



ANNUAL REPORT

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Great Barrier Reef Marine Park Authority



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Great Barrier Reef Marine Park Authority



GREAT BARRIER REEF MARINE PARK AUTHORITY
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Great Barrier Reef Marine Park Authority
PO Box 1379 Townsville Qld 4810

10th November 1992

The Hon Ros Kelly
Minister for the Arts,
Sport, the Environment,
and Territories
Parliament House
CANBERRA ACT 2600

Dear Minister

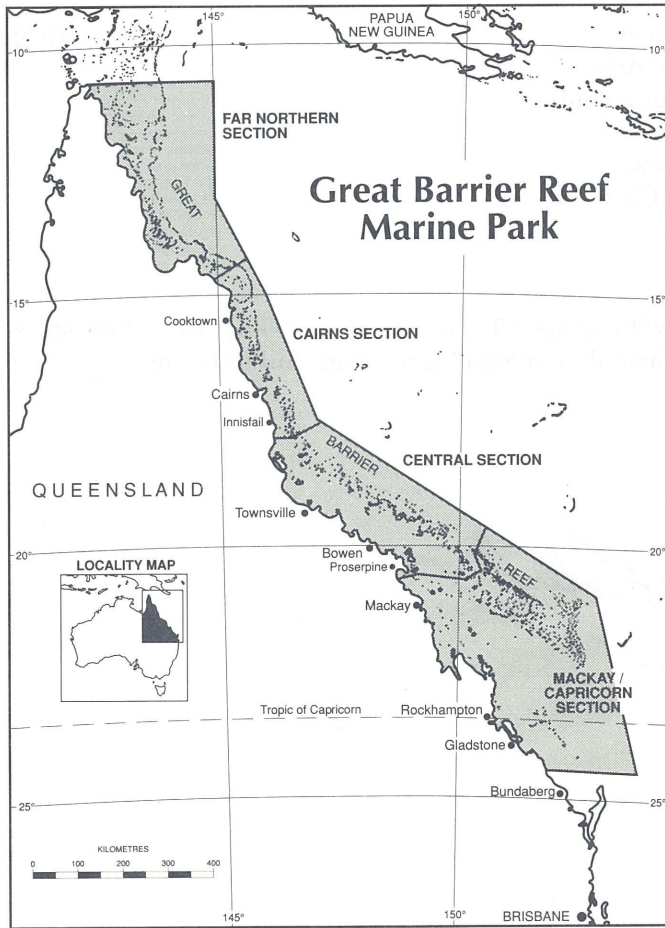
In accordance with section 63 of the Audit Act 1901, I submit the sixteenth Annual Report of the Great Barrier Reef Marine Park Authority for the year ended 30 June 1992.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Graeme Kelleher', with a stylized flourish at the end.

Graeme Kelleher
Chairman






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FROM THE CHAIRMAN

'No man is an Iland, intire of it selfe... every man is a peece of the Continent, a part of the maine;'

John Donne 1624

The 'interconnectedness' of the world is much more apparent today than it was when John Donne wrote these words nearly four centuries ago. Everywhere we see evidence of the pervasive effects of human activities on the environment. Nowhere is this more evident than in the sea where currents constantly transmit substances and effects throughout the water column in three dimensions. Therefore, in the sea, it does not make much sense to try to manage a small area in isolation from its surroundings.

The Great Barrier Reef Marine Park is the only large marine ecosystem in the world which is deliberately managed according to the principles of ecologically sustainable development. Our experience has convinced us that management of large marine areas on an integrated basis, with primary responsibility resting on one agency, is the best way of achieving ecological sustainability. Otherwise, the energy of managers and users would tend towards conflict between different sector groups, and long-term issues would rarely receive the attention they deserve. A single agency is best equipped to reach the best possible balance of the competing ecological, economic and social considerations.

INTERNATIONAL AND NATIONAL ACTIVITIES

The world is gradually accepting the need for integrated management, not just of the sea, but of the coastal zone generally. Because of our experience in this area, the Authority is often asked to provide assistance within Australia and to other countries in the management of coastal marine areas. Several initiatives have been taken to meet this demand. We have established the External Services Section which provides expert advice within and outside Australia on a full cost recovery basis. A consortium of this Authority, the Australian Institute of Marine Science and James Cook University of North Queensland, has been established in Townsville to provide the combined expertise of these agencies to foreign countries on a commercial basis. This consortium is called the International Tropical Marine Resource Centre (INTROMARC). The Authority is also a member of the Australian Marine Science and Technology Limited (AMSAT) which brings together the expertise of those Commonwealth Government agencies with major marine science responsibilities. Again, this combined expertise is made available internationally on a commercial basis.

The Authority is managing a project which aims to contribute to the protection of the world's marine biodiversity. This project is being carried out for, the World Conservation Union (IUCN) and its Commission on National Parks and Protected Areas and for the World Bank. The principal task is the identification of those parts of the world's seas that should be included in marine protected areas. IUCN's aim is to incorporate in a marine protected area approximately 10% of every major marine biogeographic type by the year 2000. Attention is also being given to the need for improving management in those marine protected areas that already exist.

Nationally, the Authority is working with the Department of the Arts, Sport, the Environment and Territories and with the Australian National Parks and Wildlife Service in the Government's Ocean Rescue 2000 program. This ten- year program, which involves all State and Territory governments, includes the establishment of a national, representative system of marine protected areas, a state of the marine environment report (SOMER), a national marine education program and a national marine conservation strategy.

STRATEGIC PLAN

In line with the above philosophy the Authority is coordinating the production of a Strategic Plan for the Great Barrier Reef World Heritage Area. This process involves more than 60 organisations working together to produce a common vision for the Area, and to agree on objectives for both 25 years and 5 years hence. This is the first time such an exercise has been carried out anywhere.

We believe that conflict between agencies will be reduced if they have worked towards common objectives. We know it will be a delicate process of checks and balances, because the Reef region is also a major commercial asset, its economic value growing at approximately 10% every year. Latest available figures show this area supports an annual \$250 million fishing industry and a rapidly expanding tourism industry generating about \$1 billion each year. Ports along the Marine Park's coast handle goods worth almost \$8 billion annually, a traffic vital to the economy of this nation.

These alone are reasons enough to ensure we look to the future, and plan for and manage all the conflicting issues before they gain a possibly destructive momentum of their own.

CONSULTATIVE COMMITTEES

The Authority has always depended heavily on the advice of the Great Barrier Reef Consultative Committee. In 1990-91, the Queensland Government appointed members of this committee to advise it on Queensland marine parks issues. This contributes to the already outstanding degree of cooperation and integration of marine management of the Great Barrier Reef.

We were most saddened to learn of the sudden death of committee member Alderman John Cleland on Christmas Day. He was involved personally in the innovative planning for Trinity Inlet, and took a leading role in resolving the future of Green Island. He will be remembered by the Authority not only for these

achievements but also for his understanding of, and common sense approach to, the difficult questions relating to the Great Barrier Reef. John Cleland was a man of wit, intelligence and humanity.

EXTERNAL REVIEW

The Authority is being reviewed by Mr John Whitehouse who is an experienced solicitor and a former Director of the NSW National Parks and Wildlife Service. The Authority welcomes this review because it is an opportunity for us all to question anew our goals, programs and structures. We hope that, unlike the review of ANPWS carried out by Mr Bruce MacDonald some years ago, this review will recognise the fundamental difference between the responsibilities of a resource management agency, like this Authority, and the responsibilities of a National Park Service. We hope also that the review will recognise that the strength of this Authority comes from its close links with the community with which it works and its ability to adopt policies that are optimal for the conservation of the Great Barrier Reef Region.

LONG-TERM RESEARCH

This past year we have commenced two major long-term research projects on which the future of the Great Barrier Reef could well depend. Both of them involve many agencies and interest groups. The subjects of research are the ecological effects of fishing, and water quality.

Nowhere in the world has any agency carefully measured the long-term ecological effects of a variety of fishing techniques. We see it as central to our responsibility to answer this question so that we can be sure that the essential attributes of the Reef which we value so highly are not being adversely affected by fishing.

Equally, we think it essential that there be long-term monitoring of water quality in the Great Barrier Reef and studies to determine the sources of pollution which might cause insidious degradation.

Consistent with our policy of working with the community, both these research projects are being carried out in association with the relevant industries - the fishing industry and agriculture respectively.

Meaningful results will not be derived from either of these studies unless the resources are provided to allow them to continue over a number of years. Indeed, this holds true of the Authority's overall operation, which has been conceived as a continuing quest for knowledge and resulting management techniques with which to protect the Reef.

Already we have learned there are no 'quick fixes' for our task. Therefore, the attitude of painstaking patience we apply to achieving the Authority's goal will need to be echoed by those able to provide adequate funding for this ongoing responsibility.

There is no guarantee that this will happen.

If it does not, then we will not be in a position to say that the Great Barrier Reef is being protected.

USER PAYS

The Minister has announced that a system of charging commercial tourist operators using the Great Barrier Reef Marine Park will be introduced on 1 July 1993. Many people believe that it is reasonable for direct users of a property owned by the community to pay a little more for that use than those people who never get to use it. The system of charging which has been discussed extensively with the tourism industry mainly through the Association of Marine Park Tourism Operators will apply charges amounting to about \$1 per passenger. It would be surprising if visitors to the Reef objected to such a small contribution to the protection of this marvellous resource.

The proceeds from these charges would be used for research, education and management in relation to the Reef. All users would benefit from the use of these funds. It is intended that operators who pay the charges will receive the benefit of guaranteed rights to use the Reef for up to eight years. This right would be able to be sold, so that it would confer substantial benefit on the holder.

THE GREAT BARRIER REEF AQUARIUM

This Aquarium has won many awards. It displays the only large living coral reef in an aquarium anywhere in the world. And unlike most aquariums, it is not just a fish tank displaying a great variety of marine animals, many of which are not seen together in nature. Rather our aquarium shows marine animals in their natural habitat and density.

The reason for this difference is that the Great Barrier Reef Aquarium is the only such installation in the world which is set up explicitly to assist in management of a natural resource. It is by far the Authority's most important educational tool. Nearly every child in north Queensland, and many from other parts of Australia, visit the Aquarium several times in their school lives. The Aquarium generates great support for the protection of the Great Barrier Reef throughout the whole community. It serves to ensure the future citizens of Queensland will understand the value of the Reef and work to protect it.

The Great Barrier Reef Aquarium generates about 80% of its own operating costs. What other educational or cultural facility can say as much, particularly in these times of recession? And yet the Authority is criticised because the Aquarium is not fully self-supporting, an attitude that perhaps could be understood if the Aquarium were merely an entertainment facility. But it is not. Through education and active information programs, it makes a very real contribution to the protection of what is arguably the world's most valuable marine ecosystem.

THE RETIREMENT OF DR DON KINSEY

It is with great regret that I note that Dr Don Kinsey, who has been the Executive Officer for seven years, will shortly retire. His departure will be greatly felt, particularly by myself. His intelligence, diligence, extreme honesty and whimsical humour made my job not only much easier, but also more enjoyable. He has contributed immeasurably to the Great Barrier Reef, both as a scientist and a manager.

DAY-TO-DAY MANAGEMENT

Day-to-day management of the Marine Park is carried out by Queensland Government agencies, particularly the Queensland Department of Environment and Heritage (QDEH). In performing this function, these agencies are subject to the Authority's policies and decisions. Over the past year a reorganisation of QDEH has resulted in the welcome reintroduction of a specifically maritime unit - the Coastal Protection Unit. There has been a consequent improvement in the expertise and dedication of field staff. The very good relations which have always existed between the Authority and Queensland Government agencies continue to grow.

Some people think that a field manager's job is an easy and pleasant one. While it is true that these officers often work in ecologically fascinating circumstances, they are at times subject to extreme discomfort and danger. In June, two of the most experienced marine field staff of QDEH, Terry Walker and Darryl Reimer, were reported missing while working in the Gulf of Carpentaria; it is now presumed both men lost their lives while carrying out their duties. We and QDEH join with their relations and many friends in mourning their loss.

CONCLUSION

One of the Authority's major aims is to achieve management of the Marine Park primarily through the community commitment to the protection of the Great Barrier Reef. This aim is clearly being met. The reason for this success is the dedication and professionalism shown by the Authority's staff, and by the day-to-day management officers of the Queensland Departments of Environment and Heritage, and Primary Industries.

On many fronts, and always striving for balance and fairness, the Great Barrier Reef Marine Park Authority struggles to ensure that the natural qualities and precious assets of the Reef are not degraded. I hope this struggle will receive sufficient support from the Australian community for it to achieve success.



Graeme Kelleher

Chairman

GREAT BARRIER REEF MARINE PARK AUTHORITY

The Great Barrier Reef Marine Park Authority, which was established under the *Great Barrier Reef Marine Park Act 1975*, is a Commonwealth statutory body consisting of a full-time Chairman and two part-time members, one of whom is nominated by the Queensland Government • The first appointments to the Authority were made in July 1976 and the Authority's first meeting was held in August that year.

ROLE

The Authority is the principal adviser to the Commonwealth Government on the care and development of the Great Barrier Reef Marine Park. Specific functions defined in sections 7 and 7A of the Act are listed in appendix A.

Below is the statement of the Authority's goal and aims. The statement has been derived from, and is consistent with the object of the Act, and the functions and powers set out in the Act. It includes a new aim that recognises the Authority's function to assist others.

GOAL

To provide for the protection, wise use, understanding and enjoyment of the Great Barrier Reef in perpetuity through the care and development of the Great Barrier Reef Marine Park.

AIMS

These aims are subordinate to the primary goal and must be read in conjunction with it and with each other.

- To protect the natural qualities of the Great Barrier Reef, while providing for reasonable use of the Reef Region.
- To involve the community meaningfully in the care and development of the Marine Park.
- To achieve competence and fairness in the care and development of the Marine Park through the conduct of research, and the deliberate acquisition, use and dissemination of relevant information from research and other sources.
- To provide for economic development consistent with meeting the goal and other aims of the Authority.

- To achieve management of the Marine Park primarily through the community's commitment to the protection of the Great Barrier Reef and its understanding and acceptance of the provisions of zoning, regulations and management practices.
- To minimise costs of caring for and developing the Marine Park consistent with meeting the goal and other aims of the Authority.
- To minimise regulation of, and interference in, human activities, consistent with meeting the goal and other aims of the Authority.
- To achieve its goal and other aims by employing people of high calibre, assisting them to reach full potential, providing a rewarding, useful and caring work environment, and encouraging them to pursue relevant training and development opportunities.
- To make the Authority's expertise available nationally and internationally.
- To adapt actively the Marine Park and the operations of the Authority to changing circumstances.

SUBSIDIARIES

The Great Barrier Reef Marine Park Authority has no subsidiaries. However, certain functions are carried out in conjunction with other State and Commonwealth organisations including the Queensland Department of Environment and Heritage which has responsibility for day-to-day management of the Marine Park, subject to the Authority. Certain powers of the Authority have been delegated to positions in other organisations.

MEMBERSHIP AS AT 30 JUNE 1992



The full-time Chairman (and chief executive) of the Authority is **Mr Graeme Kelleher, AM**, who was reappointed for his third five-year term on 20 December 1989. Mr Kelleher has had extensive experience in activities concerned with the environment. He was one of the three commissioners on the Ranger Uranium Environmental Inquiry, and served as an examiner of New Zealand's environment policies for the international Organisation for Economic Cooperation and Development (OECD). He is Vice-Chairman, Marine, of the Commission on National Parks and Protected Areas of IUCN, the World Conservation Union.



Dr Craig Emerson, Director-General of the Queensland Department of Environment and Heritage, was appointed as acting part-time member by the Minister on 1 July 1991 for a period of one month. His second and third terms (as acting part-time member again) were from 13 to 31 August 1991, and from 4 September (for one month). On 10 September 1991, he was appointed by the Governor-General, as part-time member for a period of three years.



Professor Rhondda Jones was appointed on 22 February 1989, for a three-year term as part-time member. Professor Jones, an ecologist with research interests in population dynamics, is Professor of Zoology in the School of Biological Sciences at the James Cook University of North Queensland. She has worked previously as an experimental officer with the CSIRO, and has held positions with Canadian and American universities. Professor Jones was reappointed on 27 February 1992 for a further three-year term.

ACTING CHAIRMAN APPOINTMENTS

In February 1992, Mr Kelleher attended the IVth World Parks Congress in Caracas, Venezuela, in his capacity as Vice-Chairman, Marine, of the Commission on National Parks and Protected Areas of IUCN, where he organised and chaired a workshop entitled 'Regional Planning Protected Areas and the Coastal Zone'.

The Minister appointed the Authority's Executive Officer, Dr Don Kinsey, to act as Chairman from 10 February to 21 February 1992, and from 24 February to 20 March 1992 during periods when the Chairman was absent from duty.

In November 1991, Mr Kelleher attended the World Bank Workshop on Marine Biodiversity Conservation and presented a paper to the National Forum on Ocean Conservation staged by the Smithsonian Institution in the United States of America. In May 1992, Mr Kelleher attended, as a member, the meetings in Switzerland of the steering committee for the Commission on National Parks and Protected Areas of IUCN and the steering committee for the IVth World Congress on National Parks and Protected Areas.

On all these occasions, it was deemed unnecessary to make an acting appointment.

MEETINGS

During 1991-92, the Authority met on seven occasions:

1991		1992	
DATE	LOCATION	DATE	LOCATION
5 September	Daydream Island	29 January	Townsville
31 October	Townsville	6 February	Canberra
18 December	Townsville	3 & 8 April	Cairns & Townsville
		6 May	Brisbane

Marine parks management is focused on the three operational regions of the Queensland Department of Environment and Heritage adjacent to the Great Barrier Reef Marine Park. The Authority met in the Cairns Region in Cairns and the Central Region in Townsville and these meetings involved the respective Regional Directors.

The September 1991 meeting of the Authority decided to suggest to the Minister that an external review be carried out into the procedures used by the Authority in regard to its assessments and permissions issued for the Magnetic Quays project at Magnetic Island, Central Section. Mr John Whitehouse, of Dunhill, Madden and Butler, solicitors was subsequently, commissioned by DASET to undertake an investigation of aspects of the development. Authority staff took part in the discussions between Mr Whitehouse and interested parties on 20 March 1992.

Mr Whitehouse is also conducting a review of the Great Barrier Reef Marine Park Authority, which began with a call for submissions in September 1991.

The Authority has assisted Mr Whitehouse in both reviews by providing access to records and its staff.

The Authority's meeting in Cairns on 3 April 1992 coincided with the release of the Cairns Section Zoning Plan.

Meeting business during the year included:

- a review and simplification of the reporting processes for day-to-day management
- clarification of the roles of the Authority and the Queensland Department of Environment and Heritage in day-to-day management
- receipt of a report by Professor A Gilmour, Dr J Cunningham and Mr D Lamond on 'Day-to-day Management of the GBRMP: the Role of Marine Park Staff'
- the assessment of resources for competent management of the Marine Park over the next five to ten years
- facilitating development of a Strategic Plan for the Great Barrier Reef World Heritage Area
- the assessment of a report by the Australian Bureau of Agriculture and Resource Economics on resource allocation and charging systems for the Great Barrier Reef Marine Park
- charging in the Great Barrier Reef Marine Park

- establishment of research programs to investigate effects of fishing and water quality
- a Memorandum of Understanding with DASET for preparation by the Authority of a Report on the State of the Marine Environment of Australia
- investigation of alternatives to the Administrative Appeals Tribunal for the review of Authority decisions
- adoption of management plan for Green Island and Reef, Cairns Section
- establishment of a Special Management Area at Kelso Reef, and a proposal for a Special Management Area at Manta Ray Bay, Hook Island, both in the Central Section
- establishment of a Replenishment Area at Bramble Reef, Central Section
- determining policies on the issuing of permits to, agreements with, and obligations on permit holders
- development of management planning principles and of management strategies to limit numbers of visitors to sites
- the improvement of liaison with coastal Aboriginal and Torres Strait Islander communities
- marine pollution matters including bioremediation in oil spill response
- the establishment of an advisory board for the Great Barrier Reef Aquarium
- management strategies for the reefs offshore from Cairns and for the Frankland Islands
- the proposed Cooperative Research Centre for Ecologically Sustainable Development of the Great Barrier Reef.

A database on decisions of the Authority is being established.

In 1991-92, the Authority delegated powers to selected senior staff under the Great Barrier Reef Marine Park Regulations relating to permits, and under the Great Barrier Reef Marine Park Act relating to:

- the appointment of inspectors,
- the confiscation and forfeiture of vessels, aircraft or articles,
- the general and financial operations of the Authority.

THE MINISTER

The Honourable Ros Kelly, MP was the Minister with portfolio responsibilities for Great Barrier Reef matters, as Minister for the Arts, Sport, the Environment and Territories. During the year, the Minister convened one meeting of the Great Barrier Reef Ministerial Council, held in Canberra on 6 February 1992.

The Act provides that the Authority '*...shall perform its functions in accordance with any general directions given by the Minister not inconsistent with this Act*'. No such directions were given to the Authority during the year.

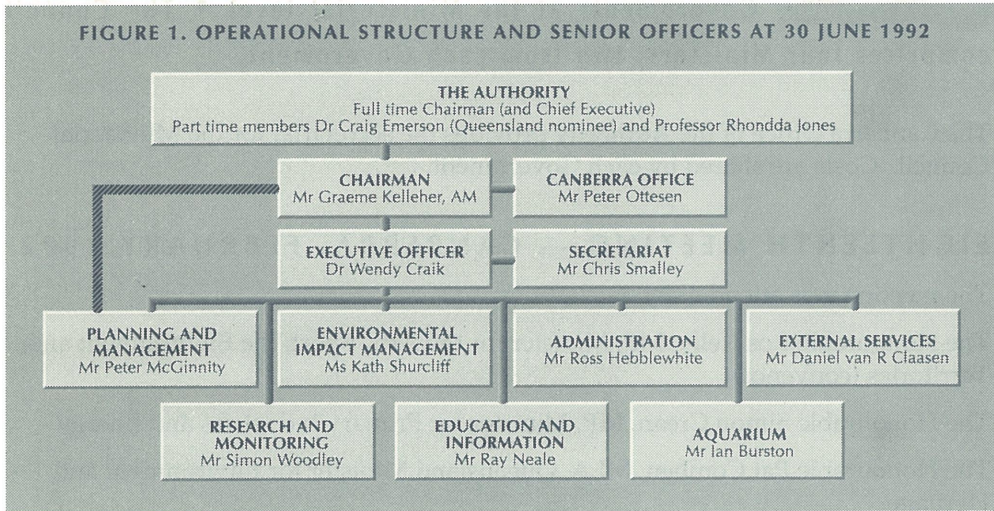
OFFICE OF THE AUTHORITY

The Authority has an office in Townsville and a small office in Canberra. This arrangement enables the Authority to have its principal technical resources close to

the Reef and also to carry out important liaison functions in Canberra.

The Townsville office, which includes the Great Barrier Reef Aquarium, had a staffing level at 30 June 1992 equivalent to 100 full-time positions. The Townsville office is located in the Great Barrier Reef Wonderland complex.

The Canberra office provides administrative support to the Chairman and the secretariat for the Great Barrier Reef Ministerial Council. It also advises the Minister, liaises with DASET, Parliamentary Committees, other Canberra-based departments and organisations with interests in the Marine Park, and assists in the development and communication of policy advice. The Canberra office had five full-time staff at 30 June 1992.



EXECUTIVE OFFICER

Dr Don Kinsey was Executive Officer of the Authority for most of the year. The Executive Officer is responsible to the Chairman for the efficient operation of the Townsville office and is also Secretary to the three-member Great Barrier Reef Marine Park Authority.

Dr Kinsey had been Executive Officer since 1985. The application of his scientific expertise to the management of the Great Barrier Reef Marine Park Authority was highly regarded. (Dr Kinsey has since been responsible for the development of the proposal for a Townsville-based Cooperative Research Centre for Ecologically Sustainable Development of the Great Barrier Reef. He is Director of the Centre.)

In April 1992, he was succeeded by Dr Wendy Craik as Executive Officer of the Authority.

Dr Craik has studied science at the Australian National University, ACT, and acquired her Doctorate of Philosophy in Zoology at the University of British Columbia, Vancouver, Canada. During her time with GBRMPA, she has played a major role in the implementation and development of the Authority's research and monitoring programs, Marine Park zoning, strategic planning, oil spill strategies and research into fish stock management in the Marine Park.

GREAT BARRIER REEF MINISTERIAL COUNCIL

The Great Barrier Reef Ministerial Council was established in June 1979 to coordinate policy on the Reef between the Commonwealth and Queensland Governments at the Ministerial level • The Council comprises four Ministers, two from each Government.

The Canberra Office of the Authority provides the secretariat for the Ministerial Council. Costs are shared by each Government.

EIGHTEENTH MEETING — CANBERRA, FEBRUARY 1992

The meeting was attended by:

The Honourable Ros Kelly, MP, Minister for the Arts, Sport, the Environment and Territories (convenor)

The Honourable Simon Crean, MP, Minister for Primary Industries and Energy

The Honourable Pat Comben, MLA, Queensland Minister for Environment and Heritage

The Honourable Ed Casey, MLA, Queensland Minister for Primary Industries, was unable to attend.

The following business was considered:

WATER QUALITY

Both governments regarded water quality as the most important environmental issue in the Great Barrier Reef Region.

STATE OF THE QUEENSLAND MARINE ENVIRONMENT REPORT

Council endorsed the preparation of a report on the state of the Queensland coastal and marine environment. This would complement the national State of the Marine Environment Report being prepared by the Marine Park Authority on behalf of the Ocean Rescue 2000 program.

GREAT BARRIER REEF WORLD HERITAGE AREA STRATEGIC PLAN

Council endorsed the development of the Strategic Plan for the Great Barrier Reef World Heritage Area, which involves more than 60 industry, government and other interest groups.

RESEARCH

Council reviewed the status of major research topics including crown-of-thorns starfish, effects of fishing, water quality, the Torres Strait Baseline Study and long-term monitoring, and supported the need for a continuing commitment to research with appropriate funding.

ENVIRONMENTAL IMPACT MANAGEMENT

Council reviewed the status of two major developments having implications for the Marine Park. Dallhold Nickel Management Pty Ltd had appealed under the provisions of the Administrative Appeals Tribunal Act against the Authority's decision to refuse permission to conduct nickel ore off-loading at Halifax Bay within the Great Barrier Reef Marine Park. Council also noted that both governments were cooperating to ensure there is no site degradation at the Magnetic Quays project, which had failed for financial reasons.

COMPULSORY PILOTAGE

Council noted that the Commonwealth Government implemented legislation in October 1991 that requires the compulsory carrying of pilots for certain categories of ships (such as oil tankers) considered to pose a threat to the Great Barrier Reef. The presence of a pilot is considered a positive step which will reduce the risk of collision or grounding. The Great Barrier Reef is the first area in the world to be identified as a Particularly Sensitive Area under the guidelines which were agreed to in November 1990 by the International Maritime Organisation.

OCEAN RESCUE 2000

Council endorsed the program for Ocean Rescue 2000, a major initiative of the Commonwealth Government. Ministers said they supported the cooperative approach to this program which involves the Commonwealth and States working together to promote conservation and better management of our coastal and marine resources.

MARINE PARKS PLANNING AND MANAGEMENT

Council endorsed the three-year rolling program for day-to-day management of Marine Parks. Ministers reviewed a number of management issues where coordination between the Commonwealth and Queensland Governments is important, including policies that will simplify procedures to deal with reclamation and excavation on the boundaries of Marine Parks.

GREAT BARRIER REEF CONSULTATIVE COMMITTEE

The Great Barrier Reef Consultative Committee was established by the *Great Barrier Reef Marine Park Act 1975* as an independent advisory body for both the Minister and the Authority • Specific functions defined in section 21 of the Act are listed in appendix B.

The Consultative Committee represents a wide cross-section of interests in the Great Barrier Reef, from both the public and private sectors, including tourism, fishing, science, conservation and the Aboriginal and local government communities. It consists of members appointed by the Minister for a three-year term and a member of the Authority appointed by the Authority. The current term ends on 3 July 1992 for all members except Mr Graeme Kelleher, who, as the Authority's appointee, has an indefinite term.

MEMBERSHIP DURING 1991-92

Chairman:

Professor Helene Marsh James Cook University of North Queensland

Committee:

Mr Tony Fontes	Barrier Reef Diving Services
Mr Denis Griffith	Queensland Sport and Recreational Fishing Council
Mr Eddie Hegerl	Australian Littoral Society and Queensland Conservation Council
Dr Tor Hundloe	Industry Commission
Mr Adrian Jeffreys	Australian Conservation Foundation Inc
Dr Harley Juffs	Queensland Department of Primary Industries
Mr Bill Kehoe	Queensland Commercial Fishermen's Organisation
Mr Graeme Kelleher AM	Great Barrier Reef Marine Park Authority
Mr Gordon McKaige	Far North Queensland Promotions Bureau Tourism Task Force

Mr Andre Maestracci MBE	Ansett Transport Industries Limited
Mr David Mazitelli	Commonwealth Department of Tourism
Mr Dave Perkins	Queensland Department of Environment and Heritage
Mr Jim Wallace	Association of Marine Park Tourism Operators and Quicksilver Connections
Mr Wally Ziegelbauer	Aboriginal and Torres Strait Islander interests
The late Ald John Cleland	Cairns City Council

(Ald Cleland died on 25 December 1991.)

