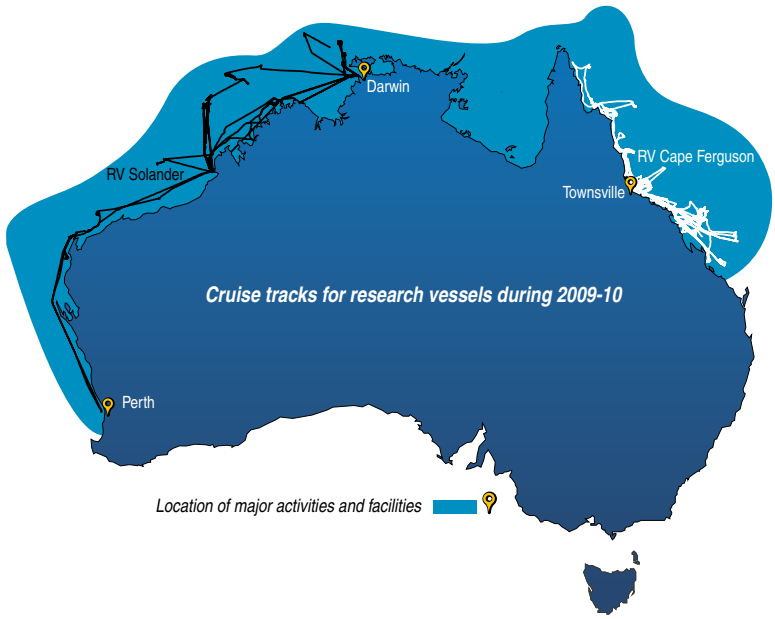
Aboriginal and Torres Strait Islander	(0.5%) 0.5%
Non English speaking Background	(11.8%) 10.7%
Staff with Disability	(2.0%) 1.9%
Women	(37.9%) 38.6%

The work of the research staff is supported by a variety of professional research support staff skilled in data management, commercial services, intellectual property portfolio management, engineering services, field operations, information technology, information services and science communication. Corporate Service Groups deliver financial, human resource, supply and property, and general management services to all AIMS staff.

The Management Group is made up of the Chief Executive Officer, General Manager, Research Director, Chief Finance Officer and Research Manager.

Organisational structure of the Australian Institute of Marine Science





CORPORATE GOVERNANCE

AIMS has a comprehensive system of corporate governance practices designed to provide control, disclosure and accountability for the Institute's activities.

RESPONSIBLE MINISTER

The Institute meets its responsibilities to the Australian Government through Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research.

Under Section 28 of the CAC Act, the Minister may, after consultation with the Council, notify the Council of a general policy of the Australian Government that is to apply to AIMS.

THE COUNCIL

Under the AIMS Act, the Council (or Board) of the Institute comprises a non-executive chairperson, the Institute's CEO and five non-executive members.

Council members are appointed by the Governor General. At least three members must possess scientific qualifications and one member is nominated by James Cook University. Appointments can be up to five years and reappointment is permissible. The members of Council (see details on following pages) bring complementary skills and experience to governance of the Institute. The Remuneration Tribunal determines the level of remuneration and allowances paid to part-time Board members. The CEO is an *ex officio* member of Council.

The CEO is appointed by the AIMS Council, in consultation with the Minister.

ROLE OF THE COUNCIL

AIMS Council sets the Institute's key objectives and research strategies. The Minister and the Department are advised of progress against the four-year Research Plan on a continuous basis, by the Institute. The Minister is also provided with advice on developments of significance, as appropriate.

The *Commonwealth Authorities and Companies Act 1997* (CAC Act) requires the Council to comply with certain accountability and corporate governance principles, including:

- The maintenance of the Audit Committee;
- Specific financial and reporting provisions;
- Disclosure of Board Members' personal interests;
- Provision of indemnities and indemnity insurance in certain circumstances.

From October 2007, AIMS has been required to complete an Annual Compliance Report to the Government regarding the Institute's compliance with the CAC Act and its financial sustainability. Internal procedures are in place to support this declaration.

During 2009-10 all CAC Act requirements were met.

COUNCIL MEMBERS

Dr Ian Gould BSc (Hons), PhD (Geology), FAusIMM, FTSE, ComplEAust

Term as Chairman: 01/01/2005 – 31/12/2009

Term as Council Member: 01/07/2002 – 31/12/2004

Dr Ian Gould brings to AIMS high-level business, research and policy expertise, as well as involvement with environmental matters. He has over 40 years' experience in the minerals industry, mainly with the Rio Tinto Group and Normandy Mining Ltd, from which he retired as managing director. He is currently Chancellor of the University of South Australia and Chair of St Andrews Hospital in Adelaide, the CSIRO Minerals and Energy Sector Advisory Committee and the South Australian Minerals and Petroleum Expert Group (SAMPEG).

Dr Gould is a member of the Royal Flying Doctor Service of Australia (Central Operations) Board, and the South Australian Resources Industry and Economic Development Boards and Premier's Science and Research Council.

Mr Wayne Osborn

Term as Chairman: 01/01/2010 – 31/12/2014

Mr Osborn was appointed to chair the Council from 1 January 2010. Mr Osborn retired in February 2008 as Chairman and Managing Director of Alcoa of Australia Ltd. He was also a vice president of Alcoa Incorporated, elected by the company's board of directors in November 2006. Wayne started his career in telecommunications and moved to the iron ore industry in the mid 1970's. He joined Alcoa in 1979 and worked in a variety of roles and locations across Australian business including accountability for Alcoa's Asia Pacific operations prior to being appointed Managing Director in 2001. Wayne has been a director of Thiess Pty Ltd since 2005 and was appointed as Chairman in 2008. He was appointed to the board of Leighton Holdings Ltd in 2008 and to the boards of Wesfarmers Ltd and Iluka Resources Ltd in 2010.

Mr Osborne has an interest in whale conservation and wildlife photography. He was elected an International Fellow of the New York based Explorers club in 2004. His work in support of the arts though the Australian Business Arts Foundation was recognised with the 2007 Business Leader Award at the Western Australia Business and the Arts Partnership Award.

Mr John Grace BSc (Applied Chemistry), FTSE, FAICD

Term as Council Member: 16/12/2004 – 15/12/2014

Mr Grace has worked for 40 years in industry, primarily biotechnology, 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. In the latter company, he served as Managing Director for 11 years. Mr Grace is an experienced director of listed and private companies. He operates a consulting business iBIO Pty Ltd which offers services in research planning and commercialisation. He is Chair of ITEK Pty Ltd the commercial arm of the University of South Australia; in addition he is a director of the Trans Tasman Commercialisation Fund and a Vice President of the Academy of Technological Sciences and Engineering. Formerly he has been a director of a number of private companies and served on a number of Federal and State government boards/committees.These include; AMRAD Corporation Ltd, Cerylid Pty Ltd, CRC for Cellular Growth Factors, Chair Victorian Science Agenda investment fund, the Australian Research Council, the Victorian Premier's Knowledge Innovation Science and Engineering Task Force; the Industry Research and Development Board and President/Director of the Australian Biotechnology Association.

Ms Elizabeth Montano BA, LLB, FAICD

Term as Council Member: 16/12/2004 – 15/12/2014

Ms Montano has worked in senior positions in both the private and public sectors for over 25 years and is a member of the AIMS Audit Committee. She was a senior solicitor and banking and finance consultant with Mallesons Stephen Jaques and is currently a Commissioner of the Australian Fisheries Management Authority and runs a business advising on corporate strategy and risk. She has held various non-executive positions in a wide variety of organisations, including 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 and independent member of its Security and Audit Committee. She is a former CEO of AUSTRAC, Australia's anti-money laundering regulator and financial intelligence unit and a regulatory policy Branch Head at the Australian Securities Commission (ASIC's predecessor). Ms Montano was awarded the Centenary Medal for services to the Commonwealth.

Mr Nicholas Mathiou B Com (Hons), LLB, MMktg

Term as Council Member: 01/09/2005 – 31/08/2010

Mr Mathiou has over 20 years of professional investment, transaction and corporate advisory experience with particular emphasis on private equity investment in emerging enterprises and is currently Chair of the AIMS Audit Committee. He is the Director of Griffith Enterprise, the commercialisation office of Griffith University, and is responsible for its overall strategic direction and management. He has significant experience in the establishment of new ventures, technology transfer, and commercial practices. He is a fellow of the Financial Services Institute of Australasia, a barrister of the Supreme Court of Queensland, a barrister and solicitor of the Supreme Court of Victoria, a member of Chartered Secretaries Australia and an associate member of the Australian Society of Certified Practising Accountants (ASA). In executive roles for multinational companies, Mr Mathiou provided advice to senior management and executives regarding acquisition and investment appraisals; corporate funding and implementation; business valuations; strategy development and business planning; commercialisation strategies and planning; and corporate governance and general operating and financial management.

Professor Sandra Harding BSc (Hons), M.Pub.Admin, PhD, FAICD, FAIM

Term as Council Member: 10/05/2007 – 09/05/2015

Professor Sandra Harding is Vice Chancellor and President of James Cook University. Her key scholarly interests reside around the sociology of work, industry and organisation. She has a keen professional interest in education policy and management and has undertaken a wide variety of external roles within the higher education sector and the business community. She is currently the Chair of the Innovative Research Universities (IRU) alliance and a Board Member of Universities Australia. She has also served on a number of review panels and accreditation committees within the Higher Education Sector. Professor Harding is also a Director of the Australian Institute of Commercialisation Pty Ltd, Townsville Enterprise Limited, Advance Cairns, AIMS, TropLinks Inc, the Australian Learning and Teaching Council, and the Queensland Premier's Smart State Council.

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

Term as Council Member: 26/09/2007 – 25/09/2015

Dr Fisher is currently Managing Director of BAEconomics Pty Ltd, having previously held the position of Executive Director of the Australian Bureau of Agricultural and Resource Economics (ABARE). Following his retirement from ABARE Dr Fisher was Vice-President at CRA International and then CEO of Concept Economics. Prior to heading up ABARE, Brian was Professor of Agricultural Economics at the University of Sydney and became Dean of the Faculty of Agriculture at the University in 1987. He was appointed Adjunct Professor of Sustainable Resources Development in 2003.

Dr Fisher has been the government board member on a number of statutory corporations and is currently a member of the Council of AIMS. He has published over 260 papers and monographs. In addition to his

position with ABARE, in 2003 and 2004 he was an Associate Commissioner of the Productivity Commission and in 2005 the Chairman of the Prime Minister's Exports and Infrastructure Taskforce. In 1994 he received the Farrer Memorial Medal, became a fellow of the Academy of Social Sciences in Australia in November 1995, awarded the Public Service Medal in 2002 and received an Order of Australia in the Queen's Birthday Honours List in 2007. He holds a PhD in agricultural economics from the University of Sydney.

Dr Ian Poiner BSc (Hon), PhD, FTSE

Term as Council Member: 12/07/2004 – 11/07/2011

Dr Ian Poiner is the Chief Executive Officer of AIMS. Dr Poiner has significant experience in strategic development and planning of science, both as a practising scientist and at the organisational level. This is reflected in his successful large-scale, multi-disciplinary research projects and his establishment of national and international research programs to support the sustainable use, conservation and management of marine ecosystems. Dr Poiner's scientific background is research into tropical fisheries and ecological systems, including those in Australia's northern GBR, Torres Strait and the Gulf of Carpentaria. He has also worked in Jamaica, Papua New Guinea and Southeast Asia. Dr Poiner serves on a number of national and international committees. He is the Chair of the International Scientific Steering Committee of the Census of Marine Life, a 10-year international research program to assess and explain the diversity, distribution and abundance of marine organisms throughout the world's oceans. As CEO of AIMS, he is responsible for managing the day-to-day affairs of the Institute.

Council attendance

	24 Aug 09 Teleconference	21-22 Sep 09 Canberra	7-8 Dec 09 Townsville	22-23 Mar 10 Townsville	28 Jun 10 Townsville
Dr I Gould	✔	✔	✔	✔	N/A
Mr W Osborne	N/A	N/A	N/A	✔	×
Mr J Grace	✔	✔	✔	✔	✔
Ms E Montano	✔	✔	✔	✔	✔
Mr N Mathiou	✔	✔	✔	✔	✔
Prof S Harding	×	✔	✔	✔	✔
Dr B Fisher	✔	✔	✔	✔	✔
Dr I Poiner	✔	✔	✔	✔	✔

AUDIT COMMITTEE

The Audit Committee is a formal sub-committee of the Council and it meets quarterly or as required. The Audit Committee members during the reporting period were Mr Nicholas Mathiou (Chair), Ms Elizabeth Montano and Mr Roy Peterson. The Chief Executive Officer, the Chief Finance Officer, and representatives of the Australian National Audit Office and Internal Auditor and External 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 Agenda and Meeting minutes, and can attend meetings as a right.

The Audit Committee is responsible for providing independent assurance and assistance to Council in the following areas:

- Financial Risk Management;
- Control Framework;
- External Accountability;
- Legislative Compliance;

- Internal Audit;
- External Audit.

Meetings –Audit Committee

Member	Held	Attended
Mr Nicholas Mathiou (Council member and Chairman)	5	5
Ms Elizabeth Montano (Council member)	5	5
Mr Roy Peterson (External member)	5	4
Invitees		
Dr Ian Poiner (Chief Executive Officer)	5	4
Mr John Zabala (Internal Auditor)	5	4
Mr Victor Bayer (Chief Finance Officer)	5	5
Mr Mark Moloney (Australian National Audit Office)	5	1
Ms Corday Sturgess (HLB Mann Judd)	5	1

FINANCIAL RISK MANAGEMENT FRAMEWORK

The Audit Committee has responsibility for the review of the implementation and the development of the Institute's financial risk management framework and to make recommendations to Council. The Council is responsible for review of the risk management framework for strategic, commercial, operational and compliance risks.

FRAUD CONTROL

AIMS remains committed to the Commonwealth Fraud Control Guidelines as set out by the Attorney-General's Department, Criminal Justice Division. The Institute has reported its 2009-10 fraud data to the Australian Institute of Criminology. The Fraud Control Plan was reviewed during the year.

FINANCIAL REPORTING

AIMS financial statements are prepared in accordance with:

- Finance Minister's Orders for the reporting period ended 30 June 2010;
- Australian Accounting Standards and Accounting Interpretations issued by the Australian Accounting Board that apply for the reporting period.

The financial statements are accompanied by a Management Representation letter to the Australian National Audit Office, signed by the Chairman of Council, Chief Executive Officer and Chief Finance Officer, declaring that the statements present a true and fair view of the financial position, the operating results and the cash flows of the Institute for the year ended 30 June 2010.

INDEPENDENT PROFESSIONAL ADVICE

The Council has the right to obtain, at the Institute's expense, relevant independent professional advice in connection with the discharge of its responsibilities.

DIRECTORS' INTERESTS - DISCLOSURE OF INTEREST

Section 27F – 27K of the CAC 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.

INTERNAL AUDIT

The Audit Committee approves the annual internal audit plan and receives regular reports on progress against the plan. The internal audit function is performed by Moore Stephens Queensland. The Internal Auditor is responsible for providing an independent risk review function in accordance with the annual plan.

EXTERNAL AUDIT

Under the CAC Act, the Commonwealth Auditor-General, through the Australian National Audit Office (ANAO), is the external auditor for AIMS. The Audit Committee reviews the ANAO audit plan and reports and meets 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

The Institute invested its surplus money in accordance with Section 18(3) of the CAC Act. The investments were deposited with four banks In accordance with AIMS policy on investments. The maximum amount that can be invested with any one bank is 50% of total 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 under the CAC Act.

CONSULTANCY ADVICE

The Institute sought independent advice from one consulting firm during the 2009-10 period as a continuation of the advice sought in the previous financial year.

EEO AND WORKPLACE DIVERSITY

The Institute is aware of diversity issues. AIMS' Diversity Policy acknowledges differences and adapts work practices to create an inclusive work environment in which diverse skills, perspectives and cultural backgrounds are valued.

The Institute values the contribution that all staff and visitors make in bringing ideas, skills, competencies and values from both within and outside Australia. Workplace diversity is about acknowledging these differences and adapting work practices to create an inclusive environment where the range of diverse skills, perspectives and backgrounds are recognised, appreciated, supported and valued. AIMS recognises that understanding the individual differences in the people who work with the Institute enhances the quality and outcomes of the Institute's work.

The Institute's EEO focus is on ensuring that all people have equal access to facilities and resources. These include workforce issues such as employment and job promotion opportunities, as well as equity of access to training and development activities, the taking of leave and freedom from any form of discrimination.

STAFF CONSULTATION

Staff consultation and communication took place via a range of mediums such as all-staff meetings, emails and the Institute's internal newsletter *Scoop*. The Joint Consultative Committee met five (5) times in 2009-10. This committee provides a forum for discussion and consultation between management and staff representatives.

SUB CONTRACTORS

Sub-contractors are selected on the basis of quality, value for money, and availability. Tenders are required for services or products with a value greater than $50,000. The Tender Board must approve exemptions from public tendering in writing. Consistent with Section 21 of the CAC Act, Council members and staff cannot be involved in decision-making about subcontractors connected to them or to an immediate family member.

AIMS diver beside a large Porites *bommie, at Ashmore Reef, which is a potential candidate for future coral coring. Image: Ray Berkelmans.*

PUBLIC ACCOUNTABILITY

MINISTERIAL DIRECTIONS AND APPROVALS

On 18 December 2009 AIMS was advised by the Department of Finance and Deregulation that the Minister for Finance and Deregulation had made new directions on the procurement of goods and services under section 47A of the CAC Act. The Finance Ministers (CAC Act Procurement) Directions 2009 commenced on 1 January 2010, replacing the Finance Minister's (CAC Act Procurement) Directions 2004..

On 23 February 2010, the Minister for Innovation, Industry, Science and Research provided AIMS with his Statement of Expectations outlining the Australian Government's expectations of the Institute. A Statement of Intent was provided to the Minister on 24 March 2010.

JUDICIAL DECISIONS AND REVIEWS BY OUTSIDE BODIES

No judicial decisions relating to AIMS were handed down during the reporting period. A review of the Institute's Corporate Services area was conducted by Ernst & Young in March, 2010. A report was provided to the Institute's Management Group in May 2010 with recommendations currently under consideration.

OMBUDSMAN

No issues relating to AIMS were referred to the Commonwealth Ombudsman.

INDUSTRIAL RELATIONS

AIMS negotiated a new Enterprise Agreement with staff, the CPSU and AMWU during the reporting period. Rolled into the new Agreement were the AIMS Terms & Conditions of Employment as well as arrangements to ensure compliance with the Fair Work Act, National Emplyment Standards and the Australian Government Employment Bargaining Framework. The AIMS Enterprise Agreement 2010 - 2012 has a nominal expiry date of 30 June 2012.

INVESTING AND FINANCING ACTIVITIES

The Institute invested its surplus money in accordance with Section 18 (3) of the CAC Act. The investments were deposited with four banks In accordance with AIMS policy on investments. The maximum amount that can be invested with any one bank is 50% of total investments.

OCCUPATIONAL HEALTH AND SAFETY

The Institute endeavors to undertake marine research and related activities in a safe and responsible manner for staff and visitors. The Institute holds that "safe science is good science" and that all injuries are preventable. All risks and hazards should be identified and assessed in line with the complexities of the research work, activities and supporting functions required. AIMS has fostered a "stop work" and "speak up" culture where all personnel are encouraged and empowered to delay or stop work where effective risk management controls are not in place.

AIMS' commitment to safety has been acknowledged by Safe Work Australia and the Safety Rehabilitation & Compensation Commission awarding AIMS the following prestigious national safety awards:

- Safe Work Australia National Safety Awards for 2009, Category 1: Best Workplace Health and Safety Management System in the public sector;
- Safety Rehabilitation & Compensation Commission, Category 2: Best Workplace Health & Safety Management System.

During 2009–10, the OHS culture and function within the Institute were strengthened in many ways including:

- New Fitness for Work procedures incorporated into the AIMS Enterprise Agreement;
- Enhancement to the AIMS Health & Safety Management Arrangement (HSMA) and Health & Safety Representative elections;
- Implementation of the Scott Reef Research Project and continuous improvement of the AIMS HSE Management Systems;
- Review of the AIMS Emergency Response procedures and capabilities with the installation of additional infrastructure;
- Review of the AIMS Field practices and procedures with particular attention given to emergency response, fitness for work and risk mitigation;
- Selection of an integrated HSEQ computer cased management system for recording incidents, undertaking risk assessments and managing training and competencies;
- Provision of the following training:-
    - Manual Handling Training;
    - 1st Response Emergency Training;
    - Building Warden Training;
    - Emergency Radio Training;
    - Dogging (Load Shifting);
    - First Aid and Advanced Resuscitation Training;
    - Rescue Diver Training;
    - ADAS Commercial Diving Accreditation (Part 1, 2 & 3);
    - Dive Medical Technician;
    - Coxswain Accreditation;
    - AS4810 Safety Management System Auditing;
    - Safety in Laboratories (AS 2243);
- Ongoing review of HSE policies and procedures;
- Workplace harassment officers and health & safety representatives designated to assist staff and the Institute in promoting and maintaining a safe and healthy workplace;
- Ongoing confidential Employee Assistance Counselling Program.

INCIDENTS & HAZARD REPORTING

AIMS has encouraged the reporting of hazards and incidents (including potential incidents) and during 2009-10 a total of 35 incidents were reported (the majority of which did not involve injuries). Appropriate corrective actions were implemented, demonstrating AIMS' commitment to identifying and reporting hazards, implementing control measures and continuous improvement.

During the reporting period 2 incidents required notification to Comcare under the requirements of Section 68 of the Occupational Health and Safety Act 1991 in relation to dangerous occurrences. The incidents included a vessel lifting line failure and a scientific visitor sustaining a snake bite. Additionally there were no workers' compensation claims under the Comcare Workers' Compensation Scheme.

ENVIRONMENTAL PERFORMANCE

Contribution to environment protection and biodiversity conservation
In its 30-plus year history AIMS has demonstrated an extensive commitment to environmental protection and biodiversity conservation. We have 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 an obligation, both statutorily through the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and morally, to protect and maintain biodiversity and heritage within its control.

Contribution to ecologically sustainable development
AIMS contributes to Ecologically Sustainable Development (ESD) through its research activities and operations. For example, research activities within our Tropical Aquaculture Section will help remove pressure on marine resources such as lobsters, which are currently harvested from the wild.

As we hold the current Chair and Secretariat of the Oceans Policy Science Advisory Group AIMS is playing a critical role in advising the Federal Government on the best ways forward for the management of Australia's marine environment.

We have researchers who provide critical science to state and Commonwealth Governments on issues such as water quality, providing a framework for the management of agriculture and urban run-off to help protect nationally significant industries such as reef tourism. In times of potential national environmental disasters such as the Montara (West Atlas) oil spill or the grounding of the *Shen Neng 1* we have assets such as our vessels and teams of staff who are able to provide emergency advice and assessment in order to mitigate the impacts of these accidents.

The effects of AIMS' actions on the environment
AIMS' operations consume energy, water and material resources during the pursuit of its research outcomes.

In 2008 AIMS commenced a three-year program called green@ aims to evaluate our externally-provided energy use and in June 2010 a site segregated Energy Monitoring System was commissioned. In addition, AIMS has been approved to partake in the Queensland Government initiative "Network Demand Management Pilot Project" to reduce energy consumption.

In addition with our fleet of AIMS vehicles we have a policy of car pooling, whereby our staff are provided with access to a shared vehicle that is driven to and from work, which negates the need for the unnecessary use of many more private vehicles, which would most likely have only one passenger. To help with reducing fuel consumption AIMS offers driver training and purchase vehicles with a Green Vehicle Guide rating of 10.5 or greater where possible.

AIMS aligns its activities with the Australian Government's Energy Efficiency in Government Operations (EEGO) Policy and reports energy usage data annually to the Department of the Environment, Water, Heritage and the Arts via the Online System for Comprehensive Activity Reporting (OSCAR).

AIMS is currently focusing on substantially reducing its electrical energy needs. A significant part of the Institute's Tropical Marine Research Facilities Project relates to installation and use of new technologies to reduce energy usage. Major features of the project include the incorporation of an off-peak chilled water plant, installation of modern energy monitoring and control systems, upgrading of air handling units and the replacement of existing lighting with high efficiency LED globes. While the Institute is not currently

purchasing Green Power from commercial suppliers this option will be considered once electricity volume and usage patterns have stabilised upon completion of the upgrade project.

In spite of this our total electricity consumption has increased from 7.387 MW in 2008-09 to 7.436 MW in 2009-10. Our Total water consumption has also increased from 22.2 ML in 2008-09 to 22.5 ML in 2009-10. These increases are due to the commissioning of the new Centre of Marine Microbiology & Genetics Facility.

Our total greenhouse emissions have also increased. In 2008-09 AIMS used 56 TJ and this year we estimate this figure will be 57 TJ, primarily because, this year, our vessels have used 70,000 litres more of diesel. This increase in diesel usage is primarily due to the operations of the RV *Solander* - a combination of more 24 hour work to use the full capacity of this asset, plus the long steaming distances between remote locations in the north west, plus the need to return to Perth for the annual refit.

WATER USAGE

An on-site wastewater recycling facility allows all sewage generated at the Townsville headquarters to be treated and reused through the lawn and garden watering systems. Water-wise initiatives have been adopted throughout the site as a result of an on-going initiative started in 2002.

RADIATION SAFETY

The Institute continues to hold a Source Licence from the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). The provision of this Source Licence is subject to conditions including regular quarterly reporting, maintenance of a source inventory and compliance with relevant Regulations, Codes and Standards.

GENE TECHNOLOGY

Ten new proposals for Genetically Modified Organism (GMO) dealings were assessed by the Institute's Biosafety Committee in 2009-10. With projects on-going from previous years, AIMS now has 7 GMO projects that are defined by the Office of the Gene Technology Regulator (OGTR) as a Notifiable Low Risk Dealing and 13 defined as 'exempt'. The AIMS Institutional Biosafety Committee assessed one of this year's proposals as a Dealing Not Involving Release and AIMS is applying to the OGTR for the licence required to conduct this type of GMO dealing.

RECYCLING

AIMS aligns itself with the Australian Packaging Covenant (APC) Action Plan of 2007 and reported on waste statistics this year to APC (DEWHA) using the Australian Government National Packaging Covenant Waste Audit Tool. This evaluation highlighted improvement areas for AIMS' waste and recycling systems relating to paper, cardboard, batteries, printer cartridges, lubricants and metals. The Institute's headquarters recycles 100 per cent of treated sewage.

EEO AND WORKPLACE DIVERSITY

AIMS' 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 has in place a full range of policies and procedures designed to ensure that workplace diversity and equality of opportunity are fundamental operating principles of the Institute and its staff. These systems include:

- Employment policies and practices are regularly reviewed and steps taken to implement ongoing instruction for user groups;
- All recruitment advertisements placed in the print media and on the Institute's website promote the fact that the Institute is an equal opportunity employer;

- AIMS' public access facilities such as Conference Rooms, Theatre, Library, Canteen and Display areas support equity of access and provide amenities for people with disabilities;
- Construction of new facilities such as the Centre for Marine Microbiology and Genetics Research support equity of access;
- Public Tours to the Institute cater for those with a disability and a wheelchair is available if required;
- The Institute has mechanisms in place to handle complaints and grievances (formal and informal) to address issues and concerns raised by staff and visitors.

HARASSMENT

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

Workplace Harassment Contact Officers throughout the Institute are available to discuss, in confidence, matters of concern regarding harassment and associated issues raised by a staff member. In 2009-10 the Institute had no formal reported cases of harassment.