The Queensland Government established a Queensland Marine Parks Consultative Committee in 1991:

- to enhance communication between parties involved in Queensland Marine Park issues
- to provide advice to the Queensland Minister for Environment and Heritage and to the Queensland Director of National Parks and Wildlife on Queensland Marine Parks.

Membership is the same as that of the Great Barrier Reef Consultative Committee, from time to time, except that Mr Ted Loveday is the member on the Queensland Committee representing the Queensland Commercial Fishermen's Organisation. Unlike the Commonwealth's Committee, the Queensland Committee is not established under legislation. The Great Barrier Reef Ministerial Council has agreed to this arrangement.

In practice, both Committees function generally as a joint body. However, matters are considered separately when they relate only to the Great Barrier Reef Marine Park, or to Queensland marine parks. A comprehensive set of procedures has been developed to assist the operation of the two Committees.

The full additional costs of operating the combined Consultative Committees to allow the consideration of Queensland-only matters (including administrative support) are met by the Queensland Government through an arrangement under the external assistance function of the Authority. The Committees are served by the secretariat in the Office of the Authority. Mr Chris Smalley is Secretary to both. Ms Michelle Morrison was acting Secretary from 13 January to 27 March 1992.

MEETINGS

During 1991-92, the Consultative Committees met as follows:

GBRCC and QMPCC	26 September	Hervey Bay
GBRCC and QMPCC	5 March 1992	Bribie Island
GBRCC and QMPCC	4 & 5 June 1992	Townsville

The Townsville program included a workshop session between members of the Committee, staff of the Authority and the Queensland Department of Environment and Heritage and representatives of the Bureau of Tourism Research. The Committees acknowledged the work of the Director and other personnel of the Bureau in producing the report 'Review of Great Barrier Reef Marine Park Authority Tourism Statistical Needs' which the Great Barrier Reef Consultative Committee has used in providing advice to the Authority.

The Committees have also acknowledged the support given by staff from the Queensland Department of Primary Industries in the preparation of the discussion paper 'The Economic Outlook of Fisheries in the Great Barrier Reef Region: A Preliminary Review' which the Great Barrier Reef Consultative Committee is finalising as advice to the Authority.

During the year, the Authority referred the following matters to the Great Barrier Reef Consultative Committee:

- development of the Strategic Plan for the Great Barrier Reef World Heritage Area
- the proposed Whitsundays Management Plan
- draft Offshore Cairns Strategy
- review of user data for the Marine Park.

The Great Barrier Reef Consultative Committee is aware of a proposal that the Authority offer it an advisory role in regard to the distribution of revenue raised in the Marine Park.

From its meetings in 1991-92, the Great Barrier Reef Consultative Committee provided advice to the Authority in regard to the economic outlook of tourism in the Great Barrier Reef Marine Park, the Corporate Plan of the Authority, and the naming for hitherto unnamed reefs in the Great Barrier Reef, as well as responding to matters referred to it that year.

Advice to the Commonwealth Minister in part concerned:

- proposed offshore exploratory oil drilling beyond the boundaries of the Great Barrier Reef Marine Park and the need for preliminary assessment
- proceedings of the Administrative Appeals Tribunal in regard to the decisions on the Magnetic Quays development

- funding for completion of the Strategic Oil Spill Atlas for the Great Barrier Reef Region
- charging in the Great Barrier Reef Marine Park
- upgrading of Admiralty charts for the Great Barrier Reef
- complementary management arrangements.

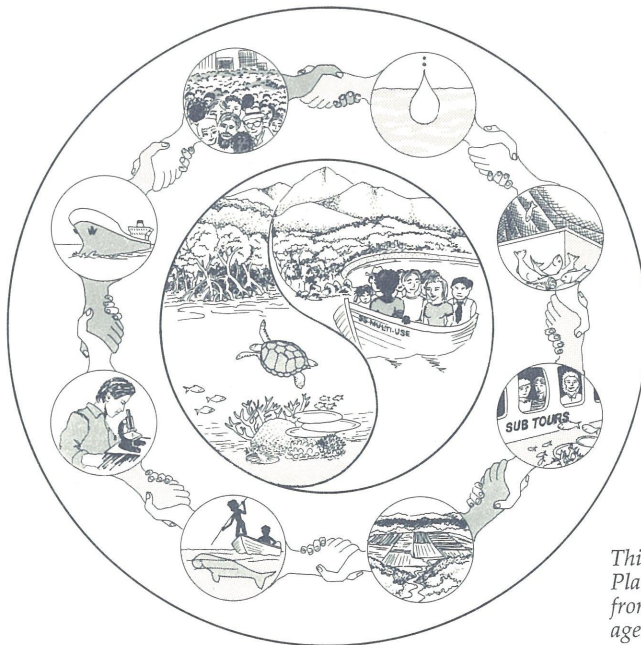
In keeping with requirements under section 27A of the Act, members of the Commonwealth Committee have disclosed their direct and indirect pecuniary interests to a meeting of the Committee and have noted the obligations attached to their declarations.

25 YEAR STRATEGIC PLAN FOR THE GREAT BARRIER REEF WORLD HERITAGE

This project will create a 25 year vision for the Great Barrier Reef World Heritage Area, and find ways to ensure this vision is achieved.

The need for such a long-term plan has become more and more apparent, as demands on this World Heritage Area rapidly increase. It is now clear there is a need for an agreed regional framework for management, for clearly stated common directions for all involved agencies, and mutual long-term objectives. This process is now under way, and has required the involvement of all concerned parties, including user groups (e.g. tourist operators, fishing interests, scientists), interest groups (e.g. conservationists, cane growers), Aboriginal and Torres Strait Islanders, and federal, state and local government agencies. About 60 agencies have been directly involved in the process, with some of these representing more than their own organisation.

The officially listed World Heritage Area extends approximately 2000 km along the eastern coast of Queensland from just north of Fraser Island in the south (24°30'S)



This vision statement was derived by the Planning Team by distilling the visions from user and interest group and agencies workshops.

to the tip of Cape York in the north (10°41'S), and covers an area of 348 700 km sq. The World Heritage Area, rather than the Great Barrier Reef Marine Park, was chosen as the planning unit to ensure that land and marine areas were considered in tandem. Adjacent coastal and marine areas (e.g. Torres Strait) were also considered in the planning process because of the effects they can have on the World Heritage Area and vice versa.

The project is believed to be a world first in complex joint decision-making between groups in a World Heritage Area. An independent consultant, Ms Kayt Raymond of Kayt Raymond and Associates, was engaged to advise on, design and facilitate the strategic planning process, to conduct the planning workshops involving users, and to ensure that the plan belongs to all participants, not just the Great Barrier Reef Marine Park Authority. It is intended that the final agreed plan will be incorporated in the activities of all involved organisations.

The Plan has been developed by a team of representatives of major users. Ms Raymond guided the team through a series of workshops to develop an agreed vision, to set objectives and strategies, and to refine the plan.

While the Authority initiated and is coordinating the Plan development, some supplementary funding for the project has been provided by Queensland Government agencies (Department of the Premier, Economic and Trade Development, Department of Environment and Heritage, the Queensland Port Authorities Association, Department of Primary Industries, Department of Business, Industry and Regional Development). The Local Government Association of Queensland has also provided money, as has the Department of the Arts, Sport, the Environment and Territories at the federal level. Government agencies and commercial interests have paid for the involvement of their representatives in the planning process.

A wide range of issues have been considered in the development of the Plan. These include long-term water quality and the effects of mainland influences, coordination of land and reef research and management, reef damage, education, adequate funding for research and management, improving consultation, shipping risks, commercial viability and defining limits to use.

A draft of the 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area was released for wider public comment on 18 May 1992. This wider participation was designed to gather comments on the draft, both from those who had already been involved in the development of the Plan along with other organisations, groups and individuals who have an interest in the World Heritage Area. Approximately 4000 copies of the draft plan were distributed within Australia and overseas.

In addition, 4000 information flyers about the Strategic Plan were sent to regional offices of the Queensland Department of Environment and Heritage, Queensland Boating and Fisheries Patrol Offices and to public libraries along the coast.

The team has been getting across the underlying message to different groups in different ways. There have been workshops and briefings in user organisations, with especially designed and conducted workshops for local government and land-based industry. Specific consultation strategies have been developed for

Aboriginal and Torres Strait Islander communities, and an education strategy has been developed.

A series of small 'focus groups' were conducted by consultants Network One Communications with interest groups/residents in coastal Queensland cities, and in Brisbane, Sydney and Melbourne, to obtain detailed responses to the draft Plan.

After comments on the draft plan have been considered by the planning team, formal approval will be sought from participating organisations. How the Plan will be put in action will be worked out in detail at this stage.

The Strategic Plan for the Great Barrier Reef World Heritage Area is expected to be finalised by November 1992.

PLANNING AND MANAGEMENT

The section aims to conserve the Great Barrier Reef while allowing reasonable use by recommending the declaration of sections of the Marine Park; developing and reviewing zoning plans, regulations and other management strategies; providing policy advice on management of the Marine Park; achieving cost-effective implementation of zoning plans, regulations, and other management strategies in conjunction with Queensland government agencies and others; and by involving the community in these processes.

Critical to the achievement of the Planning and Management objective is the gathering and analysis of information on the character, resources, use and amenity of the Great Barrier Reef Region.



Management plans for locations of high use and value ensure conservation while allowing reasonable use to continue. Low Isles near Port Douglas is such a place, being a very popular tourist destination, important historical site, research reference point, good anchorage and a site affiliated with local Aboriginal culture.

The Planning and Management Section's major achievements for 1991-92 were:

- commencement of the strategic plan for the Great Barrier Reef World Heritage Area
- completion of the Cairns Section zoning review
- management planning for heavily used areas of the Park, including Whitsundays Area, Cairns Offshore, the Capricorn/Bunker Islands and Reefs, the Family and Brook Island groups, and Goold Island
- liaison and review, with the Queensland Department of Environment and Heritage, to ensure effective day-to-day management of the Park in response to an independent review of management undertaken by Professor A Gilmour and staff of Macquarie University
- development of a public moorings strategy.

CAIRNS SECTION ZONING PLAN

The initial Zoning Plan for the Cairns Section of the Great Barrier Reef Marine Park took effect in 1983. A review of that Plan was commenced in 1989, in line with the Authority's commitment to review zoning plans after about five years. Following extensive review, the revised zoning plan was presented to Parliament and came into effect on 3 April 1992.

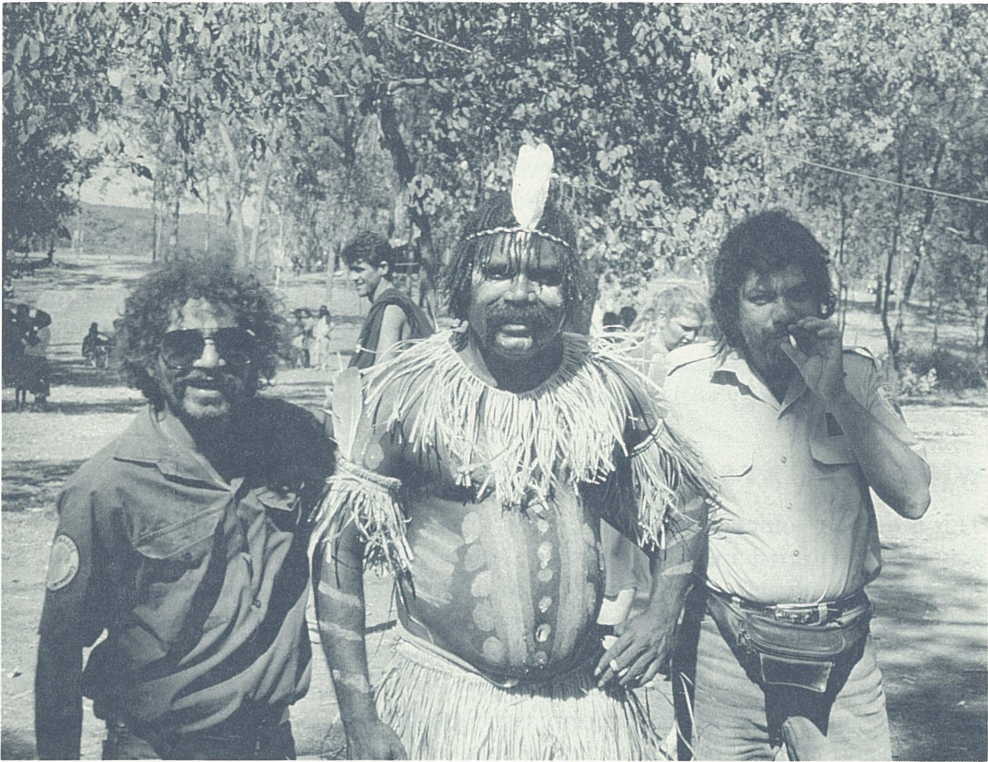
The revision of the zoning plan has been timely given the rapidly changing trends in reef use, particularly tourism, and a substantial improvement in our scientific understanding of the reef environment.

Some of the major initiatives incorporated in the revised zoning plan include:

- the introduction of a 'No Structures Sub-Zone', which ensures that while structures may be placed on some reefs, not all reefs are available for this purpose
- protection from fishing at significant reef fish-spawning sites
- establishment of areas set aside for research into the effects of fishing
- protection from fishing for a number of reefs which are important sources of larvae stocks for neighbouring reefs; conversely, some other reefs which have been found to be well placed to be replenished by attracting fish larvae from neighbouring reefs have been reopened to fishing.

The Zoning Plan also continues to:

- protect critical habitats such as seagrass beds, which form the primary feeding grounds for dugong and green turtle, and are prawn nursery areas
- provide for traditional hunting and fishing practices of Aboriginal and Islander communities
- maintain sites for research, diving and reef appreciation which are protected from fishing and collecting
- meet the requirements for reasonable access for activities such as tourism, fishing and collecting.



The annual Laura Aboriginal Dance Festival offers one of the rare opportunities for all the communities of the Cape York Peninsula to meet and mingle with each other. Pictured L to R Alvie Baird, Community Ranger, Gungahde, Cooktown, Abraham Omeenyo, Lockhart River Community Ranger, and Jimmy Wallace, Wuthathi Community Ranger.



The Laura Dance Festival also provided an opportunity for the Great Barrier Reef Marine Park Authority to let people on Cape York know the latest news on all aspects of the Authority's activities.

OFFSHORE CAIRNS STRATEGY

The revised Cairns Section Zoning Plan provides for the development of management plans that are more detailed than the Zoning Plan. A detailed management plan was drafted during 1991-92 to provide guidelines for managing the current and projected very high levels of tourism, recreation and commercial use of the reefs, islands and cays immediately off Cairns. The Offshore Cairns Strategy plans for a wide range of increasing uses up to the year 2000, while providing detailed strategies for the conservation of the natural resources of the area. The draft plan was prepared by staff of the Authority and the Queensland Department of Environment and Heritage (QDEH) and has been approved by the Authority for public release, subject to the endorsement of QDEH. It is expected that the draft Strategy will be released for public review late in 1992.

WHITSUNDAYS MANAGEMENT PLAN

This is another joint exercise with QDEH. The Region has experienced considerable tourist and residential growth over the past decade resulting in increased use of, and impact upon, National Parks and adjacent Marine Parks. An extensive public consultation program was held in the first part of the year, culminating in a call for public representations on issues that should be addressed in the plan. Two hundred and ninety-one written submissions were received and analysed, and a Geographical Information System was established to represent resource and management information about the Region. A draft plan of management is currently being finalised for public comment.

MANAGEMENT STRATEGY FOR THE CAPRICORN AND BUNKER GROUPS

Authority and QDEH staff have started work on a management plan for these islands and reefs. These reefs have significant nature conservation value because they are a nesting area for green and loggerhead turtles, both species of international significance; they support sixty per cent of Australia's *Pisonia* forests; and they are critical habitat and nesting sites for a diversity of seabirds. The increasing demands for access to the area have prompted the creation of a detailed strategy to establish long-term management directions. This strategy is expected to be finalised by mid-1993.

BROOK ISLANDS, FAMILY ISLANDS AND GOULD ISLAND MANAGEMENT PLANNING

These important recreational and tourist islands in the central part of the Great Barrier Reef lie adjacent to the busy tourist centres of Mission Beach and Cardwell and are half way between the major population centres of Townsville and Cairns. To ensure their considerable natural values are protected and use is kept to an appropriate level, the Authority and QDEH are working on a joint management plan for the area, which will be released for public review shortly.

FLORENCE BAY

Florence Bay, one of many spectacular bays around Magnetic Island off Townsville, is of special significance because it remains largely in its natural state, yet is readily accessible to a wide range of users. Planning was undertaken by the QDEH and the Authority to develop long-term strategies for management of the area. One main outcome of this planning process was the recent gazettal of land surrounding the Bay as a Queensland National Park. This gazettal complements the marine park protection that has applied to the Bay since 1987.

NEWRY ISLANDS PLAN OF MANAGEMENT

The Newry Islands are a popular fishing and boating location close to the coastline near Mackay. A draft plan of management was prepared by QDEH, with the Authority's assistance, and is awaiting release for public comment.

PROPOSED MANTA RAY BAY SPECIAL MANAGEMENT AREA

Manta Ray Bay is a small bay in the Whitsundays which has become a popular dive destination with the expansion of tourism in the Region. However, vessels using the Bay are forced to anchor on or near its inshore coral reef for protection from strong currents near the headland. The Authority has engaged in extensive consultation about ways to protect the reef from damage and at the same time maintain the opportunities for divers to continue to have access to this very attractive area. The result has been moves to designate the bay as a Special Management Area to prohibit anchoring. Public response has been generally in favour of the proposal and final details of a mooring system for the Bay are being worked out before the special management provisions come into force.

KELSO REEF SPECIAL MANAGEMENT AREA

A proposal to designate a Special Management Area surrounding a pontoon on this reef off Townsville was advertised in July. The proposal arose from a need to create a buffer between tourist operations at the pontoon, and fishing and collecting at nearby parts of the Reef. Following consideration of the generally favourable responses, the Special Management Area was designated on 20 November 1991, with a provision that prohibits fishing and collecting in the area near the pontoon.

BRAMBLE REEF REPLENISHMENT AREA

In response to public concern and the results of a baseline survey of fish stocks, the Authority decided to designate a Replenishment Area at Bramble Reef, 45 kilometres north-east of Townsville. An advisory committee including local community representatives and members of relevant management organisations has been formed to provide advice on long-term management of this reef.

PUBLIC MOORINGS STRATEGY

Damage from anchoring on corals is causing concern at a number of sites in the Park. Installation of appropriately designed moorings is one possible solution to this problem. Where appropriate, regular users of a site are required to install their own moorings, but at sites with limited mooring space and a wide range of users, it may be necessary to install public moorings. A contract was let to have mooring designs prepared. These designs, now going through a final independent review, will be used at a number of priority sites in the Park.

DAY-TO-DAY MANAGEMENT

As agreed between Queensland and the Commonwealth, day-to-day management of the Great Barrier Reef Marine Park is carried out principally by State Government agencies, subject to the Great Barrier Reef Marine Park Authority. In 1991, following a review by the Queensland Government, the principal day-to-day management was transferred from the Queensland National Parks and Wildlife Service to the Coastal Management Branch of QDEH. In doing this, the Queensland Government has amalgamated the functions of Marine Parks, Beach Protection and Coastal Processes under the one branch.

In addition to the activities undertaken by QDEH, some day-to-day management tasks involve the Queensland Boating and Fisheries Patrol (QB&FB), the Queensland Water Police, the Australian Maritime Safety Authority, Coastwatch and the Australian Federal Police.

Expenditure for 1991-92 and estimated funding for 1992-93 are detailed in table 1. Cost sharing arrangements for the State and the Commonwealth for the same periods are outlined in table 2.

STAFF TRAINING

A Marine Parks Conference, held in Yeppoon in May 1992, was attended by a range of day-to-day management staff, GBRMPA staff, and members of other organisations from Queensland and interstate who are involved in marine park management or related industries. The conference promoted the open exchange of information and discussion of marine park management practices.

Full day workshops were conducted in Rockhampton, Airlie Beach, Townsville and Cairns to bring all marine park inspectors up to date with changes to legislation and other related enforcement information. The workshops were well attended by inspectors from QDEH, Queensland Boating and Fisheries Patrol, the Queensland Water Police, officers from the Australian Maritime Safety Authority and the Australian Federal Police. A series of circulars on enforcement were established to keep the relevant inspectors of all agencies informed on marine park enforcement.

TABLE 1.

**PAYMENTS TO QUEENSLAND DEPARTMENT
OF ENVIRONMENT AND HERITAGE FOR DAY-TO-DAY
MANAGEMENT, BY REGIONS**

	1991-92	1992-93 (estimated)
	\$	\$
Head Office		
Salaries & Operating Costs	2 682 603	619 000
Capital (Inc. Post Initial)	30 719	100 000
Central Coast Region		
Salaries & Operating Costs	737 340	1 449 000
Capital (Inc. Post Initial)	161 945	743 500
Northern Region		
Salaries & Operating Costs	1 440 195	2 164 000
Capital (Inc. Post Initial)	384 093	478 000
Far Northern Region		
Salaries & Operating Costs	998 615	1 608 000
Capital (Inc. Post Initial)	257 684	627 000
All Regions Sub-total		
Salaries & Operating Costs	5 858 753	5 840 000
Capital (Inc. Post Initial)	834 441	1 948 500
TOTAL	6 693 194	7 788 500

TABLE 2.

COST SHARING FOR DAY-TO-DAY MANAGEMENT

	1991-92	1992-93 (estimated)
	\$	\$
Queensland		
Salaries & Operating Costs	2 929 377	2 920 000
Post Initial Capital	305 623	306 000
Sub-total	3 235 000	3 226 000
Commonwealth		
Salaries & Operating Costs	2 929 377	2 920 000
Post Initial Capital	305 623	306 000
Initial Capital	223 194	1 336 500
Sub-total	3 458 194	4 562 500
TOTAL	6 693 194	7 788 500

PARK MANAGEMENT REVIEW

A review of day-to-day management conducted by Professor A Gilmour, Dr J Cunningham and Mr D Lamond of Macquarie University, was completed and a report submitted to the Authority on 25 July 1991. This review highlighted the need for increased staffing throughout the Park and improved public education and interpretation strategies. The report also provided valuable information about the perceptions of Marine Park management and highlighted the need for corporate and strategic plans to identify long-term objectives and strategies.

SURVEILLANCE AND ENFORCEMENT

Education remains the main way of getting users to behave responsibly in the Marine Park, but enforcement has continued to be necessary. Throughout 1991-92, trawling in General Use B Zones and fishing in Marine National Park B Zones continued to be the most prevalent offences committed in the Park.

'Operation Barrier Protection' finished at the end of June 1992, following 18 months of operations. The operation consisted of combined QB&FP and QDEH patrols covering remote areas of the Park. Educational material and assistance with other marine park matters, such as permit queries and zoning explanations, were provided at every available opportunity. Some of the vessels approached during these patrols had received little contact with management agencies in the past, and the reaction was generally favourable.

Aerial surveillance was continued throughout the year by both Coastwatch and QDEH. Many air hours were devoted specifically to 'Operation Barrier Protection', ensuring forward air support for surface patrols to improve efficiency and act as a deterrent.

COMPULSORY PILOTAGE

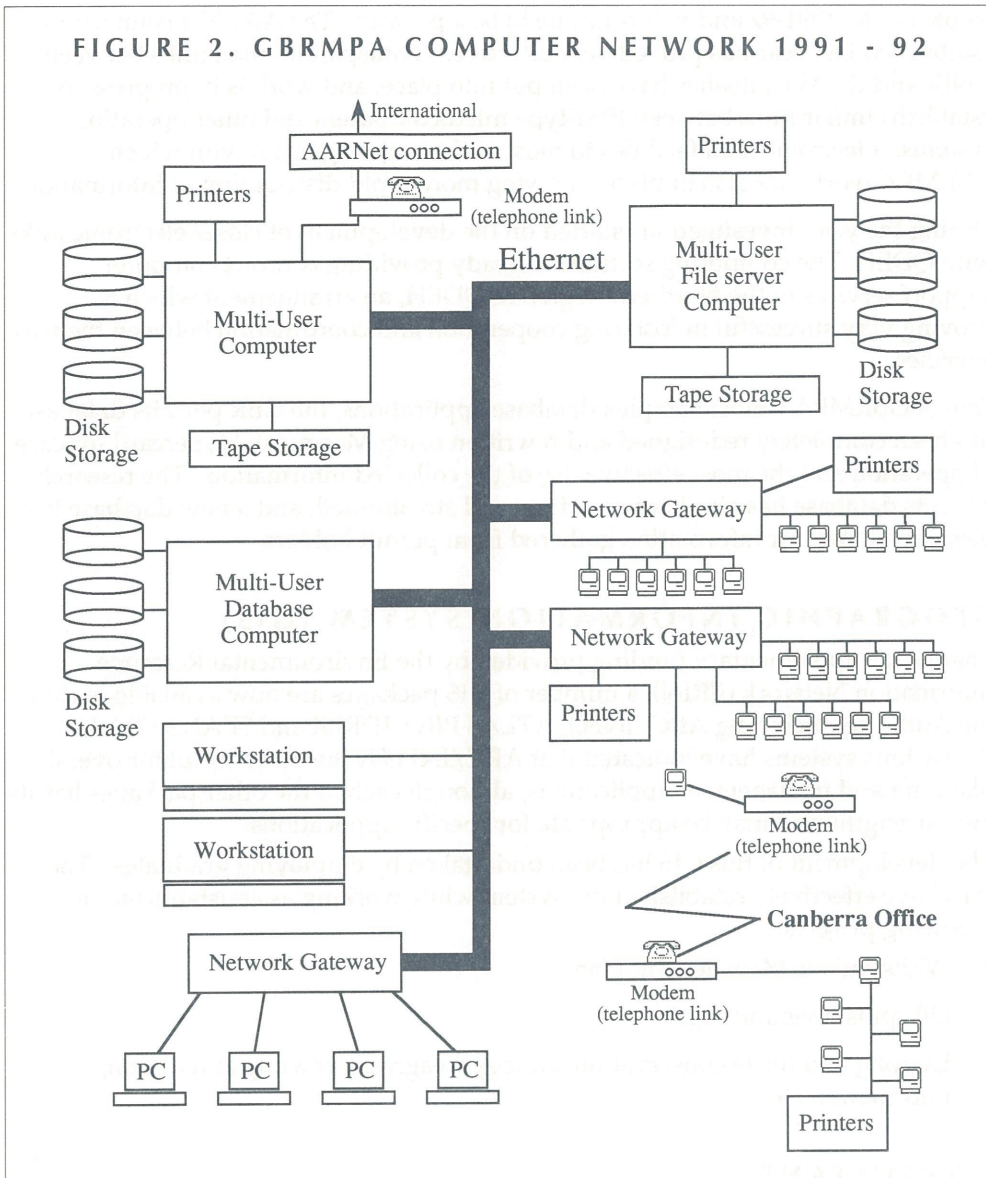
After many years of negotiation at international level, changes to the *Great Barrier Reef Marine Park Act 1975* on 1 October 1991 saw the introduction of compulsory pilotage for two areas in the Great Barrier Reef Marine Park; the inner route of the GBR from the tip of Cape York to Low Isles near Cairns, and Hydrographers Passage, east of Mackay. Compulsory pilotage is required for all vessels over 70 metres in length, and for any loaded oil tanker, chemical carrier or gas carrier regardless of length. The Australian Maritime Safety Authority undertakes day-to-day management of compulsory pilotage, including education, enforcement and joint assessment of applications for exemption.

In December 1991, the captain of the Panamanian register bulk carrier *Keifu* was arrested by the Australian Federal Police for navigating his ship through one of the newly declared compulsory pilotage areas. The captain pleaded guilty to this offence and was fined \$1500 in the Bundaberg Magistrates Court.

COMPUTING

The continuing rapid growth of computerised information and the demand for effective access to it within GBRMPA and other agencies required that database

FIGURE 2. GBRMPA COMPUTER NETWORK 1991 - 92



computer facilities be upgraded and expanded during the 1991-92 financial year. To increase efficiency, a more decentralised approach to databases was adopted, and facilities were also put in place to make it easier and more productive to query databases from microcomputers. This more cost-effective approach, which will reduce the need for extensive staff training in the future, should be more flexible in the event of hardware malfunction.

Work stations have been installed to ensure more effective analysis and display of spatial data. These work stations have been equipped with geographic information systems software, printing and plotting facilities and software to link, and more easily analyse and display 'attribute data' in our major databases.

Communications both internally and with outside organisations have been a strong

focus during 1991-92 and will continue to be a priority. The AARNet connection established last year has proved very effective. 'Transparent' mail links between UNIX and the Macintoshes have been put into place, and work is in progress to establish similar links between IBM-type microcomputers and other operating systems. Electronic mail facilities to most of the major agencies with which GBRMPA works are also in place, allowing more rapid distribution of information.