DISABILITY STRATEGY

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

All vacancy advertisements placed in the print media and on the AIMS web site clearly state that the Institute is an equal opportunity employer.

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

ETHICAL CONDUCT

The Institute has a Code of Conduct to which the Council, management, staff, and medium to long term visitors are required to adhere. The Code complies with Division 4 of the CAC Act. New Council members, staff and visitors are briefed on the Code during induction. Council members also abide by the *Code of Conduct for Directors* published by the Australian Institute of Company Directors.

EMPLOYEE ASSISTANCE PROGRAM

PPC Worldwide (formerly OSA Group) is contracted by the Institute to provide an independent Employee Assistance Program (EAP). The EAP is free to staff /family members and authorised visitors for up to 10 visits and provides assistance in the following areas:

- Relationship and family problems;
- Maximizing personal potential/performance;
- Anxiety, depression and stress;
- Changes at work or home;
- Financial and legal concerns;
- Alcohol and/or drug abuse;
- Gambling problems;
- Coping skills to handle a difficult set of circumstances (grief, serious illness, difficult personality, wayward child or children);
- Work/Life balance issues;

- Conflict at work/home/elsewhere;
- Coping skills in dealing with a range of pressures.

Staff/family members and authorised visitors can self refer or be encouraged by a colleague, supervisor Human Resource or OH & S staff to access the program. Approximately 9.52 per cent of staff accessed the counselling service during the reporting period, an increase on the previous year (5.36 per cent). A further dissection of usage reveals that 15 staff and two family members accessed the service with primary issues split between personal (53 per cent), impacting work (12 per cent) and work (35 per cent).

The increase over the previous year can be attributed to a greater awareness of the program, economic conditions and willingness of staff to seek assistance rather than trying to 'cope' with their work or personal issue/s. There was one trauma response in the reporting period.

FREEDOM OF INFORMATION

FOI Requests

No requests were received in 2009–10 under the provisions of the *Freedom of Information Act 1982* (FOI Act). No applications for internal review of decisions made under the FOI Act were received during 2009-10. No applications to the Administrative Appeals Tribunal for external review of decisions made under the FOI Act were received during 2009-10. No applications to amend records under the FOI Act were received during 2009-10. The statement required under Section 8 of the FOI Act, setting out documents available for inspection and the other information listed in the Section, is at Appendix 6.

FOI Operations

The documents listed in Appendix 6 are generally freely available to any person requesting them. The availability of other information is subject to assessment which will be made on a case-by-case basis. The grounds for assessment include commercial confidentiality, legal professional privilege and personal privacy (refer to the FOI Act for details of these and other grounds for refusal under the current legislation). Requests for any such information must be made in writing to the relevant person and be accompanied by the application fee which is currently AUD$30.

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
c/- Senior Commercial Lawyer
Commercial Services Group
Australian Institute of Marine Science
PMB No 3, Townsville Mail Centre MC Qld 4810
Telephone: (07) 4753 4146
Facsimile: (07) 4772 5852

CUSTOMER SERVICE CHARTER

The AIMS Service Charter for dealing with clients is posted on our website. The Institute 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 http://www.aims.gov.au/docs/about/corporate/service-charter.html

AUDITOR-GENERAL'S REPORT

- Independent Auditor's Report

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Innovation, Industry, Science and Research

Scope

I have audited the accompanying financial statements of Australian Institute of Marine Science (AIMS) for the year ended 30 June 2010, which comprise: a Statement by the Chair of Council, Chief Executive Officer and Chief Finance Officer, Statement of Comprehensive Income; Balance Sheet; Statement of Changes in Equity; Cash Flow Statement; Schedule of Commitments; Schedule of Contingencies; Schedule of Asset Additions; and Notes to and forming part of the Financial Statements, including a Summary of Significant Accounting Policies.

The Directors' Responsibility for the Financial Statements

The directors are responsible for the preparation and fair presentation of the financial statements in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, including the Australian Accounting Standards (which include the Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

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 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.

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT 2600
Phone (02) 6203 7300 Fax (02) 6203 7777

In making those risk assessments, the auditor considers internal control relevant to AIMS'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 AIMS's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, 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 the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

Auditor's Opinion

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

(a) have been prepared in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, including the Australian Accounting Standards; and

(b) give a true and fair view of the matters required by the Finance Minister's Orders including Australian Institute of Marine Science's financial position as at 30 June 2010 and its financial performance and cash flows for the year then ended.

Australian National Audit Office

Mark A Moloney
Senior Director
Delegate of the Auditor-General
Canberra
7 September 2010

Soft coral, Anthelia *sp. at Great Detached Reef. Image: Eric Matson.*

FINANCIAL STATEMENTS

- Statement by Chairman of Council, Executive Officer and Chief Financial Officer
- Statement of Comprehensive Income for the period ended 30 June 2010
- Balance Sheet as at 30 June 2010
- Statement of Changes in Equity for the period ended 30 June 2010
- Cash Flow Statement for the period ended 30 June 2010
- Schedule of Commitments as at 30 June 2010
- Schedule of Contingencies as at 30 June 2010
- Schedule of Asset Additions for the period ended 30 June 2010
- Notes to and forming part of the Financial Statements
- Supplementary Financial Information (unaudited) for the year to 30 June 2010

STATEMENT BY THE CHAIR OF COUNCIL, CHIEF EXECUTIVE OFFICER AND CHIEF FINANCE OFFICER

In our opinion, the attached Financial Statements for the year ended, 30 June 2010 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.*

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 Council.

Signed .....

Mr Wayne Osborn
Chairman of Council
23 August 2010

Signed .....

Dr Ian Poiner
Chief Executive Officer
23 August 2010

Signed .....

Mr Victor Bayer
Chief Finance Officer
23 August 2010

STATEMENT OF COMPREHENSIVE INCOME

for the period ended 30 June 2010

	Notes	2010 $'000	2009 $'000
EXPENSES			
Employee benefits	3A	**20,115**	18,966
Supplier expenses	3B	**17,696**	18,539
Depreciation and amortisation	3C	**7,803**	5,992
Write-down and impairment of assets	3D	**33**	2,593
Foreign exchange losses	3E	**4**	-
Finance costs	3F	**18**	37
Losses from asset sales	3G	**93**	660
Write-down and impairment of investments		**-**	258
Total expenses		**45,762**	47,045
LESS:			
OWN-SOURCE INCOME			
Own-source revenue			
Sale of goods and rendering of services	4A	**17,675**	20,326
Interest	4B	**1,703**	1,469
Other	4C	**182**	252
Total own-source revenue		**19,560**	22,047
Gains			
Sale of assets	4D	**171**	21
Total gains		**171**	21
Total own-source income		**19,731**	22,068
Net cost of services		**26,031**	24,977
Revenue from Government	4E	**48,413**	27,626
Total Revenue from Government and share of surplus in joint ventures		**48,413**	27,626
Surplus		**22,382**	2,649
Surplus attributable to the Australian Government		**22,382**	2,649
OTHER COMPREHENSIVE INCOME			
Changes in asset revaluation reserves		**-**	17,003
Share of Other Comprehensive Income of Joint Ventures		**301**	-
Total other comprehensive income		**301**	17,003
Total comprehensive income		**22,683**	19,652
Total comprehensive income attributable to the Australian Government		**22,683**	19,652

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

BALANCE SHEET

as at 30 June 2010

	Notes	2010 $'000	2009 $'000
ASSETS			
Financial Assets			
Cash and cash equivalents	**5A**	**504**	62
Trade and other receivables	**5B**	**7,057**	9,473
Other investments	**5C**	**42,076**	16,607
Total financial assets		**49,637**	26,142
Non-Financial Assets			
Buildings and leasehold improvements	**6A**	**52,021**	50,333
Infrastructure, plant and equipment	**6B,D**	**36,953**	37,740
Intangibles	**6C,E**	**966**	206
Inventories	**6F**	**211**	252
Other	**6G**	**345**	489
Jointly Controlled Assets	**6H**	**1,858**	1,585
Total non-financial assets		**92,354**	90,605
Total Assets		**141,991**	116,747
LIABILITIES			
Payables			
Suppliers	**7A**	**1,851**	1,441
Other	**7B**	**3,592**	2,066
Total payables		**5,443**	3,507
Non-Interest Bearing Liabilities			
Loans	**8A**	**1,500**	1,500
Total non- interest bearing liabilities		**1,500**	1,500
Provisions			
Employee provisions	**9A**	**6,352**	5,727
Total provisions		**6,352**	5,727
Total Liabilities		**13,295**	10,734
Net Assets		**128,696**	106,013
EQUITY			
Contributed equity		**31,607**	31,607
Reserves		**51,679**	51,378
Retained surplus		**45,410**	23,027
Total Equity		**128,696**	106,012

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

STATEMENT OF CHANGES IN EQUITY

for the period ended 30 June 2010

	Retained earnings		Asset revaluation reserve		Contributed equity/capital		Total equity	
	2010	2009	**2010**	2009	**2010**	2009	**2010**	2009
	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Opening balance								
Balance carried forward from previous period	**23,028**	20,378	**51,378**	34,375	**31,607**	31,607	**106,013**	86,360
Adjusted opening balance	**23,028**	20,378	**51,378**	34,375	**31,607**	31,607	**106,013**	86,360
Comprehensive income								
Other comprehensive income	**-**	-	**301**	17,003	**-**	-	**301**	17,003
Surplus (Deficit) for the period	**22,382**	2,649	**-**		**-**	**-**	**22,382**	2,649
Total comprehensive income	**22,382**	2,649	**301**	17,003	-	-	**22,683**	19,652
Transactions with owners								
Contributions by owners								
Sub-total transactions with owners	**-**	-	**-**	-	**-**	-	**-**	-
Closing balance as at 30 June	**45,410**	23,027	**51,679**	51,378	**31,607**	31,607	**128,696**	106,012

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

CASH FLOW STATEMENT

for the period ended 30 June 2010

	Notes	2010 $'000	2009 $'000
OPERATING ACTIVITIES			
Cash received			
Goods and services		**22,697**	17,519
Receipts from Government		**48,413**	27,626
Interest		**1,161**	1,508
Net GST received		**77**	328
Other		**182**	250
Total cash received		**72,530**	47,231
Cash used			
Employees		**19,371**	18,461
Suppliers		**17,862**	19,861
Total cash used		**37,233**	38,322
Net cash from (used by) operating activities	**10**	**35,297**	8,909
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		**660**	348
Total cash received		**660**	348
Cash used			
Purchase of property, plant and equipment		**10,046**	6,289
Total cash used		**10,046**	6,289
Net cash from (used by) investing activities		**(9,386)**	(5,941)
FINANCING ACTIVITIES			
Cash received			
Contributed equity			-
Loan proceeds		**-**	960
Total cash received		**-**	960
Net cash from (used by) financing activities		**-**	960
Net increase (decrease) in cash held		**25,911**	3,928
Cash and cash equivalents at the beginning of the reporting period		**16,669**	12,741
Cash and cash equivalents at the end of the reporting period	**5A,C**	**42,580**	16,669

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

SCHEDULE OF COMMITMENTS

as at 30 June 2010

	2010	2009
BY TYPE	**$'000**	$'000
Commitments receivable		
ATMRFP Building	**40,700**	-
Comcover Insurance Claims	**153**	-
Total commitments receivable	**40,853**	-
Commitments payable		
Capital commitments		
Buildings and leasehold improvements [1]	**67,023**	14
Infrastructure, plant and equipment [2]	**369**	897
Total capital commitments	**67,392**	911
Other commitments		
Operating Lease [3]	**11**	14
Other [4]	**18,896**	23,532
Total other commitments	**18,907**	23,546
Net commitments by type	**45,446**	24,457
BY MATURITY		
Commitments receivable		
Capital commitment income		
One year or less	**36,300**	-
From one to five years	**4,400**	-
Total capital commitments	**40,700**	-
Other commitment income		
One year or less	**153**	-
Total other commitments	**153**	-
Commitments payable		
Capital commitments		
One year or less	**35,568**	911
From one to five years	**30,999**	-
Over five years	**825**	-
Total capital commitments	**67,392**	911
Operating lease commitments		
One year or less	**3**	14
From one to five years	**8**	-
Over five years	**-**	-
Total operating lease commitments	**11**	14

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

SCHEDULE OF COMMITMENTS

as at 30 June 2010 (contd)

	2010	2009
BY TYPE	**$'000**	$'000
Other Commitments		
One year or less	**10,543**	9,433
From one to five years	**8,353**	14,099
Over five years	**-**	-
Total other commitments	**18,896**	23,532
Net Commitments by maturity	**45,446**	24,457

NB: Commitments are GST inclusive where relevant.

1. Contract for construction of the ATMRFP building, Indian Ocean Marine Research Centre WA and Data Room refit.
2. Purchase orders for the construction of the Great Barrier Reef Ocean Observing System, Scientific Equipment and Vehicles.
3. Operating Lease refers to franking machine.
4. Purchase orders for scientific research, contractual obligations for support services and externally funded research.

SCHEDULE OF CONTINGENCIES

as at 30 June 2010

	2010	2009
	$'000	$'000
Contingent assets		
Guarantees	**306**	306
Total contingent assets	**306**	306

Details of each class of contingent assets, including those not included above because they cannot be quantified, are disclosed in Note 11: Contingent Liabilities and Assets. There are no known contingent liabilities.

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

SCHEDULE OF ASSET ADDITIONS

for the period ended 30 June 2010

The following non-financial non-current assets were added in 2009-10:

	Buildings and Leasehold Improvements $'000	Infrastructure Plant and Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Vessels & Launches $'000	Library Books $'000	Total $'000
By purchase - Government funding	**3,629**	**1,962**	**-**	**-**	**-**	**-**	**-**	**5,591**
By purchase - other	**13**	**1,697**	**520**	**1,245**	**14**	**15**	**95**	**3,599**
Total additions	**3,642**	**3,659**	**520**	**1,245**	**14**	**15**	**95**	**9,190**

The following non-financial non-current assets were added in 2008-09:

	Buildings and Leasehold Improvements $'000	Infrastructure Plant and Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Vessels & Launches $'000	Library Books $'000	Total $'000
By purchase - Government funding	-	3,441	-	-	-	-	-	3,441
By purchase - other	506	128	601	870	11	690	-	2,806
Total additions	506	3,569	601	870	11	689	-	6,247

Note: 2009-10 DIISR provided funding for construction of a building for the Aus Tropical Marine Reseach Facilities Project.
DEST and Qld Government provided funding for plant & equipment for the Great Barrier Reef Ocean Observing System in 2008-09 and 2009-10.

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

Index to the Notes to the Financial Statements

Note 1: Summary of Significant Accounting Policies

1.1 Objective of Australian Institute of Marine Science

Australian Institute of Marine Science is an Australian Government controlled entity. The objective of the Australian Institute of Marine Science (AIMS) is the protection and sustainable development of Australia's marine resources.

AIMS is structured to meet one outcome:

Outcome 1: To enhance scientific knowledge supporting the protection and sustainability of Australia's marine resources.

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 programs.

1.2 Basis of Preparation of the Financial Statements

The financial statements are required by clause 1(b) of Schedule 1 to the *Commonwealth Authorities and Companies Act 1997* and are general purpose financial statements.

The financial statements have been prepared in accordance with:

- Finance Minister's Orders (or FMO) for reporting periods ending on or after 1 July 2009; 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 historical cost convention, except for certain assets and liabilities 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 FMO, assets and liabilities are recognised in the balance sheet 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 Agreements Equally Proportionately Unperformed are not recognised unless required by an accounting standard. Liabilities and assets that are unrecognised are reported in the schedule of commitments or the schedule of contingencies.

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:

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.

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 statement by the Chairman of Council, Chief Executive Officer and Chief Financial Officer, were applicable to the current reporting period and had a financial impact on the entity:

AASB 101 : Presentation of Financial Statements

The Australian Accounting Standards Board revised AASB 101 and as a result, there have been changes to the presentation and disclosure of certain information within the financial statements. Below is an overview of the key changes of the impact on the financial statements.

Disclosure impact

Terminology changes – The revised version of AASB 101 contains a number of terminology changes, including the amendment of the names of the primary financial statements.

Reporting changes in equity – The revised AASB 101 requires all changes in equity from transactions with owners, in their capacity as owners, to be presented separately from non-owner changes in equity. Owner changes in equity are to be presented in the statement of changes in equity, with non-owner changes in equity presented in the statement of comprehensive income. The previous version of AASB 101 required that owner changes in equity and other comprehensive income be presented in the statement of changes in equity.

Statement of comprehensive income – The revised AASB 101 requires all income and expenses to be presented in the statement of comprehensive income.

Other comprehensive income – the revised version of AASB 101 introduces the concept of other comprehensive income which comprises income and expenditure that are not recognised in profit or loss as required by other Australian Accounting Standards. Items of other comprehensive income are to be disclosed in the statement of comprehensive income.

Other new standards/revised standards/Interpretations/amending standards that were issued prior to the signing of the statement by the Chairman of Council, Chief Executive and Chief Financial Officer 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 the entity.

AASB 1	First-time Adoption of Australian Accounting Standards - May 2009 (Principal)
AASB 7	Financial Instruments: Disclosures - June 2009 (Compilation)
AASB 102	Inventories - June 2009 (Compilation)
AASB 107	Statement of Cash Flows - June 2009 (Compilation)
AASB 108	Accounting Policies, Changes in Accounting Estimates and Errors - July 2008 (Compilation)
AASB 110	Events after the Reporting Period - June 2009 (Compilation)
AASB 111	Construction Contracts - June 2009 (Compilation)
AASB 116	Property, Plant and Equipment - June 2009 (Compilation)
AASB 117	Leases - June 2009 (Compilation)
AASB 118	Revenue - August 2008 (Compilation).
AASB 119	Employee Benefits - June 2009 (Compilation)
AASB 120	Accounting for Government Grants and Disclosure of Government Assistance - July 2008 (Compilation)

AASB 128	Investments in Associates - July 2008 (Compilation)
AASB 131	Interests in Joint Ventures - July 2008 (Compilation)
AASB 132	Financial Instruments: Presentation - June 2009 (Compilation)
AASB 136	Impairment of Assets - June 2009 (Compilation)
AASB 137	Provisions, Contingent Liabilities and Contingent Assets - June 2009 (Compilation)
AASB 138	Intangible Assets - June 2009 (Compilation)
AASB 139	Financial Instruments: Recognition and Measurement - October 2009 (Compilation)
AASB 1031	Materiality - December 2007 (Compilation)
AASB 1048	Interpretation of Standards - June 2010 (Principal)
AASB 1049	Whole of Government and General Government Sector Financial Reporting - September 2008 (Compilation)
Interp. 4	Determining whether an Arrangement contains a Lease - June 2009 (Compilation)
Interp. 8	Scope of AASB 2 - September 2007 (Compilation)
Interp. 9	Reassessment of Embedded Derivatives - May 2009 (Compilation)
Interp. 10	Interim Financial Reporting and Impairment - October 2009 (Compilation)
Interp. 127	Evaluating the Substance of Transactions Involving the Legal Form of a Lease - June 2009 (Compilation)
Interp. 132	Intangible Assets – Web Site Costs - September 2007 (Compilation)
Interp. 1019	The Superannuation Contributions Surcharge - December 2007 (Compilation)
Interp. 1031	Accounting for the Goods and Services Tax (GST) - December 2007 (Compilation)

Future Australian Accounting Standard Requirements

The following new standards/revised standards/Interpretations/amending standards were issued by the Australian Accounting Standards Board prior to the signing of the statement by the Chairman of Council, Chief Executive Oficer and Chief Financial Officer, which are expected to have a financial impact:

- AASB 9: Financial Instruments and AASB 2009–11: Amendments to Australian Accounting Standards from AASB 9 [AASB 1, 3, 4, 5, 7, 101, 102, 108, 112, 118, 121, 127, 128, 131, 132, 136, 139, 1023 & 1038 and Interpretations 10 & 12] (applicable for annual reporting periods commencing on or after 1 January 2013), on the entity for future reporting periods.

  These Standards are applicable retrospectively and amend the classification and measurement of financial assets. AIMS has not yet determined any potential impact on the financial statements.

  - The changes made to accounting requirements include:
  - simplifying the classifications of financial assets into those carried at amortised cost and those carried at fair value;
  - removing the tainting rules associated with held-to-maturity assets;
  - requiring financial assets to be reclassified where there is a change in an entity's business model as they are initially classified based on : (a) the objective of the entity's business model for managing the financial assets; and (b) the characteristics of the contractual cash flows.

- AASB 124: Related Party Disclosures (applicable for annual reporting periods commencing on or after 1 January 2011).

  This Standard removes the requirement for government-related entities to disclose details of all transactions with the government and other government- related entities and clarifies the definition of a 'related party' to remove inconsistencies and simplify the structure of the Standard. No changes are expected to materially affect AIMS.

- AASB 2009–4: Amendments to Australian Accounting Standards arising from the Annual Improvements Project [AASB 2 and AASB 138 and AASB Interpretations 9 & 16] (applicable for annual reporting periods commencing from 1 July 2009) and AASB 2009-5 : Further Amendments to Australian Accounting Standards arising from the Annual Improvements Project [AASB 5, 8, 101, 107, 117, 118, 136 & 139] (applicable for annual reporting periods commencing from 1 January 2010).

  These Standards detail numerous non-urgent but necessary changes to Accounting Standards arising from the IASB's annual improvements project. No changes are expected to materially affect AIMS.

- AASB 2009–12: Amendments to Australian Accounting Standards [AASBs 5, 8, 108, 110, 112, 119, 133, 137, 139, 1023 & 1031 and Interpretations 2, 4, 16, 1039 & 1052] (applicable for annual reporting periods commencing on or after 1 January 2011).

  This Standard makes a number of editorial amendments to a range of Australian Accounting Standards and Interpretations, including amendments to reflect changes made to the text of IFRSs by the IASB. The Standard also amends AASB 8 to require entities to exercise judgement in assessing whether a government and entities known to be under the control of that government are considered a single customer for the purposes of certain operating segment disclosures. The impacts of the amendments will be in the form of disclosure.

- AASB 2009–14: Amendments to Australian Interpretation — Prepayments of a Minimum Funding Requirement [AASB Interpretation 14] (applicable for annual reporting periods commencing on or after 1 January 2011).

  This Standard amends Interpretation 14 to address unintended consequences that can arise from the previous accounting requirements when an entity prepays future contributions into a defined benefit pension plan.

- AASB 2010-4 Further Amendments to Australian Accounting Standards arising from the Annual Improvements Project [AASB 1, AASB 7, AASB 101 & AASB 134 and Interpretation 13] (applicable for annual reporting periods commencing on or after 1 January 2011).

  This standard amends the identified standards providing additional disclosure requirements.

There were additional new standards/revised standards/Interpretations/amending standards issued by the Australian Accounting Standards Board which are not listed above that are not relevant to the operations of AIMS.

1.5 Revenue

Revenue from the sale of goods is recognised when:

- the risks and rewards of ownership have been transferred to the buyer;
- the seller 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 total costs of the transaction.

Profits are recognised on the stage of completion basis and measured using the proportion of costs incurred to date as compared to the expected actual costs. Where losses are anticipated they are provided for in full. Receivables include contracts receivable and in progress.

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 review 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 Department of Innovation, Industry, Science and Research (appropriated to the department as a CAC Act body payment item for payment to AIMS) is recognised as Revenue from Government unless they are in the nature of an equity injection.

Grant from Government

AIMS has received a grant of $18 million during the financial year. In this year's Federal Budget the Government allocated $55 million for marine science infrastructure as part of its Marine and Climate Super Science Initiative.

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

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

Other Distributions to Owners

The FMO require that distributions to owners be debited to contributed equity unless in the nature of a dividend. In 2009-10, by agreement with the Department of Finance and Deregulation, AIMS did not relinquish control of any surplus output appropriation funding.

1.8 Employee Benefits

Liabilities for service rendered by employees are recognised at the reporting date to the extent they have not been settled.

Liabilities for short-term employee benefits (as defined in AASB 119) 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 benefit liabilities are measured at the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

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 AIMS 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 's 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 has been determined by reference to the work of an actuary as at 30 June 2010. 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

Staff of AIMS are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap is a defined contribution scheme.

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 by the Department of Finance and Deregulation as an administered item.

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

1.9 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased assets. An operating lease is a lease that is not a finance lease. In operating leases, the lessor effectively retains substantially all such risks and benefits.

Where an asset is acquired by means of a finance lease, the asset is capitalised at either the fair value of the lease property or, if lower, the present value of minimum lease payments at the inception of the contract and a liability is recognised at the same time and for the same amount.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight-line basis which is representative of the pattern of benefits derived from the leased assets.

1.10 Cash

Cash and cash equivalents includes cash on hand and any 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. Cash is recognised at its nominal amount.

1.11 Financial Assets

AIMS classifies its financial assets in the following categories:

- held-to-maturity investments;
- 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.

Effective Interest Method
The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis except for financial assets that are recognised at fair value through profit or loss.

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 using the effective interest method less impairment, with revenue recognised on an effective yield basis.

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 using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

Impairment of Financial Assets
Financial assets are assessed for impairment at end of each reporting periods.

- *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.

- *Cleveland Biosensors Pty Ltd*
AIMS retains an investment of 6.7% (2009: 6.7%) in a private company Cleveland Biosensors Pty Ltd (CBPL). As at 30 June 2010 AIMS held Notes with a face value of $ 1,134,877 in CBPL. Conditions applying to the Notes are specified in CBPL Deed Poll. The loan and the provision for doubtful debt have been written off as at 30 June 2010. This is not a controlling ownership so does not require consolidation of CBPL in the AIMS' Financial Report. The CBPL management is proposing to deregister the company in 2010-11.

1.12 Jointly Controlled Entities

AIMS has interests in:

- AIMS @ JCU Joint Venture
- Arafura Timor Research Facility Joint Venture

AIMS@JCU Joint Venture

AIMS has entered into joint venture operations with James Cook University (JCU) to:-

- increase research activities by the participants in determined programs; and
- to improve participants' individual research capabilities and research outputs and outcomes of all participants.

The joint venture operations has a Board which determines the research objective for funding. The agreement specifies that the share that each participant is to receive from the joint venture is to be determined by the Board.

AIMS is responsible for managing the funds on behalf of the joint venture operations. As at 30 June 2010 AIMS held $253,000 (2009: $526,500) on behalf of the joint venture operations. This is shown as a liability in AIMS' Financial Report. (Refer Note 16D: Financial Liabilities)

The Arafura Timor Research Facility Joint Venture

AIMS has entered into joint venture operations with the Australian National University. AIMS has a 50% share and this is consolidated. The purpose of the venture is to maintain a research facility in Darwin that will create a centre of excellence in the field of physical, chemical engineering, information and biological sciences with the capability of pursuing world class research and training in that field. The Australian National University is responsible for managing the financial affairs of the joint venture.

1.13 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 initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

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

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).

1.14 Contingent Liabilities and Contingent Assets

Contingent liabilities and contingent assets are not recognised in the balance sheet but are reported in the relevant schedules and 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.

1.15 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 a 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 Authority's accounts immediately prior to the restructuring.

1.16 Property, Plant and Equipment

Asset Recognition Threshold

Purchases of property, plant and equipment are recognised initially at cost in the balance sheet, 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).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located. This is particularly relevant to 'make good' provisions in property leases taken up by AIMS where there exists an obligation to original condition. These costs are included in the value of AIMS's leasehold improvements with a corresponding provision for the 'make good' recognised.

Revaluations

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

Asset Class	Fair Value Measured at:
Buildings	Depreciated Replacement Cost
Leasehold Improvements	Open Market Value where such a market exists else Depreciated Replacement Cost
Plant and Equipment	Open Market Value where such a market exists else 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 depends 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 is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses 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 reverse 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 AIMS using, in all cases, the straight-line method of depreciation.