During the year, investigations started on the development of closer electronic links with QDEH. The computing section is already providing contract computer support services to the Northern Region of QDEH, an arrangement which is proving very successful in fostering cooperation and coordination between the two agencies.

One of GBRMPA's most complex database applications, the GBR permits database, has been completely redesigned and rewritten using Macintosh Hypercard for ease of operation and the most effective use of the collected information. The research projects database has also been rewritten and streamlined, and a new database has been developed for information gathered from permit holders.

GEOGRAPHIC INFORMATION SYSTEM (GIS)

Thanks to supplementary funding provided by the Environmental Resource Information Network (ERIN), a number of GIS packages are now available within the Authority including ARC/INFO, ATLAS PRO, IDRISI and SPANS. Trials of the various systems have indicated that ARC/INFO is the most useful for overall planning and management applications, although each of the other packages has its own strengths and may be appropriate for specific applications.

The development of this GIS has been undertaken by employing graduates. These staff have effectively established the system while working as assistants on the following projects:

- Whitsundays Management Plan
- Oil spills inventory update
- Dugong and turtle conservation strategy (seagrass, trawling and dugong information etc.)

CONSULTANTS

External consultants were used on projects where it was efficient to use expertise in another agency or where there were benefits in having discrete parts of a project undertaken by a consultant.

TABLE 3. CONSULTANCY SERVICES

Consultant/Organisation	Project	Expenditure \$
Australian Land Information Group	Aerial photography, cartographic services	12 722 23 098
Macquarie Park Research Ltd Macquarie University	Review of day-to-day management of the Great Barrier Reef Marine Park	25 678
G A Glanville and Co	Design of public moorings	27 720
R Hunt	Services:Whitsundays Management Plan	1 050
Gungarde Community Council	Aboriginal liaison: Cairns Zoning Plan implementation	2 980
Hopevale Aboriginal Council	Aboriginal liaison: Cairns Zoning Plan implementation	2 980
Wujal Wujal Community Council	Aboriginal liaison: Cairns Zoning Plan implementation	2 730
Yarrabah Community Council	Aboriginal liaison: Cairns Zoning Plan implementation	2 730
D Smyth	Aboriginal involvement in marine-orientated programs	1 240
Kayt Raymond and Associates	Facilitate strategic planning for GBRWHA and advise on plan	113 511
Network One Communications	Conduct and evaluate a series of focus group meetings about the GBRWHA strategic plan	11 000
K Dwyer	Software development	20 150
M Crowd	Network support	1 204
A Walker	Software development	1 250

1992-93 PROSPECTS

In 1992-93 priority will be given to:

- finalising the Strategic Plan
- commencing the review of management of the Far Northern Section
- finalising specific management strategies for a number of sensitive sites throughout the Marine Park
 - Offshore Cairns area
 - Whitsunday Islands area

- Capricorn/Bunker Islands area.
- reviewing strategies for the conservation of dugongs , turtles and whales
- developing and implementing Aboriginal and Torres Strait Islander liaison programs
- preparing a long term strategy for day-to-day management funding for submission to funding agencies
- implementing a systematic process for upgrading the GIS-based corporate data and data management.

ENVIRONMENTAL IMPACT MANAGEMENT

This section aims to protect the natural qualities of the Great Barrier Reef while providing for its reasonable and equitable use through the assessment and management of the environmental impacts of users • A major tool in this process is the regulation and control of activities through the permit system • The section's programs are undertaken with Queensland Government agencies and others • Associated costs are recovered where practicable, with care taken to ensure that users whose activities are managed by more than one agency are not subject to duplicated charges.

The work of Environmental Impact Management during 1991-92 focused on programs to protect the natural qualities of the Great Barrier Reef, while providing for the reasonable use of the Reef's resources. These tasks included assessment of proposals, monitoring of the environmental impacts of permitted uses,



The management of pontoon operations continues to be a high priority. Officers from GBRMPA and QDEH inspect pontoon mooring chains following installation.

management of permitted activities, and a fair allocation of the use of the Marine Park's resources.

There was particular emphasis on taking the initiative by setting standards and developing information packages for applicants; and on liaison and negotiation with users and with other government agencies.

Tourist operations in the Great Barrier Reef Marine Park continued to demand the greatest proportion of staff time for assessment and management. There was increased inter-agency cooperation in exchanging information for assessments, and a high level of informal discussions with applicants.

During the year there was a substantial increase in tourism in the Cairns Section, which demanded considerable staff resources for both environmental impact assessment and management planning. In particular, the demand for much larger and more complex pontoon facilities required increased staff time for assessment.

This growth in tourism was not matched further south in the Marine Park. Compared with the Cairns Section, there was only a moderate increase in tourism in the Whitsunday area, while in the Mackay/Capricorn Section, there was a reduction in the economic viability of a number of projects and proposals, and several major projects were postponed or abandoned. For example, day trips to Wistari Reef ceased, and a proposed floating hotel project may be relocated from Fitzroy Reef to the Cairns Section.

Consistent with an amendment to the Regulations and Authority policy, environmental impact assessment has been specifically taking into account the need to protect the cultural and heritage values of the traditional inhabitants of the Marine Park area.

Substantial resources were spent on the response to an appeal by the former Dallhold Nickel Management company to the Administrative Appeals Tribunal.

COMPLEMENTARY MANAGEMENT

A set of guidelines and an information package for management of mariculture projects have been developed in close association with QDEH and QDPI. The policies and management procedures outlined in these documents have been successfully implemented during the last year, to assess and manage 18 research and commercial mariculture projects. Commercial mariculture permits are routinely issued for an initial 12 months. If a pilot project has proved successful by this time, a longer-term permit may then be issued.

Section staff have also made substantial contributions to the development of management plans by the Authority and QDEH, including the Whitsunday Management Plan for National and Marine Parks, a draft management strategy for the Cairns Offshore area, and management plans for the Brook and Family Island groups in the Central Section.

Joint assessment teams have been established with QDEH and other Queensland agencies to handle several large development applications, including Keswick Island, Dent Island, and the Townsville Port extensions. Joint guidelines for environmental impact studies have been developed when State and Commonwealth jurisdiction overlap.

ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT

Details of major projects assessed wholly or partly during the year are shown in the fold-out map and associated table at the back of this report. Only two new projects were designated under the *Environment Protection (Impact of Proposals) Act 1974*. These were the construction of a resort, marina and airstrip at Keswick Island in the Mackay/Capricorn Section, and the installation of a 'wreck dive' facility in the Cairns Section.

The section was also responsible for the continuing management and monitoring of permitted activities. Assessment and management of the more complex proposals and those with the potential for significant environmental impacts included:

- installation of new pontoons at several reefs including Moore, Arlington and Lady Musgrave Reefs
- replacement of pontoons, including a major replacement pontoon at Norman Reef
- mariculture projects for pearl oyster and giant clam farming
- installation of a 'wreck dive' facility in the Cairns Section
- repairs and modifications to the marina at Daydream Island
- construction of a resort, marina and airstrip at Keswick Island
- expansion of Townsville Port facilities
- redevelopment of facilities at Green Island
- proposed Cape York Space Base.

PONTOONS

There were 18 applications for the installation or replacement of pontoons, with most of these applications in the Cairns area. Many of these proposals were for larger and much more elaborate pontoons. For example, pontoons proposed for Moore and Arlington Reefs will incorporate a fifty-seat theatre/observatory, a touch tank and an internal dive platform. At Norman Reef, the design for a proposed replacement pontoon includes an upper level sundeck, internal dive platform and an observatory. Many pontoon proposals now include caretaker accommodation, and the Authority and DASET have been investigating the need for safety provisions under the Sea Installations Act.

Assessment continued on an application for a new pontoon at Lady Musgrave Island, taking into account a review of the management plan, a survey of the use of the island and lagoon, and further technical information required from the proponent. (An existing pontoon facility in Lady Musgrave Island lagoon was damaged during Cyclone Fran in February 1992, with the loss of a number of ancillary vessels and the grounding of the pontoon on nearby coral.)

A pontoon operator at Wistari Reef has voluntarily ceased operations pending the sale of the facility for use elsewhere. The future of the walkway which provides access to the reef flat at Wistari Reef has not yet been resolved.

Pontoon installation guidelines were developed to ensure consistent and adequate standards are applied to minimise the environmental impact.

KESWICK ISLAND RESORT, MARINA AND AIRSTRIP PROPOSAL

Guidelines for an Environmental Impact Study were prepared in conjunction with QDEH and submitted to DASET. A major issue arising from this application was proposed reclamation work which may have meant a change to the boundary of the Great Barrier Reef Marine Park. The proponent has resubmitted the project at a reduced scale.

EXPANSION OF THE TOWNSVILLE PORT FACILITIES

The Authority has played an important role in the assessment of this proposal, which will include an upgrading of existing port facilities for the importation of nickel ore. Although the proposed project is not located in the Marine Park, it has the potential to directly, and adversely affect parts of the Marine Park. The proposal involves deepening and lengthening the port entrance channel and inner harbour, reclaiming an area south of the port to create strategic port lands, and the expansion of facilities for the importation of nickel ore and bulk cement. This proposal differs from an earlier one which had included an outer berth. The Authority is a member of the Technical Advisory Committee for the Port Development Works, which is considering environmental concerns, including the channel dredging and the disposal of dredge spoil.

CAPE YORK SPACE BASE

Section staff have considered the potential impacts of this project on the Marine Park and have provided advice on the guidelines for an Environmental Impact Statement prepared by DASET and QDEH.

MAGNETIC QUAYS MARINA

A review, by an independent reviewer appointed by DASET, has examined the approval processes followed in relation to the Magnetic Quays Marina at Nelly Bay, Magnetic Island. The review report has not yet been presented.

'OPERATION CLAMSAVER'

In May 1992 a joint effort involving the Royal Australian Navy, the Authority, QDEH and James Cook University of North Queensland successfully completed the first stage of 'Operation Clamsaver'. This pilot project involved the relocation of over 5000 giant clams, *Tridacna gigas*, from the reef flat at Orpheus Island to a number of research sites on the Great Barrier Reef. The giant clams were the result of a successful clam culture research program run by James Cook University in conjunction with the Australian Centre for International Agricultural Research. In fact, the program was so successful that the growth of the young clams created a crowding problem, which could have led to mortality of these and other biota on the reef flat. Further relocation of clams from Orpheus Island is planned, but this will depend on the availability of a Navy vessel.



An excess of success - a large number of clams, *Tridacna gigas*, were cultured by researchers from the James Cook University and grown out on the Orpheus Island reef flat. Six and a half thousand of these were relocated during "Operation Clamsaver".



The Navy provided GBRMPA with the HMAS Tarakan to relocate the clams to the outer reef. The clams were submerged in baths to protect them during transportation.

INSTALLATION OF A 'WRECK DIVE' FACILITY IN THE CAIRNS SECTION

The Minister decided that this proposal, which was designated under the Environment Protection (Impact of Proposals) Act, could be adequately assessed under the Great Barrier Reef Marine Park Act, provided that certain matters, including public comment, were adequately addressed. The proponent has been preparing an Environmental Impact Study, according to guidelines determined by the Authority.

REPAIRS AND MODIFICATIONS TO THE MARINA AT DAYDREAM ISLAND

Substantial repairs and modifications to the marina were completed early in 1992, following damage by Cyclone Joy, and the project is now completed.

REDEVELOPMENT OF FACILITIES AT GREEN ISLAND

The Authority assessed and issued permits for the following aspects of the upgrading of the island's facilities:

- construction and operation of the sewage waste discharge line, with tertiary treatment to be installed
- construction of a temporary barge ramp (to be removed after completion of the redevelopment)
- a partial reconstruction of the jetty.

PERMIT RECONSIDERATIONS

During the year, there were a number of requests for reconsideration of permit decisions. One such appeal was against restrictions on the locations for motorised water-sports, such as water-skiing and jet-skiing, in the Whitsundays. Pending the outcome of the proposed Whitsundays Management Plan, the Authority decided that any necessary restriction on motorised water-sports should be achieved by denoting areas where they should NOT take place. The case has highlighted the need for greater consistency in the approach to management of such activities, through formal policy or management plans, rather than making decisions in the context of individual permit applications.

ORE LOADING FACILITY AT HALIFAX BAY

Queensland Nickel Management (formerly Dallhold Nickel Management) applied to the Administrative Appeals Tribunal for a review of the Authority's decision not to allow the off-loading of nickel ore within Halifax Bay. The appeal commenced on 1 July 1991 and concluded on 8 April 1992 with the Tribunal reserving its decision. On 27 May 1992, the applicant company sought to withdraw its appeal. Considerable Commonwealth resources (in excess of \$1 million for the Authority) were expended on this case, and the total expenditure for all parties is estimated at around \$10 million.

On 23 June 1992 the Tribunal heard argument from all of the parties on the withdrawal application by Queensland Nickel Management. The Authority and three other parties to the hearing objected to the proposed withdrawal, maintaining that in the public interest the Tribunal should decide on the merits of the case, either confirming or modifying the principles and processes which the Authority used to reach its decision. The Tribunal also reserved its decision on this matter.

CHARGING FOR THE USE OF THE MARINE PARK

The Authority commissioned the Australian Bureau of Agricultural and Resource Economics to further investigate systems for charging users of the Marine Park, and for allocating resources to users. Following consultation with industry, particularly the Association of Marine Park Tourism Operators (AMPTO), a framework for a possible system of Marine Park charges was developed.

In June the Minister announced that fees for commercial users would be introduced from 1 July 1993. The charges will apply to tourism, mariculture and commercial constructions, which are required to have a permit in the Marine Park and are managed primarily by the Authority. The fees will recover some of the costs of providing research, education and management programs, and will be levied according to the size and nature of an operation. Close consultation with industry will continue to resolve details of the charging system and its implementation.

Fees will not apply to commercial fishermen; they already contribute through licence fees to fisheries management agencies.

The question of fees for private boat owners is still unresolved. Such fees could only be efficiently levied through the existing boat registration system, and would need to be implemented jointly with the Queensland Government.

LEGAL MATTERS

Section staff coordinated the provision of legal advice to the Authority by liaison with the Attorney-General's Department.

The Great Barrier Reef Marine Park Act and Regulations were amended on 1 October 1991 to implement compulsory pilotage requirements for two areas of the Great Barrier Reef Marine Park. Authority staff provided advice to DASET on the final form of the amendments to the Act and prepared drafting instructions for the amendments to the Regulations.

Proposed drafting instructions were also submitted to DASET for amendment of the Great Barrier Reef Marine Park Regulations to effectively implement the Cairns Section Zoning Plan. Another amendment was also prepared to allow the commercial collecting of certain species of crustaceans and molluscs. These amendments came into force on 3 April 1992.

Section staff continued to provide significant contribution to both the basic inspectors courses, and a new series of advanced inspectors courses, both run by QDEH. Legislation workshops organised by the Authority for other inspectors were held in several locations for officers of the Queensland Water Police, the Queensland Boating and Fisheries Patrol, the Australian Federal Police and the Australian Maritime Safety Authority.

Special training courses were held as part of the risk management program in the Authority and included QDEH officers who handle permit matters on behalf of the Authority. The courses, held in regional offices and in Townsville, covered the administrative law principles and other legal requirements associated with the assessment and granting of permits.

PERMITS SYSTEMS MANAGEMENT

In 1991-92, 505 permits were issued (compared with 572 in 1990-91).

FIGURE 3. PERMITS ISSUED 1991-92

Tourist Program	160
Collecting	83
Research	164
Education	31
Farming of marine resources	4
Commercial filming	4
Traditional hunting and fishing	32
Aircraft operations	8
Moorings*	0
Other**	19

* Moorings installed as part of larger programs are included on tourist program permits.

** 'Other' includes dumping of spoil, navigation aids, harbour works, fuel pipelines, discharge of waste, burial at sea and some fishing activities.

The overall number of permits issued since the previous financial year has been reduced by consolidating several activities run by the same operator onto a single permit, and most are now issued for a longer period; the majority of one-year permits have been replaced with three-year permits.

Although there were fewer permits issued in 1991-92, approximately 112 letters of variation were issued within the same year. There was an increase in the complexity of the proposals, such as tourist and commercial mariculture operations, and a major increase in the number of traditional hunting permits in the last financial year. A new database for permits is being developed with the help of the Authority's computer staff and QDEH officers.

When completed, this database will make it simpler, faster and easier to issue permits.

An independent audit was carried out of the permit application assessment fees. A full review of these fees has been proposed for the end of the 1992-93 financial year.

CONSULTANCY SERVICES

External consultants were used on projects where it was efficient to use expertise in another agency or where there were benefits in having discrete parts of a project undertaken by a consultant. The consultancy services used in 1991-92 are listed in table 4.

TABLE 4. CONSULTANCY SERVICES

Consultant/Organisation	Project	Expenditure \$
Australian Bureau of Agricultural and Resource Economics	Tourism Research	30 000
M Crowd	Update computer database	12 414
K Dwyer	Development and maintenance Permit database applications	3 251
Marine BioLogic	Marinas Manual	5 400
Sedgwick James Ltd	Risk management	4 000
Administrative Appeals Tribunal: Dallhold Nickel Management		
Australian Institute of Marine Science	Expert opinion and advice on reefal communities	2 000
CSIRO Dept of Fisheries Research	Professional advice and services re toxicological aspects	27 432
Envirotest	Professional advice and services re toxicological aspects	11 978
N Holmes	Report on dust and noise	820
Marine Modelling Unit, James Cook University of North Queensland	Assist in preparation Authority case, review of material, provide evidence	12 650
Ocean Sciences Institute University of Queensland,	Review of material	5 782
Queensland Department of Primary Industries	Revision of economic aspects and preparing report	540
Reid Sturgess & Associates	Review of economic aspects and preparing report	10 181
Sinclair Knight & Partners	Assist Counsel and provide expert advice regarding engineering aspects of the Dallhold proposal	57 141
Steedman Science and Engineering	Review of Dallhold proposed project costs and operations	18 610

1992-93 PROSPECTS

In 1992-93 priority will be given to

- implementation of a user-pays system for commercial operators
- review of strategies and procedures for managing tourism and recreational use
- review of the Act and Regulations
- achievement of 75% cost recovery for assessment and management costs from environmental impact assessment projects and 50% cost recovery from tourist programs without facilities
- development of processes for joint management of traditional hunting with Aboriginal and Torres Strait Islanders people
- completing the development of a more effective permits database
- reduction in response time to permit applications.

RESEARCH AND MONITORING

This section aims to achieve competence and fairness in the care and development of the Marine Park by obtaining and interpreting information relevant to the understanding of the Great Barrier Reef and to the implementation of the Authority's programs.

In order to gather, interpret and distribute often complex information to help understand the Great Barrier Reef, studies over as much as four to five years are generally necessary to obtain useful results.

PRINCIPLES

The following guiding principles are followed as far as possible in the development and conduct of programs.

1. They will be directed towards key issues of planning and managing the Great Barrier Reef Marine Park.



Scientists have started a detailed series of experiments to judge the affect of increased nutrients on the coral reefs. This project should also help find out just what damage, if any, is caused by sewage and agricultural runoff from the eastern coast of Queensland.

2. They will primarily be carried out by the best available research institutions, government agencies or individual researchers, under contract to the Authority.
3. Projects and programs will be subject to independent expert peer review prior to commissioning, and on completion.
4. Projects which involve sampling to test predictions will be designed to allow for statistically rigorous analysis.
5. They will be coordinated with programs of other research agencies, government agencies and industry to address issues of mutual concern, use of resources, and to ensure the best research techniques are used.
6. Results will be published or otherwise disseminated, and applied as widely as possible.
7. The extent of monitoring of permitted activities should be related to the predicted degree of environmental risk. Programs for such activities should be designed to allow action to be taken before any significant adverse impact happens.
8. Monitoring the effects of specific permitted operations will be managed by the Authority, through the use of consultants, at the expense of the permit holder.

PROGRAM EVALUATION

Effectiveness and efficiency is evaluated by the degree to which:

- research program objectives are met
- projects are completed and information distributed to relevant users
- staff development needs are met
- the new information is used in the programs of other sections and agencies.

General outcome

This year has been characterised by a rapidly expanding program following the provision of additional funds particularly for research into water quality issues and the effects of fishing. The major objectives of each program area for 1991-92 have been largely achieved. The highlights of the year have been:

- The final year of the expanded crown-of-thorns starfish research program has been completed. However, some projects will continue into 1992-93, primarily monitoring for further outbreaks. A contingency plan in the event of the next outbreak is being prepared.
- A major program of research and monitoring into the water quality of the Great Barrier Reef was designed and approximately 40 projects have been commissioned. This has involved considerable collaboration with the Queensland Government, the rural sector and research institutions to ensure an integrated research program.
- A major program concerned with the effects of fishing on the Great Barrier Reef ecosystem has commenced. Two principal issues are being addressed - the effects of prawn trawling in the Far Northern Section of the Great Barrier Reef

Marine Park, and the effects of line/spear fishing/trawling on the Great Barrier Reef. Both have involved considerable collaboration with the Queensland Government, the fishing industry and research institutions.

- Two substantial field collection programs were undertaken for the Torres Strait Baseline Study, and the testing and selection of suitable laboratories for the preparation and analysis of samples was also carried out.
- The commencement of a report on the state of the marine environment of the entire Australian coastline, and that of its external territories, on behalf of DASET. This report will be the first comprehensive review and summary of the state of the marine environment, its resources, uses and impacts for Australia and should provide the basis for future reporting on the state of the marine environment.
- A long-term monitoring program for the Great Barrier Reef has been designed in collaboration with the Australian Institute of Marine Science (AIMS). It will be integrated with current programs monitoring the crown-of-thorns starfish, water quality and development projects.
- Advisory committees and technical panels were established to assist the Authority with its research programs in the area of water quality, monitoring, and the State of the Marine Environment Report.
- A major field component of the study of recreational experiences of tourists was completed.
- A newsletter, *Reef Research*, to distribute information about the Authority's research, activities was started and four issues published during 1991-92.
- Eight new staff were recruited, some on a temporary basis, to assist the Authority with its research programs into the effects of fishing, water quality, monitoring, and with the State of the Marine Environment Report.
- Section staff were involved in a number of significant conferences and workshops during the year, including the Fourth World Congress on National Parks and Protected Areas in Caracas, and the Seventh International Coral Reef Symposium in Guam.

Several major problems encountered during the year which will need to be addressed in 1992-93 were:

For instance, extended negotiations were required to resolve some issues concerning contract arrangements between the Authority and research institutions. These negotiations have been largely completed for contracts between the Authority and James Cook University, the University of Queensland, CSIRO, AIMS and QDPI.

There was also the matter of APS devolution, where it had been decided to increase the amount of delegation given to program coordinators, to allow more accountable management of research programs. This will result in a more even spread of responsibility at the appropriate levels and allow the Director of the section more time to be involved in more strategic and corporate planning projects.

Sub-Programs

The Research and Monitoring program contains ten sub-programs which reflect the

priorities set by the Authority. The sub-programs and outcomes for 1991-92 are described below.

WATER QUALITY

Water quality in the Great Barrier Reef Region is a critical management issue. The main concerns are the potential effects of nutrients on coral reefs and seagrass beds. Enhanced levels of phosphorus are associated with a weakening of the coral skeleton. Increased nitrogen and phosphorus stimulate growth of algae which compete with corals for light and space. Suspended sediments decrease the amount of light available to corals, inhibiting their growth and can stress them through settlement on their surfaces. Corals may be weakened by these stresses and be susceptible to other disturbances e.g. cyclones or crown-of-thorns starfish. The main human induced sources of pollutants appear to be run-off of soil and fertilisers from agricultural activities, discharge of sewage and dredging of harbours and marinas. Recent studies have indicated the presence of elevated nutrient levels in a number of rivers in agricultural areas and possible effects on a few reefs adjacent to the river mouths. The best estimates available suggest that three to five times as much nitrogen and phosphorus now flow off Queensland east coast catchments than before the commencement of European agriculture. The principal contributors to the increased run-off are believed to be grazing and sugarcane cultivation. Coastal city sewage discharges may be a significant source at local levels but the amounts are small relative to agricultural inputs at the Great Barrier Reef scale.

The Commonwealth Government allocated funding of one million dollars for the Water Quality Program.

Outcomes

Significant achievements for the year have been:

- A Water Quality Technical Advisory Panel was established to assist the Authority in the design and implementation of the Program.
- The research program was designed and projects selected from the expressions of interest submitted. This research will mainly study the levels, trends and effects of nutrients in various parts of the Great Barrier Reef Marine Park, and assess how much is due to human influence and how much is natural change.
- Forty projects involving over 20 institutions and 80 researchers are being supported. Twenty-three of these projects have now commenced. The principal areas of research in these programs will cover experiments into nutrient effects, nutrient fluxes, budgets and dynamics, the history of the use of chemicals in primary industry, and the impact of sewage on the ecosystem. Studies on nutrient processes are already underway on the Fitzroy, O'Connell, Proserpine, Burdekin, Herbert, Johnstone and Barron Rivers, on Green Island and on the Palm, Whitsunday and Keppel Island groups.
- A reef wide water quality monitoring program has been designed and is now being evaluated by wide consultation before implementation begins.
- Collaboration with the Queensland Department of Primary Industries,

Queensland Department of Environment and Heritage, and industry groups, through the Queensland ministerial advisory committees, (the Downstream Effects of Agricultural Practices Committee and the Integrated Catchment Management Committee) is continuing to establish a system to minimise the downstream effects of agricultural practices.

The success of this long-term program depends on continued funding in 1992-93 and subsequent years, and the collaboration of other agencies and industries.

CROWN-OF-THORNS STARFISH

The damage to coral reefs caused by outbreaks of crown-of-thorns starfish is one of the most serious scientific and management issues on the Great Barrier Reef. In recent years there have been two distinct waves of outbreaks on the Great Barrier Reef, the first beginning in the early 1960s and the second in the late 1970s. Statistical analysis shows that $17\% \pm 4\%$ of all reefs in the Great Barrier Reef suffered outbreaks in the last episode. We are currently witnessing the decline of the second episode, with about 7% of all reefs surveyed by the Australian Institute of Marine Science in 1990-91 having active outbreaks (compared with a peak of 16% in 1988-89). Surveys conducted during 1991-92 located 10 new outbreaks mainly at the southern end of the Great Barrier Reef, but overall the situation seems to have stabilised. Both episodes have attracted widespread media coverage and continue to do so. The Authority's policy of not interfering on a large scale until it can be shown that outbreaks are caused or exacerbated by human activity has received intense public criticism in the past. However, every scientific review of this matter has supported the Authority's policy. The Authority's committee which advises on the program (the Crown-of-thorns Starfish Research Committee) met twice during the year. A workshop held in conjunction with one of the meetings was attended by some 50 scientists researching the phenomenon.

Outcomes

Significant advances have been made towards achieving the goals of the crown-of-thorns starfish research program over the past 12 months. The program has three major objectives:

- (i) to monitor the pattern of starfish outbreaks and the status of reefs;
- (ii) to investigate the causes and effects of crown-of-thorns starfish outbreaks; and
- (iii) to inform the public of the results of research and monitoring.

All three objectives have been met in 1991-92. However, the causes and full effects of crown-of-thorns starfish outbreaks are still unknown. Due to the extremely complex nature of the phenomenon it is unlikely that all aspects of starfish outbreaks will be fully understood in the short term.

Following the recommendations of Professor D T Anderson's review of the research program in 1989 and Dr R E Johannes' review in April 1991, the research program has focused more intensely on major projects aimed at determining the causes of outbreaks.

Major research achievements for the year include:

- Observations and measurement of spawning and research into the starfish's reproductive biology have demonstrated the animal's inherent capacity to outbreak. Females produce up to 100 million eggs during a summer spawning season; spawning is locally synchronised; and fertilisation rates of eggs by sperm are high even when animals are widely separated. Research in this area has also suggested a possible link between water quality and fertilisation success, a mechanism that may help to explain correlations between human activities and starfish outbreaks.
- Field and laboratory experiments have strongly suggested (contrary to some earlier research) that starfish larvae may be limited by the availability of food. The primary food resource (phytoplankton) is influenced by increased nutrients in Great Barrier Reef waters. The role of human activities in this process is being investigated through the Authority's Water Quality Program.
- Research into the very early juvenile stages of the starfish has shown that mortality rates from predation are very high (higher than other starfish investigated). Measured mortality rates indicate that predators could control starfish populations under many circumstances. This work required the development of large-scale rearing facilities to breed the starfish, as these small and cryptic individuals are very rarely encountered in the field. The project has also been able to supply material for other projects investigating larval nutrition, predation by fish and techniques for the rapid identification of crown-of-thorns starfish larvae.
- An examination of outbreaks throughout the Pacific region has suggested that outbreaks may be a natural phenomenon, possibly related to El Niño Southern Oscillation (ENSO) events. However, human activities may play a role in exacerbating outbreaks. This research, together with other elements of the program (reproduction, larval nutrition and predation studies) are strongly pointing to multiple causes of outbreaks rather than any single factor explanation.

A booklet *Crown-of-thorns Starfish Research Update 1991-92* and a video *The Crown-of-Thorns Phenomenon* (the latter a joint project with AIMS) have been produced. Regional presentations on the research program were made to tourist operators and their staff in coordination with workshops held by Queensland Department of Environment and Heritage staff.