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

	2010	2009
Buildings and leasehold improvements	**10-80 years**	10-80 years
Plant and Equipment	**3-41years**	3-41 years

Impairment

All assets were assessed for impairment at 30 June 2010. 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 were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

1.17 Intangibles

AIMS's 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 AIMS's software are 2 to 12 years (2009-10: 2 to12years).

All software assets were assessed for indications of impairment as at 30 June 2010.

1.18 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.

1.19 Taxation / Competitive Neutrality

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.

1.20 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 current as at balance date. Associated currency gains and losses are not material.

1.21 Research, Development and Intellectual Property

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

1.22 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 by intellectual property to which AIMS does not attribute any value in the Financial Statements.

1.23 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 creditors or receivables respectively.

Note 2: Events After the Reporting Period

Australia Institute of Marine Science is not aware of any material events that have occurred since balance date.

Note 3: Expenses

	2010 $'000	2009 $'000
Note 3A: Employee Benefits		
Wages and salaries	**15,039**	14,527
Superannuation:		
Defined contribution plans	**2,508**	2,188
Defined benefit plans	**-**	-
Leave and other entitlements	**2,568**	2,251
Total employee benefits	**20,115**	18,966
Note 3B: Suppliers		
Goods and services		
Consultants	**-**	81
Contractors	**17,535**	18,284
Stationery	**68**	72
Total goods and services	**17,603**	18,437
Goods and services are made up of:		
Provision of goods – related entities	**7**	6
Provision of goods – external parties	**3,811**	3,921
Rendering of services – related entities	**670**	1,089
Rendering of services – external parties	**13,115**	13,421
Total goods and services	**17,603**	18,437
Other supplier expenses		
Operating lease rentals – related entities:		
Minimum lease payments	**3**	7
Workers compensation expenses	**90**	95
Total other supplier expenses	**93**	102
Total supplier expenses	**17,696**	18,539

Note 3: Expenses (contd)

	2010 $'000	2009 $'000
Note 3C: Depreciation and Amortisation		
Depreciation:		
Building and leasehold improvements	**1,936**	1,889
Plant & Equipment	**2,933**	1,900
Computer Equipment	**812**	596
Vehicles	**601**	450
Office Equipment	**54**	41
Ships, launches and vessels	**1,215**	958
Library	**156**	129
Total depreciation	**7,707**	5,963
Amortisation:		
Intangibles:		
Computer software	**96**	29
Total amortisation	**96**	29
Total depreciation and amortisation	**7,803**	5,992
Note 3D: Write-Down and Impairment of Assets		
Asset write-downs and impairments from:		
Impairment of property, plant and equipment	**-**	2,593
Other	**33**	-
Total write-down and impairment of assets	**33**	2,593
Note 3E: Foreign Exchange Losses		
Non-speculative	**4**	**-**
Total foreign exchange losses	**4**	-
Note 3F: Finance Costs		
Interest Expense	**18**	37
Total finance costs	**18**	37
Note 3G: Losses from Asset Sales		
Land and buildings:		
Proceeds from sale	**-**	-
Carrying value of assets sold	**-**	611
Infrastructure, plant and equipment:		
Proceeds from sale	**(65)**	(110)
Carrying value of assets sold	**158**	159
Total losses from asset sales	**93**	660

Note 4: Income

	2010	2009
REVENUE	**$'000**	$'000
Note 4A: Sale of Goods and Rendering of Services		
Provision of goods - related entities		
Provision of goods - external parties	**49**	17
Rendering of services - related entities	**5,706**	5,822
Rendering of services - external parties	**11,920**	14,487
Total sale of goods and rendering of services	**17,675**	20,326
Note 4B: Interest		
Deposits	**1,703**	1,469
Total interest	**1,703**	1,469
Note 4C: Other Revenue		
Insurance claims	**152**	22
Other	**30**	230
Total other revenue	**182**	252
GAINS		
Note 4 D: Sale of Assets		
Infrastructure, plant and equipment:		
Proceeds from sale	**595**	237
Carrying value of assets sold	**(424)**	(216)
Net gain from sale of assets	**171**	21
REVENUE FROM GOVERNMENT		
Note 4E : Revenue from Government		
Department of Innovation , Industry, Science and Research		
CAC Act body payment item	**30,413**	27,626
Grant from Government	**18,000**	-
Total revenue from Government	**48,413**	27,626

Note 5: Financial Assets

	2010 $'000	2009 $'000
Note 5A: Cash and Cash Equivalents		
Cash on hand or on deposit	**6**	6
Other	**498**	56
Total cash and cash equivalents	**504**	62
Note 5B: Trade and Other Receivables		
Good and Services:		
Goods and services - related entities	**853**	1,201
Goods and services - external parties	**5,559**	8,082
Total receivables for goods and services	**6,412**	9,283
Other receivables:		
Interest	**645**	103
Other	**-**	87
Total other receivables	**645**	190
Total trade and other receivables (gross)	**7,057**	9,473
Receivables are expected to be recovered in:		
No more than 12 months	**7,057**	9,473
More than 12 months	**-**	-
Total trade and other receivables (net)	**7,057**	9,473
Receivables are aged as follows:		
Not overdue	**6,093**	5,376
Overdue by:		
0 to 30 days	**-**	-
31 to 60 days	**840**	3,314
61 to 90 days	**4**	509
More than 90 days	**120**	274
Total receivables (gross)	**7,057**	9,473

Note 5: Financial Assets (contd.)

Reconciliation of the Impairment Allowance Account:

Movements in relation to 2010

	Goods and services $'000	Other receivables $'000	Total $'000
Opening balance	**-**	**-**	**-**
Amounts written off	**-**	**-**	**-**
Amounts recovered and reversed	**-**	**-**	**-**
Increase/decrease recognised in net surplus	**-**	**-**	**-**
Closing balance	**-**	**-**	**-**

Movements in relation to 2009

	Goods and services $'000	Other receivables $'000	Total $'000
Opening balance	(147)	-	(147)
Amounts written off	-	-	-
Amounts recovered and reversed	147	-	147
Increase/decrease recognised in net surplus	-	-	-
Closing balance	-	-	-

	2010 $'000	2009 $'000
Note 5C: Other Investments		
Deposits	**41,824**	16,080
Deposits on behalf of Joint Ventures	**252**	527
Total other investments	**42,076**	16,607
Total other investments are expected to be recovered in:		
No more than 12 months	**42,076**	16,607
Total other investments	**42,076**	16,607

Note 6: Non-Financial Assets

	2010 $'000	2009 $'000
Note 6A: Buildings		
Buildings on crown land:		
Fair value	**50,579**	50,768
Work In progress	**3,860**	231
Accumulated depreciation	**(2,418)**	(666)
Total buildings on crown land	**52,021**	50,333

No indicators of impairment were found for buildings on crown land
No buildings are expected to be sold or disposed of within the next 12 months.

Note 6B: Infrastructure, Plant and Equipment		
Plant and equipment:		
Fair value	**16,065**	13,522
Work In progress	**1,622**	644
	17,687	14,166
Accumulated depreciation	**(3,560)**	(656)
Total plant and equipment	**14,127**	13,510
Computer equipment		
- Fair value	**2,378**	1,825
Work in progress	**39**	102
	2,417	1,927
- Accumulated depreciation	**(1,001)**	(208)
Total computer equipment	**1,416**	1,719
Vehicles		
- Fair value	**2,156**	1,548
- Accumulated depreciation	**(461)**	(105)
Total vehicles	**1,695**	1,443
Office equipment		
- Fair value	**216**	207
Work in progress	**5**	-
	221	207
- Accumulated depreciation	**(67)**	(13)
Total office equipment	**154**	194
Ships, launches and vessels:		
- Fair value	**18,450**	18,241
- Work in progress	**-**	255
	18,450	18,496
- Accumulated depreciation	**(1,496)**	(290)
Total ships, launches and vessels	**16,954**	18,206
Library books		
- Fair value	**2,801**	2,706
- Accumulated depreciation	**(194)**	(38)
Total library books	**2,607**	2,668
Total infrastructure, plant and equipment:		
- Gross carrying value (at fair value)	**42,065**	38,049
- Work in progress	**1,666**	1,001
	43,731	39,050
- Accumulated depreciation	**(6,778)**	(1,310)
Total infrastructure, plant and equipment	**36,953**	37,740

No indicators of impairment were found for infrastructure, plant and equipment.
No infrastructure, plant or equipment is expected to be sold or disposed of within the next 12 months.

Note 6: Non-Financial Assets (contd)

	2010 $'000	2009 $'000
Note 6C: Intangibles		
Computer Software at cost:		
Internally developed - in use	**260**	256
Work in progress at cost	**852**	-
	1,112	256
Accumulated amortisation	**(146)**	(50)
Total intangibles (non-current)	**966**	206

No indicators of impairment were found for intangible assets.
No intangibles are expected to be sold or disposed of within the next 12 months.

All revaluations were conducted in accordance with the revaluation policy stated at Note 1. On 30th June 2010 independent valuers, Pickles Valuation Services confirmed that net book valuation is in line with Fair Value under the Standard AASB 116.

Revaluation increments were credited to the asset revaluation reserve by asset class and included in the equity section of the balance sheet as follows:

Buildings	**-**	7,815
Computers	**-**	412
Motor Vehicles	**-**	57
Office Furniture	**-**	14
Plant & Equip	**-**	3,495
Ships & Vessels	**-**	3,126
Library	**-**	2,090
Software	**-**	65
Total	-	17,074

Revaluations attributable to relifing of assets were expensed as follows:

Buildings	**-**	540
Computers	**-**	(18)
Motor Vehicles	**-**	6
Office Furniture	**-**	(6)
Plant & Equip	**-**	(468)
Library	**-**	(80)
Software	**-**	(46)
Total	**-**	(72)

Note 6: Non-Financial Assets (contd)

Note 6D: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment (2009-10)

	Buildings and Leasehold improvements $'000	Plant and Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Vessels & Launches $'000	Library Books $'000	Total $'000
As at 1 July 2009								
Gross book value	**50,999**	**14,166**	**1,927**	**1,548**	**207**	**18,496**	**2,706**	**90,048**
Accumulated depreciation/amortisation and impairment	**(666)**	**(656)**	**(208)**	**(105)**	**(13)**	**(290)**	**(38)**	**(1,975)**
Net book value 1 July 2009	**50,333**	**13,510**	**1,719**	**1,443**	**194**	**18,206**	**2,668**	**88,073**
Additions:								
By purchase	**3,642**	**3,659**	**520**	**1,245**	**14**	**15**	**95**	**9,190**
Depreciation/amortisation expense	**(1,936)**	**(2,932)**	**(812)**	**(601)**	**(54)**	**(1,215)**	**(156)**	**(7,706)**
Other disposals	**(18)**	**(110)**	**(11)**	**(392)**	**-**	**(52)**	**-**	**(583)**
Net book value 30 June 2010	**52,021**	**14,127**	**1,416**	**1,695**	**154**	**16,954**	**2,607**	**88,974**
Net book value as of 30 June 2010 represented by:								
Gross book value	**54,439**	**17,687**	**2,417**	**2,156**	**221**	**18,450**	**2,801**	**98,171**
Accumulated depreciation/amortisation	**(2,418)**	**(3,560)**	**(1,001)**	**(461)**	**(67)**	**(1,496)**	**(194)**	**(9,197)**
	52,021	**14,127**	**1,416**	**1,695**	**154**	**16,954**	**2,607**	**88,974**

Note 6: Non-Financial Assets (contd)

Note 6D: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment (2008-09)

	Buildings and Leasehold Improvements	Plant and Equipment	uter Equipment	Vehicles	Office Equipment	Vessels & Launches	Library Books	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
As at 1 July 2008								
Gross book value	50,615	13,803	2,177	1,703	341	16,252	1,611	86,502
Accumulated depreciation/amortisation and impairment	(3,997)	(4,985)	(848)	(385)	(125)	(902)	(824)	(12,066)
Net book value 1 July 2008	46,618	8,818	1,329	1,318	216	15,350	787	74,436
Additions:								
By purchase	506	3,569	601	870	11	689	-	6,247
Revaluations and impairments recognised in other compreh	7,815	3,495	412	57	14	3,125	2,090	17,008
Revaluations recognised in the operating result	540	(468)	(18)	6	(6)	-	(80)	(25)
Impairments recognised in the operating result	(2,593)	-	-	-	-	-	-	(2,593)
Depreciation/amortisation expense	(1,889)	(1,900)	(596)	(450)	(41)	(958)	(129)	(5,963)
Other movements- Depreciation on share of ATRF	(53)	-	-	-	-	-	-	(53)
Other disposals	(611)	(6)	(9)	(358)	-	-	-	(984)
Net book value 30 June 2009	50,333	13,510	1,719	1,443	194	18,206	2,668	88,073
Gross book value	50,999	14,166	1,927	1,548	207	18,496	2,706	90,049
Accumulated depreciation/amortisation and impairment	(666)	(656)	(208)	(105)	(13)	(290)	(38)	(1,976)
	50,333	13,510	1,719	1,443	194	18,206	2,668	88,073

Note 6: Non-Financial Assets (contd)

Note 6E: Reconciliation of the Opening and Closing Balances of Intangibles (2009-10)

	Computer Software Purchased $'000	Total $'000
As at 1 July 2009		
Gross book value	**256**	**256**
Accumulated depreciation/amortisation and impairment	**(50)**	**(50)**
Net book value 1 July 2009	**206**	**206**
Additions:		
Internally developed	**856**	**856**
Amortisation	**(96)**	**(96)**
Net book value 30 June 2010	**966**	**966**
Net book value as of 30 June 2010 represented by:		
Gross book value	**1,112**	**1,112**
Accumulated depreciation/amortisation and impairment	**(146)**	**(146)**
	966	**966**

Note 6E: Reconciliation of the Opening and Closing Balances of Intangibles (2008-09)

	Computer Software Purchased $'000	Total $'000
As at 1 July 2008		
Gross book value	564	564
Accumulated depreciation/amortisation and impairment	(388)	(388)
Net book value 1 July 2008	176	176
Additions:		
By purchase	40	40
Revaluations and impairments recognised in other comprehensive income	65	65
Revaluations recognised in the operating result	(46)	(46)
Amortisation	(29)	(29)
Net book value 30 June 2009	206	206
Net book value as of 30 June 2009 represented by:		
Gross book value	256	256
Accumulated depreciation/amortisation and impairment	(50)	(50)
	206	206

	2010 $'000	2009 $'000
Note 6F: Inventories		
Inventories held for sale:		
Finished goods	**-**	33
Total inventories held for sale	**-**	33
Inventories held for distribution	**211**	219
Total inventories	**211**	252

During 2009-10, 32,775 of inventory held for sale was recognised as an expense (2008-09: Nil).

No items of inventory were recognised at fair value less cost to sell.

All inventory is expected to be distributed in the next 12 months.

Note 6: Non-Financial Assets (contd)

	2010 $'000	2009 $'000
Note 6G: Other Non-Financial Assets		
Prepayments	**345**	489
Total other non-financial assets	**345**	489

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

Total other non-financial assets - are expected to be		
No more than 12 months	**345**	489
Total other non-financial assets	**345**	489

Note 6H: Jointly Controlled Assets

AIMS is a venturer in the following jointly controlled operations and assets:

	Principal activity	Share of Output 2010 %	2009 %
Jointly Controlled Assets:			
Cash at Bank		**50**	50
Accounts Receivable		**50**	50
Building		**50**	50
Jointly Controlled Operations :			
Arafura Timor Research Facility Joint Venture	**Research**	**50**	50

AIMS interest, as a venturer, in assets employed in the above jointly controlled operations and assets is detailed below. The amounts are included in the financial statements under their respective asset categories:

	2010 $'000	2009 $'000
Jointly Controlled Assets:		
Current assets		
Cash at bank	**69**	82
Accounts receivable	**26**	12
Total current assets	**95**	94
Non-current assets		
Building and equipment	**1,843**	1,673
Provision for depreciation	**(80)**	(182)
Total non-current assets	**1,763**	1,491
Total assets	**1,858**	1,585

Note 7: Payables

	2010 $'000	2009 $'000
Note 7A: Supplier Payables		
Trade creditors and accruals	**1,851**	1,441
Total supplier payables	**1,851**	1,441
Supplier payables expected to be settled within 12 months:		
Related entities	**112**	379
External parties	**1,739**	1,062
Total supplier payables	**1,851**	1,441

All supplier payables are payables expected to be settled within 12 months.

Settlement is usually made within 30 days.

Note 7B: Other Payables		
Consultancies and grants	**2,784**	1,076
Joint venturers	**253**	526
Salaries and wages	**493**	371
Other	**62**	93
Total other payables	**3,592**	2,066
Total other payables are expected to be settled in:		
No more than 12 months	**3,592**	1,988
More than 12 months	**-**	78
Total other payables	**3,592**	2,066

Note 8: Non-Interest Bearing Liabilities

	2010 $'000	2009 $'000
Note 8A: Non-Interest Bearing Loans		
Loans from Government	**1,500**	1,500
Total non-interest bearing loans	**1,500**	1,500
Payable:		
In more than five years	**1,500**	1,500
Total non-interest bearing loans	**1,500**	1,500

Loan information:
The loan was provided in 2007-08 by the Queensland Government Department of Tourism, Regional Development and Industry, with repayments commencing after 10 years. There is no interest payable on the loan.

For further information re loan from Government refer Note 11.

Note 9: Provisions

	2010 $'000	2009 $'000
Noter 9A: Employee Provisions		
Annual leave	**2,687**	2,429
Long service leave	**2,981**	2,763
Superannuation	**618**	513
Workers compensation	**15**	22
Fringe benefit tax	**51**	-
Total employee provisions	**6,352**	5,727
Employee provisions are expected to be settled in:		
No more than 12 months	**5,966**	5,380
More than 12 months	**386**	347
Total employee provisions	**6,352**	5,727

The classification of current employee provisions includes amounts for which there is not an unconditional right to defer settlement by one year, hence in the case of employee provisions the above classification does not represent the amount expected to be settled within one year of the reporting date. Employee provisions expected to be settled in twelve months from the reporting date are $2,037,540 (2009:$1,891,398), and in excess of one year $4,314,075 (2009: $3,835,285).

Note 10: Cash Flow Reconciliation

	2010 $'000	2009 $'000
Reconciliation of cash and cash equivalents as per Balance Sheet to Cash Flow Statement		
Cash and cash equivalents as per:		
Cash flow statement	**42,580**	16,669
Balance sheet	**42,580**	16,670
Difference	**-**	**-**
Balance Sheet comprises of:		
Cash and cash equivalents	**504**	62
Investments	**42,076**	16,607
Total	**42,580**	16,669
Reconciliation of net cost of services to net cash from operating activities:		
Net cost of services	**(26,031)**	(24,977)
Add revenue from Government	**48,413**	27,626
Adjustments for non-cash items		
Depreciation / amortisation	**7,803**	5,992
Net write down of non-financial assets	**33**	2,593
Gain on disposal of assets	**(171)**	(21)
Loss on disposal of assets	**93**	660
Changes in assets / liabilities		
(Increase) / decrease in net receivables	**2,416**	(2,248)
(Increase) / decrease in inventories	**41**	(31)
(Increase) / decrease in prepayments	**143**	(64)
Increase / (decrease) in prepayments received	**-**	(373)
Increase / (decrease) in employee provisions	**624**	241
Increase / (decrease) in supplier payables	**1,933**	(490)
Net cash from (used by) operating activities	**35,297**	8,909

Note 11: Contingent Liabilities and Assets

	Guarantees		Total	
	2010	2009	**2010**	2009
	$'000	$'000	**$'000**	$'000
Contingent assets				
Balance from previous period	**306**	306	**306**	306
Total contingent assets	**306**	306	**306**	306

Quantifiable Contingencies

The schedule of contingencies reports contingent assets in respect of B.A.E . Australia Pty Ltd of $304,212 (2009: $304,212) for the security on the design, construction, sale and delivery of the scientific research vessel.

The schedule also reports contingent asset in respect of OTIS Elevator Company Pty Ltd of $2,200 (2009: $2,200) for the lift modernisation at AIMS.

A contingent asset of $500,000 is reported in respect of a non-current liability funded by the Queensland Government Department of Tourism, Regional Development and Industry for $1.5million. This is a forgiveness amount providing certain criteria is met over the next 2 years.

Unquantifiable Contingencies

At 30 June 2010, AIMS is not aware of any material unquantifiable contingencies.

Note 12: Directors Remuneration

	2010	2009
	No.	**No.**
The number of directors of AIMS included in these figures are shown below in the relevant remuneration bands:		
less than $145,000	**7**	6
$355,000 to $369,999	**1**	1
Total number of Directors of AIMS	**8**	7
	$	$
Total remuneration received or due and receivable by directors of Aims.	**529,240**	511,161

The Directors (members of council) of AIMS are appointed by the Governor General.

The Chief Executive Officer is appointed by the Board of Directors (Members of Council).

Note 13: Related Party Disclosures

Loans to Directors and Director-Related Entities

There were no loans made to any Director or Director-related entities during the period (2009: Nil)

Other transactions with directors or director-related entities

There were no other transactions with Directors or Director related entities during the period (2009: Nil).

Note 14: Executive Remuneration

	2010 No.	2009 No.
The number of Senior Executives of AIMS included in these figures are shown below in the relevant remuneration bands:		
$145,000 to $159,999	**1**	1
$160,000 to $174,999	**1**	-
$220,000 to $234,999	**-**	1
$235,000 to $249,999	**-**	1
$265,000 to $279,999	**1**	-
$310,000 to $324,999	**1**	-
Total	**4**	3

Total expense recognised in relation to Senior Executive employment

	$	$
Short-term employee benefits:		
Salary (including annual leave taken)	**671,043**	451,157
Changes in annual leave provisions	**11,619**	(7,057)
Performance bonus	**52,620**	65,556
Other[1]	**62,178**	42,244
Total Short-term employee benefits	**797,460**	551,900
Superannuation (post-employment benefits)	**92,714**	74,949
Other long-term benefits	**16,455**	16,895
Total	**906,629**	643,744

During the year the entity paid $Nil in termination benefits to senior executives (2009: $Nil)

The Chief Executive Officer's remuneration is included in Note 12, Directors Remuneration.

Notes

1. "Other" includes motor vehicle allowances.

Salary Packages for Senior Executives

Average annualised remuneration packages for substantive Senior Executives

	As at 30 June 2010			As at 30 June 2009		
Total remuneration:	**No**	**Base salary (including annual leave) $**	**Total remuneration package[1] $**	No	Base salary (including annual leave) $	Total remuneration package[1] $
$130,000 to $144,999	**-**	**-**	**-**	1	127,610	143,382
$145,000 to $159,999	**1**	**124,977**	**154,425**	-	-	-
$160,000 to $174,999	**1**	**124,977**	**164,804**	-	-	-
$235,000 to $249,999	**-**			1	145,589	241,226
$265,000 to $279,999	**-**	**-**		1	177,958	251,135
$250,000 to $264,1000	**1**	**203,207**	**271,752**	-	-	-
$310,000 to $324,999	**1**	**217,882**	**315,648**	-	-	-
Total	**4**			3		

Notes

1. Non-Salary elements available to Senior Executives include:
   (a) Performance Bonus
   (b) Motor vehicle allowance
   (c) Superannuation

Note 15: Remuneration of Auditors

	2010 $'000	2009 $'000
Financial statement audit services are provided to AIMS. The fair value of the services provided was:		
Audit Services	**48**	46
	48	46

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

Note 16: Financial Instruments

	2010 $'000	2009 $'000
Note 16A: Categories of Financial Instruments		
Financial Assets		
Held-to-maturity:		
Investments	**42,076**	16,607
Total	**42,076**	16,607
Loans and receivables:		
Cash at Bank	**498**	138
Receivables for goods and services	**6,412**	9,283
Total	**6,910**	9,421
Carrying amount of financial assets	**48,986**	26,028
Financial Liabilities		
At amortised cost:		
Trade creditors	**1,851**	1,441
Consultancies and grants	**2,784**	1,076
Joint ventures	**253**	526
Loans from government	**1,500**	1,500
Carrying amount of financial liabilities	**6,388**	4,543
Note 16B: Net Income and Expense from Financial Assets		
Held-to-maturity		
Interest revenue (see Note 4B)	**1,703**	1,469
Net gain/(loss) held-to-maturity	**1,703**	1,469
Net gain/(loss) from financial assets	**1,703**	1,469

Note 16: Financial Instruments (contd.)

	2010 $'000	2009 $'000
Note 16C: Net Income and Expense from Financial		
Financial liabilities - at amortised cost		
Interest expense	**18**	37
Net gain/(loss) financial liabilities	**18**	37

Note 16D: Fair Value of Financial Instruments

	Carrying amount 2010 $'000	Fair value 2010 $'000	Carrying amount 2009 $'000	Fair value 2009 $'000
Financial Assets				
Cash at bank	**498**	**498**	138	138
Receivables for goods and services (net)	**6,412**	**6,412**	9,283	9,283
Investments	**42,076**	**42,076**	16,607	16,607
Total	**48,986**	**48,986**	26,028	26,028
Financial Liabilities				
Trade creditors	**1,851**	**1,851**	1,441	1,441
Consultancies and grants	**2,784**	**2,784**	1,076	1,076
Joint ventures	**253**	**253**	526	526
Loans from government	**1,500**	**1,500**	1,500	1,500
Total	**6,388**	**6,388**	4,543	4,543

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.

Fair value for Loans from Government, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date.

Note 16: Financial Instruments (contd.)

Note 16E: Credit Risk

AIMS is exposed to minimal credit risk as the majority of loans and receivables are cash, or amounts owed by the Australian Tax Office in the form of a Goods and Services Tax refund. 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 (2010: $7,001,000 and 2009: $9,295,000).

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 AIMS gross exposure to credit risk, excluding any collateral

	2010	2009
	$'000	$'000
Financial assets		
Receivables for goods and services	**6,412**	9,283
Total	**6,412**	9,283

AIMS holds no collateral to mitigate against credit

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
	2010	2009	**2010**	2009
	$'000	$'000	**$'000**	$'000
Investments	**42,076**	16,607	**-**	-
Cash at bank	**498**	138	**-**	-
Receivables for goods and services	**5,448**	5,187	**964**	4,096
Total	**48,022**	21,932	**964**	4,096

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 counterparties with a Standard & Poor's rating of at least BBB+. 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 2010

	0 to 30 days	**31 to 60 days**	**61 to 90 days**	**90+ days**	**Total**
	$'000	**$'000**	**$'000**	**$'000**	**$'000**
Receivables	**-**	**840**	**4**	**120**	**964**
Total	**-**	**840**	**4**	**120**	**964**

Ageing of financial assets that were past due but not impaired for 2009

	0 to 30 days	31 to 60 days	61 to 90 days	90+ days	Total
	$'000	$'000	$'000	$'000	$'000
Receivables	-	3,314	509	273	4,096
Total	-	3,314	509	273	4,096

Note 16: Financial Instruments (contd.)

Note 16F: Liquidity Risk

AIMS financial liabilities are payables, consultancies and grants, joint ventures and loans 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 2010

	On demand $'000	**within 1 year $'000**	**1 to 2 years $'000**	**2 to 5 years $'000**	**> 5 years $'000**	**Total $'000**
Trade creditors	**-**	**1,851**	**-**	**-**	**-**	**1,851**
Consultancies and grants	**-**	**2,784**	**-**	**-**	**-**	**2,784**
Joint Ventures	**-**	**253**	**-**	**-**	**-**	**253**
Loans from Government	**-**	**-**	**-**	**-**	**1,500**	**1,500**
Total	**-**	**4,888**	**-**	**-**	**1,500**	**6,388**

Maturities for non-derivative financial liabilities 2009

	On demand $'000	within 1 year $'000	1 to 2 years $'000	2 to 5 years $'000	> 5 years $'000	Total $'000
Trade creditors	**-**	1,441	-	-	-	1,441
Consultancies and grants	**-**	1,076	-	-	-	1,076
Joint Ventures	**-**	526	-	-	-	526
Loans from government	**-**		-	-	1,500	1,500
Total	-	3,043	-	-	1,500	4,543

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 16G: Market Risk

Risk to which AIMS is exposed 2010

AIMS holds basic financial instruments that do not expose AIMS to certain market risks. AIMS is moderately exposed to 'currency risk' but is not exposed to 'other price risk' or interest rate risk'.