While the crown-of-thorns starfish research program has focused on the starfish and its effects on the Great Barrier Reef, the program has also contributed significantly to our general understanding of the Great Barrier Reef ecosystem. The focus has also provided an impetus to develop and refine techniques and technologies that have a far wider application to research and management of the Reef than the starfish alone.

EFFECTS OF FISHING

Recreational and commercial line fishing, and commercial prawn trawling may be having substantial ecological effects over large areas of the Great Barrier Reef

Marine Park. Understanding the direct and indirect ecological effects of such fishing on other communities of reef life is central to the long-term management of the Great Barrier Reef Marine Park, so that both fishing activities and the ecological integrity of the Great Barrier Reef can be sustained. Research into the effects of recreational and commercial fishing is now one of the priority areas for research activity supported by the Great Barrier Reef Marine Park Authority.

In 1991, the Marine Park Authority received \$900 000 from the Commonwealth Government to conduct research into the effects of fishing on the Great Barrier Reef in the 1991-92 fiscal year. This Commonwealth support has enabled the Effects of Fishing Program to commence and the Authority will be seeking continued funding in the following years. The research program is being developed by the Effects of Fishing Advisory Committee.

Outcomes

Significant achievements for the year have been:

- Researchers and institutions interested in participating in the Great Barrier Reef line/trawl research met in November to establish objectives and priorities for 1991-92.
- A joint research project by CSIRO and QDPI in the Far Northern Section of the Marine Park was started in April 1992, to assess the environmental effects of trawling on the areas between reefs. The preliminary work will comprise an initial detailed survey of the sea-bottom plants and animals of the area, followed by experimental studies to evaluate the real effects of trawling. Data will be collected on the composition of catches in prawn trawls, the condition of discarded 'by-catch' fish and other organisms before they are thrown back into the sea, the effects of trawling activities on bottom structure and community composition, and the rates of recovery of communities after disturbance.
- The commencement of a large scale research program to address the effects of trawling and line fishing on target species of the Great Barrier Reef. The research will be preceded by a two-year pilot study to validate research methods and test some assumptions upon which the research rests. A number of studies commenced in the Cairns Section in early 1992 involving researchers from the Queensland Department of Primary Industries, the Australian Institute of Marine Science and James Cook University of North Queensland. There has also been considerable participation from recreational and commercial fishing operators. These projects include visual surveys of reef fish populations, reef fish sampling techniques, the movement and age structure of target fish populations, potential prey species, and the effects on fish populations when previously closed areas are opened to fishing.
- The completion of a draft review of data on fishes of commercial and recreational fishing interest on the Great Barrier Reef.

Subject to funding in 1992-93 and subsequent years, the research will continue to provide a far greater understanding of the interaction between fishing activities and ecological processes in the Great Barrier Reef Region. The research will take several years to provide detailed answers to what are complex questions. The

success of the research is also dependent on the support, cooperation, and participation of the recreational and professional users of the Great Barrier Reef fish resources.

REEF MONITORING

The collection of long-term data sets through monitoring programs is essential in order to determine how much change occurs naturally from place to place over time in the reef ecosystem. Only in this way may scientists then be able to differentiate between the effects of human activity from natural variability. More information is needed on the abundance of representative reef organisms and magnitudes of variability in their population density and distribution. Data at various time-scales are necessary for assessing the effects of management strategies such as zoning and permits on the Great Barrier Reef ecosystem and on its uses. For example, monitoring the effects of zoning plans needs to be conducted over the life of a plan (5-7 years), whereas monitoring the impacts predicted from a development project needs in part to provide immediate triggers for management responses where impacts exceed defined limits.

Outcomes

- During this year, the Authority arranged for detailed environmental impact monitoring programs to be carried out at a variety of tourist pontoons. This has involved quite extensive consultation with consultants and developers in order to design the most cost-effective but statistically rigorous monitoring programs. A review of pontoon monitoring procedures has been conducted and recommendations for future pontoon monitoring are being developed.
- A photographic monitoring program has been started (in collaboration with the Queensland Department of Environment and Heritage) which will provide long-term photographic and video records of several sites on the Great Barrier Reef, which may be being affected by their level of use. Permanent sites have been set up at Michaelmas Reef and four sites in the Far Northern Section. Additional sites will be established in the Swain Reefs in October 1992.
- Significant progress has been made towards the development of a coordinated long-term monitoring program for the whole of the Great Barrier Reef. It has been decided that this monitoring program will be carried out jointly by the Authority and the Australian Institute of Marine Science. A Monitoring Advisory Committee was formed to provide advice and criticism from a wide range of academic, government and non-government institutions. At its first meeting in April, draft monitoring programs for the entire Great Barrier Reef were presented by GBRMPA and AIMS. The committee has endorsed the need for a long-term program and supported the efforts of both agencies in this area.
- Funding has been received by DASET to conduct joint research with James Cook University of North Queensland and AIMS on the effect of global climate change on the reef.

HUMAN USE/SOCIAL IMPACTS

The Great Barrier Reef Marine Park is a multi-use park and use is increasing rapidly. An understanding of the social and economic environment is important for the Authority's decision making, which must take account of the mix of uses, the conflicts between different uses and even conflicts and differences within the same use. Management decisions include consideration of concepts such as amenity and social carrying capacity. Information and appropriate methods are required to determine use patterns, recreational experiences, attitudes and behaviour of reef users. Methods for assessing social impacts need to be developed.

Outcomes

- Data collection for a reef recreation/tourism experience study was completed by staff from both the Authority and the Queensland Department of Environment and Heritage. The objective of the study was to understand the nature of recreation/tourism experience, perceptions of management issues and the application of this information to management planning. (Preliminary data analysis from the study and advice has been provided for the Lady Musgrave Island Management Plan.)
- Projects to integrate human use data into a database and develop social impact assessment guidelines for environmental impact assessment have commenced. Final reports for the recreation/tourism experience study, guidelines for social impact assessment, and an overview of the human use database in the Great Barrier Reef Marine Park will be completed in 1992-93.

OCEANOGRAPHY

Understanding water movements in the Great Barrier Reef lagoon and the connections within and between reefs is important for zoning, environmental impact assessment and management planning. Proving theories about sink-source relationships between reefs is important to the understanding of factors which govern the movement of larvae and recruitment of organisms to reefs e.g. crown-of-thorns starfish, corals and fish. Understanding water movements is also critical to management of impacts such as from sediments, oil spills and toxic metals.

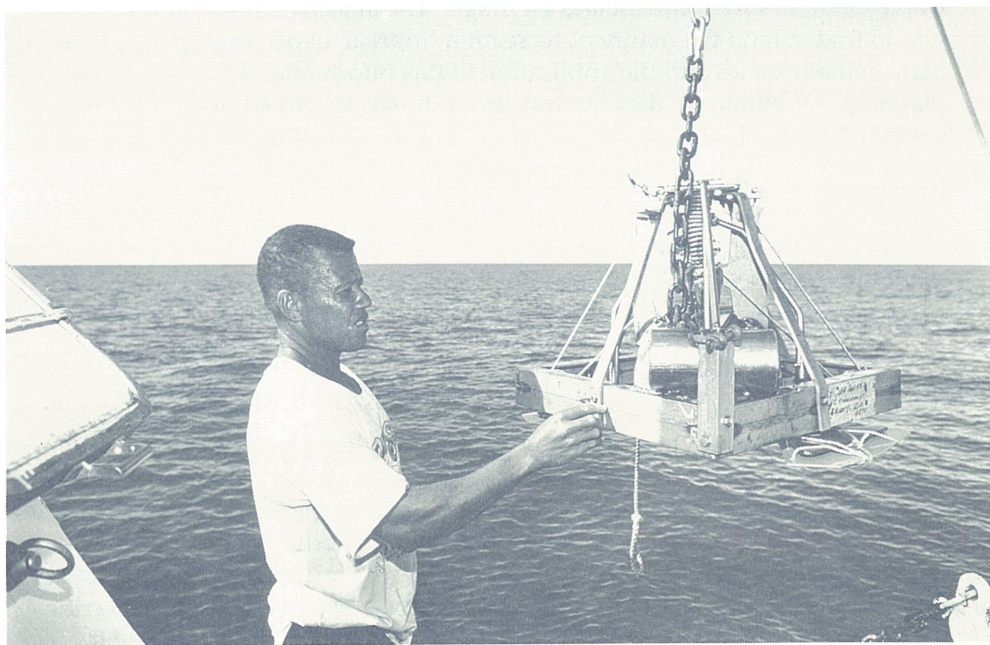
Outcomes

- The Great Barrier Reef Marine Park Authority has continued to engage the oceanographic, engineering and numerical modelling advisory services of the Marine Modelling Unit at James Cook University of North Queensland. The unit has provided expert advice on sea dumping of dredge spoil and tourism development proposals, especially pontoons. They also provided technical advice for the Authority in the Administrative Appeals Tribunal action by Dallhold Nickel Management, who appealed an Authority decision not to allow nickel ore to be imported through a proposed loading facility in Halifax Bay.
- A three-year Masters Degree to further develop the 'sink-source' connectivity model was started.

TORRES STRAIT BASELINE STUDY

The Torres Strait Baseline Study was instigated in response to concerns expressed by Torres Strait Islanders, commercial fishermen and scientists, about the possible effects of mining operations in the Fly River catchment area of Papua New Guinea on the Torres Strait marine environment. The study is a four-year program funded by the Commonwealth Government and managed by the Great Barrier Reef Marine Park Authority on behalf of DASET. The study commenced in 1990 and will conclude in 1993.

The study will collect data that will determine the current levels of trace metals in sediments and selected organisms in the Torres Strait marine environment and assist in determining whether there is evidence of trace metal contamination from mining operations. It should provide the basis for future monitoring of the Torres Strait marine environment.



Sediment samples from the Torres Strait are being taken to be analysed for possible trace metal contamination from mining operations in the Fly River region, PNG.

Outcomes

- The current program consists of four collection projects: sediments, indicator species, community fisheries and commercial fisheries. Two collecting trips to test methods and experimental design were undertaken in 1991-92 concentrating in the northern Torres Strait and the Warrior Reef complex. Over 2400 samples were collected. The community fisheries project collected samples of seafood normally eaten by Torres Strait Islanders. The commercial fisheries project collected samples of important commercial species, such as prawns and tropical rock lobster.
- Selected samples have been chemically analysed by four laboratories, all of which participate in an inter-laboratory quality assurance program, and results

have been interpreted statistically. A preliminary report was prepared by July 1992. Major collection programs are scheduled for October and November 1992 and February 1993, and a final report is scheduled for presentation in mid-1993.

OIL SPILLS

The Authority is the Scientific Support Coordinator to REEFPLAN, the marine pollution contingency plan for the Great Barrier Reef. This responsibility requires an understanding of the likely effects of an oil spill in the Great Barrier Reef Region, the distribution and significance of the resources that might be affected, and monitoring to assess impacts after a spill.

This program has the following four objectives:

- (i) to determine environmental priorities for the REEFPLAN area
- (ii) to maintain a database of relevant scientific and technical information
- (iii) to develop a post-spill monitoring program
- (iv) to facilitate the exchange of information between relevant groups through liaison, workshops and training

Outcomes

Significant achievements for the year have been:

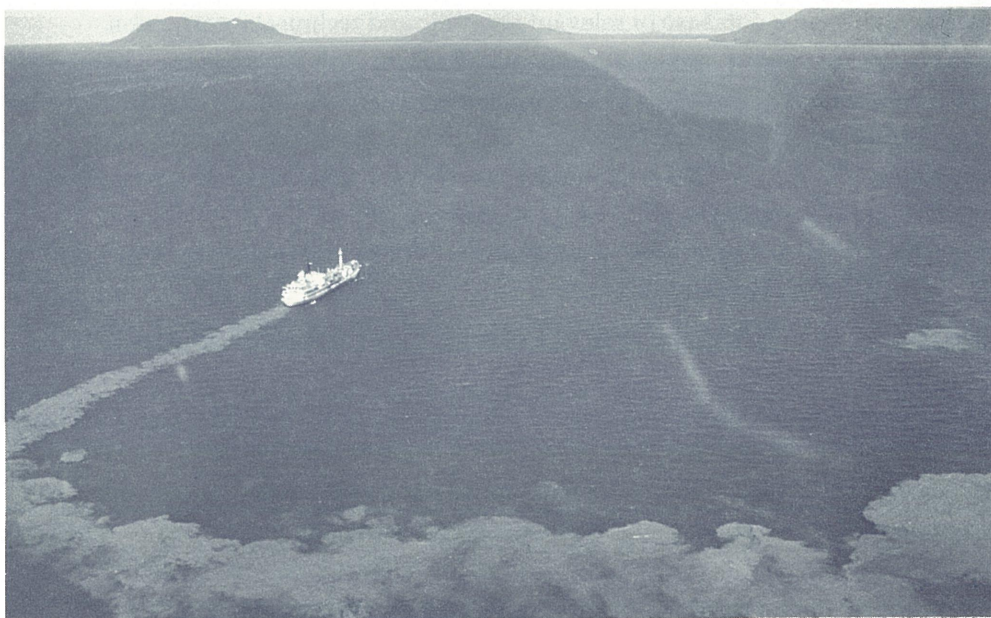
- The completion of research on the effects of bunker oil and dispersants on Great Barrier Reef corals.
- The continuing improvement and expansion of the database of relevant scientific and technical information.
- The integration of the contingency plan for post-spill monitoring with other plans for monitoring other catastrophic events, such as floods and cyclones.
- An ongoing input into the National Plan and REEFPLAN training program via the provision of speakers at courses and workshops.
- The development and submission to industry of a proposal seeking their support of bioremediation as a new oil spill combat technique.
- The compilation of a preliminary draft of dispersant 'use' and 'non-use' zones throughout the Great Barrier Reef.
- Continued compilation of a computerised coastal resource atlas for the whole of the Great Barrier Reef. This is still being refined before becoming fully operational.

SEA DUMPING

Most ports in the Great Barrier Reef Region need to conduct dredging operations to maintain navigable depth. Traditionally dredge spoil from such operations is dumped at sea. Sea dumping of dredge spoil in the Great Barrier Reef Marine Park is regulated by both *the Environment Protection (Sea Dumping) Act 1981* and *the Great Barrier Reef Marine Park Act 1975*. (The Chairman and the Executive Officer of the Authority were delegated responsibilities in the Great Barrier Reef Marine Park under the Environment Protection (Sea Dumping) Act.)

Outcomes

- In 1991-92 the Great Barrier Reef Marine Park Authority initiated development of long-term dredge spoil disposal strategies by both the Cairns and Townsville Port Authorities. These strategies will investigate ways of minimising the need to dredge, determine productive uses of dredge spoil, and consider the use of land-based disposal sites as a preference to sea dumping.
- Monitoring of dump sites continued for the Cairns and Townsville Ports.
- A study of trace metal distribution in Cleveland Bay was undertaken by James Cook University of North Queensland for the Townsville Port Authority.



The Marine Park Authority constantly monitors the dredging and dumping of spoil which has to be carried out regularly by both the Cairns and the Townsville Port Authorities. Scientists ensure these necessary activities do not cause environmental problems.

STATE OF THE MARINE ENVIRONMENT REPORT (SOMER)

This year the Commonwealth Government announced a marine conservation program, Ocean Rescue 2000, which included the following components in the first year:

- a report on the state of the marine environment for Australia
- a national system of marine protected areas
- an education and information project
- a national marine conservation strategy

- a national marine information system

In all the above components, there is recognition of the roles and needs of Aborigines and Torres Strait Islanders.

The Authority has been given major responsibilities in the Ocean Rescue 2000 project by DASET, which has overall policy responsibility for the program. The Research and Monitoring Section is to prepare the State of the Marine Environment Report for Australia (SOMER).

SOMER will support the development of the national marine conservation strategy and the establishment of a representative system of marine protected areas. The report will describe the marine environment of Australia, past and current use by people, arrangements for the management of marine resources, and will document existing data and information about the marine environment, and identify gaps.

Preparation of the report involves consultation with the marine, scientific and industrial communities, other Commonwealth and State agencies, local government, and community groups. The cooperation of the States is supported through the Australian and New Zealand Environment and Conservation Council. The objective is to produce a report by June 1993, with an interim report for the Minister in late 1992.

Outcomes

- Preparation of the report is underway. Two officers specifically appointed to the SOMER project started the compilation following a workshop of interested agencies and experts held in November 1991.
- Review papers have been commissioned from government and private sectors.
- An Advisory Committee has been formed to provide advice to the Authority on the proposed outline of the report and possible expert contributors. The committee will also oversee the quality of the information collected and collated, and review the conclusions to ensure the highest possible technical credibility for the report.
- Public participation was invited through an advertised call for submissions by 31 August 1992 from organisations and individuals who can provide technical information which could contribute to the report.

RESEARCH PROGRAM MANAGEMENT

Efficient and effective management of the research programs approved by the Authority requires appropriate human resource and sound financial management systems and techniques. Good networks of contacts within the research community, user groups and within the Authority are essential for the effective management of projects and application of research and monitoring results. Section staff must also contribute effectively to internal and external working groups, project teams and committees to enhance the Authority's operations, the effectiveness of Authority programs and the efforts of other agencies to address issues of common concern.

Outcomes

A total of 165 projects were managed during the year. Of these 43 were completed (including 15 augmentative research grants) and 122 are continuing into 1992-93. Further efforts will be made to complete outstanding projects, to publish the reports from those projects or to terminate the projects if it is unlikely that a satisfactory outcome can be achieved in a reasonable period of time. A significant amount of time was put into the preparation of the Strategic Plan for the Great Barrier Reef World Heritage Area and of the GBRMPA Corporate Plan for the coming financial year. This process will be continued in 1992-93 to develop programs for research areas and for individual staff which fit into the broader corporate and strategic plans.

IMPACTS OF PETROLEUM EXPLORATION

The Authority has been commissioned by the Prime Minister to conduct a preliminary environmental assessment of the impacts of petroleum exploration in marine areas adjacent to but outside the Great Barrier Reef Region.

The allocation of funds from the Commonwealth Government was not forthcoming this year and as a result no progress was made in this project. The Department of Primary Industries and Energy, DASET and the Authority are considering ways of progressing the study.

1992-93 PROSPECTS

In 1992-93 priority will be given to:

- the completion of the Torres Strait Baseline Study
- maintaining the major programs on water quality, effects of fishing and crown-of-thorns starfish on reduced funds. Emphasis will be on the completion of current projects, the publication of results and analysis of conclusions. Staffing may have to be reduced
- a review of the information collected from the site specific monitoring programs (e.g. at pontoons and marinas)
- completion of the State of the Marine Environment Report for Australia
- critically analysing the research and monitoring necessary to meet effectively the information requirements coming out of the Corporate Plan and the Strategic Plan for the Great Barrier Reef World Heritage Area for the next five years.

EDUCATION AND INFORMATION

This section's objective is to increase the knowledge and commitment of users and the public to the Great Barrier Reef and to the Authority, and to have the public support and undertake ecologically sustainable use of the Marine Park • This objective is sought through the provision of education, information and advisory services and materials.

Therefore, the section's responsibilities include:

- increasing community awareness of, and support for, zoning provisions, Authority policies, programs and services
- encouraging public appreciation of, and responsibility towards, the Great Barrier Reef Marine Park to increase voluntary compliance with provisions of zoning and management plans
- supporting the work of all sections of the Authority through the design of publications, video and other audiovisual materials, acquisition of photographs, and by providing media and library services



The launch of the Cairns Zoning Plans for the Great Barrier Reef Marine Park and the Cairns State Marine Parks, April 1992. (Left to right) Queensland Environment Minister the Hon. Pat Comben, GBRMPA Executive Officer Dr Wendy Craik, and GBRMPA Chairman Graeme Kelleher.

- cooperating with other government departments concerned with the Great Barrier Reef Marine Park to achieve the Authority's goal and aims
- disseminating information and educational services for the Authority
- encouraging community cooperation and participation in planning and managing the Great Barrier Reef Marine Park
- supporting community organisations in providing quality public information, education and advisory services about the Great Barrier Reef Marine Park.

PERFORMANCE INFORMATION

The **efficiency** of education, information and advisory services is assessed in relation to their cost, timeliness and the extent to which they meet the client's, and the Authority's, objectives by:

- meeting project deadlines and budgets
- the use made of products and services
- average cost per unit area of zoned Marine Park.

The **effectiveness** of the Section's activities is assessed by the extent to which they inform, satisfy, create awareness and/or enlighten the community about the Marine Park and the Authority. This is measured by:

- the level of demand for information, services and products
- assessing the public's needs, awareness, expectations or satisfaction regarding the Marine Park
- the degree to which people comply with the zoning and other management regulations, and determining their attitudes to such regulations and related ecological aims
- expert evaluation/opinion on the quality of GBRMPA products and services.

The Education and Information Section completed its approved program for 1991-92 and also incorporated some additional high priority projects during the year. Most projects were within the budget estimates and total net expenditure including staffing costs was \$1 056 000, i.e 3.3% more than for 1990-91 (\$1 092 400).

The cost of education and information services increased slightly over the previous year, up 6.7% in 1991-92. Income achieved by the Section increased by 7.5% over the previous year to \$86 000 for 1990-91.

Again there was an increase in the demand for services provided by the Section compared with the previous year, including:

- an increase of 32% in written requests for Marine Park information
- increases in library transactions including general borrowings(52%), and inter-library loans (175%)
- a 20% increase in requests for photographs and slides
- media exposure, newsletter distribution and distribution of zoning information materials.

However there was a small decrease in overall sales of products despite prices remaining unchanged during the year.

Major conferences attended by section staff were the 'Fenner' conference in Canberra and the MESA (Marine Education Society of Australasia) conference in Sydney, both of direct relevance to this section.

During the year, priority was given to using the mass media to get specific messages across to the public, and particular attention was paid to improving personal contacts through the extension program, and by employing industry experts on a contract basis. This action has greatly improved the cooperation between the Authority and the Marine Parks officers, and between the Authority and the commercial fishing sector in particular.

The use of better technology, management efficiencies and 'working smarter' with the same resources is reflected in the huge increase in output from almost all services of the library, and a 30% increase in the products turned out by the production unit.

The costs of competing in a sophisticated communications market are a constant consideration for this section, as new-generation technology is continually being introduced into Australia. Equipment and techniques, often very expensive, will need to be upgraded constantly if this section is to maintain its share of attention from an increasingly cosmopolitan market.

PRODUCTION OF EDUCATION/INFORMATION MATERIALS

The most significant publications for 1991-92 include:

- the Annual Report
- the Authority's first Corporate Plan
- a draft of 'A 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area'
- a package of materials for the revised Cairns Section Zoning Plan
- proceedings of the Torres Strait Baseline Study Conference - 'Sustainable Development for Traditional Inhabitants of the Torres Strait Region'
- Aquarium Schools Program
- 'Trawl Catch Effort' maps for use in the Extension program.

The Cairns Section Zoning Plan package contains two new items of note; an explanatory publication 'Basis for Zoning', and zoning maps redesigned as a consequence of feedback from users.

The Section continues to produce the magazines and newsletters, *Reflections*, *Coralines*, *Reef Research* and *Undercurrents*.

A wide range of graphic and photographic products were produced to service the needs of all sections of the agency with particular emphasis last year on the Aquarium's education, exhibit and marketing programs.

The introduction of desktop publishing to this section over the past two years has resulted in significant time saving and elimination of the errors associated with external typesetting, allowing the production team to meet tighter production schedules.

The Aquarium's new nine-part Schools Program and all newsletters were produced entirely on desktop computers. Further advances, particularly in colour publications, are currently constrained by hardware, memory and disk space factors.

The rapidly growing number of public inquiries handled by this section presents an exceptional opportunity for personalised direct contact and an effective way of assessing public opinion of GBRMPA's work. Responding effectively is a time consuming but essential task. In total, 2468 written and telephone requests for information were received during the year, an average of 11 requests per day requiring printed material in response.

EXTENSION AND COMMUNITY EDUCATION

Tourist Operators

A full time coordinator was employed jointly with QDEH help to plan and conduct a series of Reef interpretation and management training courses for tourist operators. Initiatives this year included a survey of industry staff which helped shape the courses to their needs, use of the government training levy, accreditation certificates for participants and production of two issues of the tourist operator newsletter, *Tropical Topics*.

Workshops were held in 10 major coastal centres and over 200 tourist industry staff attended. Each course covered resource information about the Reef, planning for interpretation, practical communication skills and Marine Park management issues. The courses were conducted on a user-pays basis and involved many staff from GBRMPA, QDEH and the tourism industry presenters. Each course was conducted over three weeks with 12 hours of contact time. Detailed evaluation revealed very positive outcomes and further courses are planned for 1992-93.

Recreational Fishing

Several 30-second television advertisements about 'doing the right thing' concerning fishing in the Marine Park continued to be telecast along the north Queensland coast during the year. The advertisements on litter, anchor damage and zoning helped to raise public awareness that anglers should conserve and protect the Reef environment.

Meetings were held with regional representatives of the Queensland Sports and Recreational Fishing Council to develop community education 'tackle days', and to survey anglers' knowledge and awareness about fishing issues in the Marine Park.

Detailed, professionally conducted evaluation clearly showed that this campaign was very successful in contacting and positively affecting this hard-to-reach target audience.

Seaweek '92

In conjunction with the Marine Education Society of Australasia (MESA) national campaign 'Marine Parks: Saving Our Seas,' staff from the Authority undertook a range of activities with other management and educational organisations, to plan and conduct the regional segment of Seaweek '92.

Over 40 000 people participated throughout Queensland learning why marine protected areas are important. Fifteen local coordinating committees along the coast planned a range of school and community activities, including seminars, beach clean-ups, guided field trips, displays, drama performances, teacher training courses, and art competitions.

Promotional posters, badges, stickers, an educational booklet and national television advertising helped support this successful campaign.

Community Assistance

The Reef Education Development Scheme provided small grants to community groups to develop innovative educational projects:

Recreational Fishing Expo

A Townsville Fishing Information Day about fisheries management, conservation and training for local anglers (\$500)

Polyp

A grant to Magnetic Island Dance Troupe to perform a coral spawning theatrical production during Seaweek '92 for local schools (\$2000)

Cairns Zoning Display

Production of new Cairns Zoning Plan and Great Barrier Reef display for visitors to Lizard Island Research Station (\$2200)

Tertiary Educato rsWorkshop

Planning and organisation of a Reef education teachers workshop with Griffith University (\$500)

Whitsunday s Activity Guide

Assistance in the production of a visitors booklet designed to inform tourists about Marine Parks and Island National Parks (\$750)

Ocean Rescue 2000

In conjunction with DASET and ANPWS, the Section coordinated a national marine education program as part of Ocean Rescue 2000. Approved projects included employment of a national Seaweek coordinator; production of a marine environment display for the Melbourne National Environment Expo; assistance to produce three 30-second television advertisements about marine parks; production of a series of mini-documentaries about the Solitary Island Marine Park, NSW; and employment of a consultant to produce a national marine education strategy for 1992-93.

This project was commenced during 1991-92 and will be fully reported on in the 1992-93 Annual Report by which time the scheduled tasks will have been completed.

Cairns Section Public Awareness Campaign

An extensive public awareness and education campaign for the revised Cairns Section Zoning Plan was launched on 3 May by the Queensland Environment and Heritage Minister, the Hon. Pat Comben. Special features of the campaign included:

- media advertising in Cairns newspapers, radio and television before and after the launch
- 008 Hotline information service provided by QDEH in Cairns to clarify issues or questions from residents
- distribution of 45 000 interpretive Introductory Guide brochures inserted into the *Cairns Post* newspaper
- extensive distribution of zoning maps and activity guides about diving, boating, recreational fishing, trawling, collecting and spearfishing to over 100 outlets such as tackle and dive shops throughout the region
- commercial sales of zoning plan information kits, using a special introductory discount offer, to interest and user groups
- a series of evening public meetings with 15 recreational fishing clubs in the region by GBRMPA/QDEH staff
- briefing meetings for federal and state government management agencies' staff from QDEH, Queensland Boating and Fisheries Patrol, and Coastwatch
- direct mail out of complimentary zoning kits to permit holders, VIPs and many other key organisations.

Commercial Fishing

A commercial fisheries consultant was contracted to assist in a number of industry educational and liaison projects. This communication initiative, commenced three years ago by the Authority, has proven to be immensely effective. It has resulted in greatly increased effective involvement by the industry in the Authority's management processes and has started two-way communication with the industry.

The program included continued development of liaison projects involving QCFO, QDEH and QFMA. This process resulted in successful cooperation between the industry and the Authority for the Cairns Section zoning review and other special management areas.

The fourth edition of the free video program *Deckhand* was produced and distributed to Queensland commercial fishermen. The main goal of this production is to get across management and conservation messages to fishermen in an entertaining and attractive way. Industry reaction was very positive and their suggestions on future content are used to improve this information service.

The consultant also provided base data for a volunteer reef line fishing 'catch-effort' program for the Marine Park and assisted in planning and conducting a successful Fishermen's Fair in Townsville attended by over 12 000 people. A two-day seminar for QDEH staff on 'Commercial Fisheries in the Marine Park' which included field trips on commercial vessels was conducted. This resulted in considerable advice and assistance for Authority management staff on a range of issues involving commercial fishing.