Note 17: Reporting of Outcomes

Note 17A: Net Cost of Outcome Delivery

	OUTCOME 1	
	2010 $'000	2009 $'000
Expenses	**45,762**	47,045
Income from non-government sector		
Activities subject to cost recovery	**-**	**-**
Sales of goods and rendering of services	**17,675**	18,324
Interest	**1,703**	1,469
Other revenue	**182**	2,254
Total	**19,560**	22,047
Net cost/(contribution) of outcome delivery	**26,202**	24,998

Outcome 1 is described in Note 1.1. Net costs shown include intra-government costs that are eliminated in calculating the actual Budget Outcome.

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

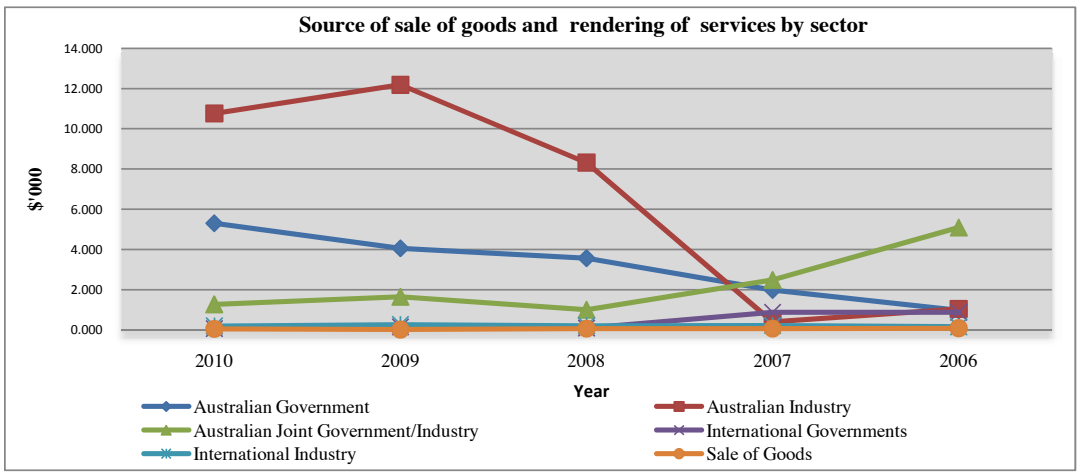
Revenue comparison

	2010	2009	2008	2007	2006
	$'000	$'000	$'000	$'000	$'000
Appropriation revenue					
Operating	**22,392**	22,069	21,073	18,913	18,469
Asset replacement	**8,021**	5,557	5,557	5,557	4,656
Capital	**18,000**	-	-	-	-
Total appropriation revenue	**48,413**	27,626	26,630	24,470	23,125
Non-appropriation revenue					
Sale of goods and rendering of services	**17,675**	18,324	13,258	6,040	8,228
Interest	**1,703**	1,469	1,259	1,267	1,060
Revenues from joint ventures		148	121	365	996
Other revenue	**353**	2,105	4,316	2,841	167
Total non-appropriation revenue	**19,731**	22,047	18,954	10,513	10,451
Total Revenue	**68,144**	**49,673**	**45,584**	**34,983**	**33,576**
Non-appropriation ratio	**29%**	**44%**	**42%**	**30%**	**31%**

Sale of goods and rendering of services includes consultancies, grants and contract collaborations.
Non-appropriation ratio is percentage non-appropriation revenue of total revenue.

Source of sale of goods and rendering of services by sector

	2010	2009	2008	2007	2006
	$'000	$'000	$'000	$'000	$'000
Australian Government	**5302**	4,055	3,562	1,980	971
Australian joint Government/industry	**1,271**	1,646	1,006	2,489	5,098
International governments	**63**	153	93	880	875
Australian industry	**10,792**	12,185	8,317	407	1,042
International industry	**198**	268	212	220	158
Sale of goods	**49**	17	68	64	84
	17,675	18,324	13,258	6,040	8,228



SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

Note 3B: Supplier Expenses

	2010	2009
	$'000	$'000
Provision of goods – related entities	7	6
Provision of goods – external parties	3,811	3,921
Rendering of services – related entities	670	1,089
Rendering of services – external parties	13,115	13,261
Operating lease rentals		
Minimum lease payments	3	7
Workers compensation premiums	90	95
Total supplier expenses	17,696	18,379

Which consists of:		
Appointment expenses	155	204
Auditing	52	46
Catering	137	89
Chemical and laboratory supplies	462	449
Cleaning and ground maintenance	300	344
Collaborations	836	448
Communications, telephone and postage	572	505
Consultancies	-	81
Contracting and servicing	1,174	1,602
Consumables	936	1,210
Electricity	778	683
Equipment and software purchases	161	536
Field Costs	319	389
Foreign Exchange Loss	4	-
Freight	294	278
Fuel, oil and gas	771	933
Hire of equipment	1,243	1,393
Insurances	502	440
Legal	31	56
Licences and fees	369	287
Operating lease rentals	3	7
Patents and trademarks	9	19
Publications, journals and subscriptions	487	487
Rent	147	213
Repairs and maintenance	2,413	2,316
Security	284	263
Stationery	68	72
Tenders and Outboards	27	-
Training, seminars and conferences	242	332
Travel and accommodation	1,552	1,908
Vessels management and staffing	3,068	2,530
Victuals	152	116
Water	58	48
Workers compensation	90	95
Total supplier expenses	17,696	18,379

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

Cost of Output by Research Teams

	Variable $'000	Salaries $'000	Depreciation $'000	Overheads $'000	**Total $'000**
Assessing and Using Marine Biodiversity	2,351	3,638	247	6,263	**12,499**
Assessing and Using Marine Biodiversity - WA	4,011	3,016	112	5,191	**12,330**
Measuring Water Quality and Ecosystem Health	1,330	2,487	439	4,282	**8,538**
Responding to Climate Change	2,141	1,468	799	2,527	**6,935**
Understanding Marine Microbes and Symbioses	869	1,626	164	2,801	**5,460**
Total	10,702	12,235	1,761	21,064	**45,762**

DIRECTORS COMMENT

Great progress has been made with the development of the $55 million AIMS Tropical Marine Research Facilities Project (ATMRFP) including planning for the construction phase of the new aquarium facility, which is due for completion in 2012. Together these projects will guarantee our place as the leading centre for marine science in Australia.

In the process of finalising the Financial Statement for the year ending 30 June 2010 Mr Mark Moloney, Australian National Audit Office (ANAO) advised the monies provided for AIMS as part of the Nation Building Fund (i.e. for the ATMRFP) are to be treated as revenue and not as an equity injection. The basis for this determination was guidance given to ANAO in Interpretation 1038 issued by the Australian Accounting Standards Board and in particular paragraph 6 (a). In financial year 2009-10 AIMS received $18 million towards the construction of the ATMRFP and AIMS' profit for 2009-10 increased from $4.4 million to $22.4 million.

APPENDICES

- Appendix 1. Legislative Foundation and Ministerial Powers
- Appendix 2. National Research Priorities
- Appendix 3. Performance Indicators
- Appendix 4. Science Publications 2009
- Appendix 5. Membership of External Committees and Non-Government Organisations
- Appendix 6. Freedom of Information Statement

1. LEGISLATIVE FOUNDATION AND MINISTERIAL POWERS

ENABLING LEGISLATION

The Australian Institute of Marine Science is a Statutory Authority 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 THE 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 to:

(a) Enter into contracts;

(b) 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) Purchase or take on lease land or buildings, and to erect buildings, necessary for the purposes of the Institute;

(d) Dispose of, or grant leases of, land or buildings vested in the Institute;

(e) 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) Participate in partnerships, trusts, unincorporated joint ventures and other arrangements for sharing profits;

(g) Subscribe for and to purchase shares in, and debentures and other securities of, companies;

(h) Form, and to participate in the formation of, companies; and
(i) Appoint agents and attorneys, and to act as agents for other persons;
(j) 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) Arrange for displaying material and giving lectures, to the public or otherwise, in respect of matters relating to marine science and marine science technology; and the application and use of marine science and marine technology.

MINISTERIAL POWERS OF DIRECTION

Under Section 10 (1) of the AIMS Act, the 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 (Section 13, 16(b));
2. Appointing (and terminating such appointment) a person to act as Chairperson (Section 17(1) and (3));
3. Appointing (and terminating such appointment) a person to act as a member of Council (Section 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); and
9. Appointing a Committee to assist Council and approving the terms and conditions of members (Section 45).
10. Delegation of powers by Finance Minister
    (1) The Finance Minister may, by written instrument, delegate to an official (within the meaning of the Financial Management and Accountability Act 1997) 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 approval 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.

2. NATIONAL RESEARCH PRIORITIES

NATIONAL RESEARCH PRIORITY GOALS

A. An Environmentally Sustainable Australia

Transforming the way we utilise our land, water, mineral and energy resources through a better understanding of human and environmental systems and the use of new technologies.

1. Water – a critical resource
   Sustainable ways of improving water productivity, using less water in agriculture and other industries, providing increased protection of rivers and groundwater and the re-use of urban and industrial waste waters.
2. Transforming existing industries
   New technologies for resource-based industries to deliver substantial increases in national wealth while minimising environmental impacts on land and sea.
3. Overcoming soil loss, salinity and acidity
   Identifying causes of and solutions to land degradation using a multidisciplinary approach to restore land surfaces.
4. Reducing and capturing emissions in transport and energy generation
   Alternative transport technologies and clean combustion and efficient new power generation systems and capture and sequestration of carbon dioxide.
5. Sustainable use of Australia's biodiversity
   Managing and protecting Australia's terrestrial and marine biodiversity both for its own value and to develop long-term use of ecosystem goods and services ranging from fisheries to ecotourism.
6. Developing deep earth resources
   Smart high-technology exploration methodologies, including imaging and mapping the deep earth and ocean floors, and novel efficient ways of commodity extraction and processing (examples include minerals, oil and gas) while minimising negative ecological and social impacts.
7. Responding to climate change and variability
   Increasing our understanding of the impact of climate change and variability at the regional level across Australia and addressing the consequences of these factors on the environment and on communities.

B. Promoting and Maintaining Good Health

Promoting good health and well being for all Australians

1. A healthy start to life
   Counteracting the impact of genetic, social and environmental factors which predispose infants and children to ill health and reduce their well being and life potential.
2. Ageing well, ageing productively
   Developing better social, medical and population health strategies to improve the mental and physical capacities of ageing people.
3. Preventive healthcare
   New ethical, evidence-based strategies to promote health and prevent disease through the adoption of healthier lifestyles and diet, and the development of health-promoting products.
4. Strengthening Australia's social and economic fabric
   Understanding and strengthening key elements of Australia's social and economic fabric to help families and individuals live healthy, productive and fulfilling lives.

C. Frontier Technologies for Building and Transforming Australian Industries

Stimulating the growth of world-class Australian industries using innovative technologies developed from cutting-edge research

1. Breakthrough science
   Better understanding of the fundamental processes that will advance knowledge and facilitate the development of technological innovations.
2. Frontier technologies
   Enhanced capacity in frontier technologies to power world-class industries of the future and build on Australia's strengths in research and innovation (examples include nanotechnology, biotechnology, ICT, photonics, genomics/phenomics, and complex systems).
3. Advanced materials
   Advanced materials for applications in construction, communications, transport, agriculture and medicine (examples include ceramics, organics, biomaterials, smart material and fabrics, composites, polymers and light metals).
4. Smart information use
   Improved data management for existing and new business applications and creative applications for digital technologies (examples include e-finance, interactive systems, multi-platform media, creative industries, digital media creative design, content generation and imaging).
5. Promoting an innovation culture and economy
   Maximising Australia's creative and technological capability by understanding the factors conducive to innovation and its acceptance.

D. Safeguarding Australia

Safeguarding Australia from terrorism, crime, invasive diseases and pests, strengthening our understanding of Australia's place in the region and the world and securing our infrastructure, particularly with respect to our digital systems

1. Critical infrastructure
   Protecting Australia's critical infrastructure including our financial, energy, communications and transport systems.
2. Understanding our region and the world
   Enhancing Australia's capacity to interpret and engage with its regional and global environment through a greater understanding of languages, societies, politics and cultures.
3. Protecting Australia from invasive diseases and pests
   Counteract the impact of invasive species through the application of new technologies and by integrating approaches across agencies and jurisdictions.
4. Protecting Australia from terrorism and crime
   By promoting a healthy and diverse research and development (R&D) system that anticipates threats and supports core competencies in modern and rapid identification techniques.
5. Transformational defence technologies
   Transform military operations for the defence of Australia by providing superior technologies, better information and improved ways of operation.

3. PERFORMANCE INDICATORS

Regular review of performance and capabilities is a critical component of planning and continuous improvement at AIMS. The Institute's reporting framework sets goals for performance against a range of research and organisational criteria. Performance against agreed targets (AIMS Key Performance Goals) is reviewed regularly by the Management group and Council and is reported annually to Parliament in AIMS Annual Report (see pages 39-59).