Film and Video

The production of a major one-hour television film *A Walk In The Sea* is now successfully completed within budget and is proving to be an excellent product which will contact a wide international audience as well as the Australian public. It was made in collaboration with Nomad Films International and was released to the international television market in Cannes in November 1991. GBRMPA earns 36% of broadcast and video cassette sales.

A film for recreational divers, *Pardon My Bubbles*, about diving etiquette and positive conservation behaviour, was completed in June in conjunction with QDEH officers in Brisbane and Cairns and will be reported on in next year's Annual Report.

A further two videos in the popular *Deckhand* series, which discusses commercial fishing industry issues and Marine Park initiatives, were completed and distributed to trawler operators.

A video production called *A Question of Balance*, which highlighted the Authority's unique management program for the world's largest marine ecosystem, achieved international recognition at the Chicago Film Festival, winning the prestigious Award for Creative Excellence.

Freedom Of Information

The Authority received no request for information under the *Freedom of Information Act 1982* (FOI).

The Authority maintained the updated documentation called for under Sections 8 and 9 of the FOI Act and the regular reports. Documents available to the public are listed in **appendix D**.

MEDIA

News releases and story initiatives about the Marine Park and its management have been widely used by both print and electronic media. There has been a sharpening of competition among the television stations following aggregation of the major networks, which has resulted in a wider coverage of Great Barrier Reef Marine Park stories, particularly at the state and national levels.

The continuing support of commercial radio networks, which broadcast daily Reef information and stories produced by the Authority, gets a widespread community response to Marine Park related issues.

LIBRARY INFORMATION SERVICES

The library's objective to provide an effective and efficient information service was achieved by maintaining an in-house collection of current and relevant information sources and services such as monographs, journals, maps, statistics, aerial photographs and 35 mm slides. On-line literature searching was also available.

Demand for library-based services has continued to grow. Usage figures for this year have again shown a dramatic increase in many areas, with inter-library loans and internal staff loans doubling since 1990-91. Both the use and size of the

photographic transparency collection have increased this year.

The library relied heavily on the resources of other agencies to be able to meet staff requirements during the year. This was greatly helped by the continuing supportive relationship with other marine-based Australian libraries. Access to other library catalogues and information centres through the AARNet network has enhanced our ability to search and locate items for staff. The library staff have installed more sophisticated management and access systems and have standardised the library functions in accordance with established Australian library and information science standards. The library has recently purchased new databases in CD-ROM format; this new technology again broadens the information net the staff and the public have at their disposal.

The REEF database is still growing and is jointly managed by the Authority and CSIRO AUSTRALIS. A successful presentation of REEF and other marine-related databases was given at the 1991 Conference of the Marine Education Society of Australasia. This presentation provided an increased awareness to a new audience of both REEF and the Authority.

Public usage of the library collection has grown considerably throughout the year and some restrictions have been introduced to limit this use to the current manageable levels.

1992-93 PROSPECTS

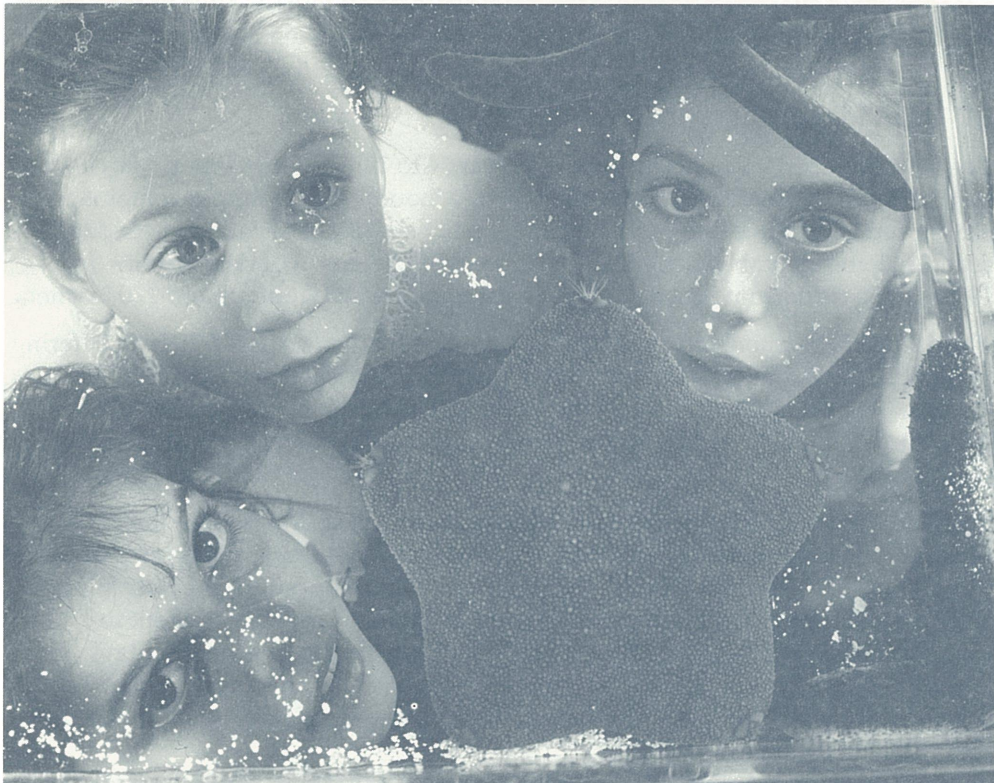
In 1992-93, priority will be given to:

- further consolidation of the working relationships with day-to-day managers
- further development of the extension, interpretation and education strategies and activities, with emphasis on tourism, education and the fishing industry
- completing an effective and widespread initial Ocean Rescue 2000 program
- undertaking further operational efficiencies.

AQUARIUM

The Great Barrier Reef Aquarium has been operating for five years since opening on 24 June 1987 • The Aquarium was developed as part of the Great Barrier Reef Wonderland Bicentennial Commemorative project • The Aquarium's objective is to enhance community understanding, appreciation, experience of and support for the Great Barrier Reef, the Marine Park and the Authority by providing a readily accessible onshore reef environment and interpretive facility.

The Great Barrier Reef Aquarium is one of Australia's premier marine education facilities. It features the world's largest living coral reef system on land, a predator tank, walk-through viewing tunnel and is complemented by numerous small exhibit tanks and interactive displays. The Aquarium aims to provide tourists and locals with a fascinating, realistic, and educational reef experience. Visitors to the Aquarium are stimulated to appreciate the diversity and vulnerability of the reef



Close-up tanks provide a fascinating insight into the creatures found on the Reef for the 10 000 students who use the Aquarium each year.

system and its occupants, and are encouraged to further explore the Great Barrier Reef with a new understanding of the need to protect and manage the World Heritage Area. The Aquarium is operated by the Authority on a cost-recovery basis.

SPREADING THE WORD

As part of its commitment to excellence the Aquarium implemented a comprehensive Business Plan over the last year and is in the process of finalising its Marketing Plan for the next three years.

Approximately 160 000 people visited the Aquarium during 1991-92. The following indicators suggest that the Aquarium is continuing to have a significant positive effect on public awareness and understanding of the Great Barrier Reef and the Marine Park concept:

- more informed public and inquiries to the Authority
- favourable feedback from educational institutions about student reactions
- reports from Reef tourist operators that clients who have visited the Aquarium have been noticeably more knowledgeable about the Reef and the need to use it wisely
- widespread community support through the membership and volunteer schemes and sponsorships.

Broadly, the Aquarium's activities informing locals and tourists alike of the beauty and fragility of the Great Barrier Reef fall under the following headings.

EDUCATION

The new Aquarium Schools Program for years 4 to 12 was launched in March 1992 by the Mayor of Townsville, Alderman Tony Mooney. The program contains a series of nine resource books which complement specific areas of the secondary school syllabus, notably Geography, Science, Biology, and Tourism Studies. In 1991-92, the Aquarium Schools Program catered for 9000 students and 270 teachers.

The needs of Preschool to year 3 students are met by the Trigger Fish Trail, offering parents an opportunity to be involved in teaching their children. Launched in August 1991, this program was developed in collaboration with the Preschool to Year Three Consultative Group and the Creche and Kindergarten Association of Queensland.

The Aquarium enthusiastically promotes an interest in science within the secondary school system, with students undertaking research projects as part of the CSIRO Student Research Scheme. Now, thanks to the support of the Rotary Clubs of Townsville, a perpetual fund has been established to employ a student to undertake a Special Research Project for 3 months over the summer holidays. In addition, Work Experience was provided to 5 high school students during 1991-92. Twenty local year 11 biology students undertook an extended project on blacktip reef shark behaviour.

MAINTENANCE OF EXHIBITS AND SERVICES

Exhibits developed by Aquarium staff are dedicated to the well being of the animals and to displaying the unique adaptations of members of the reef community. Over the last five years Aquarium staff have developed expertise in the long-term care and rearing of marine animals previously considered unlikely to survive in captivity. Attention is now being given to making exhibits even more interactive and stimulating major works are underway with the development of two new displays which will feature a new home for turtle hatchlings and a re-creation of a coral cay.

The popular small exhibit tanks have had a face lift with upgraded landscaping and modifications to allow greater flexibility in displaying and interpreting a wide range of organisms.

One popular display featuring the box jellyfish has been complemented with static displays and interpretive talks during the stinger season. As part of the Visiting Researcher Program, Dr W M Hamner, Director of the Marine Science Institute, University of California, worked at the Aquarium in January and February this year on the biology of box jellyfish and assisted staff in developing techniques to



If seeing is believing, actually touching can be a magic moment in a youngster's life. The Aquarium's touch pool is always one of the highlights of a visit to this unique 'living reef on land.'

keep and display box jellyfish within the Aquarium. Funding provided by Lions International, through the Sir George Fisher Centre (James Cook University of North Queensland), will allow for further research on jellyfish to be undertaken by the Aquarium in 1992-93.

The Touch Pool has been remodelled with a seashore discovery and mangrove theme (after featuring a live salt water crocodile, from June to November 1991, as part of the *Crocodile Man* promotion). The Quicksilver Discovery Room continues to provide new and exciting things for children and adults to discover, notably the

new echinoderm and coral close-up tanks. This will be further enhanced by a project to raise baby octopus in the area.

The Living Coral Reef Exhibit, the principal feature of the Aquarium, has evolved over the last five years to a mature community structure and appearance. Husbandry efforts are now directed toward modifying individual aspects of the food chain and addressing more specific conditions of water quality management.

PROMOTIONAL ACTIVITIES

The biannual magazine *Coralines* contains a wide range of articles on the reef community and organisms found at the Aquarium. This year has seen the establishment of a supporters network which incorporates the existing membership program. This is designed to allow people from outside the Townsville area to maintain contact with and support for the Aquarium's role as a marine education facility.

An Open Day on 5 April 1992 attracted 10 000 visitors to the Aquarium.

Two videos, *A Walk in the Sea* and *Crocodile Man*, had their premiers at the Aquarium. *Crocodile Man* a documentary about a man's struggle to film crocodiles close-up, has screened each day at the Aquarium's theatrette. *A Walk in The Sea*, a one hour TV special about the Aquarium and the Great Barrier Reef, has attracted sales to television networks in several overseas countries and to a major network in Australia.



Undoubtedly one of the most popular temporary exhibits of the year was this saltwater crocodile, a native of the coastal reefs, estuaries and rivers.

The support of local television and radio stations has ensured that there is almost weekly coverage of the Aquarium's activities. In addition to local media the Great Barrier Reef Aquarium has featured in articles in publications as far afield as the United States and India.

Features on the Aquarium appeared on the Channel 9's national programs *Today* and *Getaway*. Weekly stories were also carried on Sunshine Television's *Queensland Today* and *Reel and Keel* programs.

VOLUNTEERS - THE VITAL LINK

Aquarium volunteers have provided approximately 9600 hours of service at the Aquarium in 1991-92.

The guides and volunteers are on hand all day to answer questions, conduct guided tours and to help visitors understand and enjoy the Aquarium's interactive exhibits. They range in age from 18 to 80 but come together to share their love of the Great Barrier Reef with visitors from all over the world. Many volunteers have been involved in taking the Marine Education message out to the north Queensland community through the use of a trailer, built and equipped by the volunteers. They also run a number of successful courses for the general public including 'Introduction to Marine Biology' and 'Advanced Marine Biology' and a 'Home Aquarists' course.

Staff rely on the extensive feedback of volunteers in the planning and construction of new exhibits and to relay visitors reactions to them. For a city with a population of only 120 000 people it is gratifying to see that the Aquarium has nearly 2000 members. Over 110 members have become active volunteers by undergoing an interview and training sessions before taking up duty on the Aquarium floor. A significant achievement was the presentation of the first Merit Badge for 1000 hours service awarded to Mr David Young.

ACHIEVEMENT OF COST RECOVERY

The recovery of tourism in North Queensland in 1991-92 was delayed by the economic downturn. However, as a result of continuing tight financial management and very little expenditure on new equipment or displays, the Aquarium was able to recoup 80% of operating costs. However, an operating deficit of approximately \$300 000 was incurred and there were no funds available to be set aside for depreciation of fixed assets. This deficit has been covered by the \$1 million commercial loan approved by the Department of Finance in 1989-90.

This level of cost recovery is almost unique amongst educational and cultural facilities in Australia. The Aquarium is recognised as a vital part of the Authority's education and management program for the World Heritage Area, an area which generates economic activity estimated at more than \$1000 million per annum. With this in mind, the Authority is seeking a resource agreement with the Government which will ensure that the Aquarium's operating deficit is funded from appropriation in return for a future revenue-sharing formula.

1992-93 PROSPECTS

In the coming year, priority will be given to:

- improving visitor experience and learning at the Aquarium by providing new exhibits on coral cays, fisheries management, processes of the Reef and the Aquarium itself, and the indigenous communities' use of the Reef area
- bringing reef and predator exhibits closer to natural environments
- conducting visitor/non-visitor market research, and implementing the findings
- achieving a 10 % increase in school students participating in formal Aquarium education programs
- reinforcing the reputation of the Aquarium and GBRMPA as a world leader
- improve the Aquarium's business performance by promoting the marketing of Townsville as a tourist destination, modifying the building and support systems to reduce overheads, increasing the range and profitability of the Aquarium shop, and pursuing consultancies training schemes and public education courses to raise revenue.

ADMINISTRATION

The section is part of the corporate management and services program of the Authority, the objective of which is to achieve cost-effective delivery of programs by providing executive management and administrative support to the Minister, the Authority and its staff and to the Great Barrier Reef Consultative Committee.

The section's responsibility covers the following corporate services:

- Human resource management
- Financial management
- Accommodation and facilities
- Records management

The objective of the corporate management and services program requires continual development of appropriate infrastructure which allows the Authority and its programs to achieve their objectives with informality and the simplification of procedures and systems.

The **efficiency** of corporate services is assessed in relation to their cost and the extent to which they comply with and meet Authority and external requirements, as measured by the:

- management of staff numbers and salary budget - % variation from budget



Occupational Health and Safety matters cover a wide range of activities, including safe practices for Authority divers on the Reef.

- management of financial resources - % variation from budget
- cost of the support services in relation to the Authority's overall outlays - time/cost for key tasks or services, e.g. payment of accounts, recruitment activities
- compliance with standards of quality - as reflected by audit findings.

The **effectiveness** of the corporate services is assessed by the extent to which the corporate services infrastructure is adapted to support all programs and central resource management requirements as measured by:

- the degree of 'client' satisfaction with the standard of each service
- the timeliness of the implementation of Authority policies and decisions
- implementation of government policies and directives flowing from government decisions
- resource usage outcomes
- the provision of an equitable and participative work environment
- providing training and development opportunities which enable staff to achieve their full potential and acquire the expertise and flexibility to meet changing requirements

PROGRAM OUTCOMES

Program targets for 1991-92, as described in the Authority's Corporate Plan, which were achieved during the year were:

- implementation of Staff Appraisal Program
- staff Development Program based on needs identified through appraisal
- release of revised Staff Selection Policy and Procedures
- reduction in staff turnover to less than 10%
- implementation of a Records Management Database and Administration System

HUMAN RESOURCE MANAGEMENT

Budgeting

Outcomes for the year in the management of staff numbers and expenditure on salaries and related costs were satisfactory under increasing demands upon all Authority programs.

The number of staff years utilised in budget funded operations during 1991-92 was 95.4. The total salaries and related costs expenditure for the 1991-92 year was \$4 634 042. This total is comprised of \$3 572 474 for budget funded operations and \$1 061 568 for non-budget funded operations, including the Great Barrier Reef Aquarium. Expenditure on budget funded operations was \$223 474 above the initial estimate through activities related to the Queensland Nickel Management

Administrative Appeals Tribunal hearing, the Ocean Rescue 2000 program and a number of cost recovery activities being undertaken during the year. The staffing costs of the Great Barrier Reef Aquarium are not funded through parliamentary appropriation but are met from Aquarium revenues.

During the year 6 permanent staff (6%) left the Authority compared with 14 permanent staff (16%) in 1990-91. Eleven permanent staff were recruited during the year. The staff turnover figure for 1991-92 is a marked reduction in comparison with recent years and demonstrates positive outcomes from recent efforts to improve career path structures and a greater emphasis on staff development.

TABLE 5. STAFF OF THE AUTHORITY AT 30 JUNE 1992

	Operative	Permanent	Temporary	Total
Townsville	Executive and Secretariat	7	1	8
	Research and Monitoring	13	11	24
	Planning and Management	15.8	4.5	20.3
	Environmental Impact Management	16		16
	External Services	4		4
	Education and Information	13	2	15
	Administration	10.5	3	13.5
	Aquarium	20.8	7.2	28
	Townsville Total	100.1	28.7	128.8
Canberra	Executive	2		2
	Support	4		4
	Canberra Total	6		6
	Total June 1992	106.1	28.7	134.8
	Total June 1991	87.9	19.6	107.5
	Inoperative Staff			
	Leave with pay	2		2
	Leave without pay-public interest	1		1
	Leave without pay-private	3		3
	Inoperative Total	6		6

Staff numbers are expressed as full-time equivalents

Human Resource Development

During the year the Authority's Staff Development Appraisal Program was further developed and refined to include a greater emphasis on performance appraisal to meet the performance appraisal requirements for Senior Officer performance based pay. Training and development activities continue to focus on the development of management skills in the middle manager group and to provide a broad range of competencies for all other staff.

Total expenditure on Human Resource Development activities for the year was \$209 469, including the cost of administration of activities and expenditure on Study Assistance programs, which represents 4.52% of total salary expenditure. This level of expenditure exceeds the Training Guarantee requirement of 1% of salary expenditure by \$163 129.

Human Resource Development expenditure on Middle Management Development Program activities for the year was \$136 662 including \$13 930 subsidisation provided by the Public Service Commission.

TABLE 6. SUMMARY OF HUMAN RESOURCE DEVELOPMENT PARTICIPATION 1991-92

LEVEL	STAFF	TIME Days	\$ TIME \$	OTHER \$	TOTAL \$
SES & equivalent	3	14	3836	3193	7029
SO A-C & equivalent	25	157	31 769	22 606	54 375
ASO 5-6 & equivalent	39	340.5	53 901	21 357	75 258
ASO 1-4 & equivalent	75	317	37 354	12 991	50 345
GSO	9	51	4875	1605	6480
TOTAL	151	879.5	131 735	61 752	193 487

SES Senior Executive Service

SO Senior Officer

ASO Administrative Service Officer

GSO General Service Officer

STAFF Operative staff as at 30 June 1992

\$TIME Salary dollars

OTHER Course fees, transport cost
and travel allowance

Consultants

A number of consultants were engaged during the year to provide staff development programs for Authority staff.

Burson-Marsteller	Crisis Communication	\$4050
Harris Van Meegan Consultants	Selection Skills	\$3000
Harris Van Meegan Consultants	Project Management	\$7225
Harris Van Meegan Consultants	Selection Skills	\$2000
Harris Van Meegan Consultants	Performance Appraisal	\$2000
Interlock	Stress Management	\$2100
Renlead P/L	Performance Indicator Development	\$2000

Equal Employment Opportunity

Major Equal Employment Opportunity (EEO) activities undertaken during the year were:

- approval of Authority's EEO Program by the Public Service Commissioner in July 1991
- emphasis on EEO in the selection process in all Selection Skills training undertaken during the year
- emphasis on the provision of management training to women.

The Authority's Chairman and Executive Officer are the senior executives responsible for EEO, and the Manager, Personnel and General Services (ASO 6) carries out the role of EEO Coordinator. The Administration Section's contribution to EEO and its implementation involves 0.5 staff years per annum. No EEO related grievances were lodged during the year.

EEO data for the Authority's staff is provided in tables 7 and 8.

The Authority, acting within the merit selection process, aims to have target group representation in its staffing reflect the representation of those groups in the population of the Great Barrier Reef Region of the Queensland coast. Representation of EEO Target Groups within the Authority's staffing is generally comparable to that of the APS as a whole. Some variations, such as the higher representation of staff from English speaking backgrounds, are likely due to the more comprehensive nature of the Authority's EEO data than is the APS norm. Representation of Aborigines and Torres Strait Islanders in the Authority's staff increased during the year and at 3% of total staff numbers, the representation of this group exceeds the APS average of 1% but is still less than representation in the population of the Great Barrier Reef Region. Efforts to increase the representation of Aborigines and Torres Strait Islanders in both the Authority's staff and involvement in program activities continues through strategies in the EEO Plan and an Aboriginal Employment Strategy. (See tables 9 and 10.)

Industrial Democracy

While it has always been recognised that the ultimate responsibility for the management of this agency lies with the Authority, effective management will be enhanced through the involvement in, and the commitment of, staff to the decision making process. This requires the involvement of staff in consultations which:

- allow staff to fully apply their skills and experience
- recognise the dignity of all staff
- provide all staff with the opportunity to influence decisions which affect the quality of their working lives

During the year many staff have made significant contributions to the development of a Corporate Plan, a Strategic Plan for the Great Barrier Reef World Heritage Area, the Authority's Staff Selection Policy and Procedures, and a Staff Development Appraisal Program. During the year regular interactive meetings attended by all Townsville based staff were implemented to improve communication and information flow within the organisation and to give all staff an opportunity to raise issues of concern to them and to convey information and ideas to the executive and all staff.

Occupational Health and Safety

Occupational Health and Safety (OH&S) activities during the year have been focussed on the development of an Occupational Health and Safety Policy and associated procedures, and the provision of appropriate training for staff. A draft OH&S policy has been distributed for staff comment prior to its finalisation and implementation early in the 1992-93 year.

Staff participated in a number of OH&S training activities during the year including:

- Comcare OH&S Training for supervisors and managers
- Comcare Case Management training
- fire safety and emergency procedure training
- safe boat handling

During 1991-92 two compensation claims were lodged with costs incurred totalling \$205.

During the year the Authority continued to provide its staff with access to the services of professional counsellors through an Employee Assistance Program agreement with Interlock Townsville. (NOTE: abbreviation guide for tables 7 to 10 on following pages, is on page 79.)

TABLE 7. REPRESENTATION OF EEO GROUPS WITHIN SALARY LEVELS AT 30 JUNE 1992

SALARY	TOTAL NO OF STAFF	WOMEN	NESB1	NESB2	ESB	ATSI	PWD	STAFF WITH EEO DATA
Below \$22721 (includes ASO 1)	33	23 70%	0 0%	4 13%	27 87%	3 10%	2 6%	31
\$22721 to \$25687 (includes ASO 2)	25	17 68%	2 8%	1 4%	21 88%	0 0%	1 4%	24
\$25688 to \$28475 (includes ASO 3)	19	12 63%	0 0%	1 5%	18 95%	0 0%	1 5%	19
\$28476 to \$31929 (includes ASO 4)	10	3 30%	3 30%	1 10%	6 60%	0 0%	1 10%	10
\$31930 to \$34778 (includes ASO 5)	14	6 43%	0 0%	1 7%	13 93%	1 7%	1 7%	14
\$34779 to \$40693 (includes ASO 6)	28	6 21%	1 4%	0 0%	27 96%	1 4%	3 11%	28
\$40694 to \$45546 (includes SO Gd C)	15	3 20%	0 0%	0 0%	15 100%	0 0%	0 0%	15
\$45547 to \$53403 (includes SO Gd B)	10	1 10%	1 10%	0 0%	9 90%	0 0%	0 0%	10
Above \$53403 (includes SES)	3	1 33%	0 0%	0 0%	3 100%	0 0%	0 0%	3
TOTALS	157	72 46%	7 5%	8 5%	139 90%	5 3%	9 6%	154

Note: Percentage for women based on total staff

Percentages for other groups based on staff with available EEO data

SOURCE: GBRMPA EEO Database

TABLE 8. REPRESENTATION OF EEO GROUPS WITHIN OCCUPATIONAL GROUPS AT 30 JUNE 1992

SALARY	TOTAL NO OF STAFF	WOMEN	NESB1	NESB2	ESB	ATSI	PWD	STAFF WITH EEO DATA
SES	3	1 33%	0 0%	0 0%	3 100%	0 0%	0 0%	3
ASO & related	129	64 50%	7 6%	5 4%	115 90%	5 4%	7 6%	127
GSO & related	11	1 9%	0 0%	1 10%	9 90%	0 0%	2 20%	10
Professional	7	4 57%	0 0%	1 14%	6 86%	0 0%	0 0%	7
Technical	7	2 29%	0 0%	1 14%	6 86%	0 0%	0 0%	7
TOTALS	157	72 46%	7 5%	8 5%	139 90%	5 3%	9 6%	154

Note: Percentage for women based on total staff

Percentages for other groups based on staff with available EEO data

SOURCE: GBRMPA EEO Database

TABLE 9. REPRESENTATION OF EEO GROUPS WITHIN THE AUSTRALIAN PUBLIC SERVICE

TOTAL NO OF STAFF	WOMEN	NESB1	NESB2	ESB	ATSI	PWD
145580	67758 47%	6685 5%	11169 8%	79749 55%	1842 1%	6106 4%

Figures shown are for those staff with data recorded in the Continuous record of Personnel at December 1991

SOURCE: APS Staffing Statistics Report 1991

TABLE 10. REPRESENTATION OF EEO GROUPS WITHIN THE POPULATION OF THE GREAT BARRIER REEF REGION

	TOTAL POPULATION	WOMEN	NESB1	NESB2	ESB	ATSI	PWD
TOTALS	741075	361298	75950	118415	546710	36317	119300
		49%	10%	16%	74%	5%	16%

SOURCE: Data supplied by the Australian Bureau of Statistics from 1986 Census

NESB1 Non-English Speaking Background, first generation

NESB2 Non-English Speaking Background, second generation

ESB English Speaking Background

ATSI Aborigine or Torres Strait Islander

PWD People with a disability

FINANCIAL MANAGEMENT

In 1991-92 Parliament appropriated \$14 125 000 for the Authority's programs, other than the Great Barrier Reef Aquarium. Additional funds amounting to \$ 2 047 785 were carried forward from the 1990-91 financial year and applied towards 1991-92 activities. The Queensland Government appropriated \$3 038 000 for payment to the Authority under the cost sharing arrangements for day-to-day management of the Marine Park. Receipts from other sources including funding of specific projects by the Department of the Arts, Sport, the Environment and Territories, provision of external services, interest, permit assessment fees, contribution for baseline and monitoring studies and the sale of education materials amounted to \$2 114 572 and earnings of \$1 739 301 by the Aquarium.

Program expenditure for the year, other than expenditure on the Great Barrier Reef Aquarium, amounted to \$17 069 068 or 83% of funds available. Expenditure of \$2 089 301 on the Great Barrier Reef Aquarium program was met from its income generating activities and by drawing on funds advanced by the Department of Finance. Full details are provided in appendix K Financial Statements which have been prepared on an accrual accounting basis.

The expenditure of funds for all programs is shown in figure 4. These expenditures include the allocation of salaries and certain overheads to each program.

GENERAL SERVICES

The cost of corporate services in 1991-92 was \$1 971 054 which represents 11.5% of the Authority's expenditure (excluding the Great Barrier Reef Aquarium) compared with 12.6% in 1990-91 and 13.3% in 1989-90.

A Townsville based accountancy firm, Butler Rains Menzies and Co have been appointed as internal auditors for the Authority. A Strategic Audit Plan has been developed to ensure that all areas of the Authority are regularly evaluated.

Additional space has been leased within the Great Barrier Reef Wonderland complex to provide office accommodation for staffing increases associated with new research programs and the relocation of the Library. Staff participated in the development of plans for the fitout and renovation of accommodation. The expansion of Authority programs has also placed demands on the provision of office services, in particular telecommunications, registry and the issue and maintenance of equipment.

SUMMARY OF PERFORMANCE INFORMATION

In terms of expenditure, estimates of program requirements in 1991-91 were largely met apart from the research and monitoring program. This is indicative of the length of time required to develop long term research projects. The carryover is principally provision of funding for these projects but also includes unfilled orders/contracts, funds set aside for payment of legal expenses and unspent monies for industry funded baseline and monitoring studies.

FIGURE 4. EXPENDITURE OF FUNDS BY PROGRAM 1991-92

(Total Expenditure \$19 158 369)

	BUDGET FUNDED	OFF BUDGET
Planning and Management	8 231 079	
Environmental Impact Management	1 587 740	
Research and Monitoring	3 438 924	
Education and Information	1 411 486	
External Services	428 785	
Corporate Management and Services	1 971 054	
Sub Total	17 069 068	
GBR Aquarium		2 089 301
TOTAL		19 158 369

1992-93 PROSPECTS

In 1992-93 priority will be given to :

- Coordination of strategic plan implementation and establishment of a corporate program for review of strategic and corporate plans and programs
- Reviewing and recommending an appropriate corporate structure
- Further development of flexible, efficient and effective systems and planning for the acquisition, motivation, development and retention of human resources, specifically:
 - develop a staffing plan
 - implement graduate and trainee recruitment program
 - provide an appropriate and regular induction program
 - review staff development / performance appraisal systems
 - establish temporary transfer and staff exchange procedures
 - provide focused, competency based training and development opportunities
 - maintain Middle Management Development initiatives
 - implement an OH&S Policy which provides an infrastructure for the establishment of occupational health and safety standards
 - implement and maintain processes which provide an equitable and participative work environment
 - complete and implement an Industrial Democracy plan.
- A review of financial management practices to ensure efficient and effective utilisation of resources, specifically:
 - devolve accountability and responsibility and empower appropriate levels
 - develop waste minimisation strategies
 - implement activity based costing
 - implement a computerised financial information management system.

CANBERRA OFFICE

The objective of the Canberra Office is to contribute to the effective development and delivery of Authority programs by establishing liaison and coordination links with the Minister and Canberra based agencies, by providing policy advice and administrative support, and by undertaking investigations and contributing to policy development for national and international marine and coastal management issues.

The Canberra Office has five full-time staff. It also provides an office for the Chairman of the Authority and is the principal point of contact on Authority matters in Canberra.

The Office advises the Minister, liaises with the Department of the Arts, Sport, the Environment and Territories, Parliamentary Committees, other Canberra based government and non-government organisations with interests in the Great Barrier Reef and assists in the development and communication of Authority policy.

It also assists other departments and organisations in the development of their marine and coastal policies and programs.

The Office provides administrative support to the Chairman and a secretariat for the Great Barrier Reef Ministerial Council.

PERFORMANCE INFORMATION

Performance will be assessed by the following indicators:

- the quality and timeliness of advice, assistance, submissions and correspondence to the Minister, Ministerial Council, Chairman, Parliamentary Committees, other organisations, members of the public and other Sections of the Authority
- the extent to which statutory, Ministerial, Authority and Ministerial Council requirements are met
- the extent to which advice and assistance provided by the Office is utilised within the Authority
- the extent to which the Authority's goal and aims are supported by and taken into account by other government and non-government organisations.

During 1991-92 the Canberra Office contributed to the following major Authority activities:

- *Great Barrier Reef Ministerial Council: 18th Meeting*
Organised a successful meeting of the Council in Canberra in February 1992 (see separate report).

- *Compulsory Pilotage*
Helped develop and implement procedures with the Australian Maritime Safety Authority and the Authority's Townsville Office for the operation of a Compulsory Pilotage system that began in October 1991. A number of exemptions from the pilotage requirements were dealt with in accordance with the procedures of the Act.
- *Introduction of Marine Park Charges*
Had a major role in the policy development and announcement of a new system of charges for commercial operators, which was announced by the Minister in June 1992, and which will commence 1 July 1993.
- *'Operation Clamsaver'*
Assisted the Townsville Office in successful negotiations with Royal Australian Navy for the provision of a heavy landing barge to assist in the removal and relocation of about 5300 giant clams from Orpheus Island.
- *Ocean Rescue 2000*
Had a major and continuing role in the design, implementation and coordination of this national marine conservation and sustainable use program announced by the Minister in 1991. DASET is the lead agency but the Authority and the Australian National Parks and Wildlife Service have a major role in design and operation of the various elements of OR2000.
- *Appointments*
Liaised with QDEH and assisted DASET in the identification of prospective appointees to the GBRCC.
- *Submissions to Inquiries and Investigations*
Coordinated 77 submissions to the Minister on various matters and organised about 80 responses to public submissions to the Minister. Was involved with discussions, and coordinated and provided submissions to various inquiries including the Resource Assessment Commission Coastal Inquiry, the Industry Commission Report on Cost Recovery for Managing Fisheries and the ecologically sustainable development process.
- *International System of MPAs*
Continued to assist the Chairman in his position as Vice-Chairman (Marine) of the IUCN Commission on National Parks and Protected Areas and with the objective of promoting the establishment of a global representative system of marine protected areas. This has involved the establishment and management of a network of working groups across major geopolitical regions of the world; promoting of the Authority's extensive involvement in the IV World Congress on National Parks and Protected Areas held in Caracas, Venezuela, in February; and undertaking a consultancy for the World Bank using the network of working groups to make recommendations on priority areas for the conservation of global marine biodiversity.

EXTERNAL SERVICES

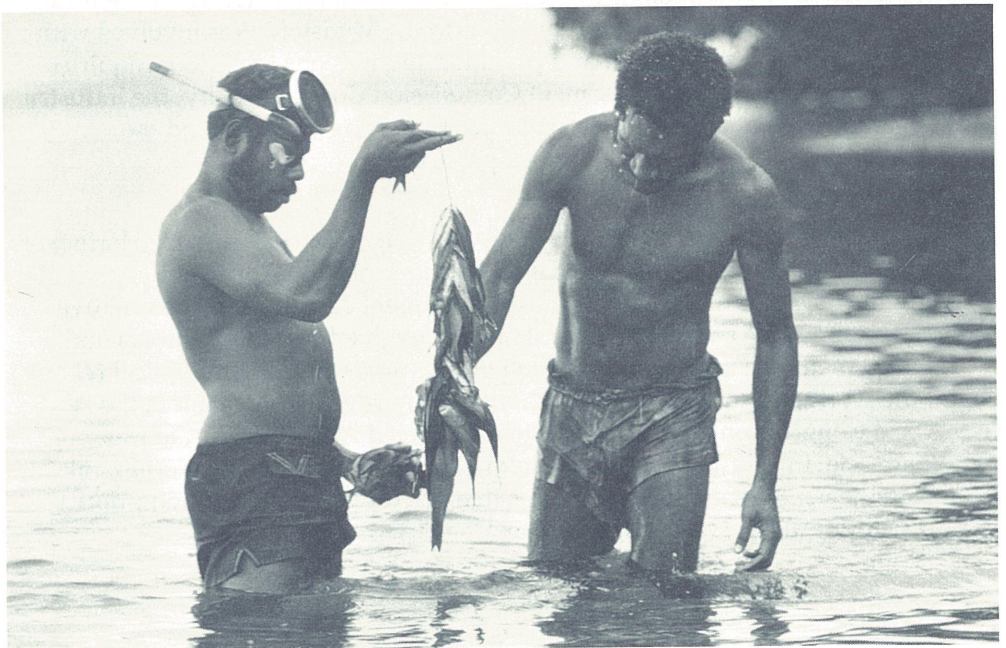
This section's objective is to coordinate the Authority's consultancy activities which provide efficient and cost effective environmental management advice and technical assistance, both nationally and overseas, on a cooperative and cost recovery basis.

The Authority is committed to sound coral reef environmental management, as a basis for ecologically sustainable use. The staff of the Authority and its associated agencies have world class expertise and experience in the application of legislative, technical management, regional planning and environmental management techniques. It is the aim of the Authority, through its External Services Section, to make this expertise available nationally and internationally.

External Services fulfils these functions, operating under sections 7 and 7A of the Great Barrier Reef Marine Park Act.

Such assistance can take the form of:

- conducting research or investigations at the request of, and on behalf of, a client agency



In many societies where local people make direct use of their marine resources for day to day living, careful consideration must be given to the possible impacts of tourist developments on these traditional activities.

- providing educational, advisory or information services

National and international demand for this expertise and knowledge is increasing as it becomes more widely known that it is available on a consultancy or cost recovery basis.

The program objectives for 1991-92 were to

- develop and promote a business and marketing plan to provide external services and consulting
- establish guidelines on how to provide the collective expertise within the Authority and its associated agencies to outside organisations on a cost recovery basis
- register and liaise with multinational, international and Australian aid organisations
- contribute to the development of an Ocean Rescue 2000 program to establish a national representative system of marine protected areas
- respond efficiently and effectively to requests for assistance and advice

PERFORMANCE INFORMATION

Some progress was made towards achieving all these objectives. A major constraint was that the Section could not be fully staffed until well into the new financial year. Authority exigencies also required senior support staff to work outside this Section for some months.

The concept of a national representative system of marine protected areas as a new government initiative was announced in late 1990 by the then Prime Minister, the Honourable R.J.L Hawke. The Minister for the Arts, Sport, the Environment and Territories, the Hon. Ros Kelly, MP, consequently announced the establishment of Ocean Rescue 2000, a decade-long program to protect the marine environment, to be undertaken cooperatively by DASET, ANPWS and GBRMPA.

Ocean Rescue 2000 has several components. This Section was responsible for contributions to regional planning and multiple use issues for the development of a national representative system of marine protected areas in the states and territories. These additional responsibilities meant additional workloads until the required extra staff could be recruited.

A full staff complement was not reached until December 1991. It is therefore pleasing to report that the Authority:

- provided project preparatory assistance for the development of environment information networks in the Asia-Pacific region under a memorandum-of-understanding (MOU) with the United Nations Environment Programme (UNEP) Global Environment Monitoring System (GEMS)
- formulated a framework under an MOU with The World Bank to identify, map and establish priorities of areas for the conservation of global marine biodiversity
- was involved, in association with Nicholas Clark and Associates, in a

- successful bid to the Asian Development Bank to prepare a national tourism development plan for the Kingdom of Tonga
- provided staff to assist in the evaluation of environmentally sensitive areas for an IUCN-managed, Asian Development Bank funded project to develop a National Environment Strategy for the Government of Fiji
 - coordinated Authority contributions to the Ocean Rescue 2000 national representative system of marine protected areas, in cooperation with DASET, ANPWS, the Northern Territory, Western Australia, Queensland, and the Torres Strait Island Coordinating Council
 - provided administrative support to develop proposals for research, education, training and management activities related to International Tropical Marine Resource Centre (INTROMARC) and the Cooperative Research Centre for Ecologically Sustainable Development of the Great Barrier Reef
 - in conjunction with the Australian Institute of Marine Science (AIMS) and James Cook University of North Queensland, the External Services Section continued to assess the feasibility of setting up a joint venture to market the products and services of the three organisations internationally
 - completed the inventory of professional skills and experience of the staff of the Office of the Authority



A careful balance must be struck between future development needs and the age-old and vital role of the oceans in local society, such as here in Tonga.

REGISTERED RESEARCH AGENCY

In August 1991, the Authority was granted the status of Registered Research Agency. This scheme, administered by the Department of Industry, Technology and Commerce, enables any industry which contracts the Authority to carry out

research for them to claim tax benefits of up to 150%, subject to a number of conditions.

1992-93 PROSPECTS

In 1992-93 priority will be given to :

- increasing the number of external activities and consultancies carried out on a cost recovery basis
- providing technical assistance to the Ocean Rescue 2000 National Representative System of Marine Protected Areas program
- finalising and instituting a promotion and marketing strategy
- refining the project/consultancy bidding procedures.

APPENDIX A

AUTHORITY FUNCTIONS

The functions of the Authority, defined in sections 7 and 7A of the Act, as amended in December 1988, are as follows:

- 7 (1)(a) to make recommendations to the Minister in relation to the care and development of the Marine Park including recommendations, from time to time, as to -
- (i) the areas that should be declared to be parts of the Marine Park; and
 - (ii) the regulations that should be made under this Act;
- (b) to carry out, by itself or in co-operation with other institutions or persons, and to arrange for any other institutions or persons to carry out, research and investigations relevant to the Marine Park;
- (c) to prepare zoning plans for the Marine Park in accordance with Part V;
- (ca) to furnish information and advice to the Minister in respect of matters relating to the Marine Park, including -
- (i) information and advice in relation to any agreement (including any proposed agreement) between the Commonwealth and Queensland on such matters;
 - (ii) information and advice on the following matters:
 - (A) whether the Commonwealth should grant financial assistance to Queensland in respect of a matter relating to the Marine Park;
 - (B) the amount and allocation of such assistance;
 - (C) the terms and conditions (if any) on which such assistance should be granted; and
 - (iii) information and advice on the following matters:
 - (A) whether it is desirable that Queensland should make a payment to the Authority in respect of a matter relating to the Marine Park;
 - (B) the amount and allocation of such payment;
 - (C) the terms and conditions (if any) on which such payment should be given;
- (cb) to receive and disburse moneys appropriated by the Parliament for payment to the Authority for the purpose of payment of the moneys to Queensland by way of financial assistance to Queensland in respect of matters that relate to the Marine Park;
- (cc) to receive and disburse moneys paid to the Authority by Queensland under an agreement between -

- (i) the Commonwealth and Queensland;
 - (ii) Queensland and the Authority; or
 - (iii) the Commonwealth, Queensland and the Authority;
- (cd) to provide, and arrange for the provision of, educational, advisory and informational services relating to the Marine Park;
- (d) such functions relating to the Marine Park as are:
- (i) conferred on the Authority by this Act; or
 - (ii) provided for by the regulations;
- (da) to provide assistance to other institutions and persons in accordance with section 7A; and
- (e) to do anything incidental or conducive to the performance of any of the foregoing functions.
- (1A) For the purposes of this section but without limiting the generality of paragraph (1) (ca), (cb) or (cd), a matter shall be taken to relate to the Marine Park if it relates to -
- (a) the use or management of an area (which may be a Queensland national park or a Queensland marine park) the use or management of which would or might affect the Marine Park; or
 - (b) the use of a place outside the Marine Park for a purpose relating to the Marine Park.
- (1B) The Authority is responsible for the management of the Marine Park.
- (2) The Authority shall perform its functions in accordance with any general directions given by the Minister not inconsistent with this Act.
- (3) The Authority shall include in each report prepared under section 63M of the Audit Act 1901 particulars of any directions given by the Minister under sub-section (2) during the period to which the report relates.
- 7A (1) Subject to this section, the Authority may, at the request of another institution or person, provide assistance to the institution or person in matters relating to environmental management.
- (2) The assistance may be provided by the Authority acting by itself or in co-operation with other institutions and persons.
 - (3) Without limiting the generality of the assistance that may be provided, the assistance may take any of the following forms:
 - (a) the carrying out of research or investigations;
 - (b) the provision of educational, advisory or informational services;
 - (c) the making available of facilities.

APPENDIX B CONSULTATIVE COMMITTEE FUNCTIONS

The functions of the Great Barrier Reef Consultative Committee, defined in section 21 of the Act, are as follows:

- (a) to furnish advice to the Minister, either of its own motion or upon request made to it by the Minister, in respect of matters relating to the operation of this Act; and
- (b) to furnish advice to the Authority in respect of matters relating to the Marine Park, including advice as to the areas that should be parts of the Marine Park, referred to it by the Authority.

APPENDIX C AUTHORITY SENIOR OFFICERS

Mr Graeme Kelleher, AM (Chairman)

TOWNSVILLE OFFICE

Dr Don Kinsey (Executive Officer to April 1992)

Dr Wendy Craik (Director, Planning and Management to April 1992. Then Executive Officer)

Peter McGinnity (From April 1992, Acting Director, Planning and Management)

Kath Shurcliff (Director, Environmental Impact Management)

Simon Woodley (Director, Research and Monitoring)

Ray Neale (Director, Education and Information)

Ian Burston (Director, Aquarium)

Ross Hebblewhite (Director, Administration)

Daniel van R. Claasen (Director, External Services)

CANBERRA OFFICE

Peter Ottesen (Director)

APPENDIX D

PUBLICATIONS

WORKSHOP SERIES (ISSN 0156-5842)

Workshop on the Impacts of Flooding. GT Byron (ed). Queensland, QDEH/GBRMPA, 1992. (Workshop Series No. 17) 155pp. ISBN 0 624 12044 7

Sustainable Development for Traditional Inhabitants of the Torres Strait Region: Proceedings of the Torres Strait Baseline Study Conference. D Lawrence and T Cansfield-Smith (eds). Townsville, GBRMPA, 1991. (Workshop Series No. 16) 535pp. ISBN 0 642 12028 5

Workshop on the Role of Scientific Support Co-ordinator (SSC) in Oil Spill Response. Ian M Dutton (ed). Townsville, GBRMPA, 1989. (Workshop Series No. 12) 133p. ISBN 0 642 12010 2

Workshop on Nutrients in the Great Barrier Reef Region. CL Baldwin (ed). Townsville, GBRMPA, 1988. (Workshop Series No. 10) 191p. ISBN 0 642 12016 1

Fringing Reef Workshop: Science, Industry and Management. CL Baldwin (ed). Townsville, GBRMPA, 1987. (Workshop Series No. 9) 280p. ISBN 0 642 52633 8 (Out of print.)

Traditional Knowledge of the Marine Environment in Northern Australia. F Gray and L Zann (eds). Townsville, GBRMPA, 1988. (Workshop Series No. 8) 196p. ISBN 0 642 52609 5

Workshop on the Offshore Effects of Cyclone Winifred. I M Dutton (ed). Townsville, GBRMPA, 1986. (Workshop Series No. 7) 111p. ISBN 0 642 52529 3

Workshop on Response to Hazardous Chemical Spills in the Great Barrier Reef Region: Proceedings of a Workshop held in Townsville, 3 August 1984. GJS (Wendy) Craik (ed). Townsville, GBRMPA, 1985. (Workshop Series No. 6) 107p. ISBN 0 642 52409 2 (Out of print.)

Workshop on Contaminants in Waters of The Great Barrier Reef: Proceedings of a Workshop held at Griffith University, Brisbane, Australia, 26 May 1984. IM Dutton (ed). Townsville, GBRMPA, 1985. (Workshop Series No. 5) 43p. ISBN 0 642 52401 7 (Out of print.)

Papers and Proceedings of the Workshop 'Tourism and the Great Barrier Reef' held in Mackay 9-11 April, 1979. Townsville, GBRMPA, 1981. (Workshop Series No. 4) 182p. ISBN 0 642 52273 1 (Out of print.)

Workshop on Coral Trout Assessment Techniques held at Heron Island, 21 April-4 May, 1979. Townsville, GBRMPA, 1979. (Workshop Series No. 3) 85p. Reprinted 1985 (Out of print.)

Workshop on Reef Fish Assessment and Monitoring held at Heron Island, 18-28 November, 1978. Townsville, GBRMPA, 1978. (Workshop Series No. 2) 64p. Reprinted 1985. (Out of print.)

Workshop on the Northern Sector of the Great Barrier Reef: Papers and Proceedings of a Workshop held in Townsville, 20-21 April, 1978. Townsville, GBRMPA, 1978. (Workshop Series No. 1) 462p. ISBN 0 642 91150 9. Reprinted August 1983. (Out of print.)

**TECHNICAL MEMORANDUM/REPORT SERIES
(ISSN 0817-6094)/(ISSN 0814-9224)**

Management of Recreational Fishing in the Great Barrier Reef Marine Park. Wendy Craik. Townsville, GBRMPA, 1990 (GBRMPA-TM-23) 35p. ISBN 0 642 12003 X

GBRMPA-TM-22 in preparation.

Morphology and Development of the Cape Tribulation Fringing Reefs, Great Barrier Reef, Australia. Bruce R Partain and David Hopley. Townsville, GBRMPA, 1990. (GBRMPA-TM-21) 45p. ISBN 0 642 12026 9

The Effects of Increased Sedimentation on the Recruitment and Population Dynamics of Juvenile Corals at Cape Tribulation, North Queensland. David A Fisk and Vicki J Harriott. Townsville, GBRMPA, 1989. (GBRMPA-TM-20) 31p. ISBN 0 642 12018 8

Additions and Revisions to the Checklist of Fishes of the Capricorn-Bunker Group Great Barrier Reef Australia. Graham R Lowe and Barry C Russell. Townsville, GBRMPA, 1990. (GBRMPA-TM-19) 27p. ISBN 0 642 12033 1

Marine Parks and Protected Areas: A Bibliography. Jean A Dartnall. Townsville, GBRMPA, 1989. (GBRMPA-TM-18) 22p. ISBN 0 642 12017 X

Social Carrying Capacity in Recreational Settings: A Literature Review. M Watson. Townsville, GBRMPA, 1988. (GBRMPA-TM-17) 84p. ISBN 0 642 12001 3

GBRMPA-TM-16 in preparation.

The Natural Recruitment and Recovery Process of Corals at Green Island. V J Harriott and D A Fisk. Townsville, GBRMPA, 1990. (GBRMPA-TM-15) 36p. ISBN 0 642 12024 2

Sedimentary Framework of Mainland Fringing Reef Development, Cape Tribulation Area. D P Johnson and R M Carter. Townsville, GBRMPA, 1987. (GBRMPA-TM-14) 37p. ISBN 0 642 12000 5

Aquarium Fishes and Their Collection in the Great Barrier Reef Region. Michael Whitehead et al. Townsville, GBRMPA, 1986. (GBRMPA-TM-13) 39p.

GBRMPA-TM-12 in preparation.

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Documents available for purchase through AGPS bookshops:

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Nomination of the Great Barrier Reef by the Commonwealth of Australia for inclusion in the World Heritage List. GBRMPA, 1981.

Bibliography of the Great Barrier Reef Province. Edgar Frankel, 1978 .

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Documents available free of charge for single copies from the Authority's Townsville office:

Zoning Plans

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Information brochures, bulletins and leaflets

Selected maps of the Great Barrier Reef Marine Park

REEF database publications

Reef Notes series

Reflections and *Reef Research*

Media releases and communiques

Documents available for bulk-purchase from the Authority's Townsville office:

Posters

Various information brochures, books and audiovisual productions

Research Reports and Workshop Proceedings

Maps of Great Barrier Reef Marine Park

Small quantities may be purchased through the Great Barrier Reef Aquarium Shop.

Facilities for access:

The Townsville office holds most of the documents relating to the Authority, its Office and the Great Barrier Reef Consultative Committee. It is possible to arrange access to documents, available under provisions of the Freedom of Information Act, through either the Canberra or Townsville office (see addresses below), or at the State FOI Information Access Office. Staff are available to provide assistance in relation to any aspect of FOI requests.

Members of the public may make inquiries on FOI matters and inspect documents to which access has been granted at either office. Business hours, Monday to Friday, are 8.30am - 4.50pm. Formal requests for access to documents must be directed to the office listed in the following section.

Information about facilities for access by disabled persons can be obtained by contacting the FOI Officer at the Townsville office.

The following facilities for access are maintained at the Townsville office:

- computer printer
- microfiche reader
- film and slide projectors
- video and audio tape recorders
- photocopy machine
- reading room.

FOI Procedures and Initial Contact Points:

Inquiries may be made in writing, by telephone or in person at the official FOI access points listed below. It is also suggested that inquirers give a telephone number.

Great Barrier Reef Marine Park Authority

2-68 Flinders St

PO Box 1379

TOWNSVILLE QLD 4810

TOWNSVILLE QLD 4810

Telephone (077) 81 8811; Telex GBRMPA 47332; Fax (077) 72 6093

OR

Great Barrier Reef Marine Park Authority

2nd Floor, Gas Industry House

GPO Box 791

Cnr Moore & Rudd Streets

CANBERRA ACT 2601

CANBERRA CITY ACT 2600

Telephone (06) 247 0211; Telex ARRIC 62552; Fax (06) 247 5761

If any difficulty arises in the identification of a document or in providing access in the form requested, an officer of the Authority will contact the applicant with a view to resolving the difficulty.

In consultation with applications, documents will be made available as follows:

- by mail to the address specified by the applicant
- at the official FOI access point

The authorised decision-makers under the Act for the Authority and the Consultative Committee, with official addresses for the lodging of requests, are:

The Executive Officer

Great Barrier Reef Marine Park Authority

PO Box 1379

TOWNSVILLE QLD 4810

OR

The Secretary

Great Barrier Reef Consultative Committee

PO Box 1379

TOWNSVILLE QLD 4810

APPENDIX E

STAFF PAPERS

PUBLISHED/PRESENTED 1991-92

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WOODLEY, S. and OTTESEN, P. **Large marine ecosystems and marine protected areas : information for managing the Great Barrier Reef Marine Park.** Presented at: Fourth World Congress on National Parks and Protected Areas, Caracas, Venezuela, February 1992.

APPENDIX F

RESEARCH IN PROGRESS 1991-92

* Project completed during 1991-92

REEF MONITORING

153 Stratigraphy of lagoon sediments and reef margins - Lady Musgrave Island

PROJECT LEADER: Assoc. Prof. CVG Phipps (Geology and Geophysics, University of Sydney) (\$nil)

233* Monitoring of Cape Tribulation fringing reefs (communities)

PROJECT LEADER: Dr AM Ayling (Sea Research) (\$4000)

238 Monitoring coral spawning using remote sensing (Pilot Study)

PROJECT LEADERS: Dr JT Baker, Dr J Oliver (Biological Sciences, James Cook University), Dr D Kuchler (Mapping and Monitoring Technology Pty Ltd) (\$nil)

291 Coral spawning experiment (CORSPLEX '86)

PROJECT LEADER: Dr B Willis et al. (Biological Sciences, James Cook University), Dr J Oliver (GBRMPA) (\$nil)

383 An investigation of optimum methods and unit sizes for the visual estimation of abundances of some coral reef organisms

PROJECT LEADERS: Dr B Mapstone (James Cook University), Dr AM Ayling (Sea Research) (\$nil)

385 CORSPLEX '87 Analysis of plankton samples

PROJECT LEADER: Dr B Willis et al. (James Cook University), Dr J Oliver (GBRMPA) (\$nil)

393 Monitoring of Heron Island Reef

PROJECT LEADER: Dr I Lawn (Heron Island Research Station) (\$20 000)

394 A case history of a tourist pontoon on an outer barrier reef and on-going monitoring projects relating to marine biota

PROJECT LEADER: Ms W Richards (Reef Biosearch Pty Ltd) (\$nil)

399* Heron Island - monitoring program (coral community)

PROJECT LEADER: Mr D Fisk (Reef Research and Information Services) (\$nil)

416* Digitising of manta tow maps

PROJECT LEADER: Dr J Oliver (Consultant) (\$nil)

(\$) Refers to 1991-92 expenditure only

440*, 513 Development of turbidity monitoring system

PROJECT LEADER: Mr J Gillies (GBRMPA) (\$1265)

445* Low Isles: a collection of historical photographs and images

PROJECT LEADER: Dr D Kuchler (Mapping and Monitoring Technology Pty Ltd) (\$nil)

446* A baseline survey of Middle Reef, Townsville

PROJECT LEADER: Dr B Kettle (Sinclair Knight & Partners Pty Ltd) (\$2000)

460* The potential impact of development on inshore seagrass beds in the Great Barrier Reef Marine Park

PROJECT LEADER: Ms N Morissette (James Cook University)
PROJECT SUPERVISOR: Dr H Marsh (\$nil)

468* Field survey for carbonate and silica sediment deposits

PROJECT LEADER: Dr M Mabin (James Cook University) (\$4723)

479 An investigation of scales and magnitudes of variability in population densities of some coral reef organisms: Stage II in the development of long term monitoring procedures

PROJECT LEADERS: Dr B Mapstone, Prof. JH Choat (James Cook University), Dr AM Ayling (Sea Research) (\$nil)

510 Review and outline of fish cage culture in the Great Barrier Reef Region

PROJECT LEADER: Dr J Trendall (West Beach Aquaculture) (\$nil)

511 A visual survey of demersal biota in the Cairns Section of the Great Barrier Reef Marine Park

PROJECT LEADER: Dr B Mapstone, Prof. JH Choat (James Cook University), Dr AM Ayling (Sea Research) (\$nil)

512 Coral recovery at Green Is. 1984-1991: A synthesis

PROJECT LEADER: Mr D Fisk (Reef Research and Information Services) (\$2500)

514* Broadscale survey of the impact of Cyclone Ivor on coral reefs

PROJECT LEADER: Dr T Done (Australian Institute of Marine Science) (\$3836)

524 Major structuring determinants of coral reef assemblages - Whitsundays, Keppels etc.

PROJECT LEADER: Mr R van Woesik (Reefsearch) (\$nil)

525 Monitoring temporal changes in the distribution and abundance of dugongs, sea turtles and cetaceans in the northern Great Barrier Reef Marine Park between Cape Bedford and Hunter Point

PROJECT LEADER: Dr H Marsh (James Cook University) (\$nil)

555* Monitoring of the benthic communities of Middle Reef, Townsville

PROJECT LEADER: Mr L DeVantier (Consultant) (\$4030)

611* A baseline survey of Bramble Reef

PROJECT LEADER: Dr AM Ayling (Sea Research) (\$17 500)

629* Hamilton Island survey (of coral mortality) - May 1991

PROJECT LEADER: Mr R van Woesik (Reefsearch) (\$4145)

645 Magnetic Island temperature monitoring/bleaching study

PROJECT LEADER: Dr J Oliver (GBRMPA) (\$182)

646 Seabird Atlas of the Great Barrier Reef

PROJECT LEADER: Mr T Walker (QDEH) (\$9513)