KEY PERFORMANCE GOALS

	KEY PERFORMANCE GOALS	MEASURE/INDICATOR	Frequency
Science quality			
Scientific publications	Transfer new knowledge generated by AIMS and its collaborators through high quality scientific publications in high impact journals and relevant user-focused publications.	● Number of peer reviewed scientific publications reported quarterly against previous year ● Trend in publication level	Annual
Citation analysis	Ongoing improvement in the quality and impact of AIMS" journal publications	● Retrospective citation analysis using Science Citation Index	5 yearly
Increase science capacity	Increase in number of post-doc positions. Target is annual average of 10 FTEs (by 2009)	● Number of research scientists and postdocs	Annual
External assessment and review	Ongoing improvement of AIMS research performance.	● Expert review of the quality and impact of AIMS Research Performance	Within quadrennium
Enhancing impact/ relationships			
Joint ventures	Enhance impact and research capacity through co-investment in research	● Joint ventures and current status	Annual
Leverage through collaboration	Maintain and focus AIMS collaborative approach to research	● Collaborations (collaborative research projects) and significant outputs ● Number of collaborations and percentage of research papers from collaborations	Annual
Enhance Australia's future capabilities in marine science	Contribution to teaching	● Students, completions and significant outputs reported quarterly ● Number of jointly supervised postgraduate students (PhD and Masters, with trend) ● Number of internships and undergraduates (with trend).	Annual
Effective use of resources			
Project management	Timely delivery of project milestones	● Percentage of milestones completed on time.	Annual
Operational efficiency	Improve efficiency of (providing) key support	● Number of continuous improvement projects completed	Annual
Strategic alliances	Enhance research delivery by the development and maintenance of alliances with organisations that complement AIMS skills and infrastructure.	● Strategic alliances and current status.	Annual

	KEY PERFORMANCE GOALS	MEASURE/INDICATOR	Frequency
Organisational growth			
Increase revenue	Increase revenue to support investment in AIMS research.	● Trend in total revenue reported annually.	Annual
Enhance core capabilities	Attract and retain key 'talent' through staff satisfaction	● Report examples of actions taken and improvements achieved.	Annual
Develop staff	Seek improvements to integration of staff training into organisations goals	● Report examples of actions taken and improvements achieved.	Annual
Technology diffusion			
Transfer to users	Enhance user uptake of AIMS research	● Practices, instruments and processes developed by AIMS that have been adopted by users in industry, government and the community.	Annual
Funding mix / Source of revenue	Enhance engagement with industry	● External earnings reported against previous year ● Trend in external earnings and source of funds	Annual
Health, Safety and Environmental Performance			
Safety index	Improved safety culture	● Report against indicators and provide examples of improvements	Annual
Reduce environmental footprint	Ongoing improvements to AIMS operations to reduce our environmental footprint.	● Report examples of actions taken and improvements achieved.	Annual

4. SCIENCE PUBLICATIONS 2009

JOURNAL ARTICLES

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5. AIMS SCIENTISTS' MEMBERSHIP OF EXTERNAL COMMITTEES AND NGOS

INTERNATIONAL FORUMS

Arafura Timor Seas Expert Forum (ATSEF) - Steering Committee
Association of Official Analytical Chemists (AOAC) Presidential Task Force on Marine and Freshwater Toxins
Australia-India Strategic Research Fund Advisory Panel (AISRF) – Advisory Panel
Convention on Biological Diversity's Panel of Experts on Access and Benefit Sharing - Australian rep
Census of Marine Life - International Scientific Steering Committee (Chair)
FAO Steering Committee on Holothurian Fishing
Great Barrier Reef Foundation - International Scientific Advisory Committee (ISAC)
Global Environment Fund, Coral Disease Working Group
International Atomic Energy Agency (Expert Consultant to United Nations Development Project 'Transfer of Receptor Binding Assay for Harmful Algal Toxins')
International Marine Biotechnology Association IMBA) - Board Member
International Marine Biotechnological Association - International Conference Committee
International Society for Microbial Ecology - Board Member
National Irish Marine Biotechnology Steering Committee
Palau International Coral Reef Center Scientific Advisory Committee
Save Our Seas Foundation: member of the Conservation and Science Advisory Panel
Stratos/IISD/Swiss Government's Access and Benefit Sharing Tool Project Advisory Committee
World Bank Coral Reef Restoration and Remediation Working Group

DOMESTIC FORUMS

AIMS@JCU - Management Committee
Antarctic Science Advisory Committee (ASAC)
Antarctic Research Assessment Committee (ARAC) Life Sciences - Chair
Arafura Timor Research Facility (ATRF) Governance Group
Australian Biodiscovery Workshop Group (Commonwealth, States and Territories) of the Biotechnology Liaison Committee
Australian Biotechnology Advisory Committee
Australian Centre for Tropical Freshwater Research (ACTFR) Advisory Committee
Australian Government Department of the Environment, Heritage, Water and the Arts - National Shark Recovery Group
Australian Government Department of the Environment, Heritage, Water and the Arts - BioIndustry Panel
Australian National Sportfishing Association (ANSA) Scientific Research Foundation
Australian Ocean Data Centre Joint Facility
Australian Research Council, Centre of Excellence for Coral Reef Studies, Advisory Board
Australian Research Council Oz Reader
Australian Research Council INTREADER
Australian Society for Microbiology - National Examinations Board
Australian Society for Microbiology - National Science Advisory Committee
CERF Marine Biodiversity Hub - Management Team
Commonwealth Environment Research Facilities Program (CERF)
Coastal and Reef Assets (Fitzroy Basin Association) Expert Panel
Commonwealth Inter-departmental Committee on Access to Genetic Resources
Coordination Committee for Science & Technology (CCST) – Scientific Member
Coral Reef Environmental Observatory Network (CREON) - Co-Chair

Darwin City Council Environmental Management Plan Advisory Committee
Darwin Harbour Advisory Committee (DHAC)
Dredging Expert Panel (Pluto Project, WA)
Fitzroy Partnership for River Health Science Panel
Great Barrier Reef and Torres Strait Hub of the National Environmental Research Program (NERP)
Great Barrier Reef Foundation - Attributes of a Sustainable Reef Working Group
Great Barrier Reef Foundation – Solutions & Adaptation Working Group
Great Barrier Reef Ocean Observing System - Node Leader
GBROOS Technical Reference Group
Great Barrier Reef Water Quality Consensus Taskforce
GBRMPA Reef Water Quality Protection Plan (RWQPP) Project Committee
GBRMPA Conservation, Heritage and Indigenous Partnerships Reef Advisory Committee
Integrated Marine Observing System (IMOS) Board
Integrated Marine Observing System (IMOS) Steering Committee
IMOS Australian National Moorings Network Facility
IMOS Facility for Automated Intelligent Monitoring of Marine Systems (FAIMMS)
Institute of Marine Engineering, Science & Technology (IMarEST), Chair - NQ sector
International Year of Biodiversity Australia Project - Steering Committee
James Cook University Marine and Aquaculture Research Facilities Committee
James Cook University School of Business - Industry Advisory Panel
Kakadu Research Advisory Committee
Marine Stinger Advisory Committee - Research Working Group
Marine and Tropical Sciences Research Facility (MTSRF) Great Barrier Reef Steering Committee
Marine and Tropical Sciences Research Facility (MTSRF) GBR Operations Committee
Marine and Tropical Sciences Research Facility (MTSRF) Torres Strait Program Steering Group
National Facilities Ship Scientific Advisory Committee
NT Land and Sea Management Board
Oceans Policy Science Advisory Group (OPSAG) - Chair
Palm Island Sponge Farming Steering Committee
Queensland Biotechnology Advisory Committee
Queensland Transport Pacific Adventurer Oil Spill Response Scientific Advisory Committee
QDPI&F TrawlMac Science Advisory Group - Chair
QDPI&F TrawlMac - Member
Reef and Rainforest Research Centre Pty Ltd - Board of Directors
Reef Check Australia Scientific Advisory Committee
Reef Water Quality Protection Plan Independent Science Panel
Rio Tinto Alcan Melville Bay Marine Health Monitoring Program Advisory Team
South East Queensland Expert Advisory Panel on Water Recycling
Torres Strait Scientific Advisory Committee
TropLinks - Board member
Twin Cities Fish Stocking Society – Scientific Advisor
WA Physical Oceanographic Coordinating Group (WAPOCG)
Western Australian Global Ocean Observing System (WAGOOS)
Western Australian Marine Science Institution (WAMSI) Board
Western Australian Marine Science Institution (WAMSI) R&D Committee
Yorke Island Sponge Farm Business Planning Group

6. FREEDOM OF INFORMATION STATEMENT

The *Freedom of Information Act 1982* (FOI Act) requires each Australian Government agency to publish a statement setting out its role, structure and functions, the documents available for public inspection and access to such documents. Section 8 of the FOI Act requires each agency to publish information on the way it is organised, its powers, decisions made and arrangements for public involvement in its work.

This statement, in conjunction with information contained in this annual report, is intended to meet the requirements of Section 8 of the FOI Act.

ROLE, STRUCTURE AND FUNCTIONS
The Institute's role, structure and functions are described in pages iv, and 63-64 of this Annual Report.

DOCUMENTS AVAILABLE FOR INSPECTION
Copies of the Institute's publications and reports available on request are listed below. With the exception of final project reports, they are generally free of charge

Strategic Directions	Files, publications*
Research Plan	Files, publications*
Annual Operational Plan	Files, unpublished documents
Project details	Databases, files
Final project reports	Publications
Non-technical summaries of final project reports	Publications*
R&D funding applications	Files, Annual Report file, publications
Administration	Files, unpublished documents
Mailing lists	Databases

*These documents are also available on the Institute's website www.aims.gov.au.

Other information may be available, subject to compliance with the Institute's requirements, as specified in the annual report.

The authorised decision-makers for the Institute under the FOI Act are;

Chief Executive Officer
Australian Institute of Marine Science
PMB No 3, Townsville Mail Centre
Townsville Qld 4810

Management Group
Australian Institute of Marine
PMB No. 3, Townsville Mail Centre
Townsville Qld 4810

GLOSSARY

ACRONYMS AND ABBREVIATIONS

ABARE	Australian Bureau of Agricultural and Resource Economics
ACIAR	Australian Centre for International Agricultural Research
AIMS	Australian Institute of Marine Science
AIMS Act	*Australian Institute of Marine Science Act 1972*
ANAO	Australian National Audit Office
ANU	Australian National University
APA	Annual Performance Agreement
ARC	Australian Research Council
ATOVS	Advanced TIROS Operational Vertical Sounder
ATSEF	Arafura Timor Sea Experts Forum
ATRF	Arafura Timor Research Facility
AusAID	Australian Government overseas aid program
BNA	Biosciences North Australia
BOM	Bureau of Meteorology
CAC Act	*Commonwealth Authorities and Companies Act 1997*
CDU	Charles Darwin University
CERF	Commonwealth Environment Research Facilities Program
COAG	Council of Australian Governments
CoML	Census of Marine Life
CEO	Chief Executive Officer
CMMG	Centre for Marine Microbiology and Genetics Research, AIMS
COTS	Crown-of-thorns starfish
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEC	Western Australian Department of Environment and Conservation
DEMG	Dredge Environmental Management Group
DEWHA	Australian Government Department of the Environment, Water, Heritage and the Arts
DFAT	Australian Government Department of Foreign Affairs and Trade
DIISR	Australian Government Department of Innovation, Industry, Science and Research
EAP	Employee Assistance Program
EDS	Electronic Data Systems
EEO	Equal Employment Opportunity
EEZ	Exclusive Economic Zone
EMP	Environmental Management Plan
EPBC	Environment Protection and Biodiversity Conservation Act 1999
ESI	Essential Science Indicators
FAICD	Fellow of the Australian Institute of Company Directors
FAIM	Fellow of the Australian Institute of Management
FAO	Food and Agriculture Organization of the United Nations
FAusIMM	Fellow of Australasian Institute of Mining and Metallurgy
FOI Act	*Freedom of Information Act 1982*
FRDC	Fisheries Research and Development Corporation
FTSE	Fellow of the Australian Academy of Technological Sciences and Engineering
GBR	Great Barrier Reef

GBRMPA	Great Barrier Reef Marine Park Authority
GBROOS	Great Barrier Reef Ocean Observing System
GA	Geoscience Australia
GBRWHA	Great Barrier Reef World Heritage Area
HSE	Health, Safety and Environment
IA	Intellectual asset
ICP	Investment Capital Partners
IMOS	Integrated Marine Observing System
IP	Intellectual property
IPCC	Intergovernmental Panel on Climate Change
ISI	Institute for Scientific Information
ISSNIP	ARC Research Network for Intelligent Sensors, Sensor Networks and Information Processing
JCU	James Cook University
KPGs	Key Performance Goals
KRAs	Key Result Areas
LNG	Liquified natural gas
LPG	Liquid petroleum gas
LTMP	Long-term Monitoring Program, AIMS
MMP	Marine Monitoring Program
MPAs	Marine Protected Areas
MTSRF	Marine and Tropical Sciences Research Facility
NCRIS	National Collaborative Research Infrastructure Strategy
NDT	Northern Development Taskforce
NLRD	Notifiable Law Risk Dealing
NOAA	US National Oceanic and Atmospheric Administration
NRETA	Ningaloo Reef Environmental Tracking Array
NRPs	National Research Priorities
NTG	Northern Territory Government
OECD	Organisation for Economic Cooperation and Development
OH&S Act	*Occupational Health and Safety (Commonwealth Employment) Act 1991*
OPSAG	Oceans Policy Science Advisory Group
QCIP	Queensland Cyber-Infrastructure Foundation
QDPI&F	Queensland Department of Primary Industries and Fisheries
QEPA	Queensland Environmental Protection Agency
QM	Queensland Museum
R&D	Research and development
RRRC	Reef and Rainforest Research Centre Limited
RV	Research vessel
RWQPP	Reef Water Quality Protection Plan
SEG	Scientific Experts Group on Climate Change
SRRP	Scott Reef Research Project
TAFE	Technical and Further Education (Queensland Government)
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UNSW	University of New South Wales
UQ	University of Queensland
UWA	University of Western Australia
WAMSI	Western Australian Marine Science Institution
WHA	World Heritage Area

COMPLIANCE INDEX

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