665 Bramble Reef Replenishment Area - 1992 survey

PROJECT LEADER: Dr AM Ayling (Sea Research) (\$10 000)

677 Continuation of long-term monitoring of fish recruited in seven lagoons - Capricorn Bunker Group

PROJECT LEADER: Dr P Doherty (\$2000)

OCEANOGRAPHY**425 Provision of advice on oceanographic and engineering matters**

PROJECT LEADER: Marine Modelling Unit (James Cook University) (\$60 000)

530 Modelling approach to larval dispersal and reef fish recruitment

PROJECT LEADER: Mr P Bikaunieks (\$16 938)

EFFECTS OF FISHING**292* Reef survey of coral trout - report production**

PROJECT LEADER: Dr AM Ayling (Sea Research) (\$500)

358 The seasnake by-catch of the east coast prawn fishery. Development of a reliable age determination technique

PROJECT LEADER: Mr T Ward (Zoology, James Cook University)

SUPERVISOR: Dr H Marsh (\$nil)

381 Review of published and unpublished information on reef fishes of commercial and recreational fishing interest in the Great Barrier Reef Region

PROJECT LEADERS: Prof. JH Choat, Dr G Russ (James Cook University), Dr D Williams (Australian Institute of Marine Science) (\$nil)

444 Catch / effort study of Great Barrier Reef recreational fisheries - boat ramp survey

PROJECT LEADER: Dr T Hundloe (Griffith University) (\$nil)

528* Design of experimental management program to determine effects of fishing on the Great Barrier Reef

PROJECT LEADERS: Dr K Sainsbury (CSIRO), Prof. C Walters (Uni of British Columbia) (\$nil)

550 Commercial reef/line catch/effort program

PROJECT LEADER: Mr B Shorthouse (GBRMPA) (\$19 512)

661 Visual surveys on the Cairns cluster reefs and closed reefs that will be opened under the new Zoning Plan

PROJECT LEADERS: Dr AM Ayling and Dr AL Ayling (Sea Research) (\$23 389)

637 Effect of zoning changes on the fish populations of unexploited reefs: Stage I pre-opening assessment

PROJECT LEADERS: Dr I Brown (QDPI) (\$26 268)

638 Inter-reef movements of large reef fishes

PROJECT LEADER: Mr C Davies (James Cook University) (\$45 681)

641 Development of traps and drop-line sampling techniques for reef and inter-reef fishes

PROJECT LEADER: Dr D Williams (Australian Institute of Marine Science) (\$20 858)

644 The environmental effects of prawn trawling in the Far Northern Section of the Great Barrier Reef

PROJECT LEADERS: Dr I Poiner (CSIRO), Dr J Glaister (QDPI) (\$nil)

WATER QUALITY**342* Water quality and the effect of seasonal change - Trinity Inlet to Green Island**

PROJECT LEADER: Dr F Thomas, Assoc. Prof. D Yellowlees, Mr B Brady (Chemistry, James Cook University) (\$8500)

- 344 The importance of siltation and sedimentation resuspension on reefal development in the Whitsunday Islands area**
PROJECT LEADERS: Dr D Johnson, Mr S Blake (Geology, James Cook University) (\$nil)
- 422 Nitrogen and phosphorus budgets for Great Barrier Reef shelf waters - Palm Passage to Low Isles**
PROJECT LEADER: Dr M Furnas (Australian Institute of Marine Science) (\$18 000)
- 442 Assessment of the effects of the removal of a pontoon system supporting a large-scale tourist operation on the Barrier Reef - Agincourt Reef**
PROJECT LEADER: Ms AE Gibson (Reef Biosearch Pty Ltd) (\$nil)
- 480 Changes in seagrass distribution and abundance at Green Island**
PROJECT LEADERS: Mr W Lee Long, Mr M Potter (QDPI Cairns) (\$28 000)
- 485 Heron Island Groundwater Program**
PROJECT LEADERS: Dr A Krol, Dr P Bell (University of Queensland) (\$8250)
- 495 Shelf scale nutrient dynamics in Great Barrier Reef waters: regional variability, shelf-scale processes and water column cycling**
PROJECT LEADER: Dr M Furnas (Australian Institute of Marine Science) (\$90 000)
- 497 River inputs of nutrients to the Great Barrier Reef**
PROJECT LEADERS: Dr M Furnas, Dr A Mitchell (Australian Institute of Marine Science) (\$38 000)
- 526* Effects of Cyclone Joy - Keppel Island survey following Fitzroy floods**
PROJECT LEADER: Mr R van Woesik (Reefsearch) (\$1200)
- 532 Evaluation of the fate and effects of sewage discharge at Green Island**
PROJECT LEADERS: Mr A Steven, Mr R van Woesik (Sir George Fisher Centre, James Cook University) (\$32 000)
- 533* Reef Fertilisation Experiment Design**
PROJECT LEADERS: Mr J Brodie, Mr A Steven (\$500)
- 537 Validation of the 1928-29 phosphate and micro-phytoplankton data for Low Isles as a baseline for eutrophication in the Great Barrier Reef Lagoon**
PROJECT LEADERS: Dr P Bell, Mr I Elmetri (University of Queensland) (\$9500)
- 539 Response of inshore reefs to elevated nutrient input**
PROJECT LEADERS: Dr D Klumpp, Dr A Robertson, Dr D Alongi (Australian Institute of Marine Science) (\$nil)
- 541 Structure and dynamics of pelagic microbial food webs in tropical marine systems**
PROJECT LEADER: Dr T Ayukai (Australian Institute of Marine Science) (\$5000)
- 542 Nutrients from bird guano and local eutrophication on Heron Island**
PROJECT LEADER: Dr C Johnson (University of Queensland) (\$7000)
- 546 Sediment replication study - Low Isles**
PROJECT LEADER: Prof. D Hopley (\$2000)
- 553 Grant in aid towards a study of anthropogenic inputs to sediments over a Cairns - Green Island Transect**
PROJECT LEADER: Dr RB Johns (Melbourne University) (\$nil)
- 558 Response of fringing reefs along a gradient of riverine discharge - an examination of historic and contemporary processes**
PROJECT LEADERS: Mr R van Woesik (Reefsearch), Dr T Tomascik, Dr P Isdale (Australian Institute of Marine Science) (\$24 000)
- 565 Effects of experimentally enhanced nutrients on inshore seagrass beds in the Great Barrier Reef Region**
PROJECT LEADERS: Prof. H Marsh, Ms J Mellors (James Cook University) (\$nil)
- 574 An investigation of the spatial, temporal, and environmental interpretative properties of trace metals precipitated into coral skeletal material**
PROJECT LEADERS: Ms C Rasmussen, Prof. D Hopley, Dr C Cuff (James Cook University) (\$nil)
- 600 Nutrient and sedimentological analyses of water soil and sediment samples from north Queensland river estuaries (part of EARTHWATCH)**
PROJECT LEADERS: Dr A Arakel (Sydney Water Board), Dr T Loder (USA) (\$9500)
- 614 Effects of sediment related environmental parameters on fringing reefs**
PROJECT LEADERS: Dr M Stafford-Smith, Prof. JH Choat (James Cook University), Dr T Done (Australian Institute of Marine Science) (\$60 000)
- 672 An investigation of the role of sediment as a nutrient transport mechanism in estuarine and nearshore marine environments**
PROJECT LEADERS: Mr J Taylor, Dr C Cuff (James Cook University) (\$33 000)
- 673 Phosphorus dynamics of the Fitzroy River Estuary**
PROJECT LEADER: Dr TD Waite (Australian Nuclear Science and Technology Organisation) (\$30 000)
- 675 Historical fertiliser use in coastal Queensland**
PROJECT LEADER: Mr JG Pulsford (\$13 000)
- 678 One Tree Reef Fertilisation Experiment ENCORE**
PROJECTS LEADERS: GBRMPA, Sydney University, James Cook University, Australian Institute of Marine Science (\$11 803)

Fitzroy River flood follow up
PROJECT LEADERS: GBRMPA, Mapping and Monitoring Technology Pty Ltd (\$2303)

Downstream Effects of Agricultural Practices
PROJECT LEADER: GBRMPA (\$40 000)

Intercalibration of nutrient analyses
PROJECT LEADERS: Dr M Furnas (Australian Institute of Marine Science) Mr J Brodie (GBRMPA) (\$20 000)

HUMAN USE / SOCIAL IMPACT

434 Economic valuation of non-market goods: the contingent valuation method
PROJECT LEADER: Mr R Blamey (Griffith University) (\$nil)

457 Survey of the educational effectiveness of the Great Barrier Reef Aquarium
PROJECT LEADER: Ms G Moscardo (James Cook University) (\$nil)

522 Great Barrier Reef Recreation Experience Study (Lady Musgrave)
PROJECT LEADERS: Dr L Scherl, Dr R Schreyer, Mr P Valentine, Mr M Millard (\$21 048)

523* Traditional Marine Conservation Practices of Far Northern Section Communities
PROJECT LEADER: Dr D Smyth (Consultant) (\$12 500)

628 Social Impact Assessment: a limited literature review with general recommendations for implementing social impact assessment in the Great Barrier Reef Marine Park
PROJECT LEADER: Ms L Roughley (James Cook University) (\$3000)

633 Social survey to determine recreational visitor experience in the Whitsundays
PROJECT LEADER: Ms M Gooch (QDEH) (\$5000)

653 To investigate the social carrying capacity of Green Island
PROJECT LEADER: Ms N Beaumont (James Cook University) (\$1000)

MANAGEMENT STRATEGIES

Oil Spills

124* The effects of fuel oil, oil emulsifier and lowered salinity upon the common Indo-Pacific reef coral *Acropora formosa*
PROJECT LEADER: Dr P Harrison (Biological Sciences, James Cook University through Sir George Fisher Centre) (\$nil)

415 Draft production of oil slick identity pamphlet
PROJECT LEADER: Dr B Kettle (Marine Bio Logic) (\$nil)

436 Effects of oil and dispersants on Great Barrier Reef corals
PROJECT LEADER: Mr P Hough (Great Barrier Reef Aquarium) (\$nil)

Other

117 Australian Marine Research in Progress (MRIP)
PROJECT LEADER: Australian Institute of Marine Science, Great Barrier Reef Marine Park Authority, Victorian Institute of Marine Sciences, Information Services Unit (CSIRO) (\$18 540)

229 Information retrieval from remote weather stations on the Great Barrier Reef
PROJECT LEADER: Australian Institute of Marine Science (\$nil)

508 Preparation of workshops and other publications
PROJECT LEADER: Ms C Baldwin (Consultant) (\$nil)

635 Staff/researcher conference 1992
PROJECT LEADER: In house (\$2000)

***Raine Island and Environs Workshop**
PROJECT LEADER: Raine Island Corporation (\$2412)

DEVELOPER FUNDED MONITORING

392* Heron Island spoil dump - short term monitoring and environmental effects
PROJECT LEADERS: Dr J Jell, Dr M Gourlay (University of Queensland) (100% developer funded)

401* Baseline study and post-development survey for Daydream Island (Marina Development)
PROJECT LEADER: Mr D Fisk (Reef Research and Information Services) (100% developer funded)

404* Monitoring John Brewer Reef - floating hotel biological
PROJECT LEADER: Dr P Saenger (Northern Rivers College of Advanced Education), Prof. JH Choat (James Cook University) (100% developer funded)

406 Baseline study for Environmental Monitoring Program: Magnetic Quay Development - benthic communities, water quality turbidity / sediments
PROJECT LEADER: Marine Biology Department (James Cook University) (100% developer funded)

407 Biological calibration and construction - study for Environmental Monitoring Program: Magnetic Quay Development
PROJECT LEADER: James Cook University (100% developer funded)

408* Baseline environmental study and EMP: day trip pontoon Wistari Reef
PROJECT LEADER: Mr J Thorogood (Fisheries Research Consultants) (100% developer funded)

447 Ongoing biological monitoring John Brewer Reef: post hotel removal

PROJECT LEADER: Mr MI McCormick (James Cook University) (100% developer funded)

498* Wistari Reef Walkway Environmental Monitoring Program

PROJECT LEADER: Mr J Thorogood (Fisheries Research Consultants) (100% developer funded)

500 Moore Reef Tourist Development

PROJECT LEADER: Dr B Kettle (Marine Bio Logic) (100% developer funded)

502 Mariculture EMP Reefarm P/L Arlington Reef

PROJECT LEADER: Reefarm Pty Ltd (100% developer funded)

504 Water quality and sediment condition John Brewer Reef: post hotel removal

PROJECT LEADER: Dr G Jones (James Cook University) (100% developer funded)

391*, 506 Monitoring impact of dredge spoil dumping - Cairns Port Authority

PROJECT LEADER: Connell Wagner (100% developer funded)

507 Kelso Reef Pontoon Environmental Monitoring Program - baseline study

PROJECT LEADER: Dr B Kettle (Marine Bio Logic) (100% developer funded)

403*, 531 Cleveland Bay sediment movement study

PROJECT LEADERS: Dr E Wolanski (Australian Institute of Marine Science), Dr M Heron (James Cook University) (100% developer funded)

612 Ongoing monitoring of Daydream Island Marina

PROJECT LEADER: Mr R van Woesik (Reefsearch) (100% developer funded)

668 Arlington Reef Sunlover Pontoon Environmental Monitoring Program

PROJECT LEADER: Dr B Kettle (Sinclair Knight & Partners Pty Ltd) (100% developer funded)

CROWN-OF-THORNS STARFISH

272 Status of *Acanthaster planci* in the South Pacific and selected groups in the Indo-Pacific

PROJECT LEADER: Dr L Zann (GBRMPA) (\$nil)

280 Population dynamics of crown-of-thorns starfish on Suva Barrier Reef

PROJECT LEADER: Dr L Zann (GBRMPA) (\$1000)

322 Mainland run-off hypothesis (land use)

PROJECT LEADER: Prof. D Hopley, Mr P Valentine, Ms C Rasmussen (Sir George Fisher Centre for Tropical Marine Studies, James Cook University) (\$nil)

324 Crown-of-thorns starfish sighting survey

PROJECT LEADER: Dr B Lassig (GBRMPA) (\$nil)

326* COTS Booklet

PROJECT LEADER: Mr U Engelhardt (GBRMPA) (\$5080)

327 Use of infra red photography for monitoring effects of *Acanthaster planci* outbreaks

PROJECT LEADER: Prof. D Hopley (Sir George Fisher Centre for Tropical Marine Studies, James Cook University) (\$nil)

330* Abundance and distribution patterns of *Acanthaster planci* on the Great Barrier Reef

PROJECT LEADER: Dr AM Ayling (Sea Research) (\$500)

364* An interdisciplinary research and monitoring program to determine the consequences and possible causes of *Acanthaster planci* infestations at Green Island

PROJECT LEADER: Prof. JH Choat, Prof. D Hopley (Marine Biology and Sir George Fisher Centre for Tropical Marine Studies, James Cook University) (\$4387)

427* Search for evidence within subsurface sediments of the occurrence of previous aggregations of crown-of-thorns starfish on reefs of the Howick Group, northern Great Barrier Reef

PROJECT LEADER: Dr P Flood (University of New England), Dr E Frankel (University of Technology, Sydney) (\$nil)

429 Develop interactive crown-of-thorns display based on Apple Macintosh computer

PROJECT LEADER: Dr B Kettle (Marine BioLogic) (\$nil)

430 An integrated study of hard coral regeneration and juvenile crown-of-thorns starfish at Green Island

PROJECT LEADER: Mr D Fisk (Reef Research and Information Services) (\$6000)

431 The impact of the crown-of-thorns starfish *Acanthaster planci* on the community structure, demography and morphology of massive corals

PROJECT LEADER: Mr L DeVantier (Australian Institute of Marine Science) (\$4000)

470* Development of a robust method for determining the status of individual reefs with respect to outbreaks of crown-of-thorn starfish

PROJECT LEADER: Prof. HD Marsh, Ms L Fernandes (James Cook University), Dr P Moran (Australian Institute of Marine Science) (\$4000)

471 Modelling approach to hydrodynamics and the large-scale larval dispersal of *Acanthaster planci*

PROJECT LEADER: Dr L Bode, Mr I Dight, Dr MK James (James Cook University) (\$2000)

472 Modelling to assess the impact of predators on crown-of-thorns starfish populations

PROJECT LEADER: Dr H McCallum (University of Queensland), Dr R Bradbury (Australian Institute of Marine Science) (\$20 000)

475 The biology and ecology of the giant triton shell, *Charonia tritonis*, with particular reference to its role as a predator of the crown-of-thorns starfish

PROJECT LEADERS: Dr W Gladstone, Dr L Zann (GBRMPA) (\$nil)

476 Age determination in *Acanthaster planci*

PROJECT LEADER: Prof. J Lucas, Mr R Stump (James Cook University) (\$20 000)

477 Feeding studies on potential fish predators of post-settlement *Acanthaster planci*: A post-doctoral fellowship

PROJECT LEADER: Prof. JH Choat, Dr H Sweatman (James Cook University) (\$109 250)

478 COTSREC

PROJECT LEADER: COTSREC Committee (\$5000)

492 Assessment of the utility of *Linkia* to test connectedness of reefs with reference to *Acanthaster planci* dispersal

PROJECT LEADER: Dr J Benzie (Australian Institute of Marine Science) (\$5500)

534 *Acanthaster* feeding on coral reefs: the implications for bioerosion

PROJECT LEADER: Ms B Musso (Australian Institute of Marine Science) SUPERVISORS: Prof. JH Choat (James Cook University), Dr CR Wilkinson (Australian Institute of Marine Science) (\$18 000)

535 The physical oceanography of the Great Barrier Reef during and prior to crown-of-thorns starfish outbreaks

PROJECT LEADER: Dr K Black (Victorian Institute of Marine Science) (\$8500)

615 Starfish Larvae: Identification and capture

PROJECT LEADER: Ms K Roper (James Cook University) (\$5000)

616 The movement of actual starfish outbreaks during the 1980s - unification of the oceanography and biology

PROJECT LEADER: Dr K Black (VIMS) (\$40 000)

634* COTS Video

PROJECT LEADERS: Dr B Lassig (GBRMPA), Dr P Moran (Australian Institute of Marine Science) (\$7268)

Broad-scale surveys of the crown-of-thorns starfish and its effects on corals along the Great Barrier Reef

PROJECT LEADERS: Dr P Moran (Australian Institute of Marine Science), Dr B Lassig (GBRMPA) (\$233 425)

Investigation of the trophodynamic implications of crown-of-thorns outbreaks

PROJECT LEADERS: Dr D Klumpp, Mr T Hart (Australian Institute of Marine Science) (\$nil)

Analysis of coral colonies, populations, and communities: interpretation of outbreak history and projection of recovery

PROJECT LEADER: Dr TJ Done (Australian Institute of Marine Science) (\$nil)

A pilot study to assess the utility of mitochondrial DNA as a genetic marker in crown-of-thorns starfish (*Acanthaster planci*)

PROJECT LEADER: Dr J Benzie (Australian Institute of Marine Science) (\$nil)

*** Juvenile crown-of-thorns starfish surveys**

PROJECT LEADER: Dr P Moran (Australian Institute of Marine Science) (\$nil)

Reproductive biology of the crown-of-thorns starfish

PROJECT LEADER: Dr R Babcock (Australian Institute of Marine Science) (\$116 850)

Feeding ecology of early developmental stages of *Acanthaster planci*

PROJECT LEADER: Mr K Okaji (Australian Institute of Marine Science) (\$20 500)

Assessing the role of dissolved organic matter and bacteria in the nutrition and energetics of *Acanthaster planci*

PROJECT LEADER: Dr T Ayukai (Australian Institute of Marine Science) (\$19 840)

The role of predation in factors influencing the survival of small juvenile *Acanthaster planci* cultured in the laboratory

PROJECT LEADER: Dr J Keesing (Australian Institute of Marine Science) (\$94 800)

TORRES STRAIT BASELINE STUDY

A four year environmental study in the Torres Strait marine environment, funded by the Commonwealth Government. The study will determine the background levels of environmental parameters particularly heavy metals, in selected marine species and in sediments in the Torres Strait marine environment. It will assist in determining whether there is evidence of contamination from mining operations in the Fly River catchment area.

481 Torres Strait baseline scientific program coordination.

PROJECT LEADER: Dr D Lawrence (GBRMPA), Dr I Dight (James Cook University) (\$508 080)

STATE OF THE MARINE ENVIRONMENT REPORT

GBRMPA has been commissioned by DASET to undertake this component of the OR2000 program

State of the Marine Environment Report for Australia

PROJECT LEADERS: Dr L Zann, Ms E Eager
(GBRMFA) (\$13 069)

AUGMENTATIVE RESEARCH GRANTS SCHEME 1992

The Great Barrier Reef Marine Park Authority awarded 17 grants this year to students of subjects related to management of the Marine Park.

Use of a Geographical Information System to assess factors affecting the stability of coral cays

PROJECT LEADER: Mr J Aston
SUPERVISORS: Prof. D Hopley, Mr J Monaghan
(James Cook University) (\$850)

A comparative study of the planning and management systems used to regulate tourism in World Heritage Conservation Areas

PROJECT LEADER: Mr T Atherton
SUPERVISOR: Prof. J Wade (Bond University)
(\$1000)

Effect of heavy metals upon zooxanthellae in the Scleractinian coral, *Galaxea fadxicularis*

PROJECT LEADER: Mr S Ballestrin
SUPERVISOR: Dr AT Marshall (La Trobe University) (\$1000)

Interactions between piscivores and their prey

PROJECT LEADER: Mr S Connell
SUPERVISOR: Dr MJ Kingsford (University of Sydney) (\$1000)

Non-destructive assessment of *Drupella* abundance

PROJECT LEADER: Ms R Cumming
SUPERVISOR: Prof. JH Choat (James Cook University) (\$1296)

Analysis of the recreational demersal reef line fisheries logbook data

PROJECT LEADER: Mr J Higgs
SUPERVISOR: Dr G Russ (James Cook University)
(\$800)

The relationship between tourism operator profitability and the provision of interpretive activities

PROJECT LEADER: Ms K Howton
SUPERVISOR: Mr I Dutton (University of New England - Northern Rivers) (\$900)

The determination of the separability of coral reef environmental features using colour and colour infra-red aerial photography and image analysis

PROJECT LEADER: Mr C Linfoot
SUPERVISOR: Prof. D Hopley, Ms P Catt (James Cook University) (\$260)

The role of epifaunal crustaceans on *Sargassum* spp. growing on fringing reefs at Magnetic Island, Great Barrier Reef

PROJECT LEADER: Mr K Martin-Smith
SUPERVISOR: Prof. JH Choat (James Cook University) (\$500)

Analysis of the distribution and abundance of snappers (Pisces: Lutjanidae) across the continental shelf

PROJECT LEADER: Mr S Newman
SUPERVISOR: Dr G Russ (James Cook University)
(\$600)

Systematics and biogeography of the benthic octopus of the Great Barrier Reef

PROJECT LEADER: Mr M Norman
SUPERVISORS: Dr CC Lu, Dr G Watson (Museum of Victoria / University of Melbourne) (\$1000)

Population studies on juvenile *Trochus niloticus* (L)

PROJECT LEADER: Ms L Castell Perez
SUPERVISOR: Dr J Lucas (James Cook University)
(\$856)

Development of the 'elutriate' test for analysis of trace metal release from sediments during disturbance

PROJECT LEADER: Ms A Reichelt
SUPERVISOR: Dr G Jones (James Cook University)
(\$800)

The interaction of estuaries and nearshore habitats: Life cycles of recreationally and commercially important fishes

PROJECT LEADER: Mr M Sheaves
SUPERVISORS: Dr G Russ, Dr D Williams (James Cook University / Australian Institute of Marine Science) (\$1000)

Feeding ecology of coral trout, *Plectropomus leopardus* and *P. maculatus*

PROJECT LEADER: Ms J St John
SUPERVISORS: Dr G Russ, Dr H Sweatman (James Cook University) (\$600)

The effect of competition with macroalgae on Scleractinian corals

PROJECT LEADER: Mr J Tanner
SUPERVISOR: Dr T Hughes (James Cook University) (\$700)

The autecology of a symbiont-containing tropical sponge, *Sigmadocia symbiotica*

PROJECT LEADER: Ms D Trautman
SUPERVISOR: Dr M Borowitzka (Murdoch University) (\$1200)

APPENDIX G

ABBREVIATIONS

AAT	Administrative Appeals Tribunal
ADB	Asian Development Bank
AGPS	Australian Government Publishing Service
AIMS	Australian Institute of Marine Science
ALS	Australian Littoral Society
AMPTO	Association of Marine Park Tourism Operators
AMSAT	Australian Marine Science and Technology Ltd
ANPWS	Australian National Parks and Wildlife Service
APS	Australian Public Service
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DASET	Dept of the Arts, Sport, the Environment and Territories
DITAC	Department of Industry, Technology and Commerce
EEO	Equal Employment Opportunity
ERIN	Environmental Resource Information Service
FOI	Freedom of Information
GBR	Great Barrier Reef
GBRCC	Great Barrier Reef Consultative Committee
GBRMPA	Great Barrier Reef Marine Park Authority
GEMS	Global Environment Monitoring System
GRID	Global Resource Information Database
IDP	International Development Program
INTROMARC	International Tropical Marine Resource Centre
IUCN	International Union for the Conservation of Nature and Natural Resources
JCU	James Cook University of North Queensland
MESA	Marine Education Society of Australasia
MOU	Memorandum Of Understanding
OECD	Organisation for Economic Cooperation and Development
OR 2000	Ocean Rescue 2000 program
QBFP	Queensland Boating and Fisheries Patrol
QCFO	Queensland Commercial Fishermen's Organisation
QDEH	Queensland Department of Environment and Heritage
QDPI	Queensland Department of Primary Industries
QFMA	Queensland Fish Mangement Authority
SACRS	South Australian Centre for Remote Sensing
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organisation

APPENDIX H

MEMBERS OF ADVISORY COMMITTEES

CROWN-OF-THORNS STARFISH RESEARCH COMMITTEE (COTSREC)

Professor J M Swan (Chairperson)

Dr J T Baker *Director, Australian Institute of Marine Science*

Dr P J Moran *Australian Institute of Marine Science*

Mr G Kelleher *Chairman, Great Barrier Reef Marine Park Authority*

Dr B R Lassig (Program Coordinator) *Great Barrier Reef Marine Park Authority*

Professor R M Golding *Vice-Chancellor, James Cook University of North Queensland*

Mr R Pearson *Queensland Department of Primary Industries*

Dr K Sainsbury *Commonwealth Scientific and Industrial Research Organisation*

Professor P J Davies *The University of Sydney*

ADVISORY COMMITTEE ON RESEARCH INTO THE EFFECTS OF FISHING IN THE GREAT BARRIER REEF REGION

Dr D W Kinsey (Chairperson) *Great Barrier Reef Marine Park Authority*

Dr B Pollock *Queensland Department of Primary Industries*

Mr R Pearson *Queensland Department of Primary Industries*

Mr L Gwynne *Queensland Fish Management Authority*

Mr T Loveday *Queensland Commercial Fishermen's Organisation*

Dr B Hill *Commonwealth Scientific and Industrial Research Organisation*

Mr D Perkins *Queensland Department of Environment and Heritage*

Dr M Pichon *Australian Institute of Marine Science*

Mr D Griffith *Queensland Sport and Recreational Fishing Council*

Mr S Woodley (Secretariat) *Great Barrier Reef Marine Park Authority*

Dr B Mapstone (Program Coordinator) *Great Barrier Reef Marine Park Authority*

TORRES STRAIT BASELINE STUDY ADVISORY COMMITTEE

Mr S Woodley (Chairperson) *Great Barrier Reef Marine Park Authority*
Dr D Lawrence (Program Coordinator) *Great Barrier Reef Marine Park Authority*
Dr I Dight (Scientific Adviser) *James Cook University of North Queensland*
Mr J Brodie *Great Barrier Reef Marine Park Authority*
Mr G Rayment *Queensland Department of Primary Industries*
Dr I Poiner *Commonwealth Scientific and Industrial Research Organisation*
Dr F Ziolkowski *Department of the Arts, Sport, the Environment and Territories*
Dr D Staples *Bureau of Rural Resources*
Mr T Waia *Island Coordinating Council/Saibai Island Community Council*
Mr C Ross *Porgera Joint Venture*
Dr R Higgins *Ok Tedi Mining Ltd (part-time)*
Mr M Eagle *Ok Tedi Mining Ltd (part-time)*
Dr M Sullivan *North Australia Research Unit*
Mr R Pearson *Queensland Department of Primary Industries*
Dr D Waite *Australian Nuclear Science and Technology Organisation*
Dr R Coles *Australian Fisheries Management Authority*
Dr E Wolanski *Australian Institute of Marine Science*
Dr A Robertson *Australian Institute of Marine Science*
Dr D Connell *Queensland Government Chemical Laboratory*
Mrs L Kesu *Papua New Guinea Department of Environment and Conservation*
Mr M Kennedy *Papua New Guinea Department of Minerals and Energy*

MONITORING ADVISORY COMMITTEE

Dr D W Kinsey (Chairperson) *Great Barrier Reef Marine Park Authority*
Dr J T Baker *Australian Institute of Marine Science*
Dr J Oliver (Program Coordinator) *Great Barrier Reef Marine Park Authority*
Dr P Moran *Australian Institute of Marine Science*
Mr L Gwynne *Queensland Fisheries Management Authority*
Mr G Rayment *Queensland Department of Primary Industries*
Mr D Perkins *Queensland Department of Environment and Heritage*
Professor J H Choat *James Cook University of North Queensland*
Mr M Doohan *Queensland Commercial Fishermen's Organisation*
Mr D Griffith *Queensland Sport and Recreational Fishing Council*
Dr T Ward *Commonwealth Scientific and Industrial Research Organisation*

Mr E Hegerl *Australian Littoral Society*
 Mr B Derrick *Queensland Tourism and Travel Corporation*
 Mr I Ballantyne *Canegrowers Association*
 Mr K Nielson *Association of Marine Park Tourist Operators*

WATER QUALITY TECHNICAL ADVISORY PANEL

Dr D W Kinsey (Chairperson) *Great Barrier Reef Marine Park Authority*
 Dr P Bell *Department of Chemical Engineering, University of Queensland*
 Mr J Brodie (Program Coordinator) *Great Barrier Reef Marine Park Authority*
 Dr D W Connell *Queensland Government Chemical Laboratory*
 Dr M Furnas *Australian Institute of Marine Science*
 Professor J Coll *University of Central Queensland*
 Dr T Done *Australian Institute of Marine Science*
 Professor D Hopley *James Cook University of North Queensland*
 Dr T Hughes *James Cook University of North Queensland*
 Associate Professor A W D Larkum *The University of Sydney*
 Mr A Moss *Queensland Department of Environment and Heritage*
 Mr T Walker *Queensland Department of Environment and Heritage*
 Mr G Rayment *Queensland Department of Primary Industries*
 Dr A Robertson *Australian Institute of Marine Science*
 Dr K Smettem *Commonwealth Scientific and Industrial Research Organisation*
 Dr T Ward *Commonwealth Scientific and Industrial Research Organisation*
 Associate Professor D Yellowlees *James Cook University of North Queensland*

MEMBERS OF GREAT BARRIER REEF AQUARIUM ADVISORY BOARD

Mr John Lyons (Chairman) *John A Lyons and Co. Chartered Accountants*
 Mr Michael Gleeson *Townsville Enterprise Ltd*
 Mrs Lindsay Plante *Commercial Studies Centre*
 Professor R E Jones *James Cook University of North Queensland*
 Mr Mike Reynolds *Townsville Port Authority*
 Mr Geoff Pickering *Geoff Pickering Motors*
 Mr Gerald Theron *Sheraton Breakwater Casino Hotel*
 Mr Richard Power *QTV*
 Alderman Tony Mooney *Mayor of Townsville*
 Dr J T Baker *Australian Institute of Marine Science*
 Mr Ian Burston *Great Barrier Reef Aquarium*
 Mr David Lloyd *Great Barrier Reef Aquarium*

APPENDIX I

REPRESENTATION ON EXTERNAL COMMITTEES

Australian Committee of the International Union for the Conservation of Nature and Natural Resources (ACIUCN) (Caring for the Earth program), Working Party - Ray Neale

Australian Committee of the International Union for the Conservation of Nature and Natural Resources (ACIUCN), Marine Subcommittee - Wendy Craik

Astrolabe Inc, Board of Advisers - Don Kinsey (Member)

Cairns Port Technical Advisory Committee - Wendy Craik (Chair)/Steve Raaymakers

Cape York Peninsula Land Use Study - Peter McGinnity

Commonwealth Inter-departmental Committee (IDC) - Peter McGinnity

Downstream Effects of Agricultural Practices (DEAP) - Don Kinsey

Downstream Effects of Agricultural Practices - Jon Brodie

East Coast Tuna Management Advisory Committee - Wendy Craik/Allan Williams

Editorial Board 'Australian Journal of Tourism Studies' - Don Kinsey

Editorial Board 'Coral Reefs' - Don Kinsey

Institute for Tropical Rainforest Studies, Advisory Committee - Don Kinsey

Integrated Catchment Management - Wendy Craik

Johnstone River Integrated Catchment Advisory Committee - Jon Brodie

Monitoring Advisory Committee (AIMS, GBRMPA) - Don Kinsey (Chair)

Museums Advisory Board of North Queensland - Ray Neale

National Centre for Tropical Rainforest Studies, Management Board - Don Kinsey

Pacific Congress on Marine Science and Technology Board of Directors - Don Kinsey

Queensland State Oil Pollution Committee - Wendy Craik/Steve Raaymakers

Raine Island Scientific Advisory Committee - Simon Woodley

Sir George Fisher Centre Advisory Committee - Don Kinsey

Torres Strait Environment Management Committee - David Lawrence

Torres Strait Fisheries Scientific Advisory Committee - Simon Woodley

Torres Strait Joint Advisory Committee - David Lawrence

Townsville Port Technical Advisory Committee Simon Woodley/Christine Schweizer/Steve Raaymakers

Trinity Inlet Management Committee - Allan Williams

Wet Tropics Management Authority Scientific Advisory Committee - Lea Scherl

APPENDIX J

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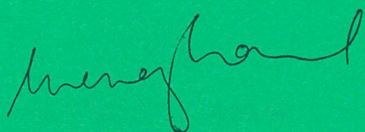
APPENDIX K FINANCIAL STATEMENTS

GREAT BARRIER REEF MARINE PARK AUTHORITY

Financial Statements for the Year Ended 30 June 1992

In our opinion, the accompanying Operating Statement, Statement of Financial Position and Statement of Cash Flows, have been prepared in accordance with the 'Guidelines for Financial Statements of Public Authorities and Commercial Activities' approved by the Minister for Finance, applicable accounting concepts and standards, and show fairly

- (a) the operating result of the Authority for the financial year ended 30 June 1992,
- (b) the financial position of the Authority as at 30 June 1992, and
- (c) the Authority's cash flows during the financial year ended 30 June 1992.



WENDY CRAIK
Executive Officer
14/10/92



GRAEME KELLEHER
Chairman
14/10/92

GREAT BARRIER REEF MARINE PARK AUTHORITY
OPERATING STATEMENT FOR YEAR ENDED 30 June 1992

	Notes	1991-92 \$	1990-91 \$
COST OF SERVICES			
Operating expenses			
before abnormal items			
Research and Monitoring		3,374,853	2,449,254
Planning and Management		1,286,439	1,537,931
Education/Information		1,426,644	1,300,518
Great Barrier Reef Aquarium	4(c)	2,014,454	1,843,806
Environmental Impact			
Management		1,851,940	1,002,275
External Services		419,042	45,345
Corporate Management			
and Services	5	2,062,052	1,683,063
Unfunded charges	4(d), 8	972,186	833,912
Payments to Queensland for			
day-to-day management	2	6,693,194	5,614,942
Total operating expenses			
before abnormal items	6	<u>20,100,804</u>	<u>16,311,046</u>
Operating revenues from independent sources			
before abnormal items			
Payments from Queensland for			
day-to-day management	2(a)(c)	3,038,000	2,586,000
Great Barrier Reef Aquarium	4(a)	1,615,793	1,611,228
Miscellaneous Revenue	3(b)	2,322,583	1,198,077
Total operating revenues from independent sources			
before abnormal items		<u>6,976,376</u>	<u>5,395,305</u>
Net cost of services before abnormal items		<u>13,124,428</u>	<u>10,915,741</u>
REVENUE FROM GOVERNMENT			
Parliamentary appropriations	3(a)	14,125,000	10,164,000
Total revenue from government		<u>14,125,000</u>	<u>10,164,000</u>
Operating result before abnormal items		1,000,572	(751,741)
Abnormal items	7	-	267,338
Operating result		1,000,572	(1,019,079)
Accumulated results of operations			
at beginning of financial year		(1,942,852)	(923,773)
Accumulated results of operations at end			
of financial year		<u>(942,280)</u>	<u>(1,942,852)</u>

The accompanying notes form an integral part of these financial statements.

GREAT BARRIER REEF MARINE PARK AUTHORITY
STATEMENT OF FINANCIAL POSITION AS AT 30 June 1992

	Notes	1991-92 \$	1990-91 \$
CURRENT ASSETS			
Cash	9	3,937,266	2,082,532
Receivables	11	158,735	140,601
Inventories	1(f)	103,612	71,489
Other		40,663	35,937
Total current assets		<u>4,240,276</u>	<u>2,330,559</u>
NON-CURRENT ASSETS			
Property, plant and equipment	10	8,051,859	8,366,103
Total non-current assets		<u>8,051,859</u>	<u>8,366,103</u>
Total assets		<u>12,292,135</u>	<u>10,696,662</u>
CURRENT LIABILITIES			
Creditors		561,624	422,552
Provisions	12	670,723	542,991
Other	13,14	429,232	122,500
Total current liabilities		<u>1,661,579</u>	<u>1,088,043</u>
NON-CURRENT LIABILITIES			
Provisions	12	736,970	625,389
Other	13,14	1,355,835	1,446,051
Total non-current liabilities		<u>2,092,805</u>	<u>2,071,440</u>
Total liabilities		<u>3,754,384</u>	<u>3,159,483</u>
Net assets		<u>8,537,751</u>	<u>7,537,179</u>
EQUITY			
Capital		1,103,988	1,103,988
Reserves		8,376,043	8,376,043
Accumulated deficits		(942,280)	(1,942,852)
Total equity		<u>8,537,751</u>	<u>7,537,179</u>

The accompanying notes form an integral part of these financial statements.

GREAT BARRIER REEF MARINE PARK AUTHORITY
STATEMENT OF CASH FLOWS FOR YEAR ENDED 30 June 1992

	Notes	1991-92 \$	1990-91 \$
CASH FLOWS FROM OPERATING ACTIVITIES			
Inflows:			
Industry / DASET funded projects		1,001,019	443,408
Permit assessment fees		106,190	129,335
Interest		313,829	382,301
Aquarium admission fees		1,325,389	1,321,134
Payments from Queensland for day-to-day management		3,038,000	2,586,000
Other		1,099,881	762,665
Outflows:			
Salaries		(4,531,379)	(3,958,677)
Suppliers		(7,396,619)	(5,981,235)
Payments to Queensland for day-to-day management		(6,693,194)	(5,614,942)
Net cash used by operating activities	22(b)	<u>(11,736,884)</u>	<u>(9,930,011)</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Inflows:			
Proceeds from sale of plant & equipment		26,736	12,338
Outflows:			
Payments for purchase of plant & equipment		(560,118)	(361,582)
Net cash used in investing activities		<u>(533,382)</u>	<u>(349,244)</u>
CASH FLOWS FROM GOVERNMENT			
Inflows:			
Appropriation		14,125,000	10,164,000
Net cash provided by government		<u>14,125,000</u>	<u>10,164,000</u>
Net increase in cash held		1,854,734	(115,255)
Cash at beginning of reporting period		<u>2,082,532</u>	<u>2,197,787</u>
Cash at end of reporting period	22(a)	<u>3,937,266</u>	<u>2,082,532</u>

The accompanying notes form an integral part of these financial statements.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 1992

1. ACCOUNTING POLICIES

The following accounting policies have been adopted in the preparation of the accounts.

(a) Accounts Format

The accounts of the Authority have been prepared in accordance with:

- the 'Guidelines for Financial Statements of Public Authorities and Commercial Activities', issued by the Minister for Finance in February 1992; and
- applicable accounting concepts and standards.

(b) Historical Cost Convention

These accounts have been prepared on the basis of the historical cost convention and except where stated do not show the current cost of specific assets and the impact of such costs on operating results.

(c) Non-current Assets

Capitalisation occurs on all items which cost more than \$1,500. Non-current assets are depreciated by the straight line method over their estimated useful lives.

An exemption from the requirement to apply the recoverable amount test of AAS10 has been given by the delegate of the Minister for Finance to not-for-profit entities. Accordingly, the recoverable amount test as set out in AAS10 has not been applied to the valuation of non-current assets, as the Authority is a not-for-profit entity. The service potential of those assets is primarily related to the provision of services rather than the generation of cash flows.

Great Barrier Reef Aquarium -

The Great Barrier Reef Aquarium building was funded as a Commonwealth-State Bicentennial project, through the Great Barrier Reef Wonderland Association Incorporated. The Aquarium is sub-leased by the Authority from the Association for a period of 75 years. Under the terms of the sub-lease agreement the Authority is responsible for the replacement of the Aquarium building as necessary and for all expenses and revenue in relation to its operation. Consequently, the value of the Aquarium building has been taken up as an asset in the Authority's accounts and is being amortised over 25 years, which is the estimated useful life of the building.

The base stock of audio visual displays at the Great Barrier Reef Aquarium and the base stock of marine life, sand, coral and water in the Aquarium have been included under non-current assets as a non-depreciable item. Stock replacement costs are treated as operating expenses.

(d) Advances to Consultants

Under the terms of certain contracts with consultants, payments are made in advance. Expenditure on assets which, under the terms of the contract, become the property of the Authority from the date of acquisition is fully expensed in the year of payment. On completion of the contract, such assets are brought on charge by the Authority at that time, at their written down value and depreciated over their remaining useful life.

(e) Day-to-day Management Advances

Except for expenditure on fixtures upon land owned by or under the direct control of the Commonwealth or the Authority, advances to the Queensland Department of Environment and Heritage for day-to-day management are

fully expensed in the year of payment (refer to Note 2 for details of the day-to-day management item).

(f) Stock on Hand

Goods for resale have been valued at the lower of cost and net realizable value.

(g) Provision for Long Service Leave

Provision has been made for pro-rata entitlements of all staff who have at least five years eligible service at balance date. The current liability represents the estimated value of long service leave that is proposed to be taken by staff during the succeeding year.

(h) Superannuation

Staff of the Authority are employed under the Public Service Act and prior to 1988-89 there had been no obligation in respect of employer contributions to the Commonwealth Superannuation Scheme. However, as the Authority is required to manage the Great Barrier Reef Aquarium on a cost recovery basis, employer superannuation contributions for Aquarium employees became payable from 1 July 1988.

2. DAY-TO-DAY MANAGEMENT OF THE GREAT BARRIER REEF MARINE PARK

(a) Principles agreed between the Commonwealth and Queensland Governments relating to the day-to-day management of the Great Barrier Reef Marine Park provide for:

- the Queensland Department of Environment and Heritage (QDEH) to carry out the day-to-day management of the Great Barrier Reef Marine Park, subject to the Authority in accordance with inter-governmental agreements.
- the Commonwealth to fund 100% of an initial capital works program (in the first three years or so) required to establish management of the Great Barrier Reef Marine Park on a sound basis; other capital costs (i.e. the post-initial program) of day-to-day management of the Great Barrier Reef Marine Park to be shared equally between the two Governments
- the Commonwealth and Queensland to meet in equal shares the recurrent costs for day-to-day management in relation to the Great Barrier Reef Marine Park (which may include Queensland national parks or Queensland marine parks, the use or management of which would or might affect the Great Barrier Reef Marine Park)
- moveable property funded pursuant to the arrangements to be used and administered by Queensland; proceeds from the sale of any such moveable property are paid into the day-to-day management account to offset Commonwealth/Queensland contributions on a 50:50 basis
- fixed assets funded pursuant to the arrangements to be used by Queensland and administered by the Government (or the Authority) which owns or controls the land on which the fixture is located
- expenditure on day-to-day management to be in accordance with an annually agreed program, and
- the Authority to administer funds provided by the Commonwealth and Queensland for these purposes.

(b) The Commonwealth appropriation for day-to-day management was made up of:

	1991-92	1990-91
	\$	\$
(i) Recurrent and Post-Initial Capital Programs	2,954,141	2,630,000
(ii) Initial Capital Works	<u>566,859</u>	<u>554,000</u>
	<u>3,521,000</u>	<u>3,184,000</u>

(c) The total Queensland contribution to day-to-day management was \$3,038,000 in 1991-92 compared with \$2,586,000 in 1990-91.

(d) Financial statements for day-to-day management which have been prepared by QDEH and audited by the Queensland Auditor-General are at Note 23.

3. REVENUE

(a) Parliamentary appropriations comprised the following:

	1991-92	1990-91
	\$	\$
Operational	10,604,000	6,980,000
Commonwealth contribution to day-to-day management	<u>3,521,000</u>	<u>3,184,000</u>
	<u>14,125,000</u>	<u>10,164,000</u>

Refer to Notes 2(a) and 2(b) for additional detail on Commonwealth contribution to day-to-day management.

(b) Miscellaneous revenue comprised the following:

	1991-92	1990-91
	\$	\$
Implementation of DASET funded programs	617,000	-
United Nations Environment Program funds	136,538	-
Monies for industry funded monitoring and baseline studies	636,332	414,140
Sale of Authority education and information materials	79,258	67,821
Interest	270,419	245,940
Permit assessment fees	106,190	129,335
Payments from QDEH: refer note 2(a)		
for - sale of moveables	114,462	203,553
- other receipts	180,000	14,052
Revenue from other miscellaneous sources	<u>182,384</u>	<u>123,236</u>
	<u>2,322,583</u>	<u>1,198,077</u>

Obligations to the Department of Finance in relation to employer superannuation contributions for the Great Barrier Reef Aquarium and the repayment of establishment costs are initially met by an offset from Authority appropriations. No establishment cost repayment was due in 1991-92 (refer Note 15) and recovery of 1991-92 GBR Aquarium superannuation contributions was not sought by the Authority.

4. AQUARIUM REVENUE AND EXPENSES

(a) Revenue of the Aquarium comprised the following:

	1991-92	1990-91
	\$	\$
Admission fees	1,325,410	1,307,254
Donations and sponsorships	57,249	2,321
Membership program	37,645	13,346
Interest	49,954	125,141
Other revenue	34,631	51,850
	<u>1,504,889</u>	<u>1,499,912</u>
Shop Sales	228,751	251,461
Less: Cost of goods sold	refer note 4(b) <u>117,847</u>	<u>140,145</u>
Gross profit from shop trading	<u>110,904</u>	<u>111,316</u>
Total Aquarium Revenue	<u>1,615,793</u>	<u>1,611,228</u>

(b) This item represents the cost of goods sold through the Great Barrier Reef Aquarium Shop as follows:

	1991-92	1990-91
	\$	\$
Opening Stock	71,489	69,872
Purchases	149,970	141,762
Less: Closing Stock	<u>103,612</u>	<u>71,489</u>
	<u>117,847</u>	<u>140,145</u>

(c) Expenses of the Aquarium comprised the following:

	1991-92	1990-91
	\$	\$
Curatorial Operations	92,561	75,424
Interpretative Facilities	39,908	37,078
Marketing/Promotions	166,747	126,615
Shop Management & Services	72,077	66,522
Repairs and Maintenance	81,775	67,676
Administrative Services		
- salaries and allowances	887,979	810,647
- property services	364,755	353,711
- general services	133,921	124,847
Interest	160,422	170,053
Bad debts written off	651	239
Loss on sale of non-current assets	13,658	10,994
Total Operating Expenses	<u>2,014,454</u>	<u>1,843,806</u>

(d) Unfunded charges of the Aquarium comprised the following:

	1991-92	1990-91
	\$	\$
Depreciation of property, plant & equipment	refer note 1(c) <u>416,275</u>	<u>423,259</u>
Staff provisions	<u>57,047</u>	<u>20,274</u>
Total unfunded charges	<u>473,322</u>	<u>443,533</u>
Total Aquarium Expenses	<u>2,487,776</u>	<u>2,287,339</u>
Result from Aquarium operations	<u>(871,983)</u>	<u>(676,111)</u>

This result excludes reimbursement of the 1991-92 GBR Aquarium superannuation contributions not sought by the Authority, (estimated at \$85,000).

5. CORPORATE MANAGEMENT AND SERVICES

Corporate management and services comprised the following:

	1991-92	1990-91
	\$	\$
Expenses of the Authority	191,787	192,867
Expenses of the Great Barrier Reef Consultative Committee	40,615	45,630
Executive and Secretariat Administration	1,029,307	630,263
	<u>800,343</u>	<u>814,303</u>
	<u>2,062,052</u>	<u>1,683,063</u>

The item "Expenses of the Authority" includes remunerations paid in accordance with the Remuneration Tribunal Determination to:

	1991-92	1990-91
	\$	\$
Chairman	81,473	80,303
Part-time members	18,644	17,429

The item "Expenses of the Great Barrier Reef Consultative Committee" includes sitting fees paid to part-time members in accordance with the Remuneration Tribunal Determination. In 1991-92 payments totalled \$13,401 compared with \$10,721 in 1990-91.

The item "Administration" includes the following:

	1991-92	1990-91
	\$	\$
Bad debts written off	1,427	613
Net loss on disposal of non-current assets	101,090	8,341
Auditor's remuneration - auditing the accounts of the Authority (no other services were provided)	<u>48,000</u>	<u>-</u>
	<u>150,517</u>	<u>8,954</u>

6. TOTAL OPERATING EXPENSE BEFORE ABNORMAL ITEMS

Included in total operating expense before abnormal items are the following salaries and wages costs:

	1991-92	1990-91
	\$	\$
Great Barrier Reef Aquarium		
- Administrative Services	887,979	810,647
- Aquarium Shop	68,514	48,989
Other Authority Operations	<u>3,660,189</u>	<u>3,053,393</u>
	<u>4,616,682</u>	<u>3,913,029</u>

7. ABNORMAL ITEMS

Abnormal items comprise the following:

	1991-92	1990-91
	\$	\$
Write off previously capitalised items:		
- less than \$1,500 cost value	-	235,213
- held by outside organisations	-	<u>32,125</u>
	-	<u>267,338</u>

8. UNFUNDED CHARGES

The aggregate amount of unfunded charges of the Authority comprised the following:

		1991-92	1990-91
		\$	\$
Depreciation of property, plant & equipment	refer note 1(c)	732,872	699,245
Long service leave		133,397	44,999
Annual leave		96,903	95,116
Leave fares		9,014	(5,448)
		<u>972,186</u>	<u>833,912</u>

9. CASH

Cash held at 30 June comprised the following:

	1991-92	1990-91
	\$	\$
Authority Operations Account	2,610,748	622,431
Great Barrier Reef Aquarium Account	372,413	722,417
Day-to-day Management Account	945,542	725,354
Cash on hand	8,563	12,330
	<u>3,937,266</u>	<u>2,082,532</u>

10. PROPERTY, PLANT AND EQUIPMENT

	Cost		Accumulated Depreciation		Written Down Value	
	1991-92	1990-91	1991-92	1990-91	1991-92	1990-91
	\$	\$	\$	\$	\$	\$
Furniture, fittings & displays	262,852	231,902	85,385	70,800	177,467	161,102
Office machines	163,474	161,150	137,411	116,734	26,063	44,416
Audiovisual & photographic	293,264	273,014	61,823	48,052	231,441	224,962
Marine & diving	27,622	24,522	18,949	15,366	8,673	9,156
Computer hardware	1,277,021	1,106,824	613,262	477,035	663,759	629,789
Computer software	163,017	277,886	53,238	115,821	109,779	162,065
Scientific & technical	96,154	70,502	45,878	37,155	50,276	33,347
Vehicles & mobile plant	75,080	75,306	27,357	29,384	47,723	45,922
Other plant & equipment	520,888	512,868	149,066	118,526	371,822	394,342
Aquarium contents	346,093	343,576	-	-	346,093	343,576
Improvements to leasehold property						
- Fixtures & fittings	309,030	292,917	58,394	45,153	250,636	247,764
- Aquarium building	7,550,538	7,512,831	1,782,411	1,443,169	5,768,127	6,069,662
Total	<u>11,085,033</u>	<u>10,883,298</u>	<u>3,033,174</u>	<u>2,517,195</u>	<u>8,051,859</u>	<u>8,366,103</u>

11. RECEIVABLES

	1991-92	1990-91
	\$	\$
Debtors	158,735	140,601
Less: Provision for doubtful debts	-	-
	<u>158,735</u>	<u>140,601</u>

12. PROVISIONS

Additional detail relating to provisions is as follows:

		1991-92	1990-91
		\$	\$
Current liabilities			
Provision for long service leave	refer note 1(g)	21,815	-
Provision for annual leave		590,339	493,436
Provision for leave fares		<u>58,569</u>	<u>49,555</u>
		<u>670,723</u>	<u>542,991</u>
Non-current liabilities			
Provision for long service leave	refer note 1(g)	<u>736,970</u>	<u>625,389</u>
		<u>736,970</u>	<u>625,389</u>

13. CURRENT AND NON-CURRENT LIABILITIES - OTHER

Included in the item "Other" are the following amounts:

		1991-92	1990-91
		\$	\$
Current liabilities			
Advances from Dept of Finance and accrued interest	refer note 15	245,960	-
Other current liabilities		<u>183,272</u>	<u>122,500</u>
		<u>429,232</u>	<u>122,500</u>
Non-current liabilities			
Advances from Dept of Finance and accrued interest	refer note 15	1,354,515	1,440,053
Other non-current liabilities		<u>1,320</u>	<u>5,998</u>
		<u>1,355,835</u>	<u>1,446,051</u>

14. HIRE PURCHASE AGREEMENT - AQUARIUM

Included in the totals for 'Other' Current and Non-current Liabilities are amounts payable under a hire purchase agreement entered into by the Aquarium. The amounts payable are as follows:

	1991-92	1990-91
	\$	\$
Current Liabilities	4,678	3,846
Non-current Liabilities	<u>1,320</u>	<u>5,998</u>
	<u>5,998</u>	<u>9,844</u>

15. REPAYMENT OF ADVANCES FROM DEPARTMENT OF FINANCE

The Department of Finance has determined that funds appropriated for the purposes of the Great Barrier Reef Aquarium are repayable advances. The GBR Aquarium has received two such advances:

- \$450,000 in 1986-87 for establishment costs; and
- \$1,000,000 in 1989-90.

The advances are being repaid in the form of instalments deducted from Authority appropriation and made up from GBR Aquarium revenue. Interest on the outstanding principal is charged at the long term bond rate and has been capitalised.

Scheduled repayments in respect of the establishment costs advance were made in 1988-89 and in 1989-90. The repayments for remaining balance of the establishment costs advance together with the other advance in 1989-90 were consolidated and scheduled to be repaid over a period of ten years. The first repayment is due to be made in the 1992-93 financial year.

16. TRUST MONEY

GREAT BARRIER REEF MARINE PARK AUTHORITY TRUST MONEYS Statement of Receipts and Payments for the year ended 30 June 1992

		1991-92
		\$
Cash at bank 1 July 1991		94,157
RECEIPTS		
Cash Bonds in lieu of bank guarantees	97,900	
Interest	<u>6,945</u>	<u>104,845</u>
TOTAL		<u>199,002</u>
PAYMENTS		
Payment under bank guarantee		57,900
Cash at bank 30 June 1992		<u>141,102</u>
TOTAL		<u>199,002</u>

17. INSURANCE

The Authority has a policy of self-insurance for its general operations but has commercial insurance cover for the operation of the Great Barrier Reef Aquarium.

18. LEASES

(a) The aggregate amount of operating leases contracted for and outstanding as at 30 June 1992 is \$2,504,855. These leases are for office accommodation and the discharge will be:

	1991-92	1990-91
	\$	\$
Within one year	515,971	465,202
In the second year	515,971	433,324
Within a three to five year period	1,472,913	1,299,972
Later than five years	<u>-</u>	<u>433,324</u>
	<u>2,504,855</u>	<u>2,631,822</u>

(b) The Authority sub-leases the Great Barrier Reef Aquarium building from the Great Barrier Reef Wonderland Association Incorporated for a nominal amount payable if demanded.

19. COMMITMENTS FOR CAPITAL EXPENDITURE

The Authority has outstanding commitments for capital expenditure totalling \$15,605 as at 30 June 1992, (1990-91 Nil). The full amount is payable within a period of not later than one year.

20. RESOURCES PROVIDED FREE OF CHARGE TO THE AUTHORITY

The following resources were provided free of charge to the Authority and accordingly are not reflected as expenses in the Operating Statement:

	1991-92	1990-91
	\$	\$
(a) External audit services (the Australian National Audit Office)	-	36,000
(b) Legal services (the Australian Government Solicitor)	156,000	-
(c) Coastal Surveillance	712,000	680,960

21. CONTINGENT LIABILITIES

The Authority is unaware of any contingent liability existing as at 30 June 1992.

22. NOTES TO THE STATEMENT OF CASH FLOWS

(a) Reconciliation of cash

For the purposes of the statement of cash flows, the Authority considers cash to include cash on hand and in banks. Cash at the end of the reporting period as shown in the statement of cash flows has been reconciled to the related items in the statement of financial position and is shown at note 9.

(b) Reconciliation of Net cash used by operating activities to Operating result.

	1991-92	1990-91
	\$	\$
Operating result	1,000,572	(1,019,079)
Appropriation	(14,125,000)	(10,164,000)
Depreciation	732,872	699,245
Bad debts	2,078	852
Loss on disposal of non-current assets	114,748	19,335
Abnormal items	-	267,338
Increase/Decrease in Receivables	(20,212)	175,044
Increase/Decrease in Inventories	(32,123)	(1,617)
Increase/Decrease in Other Assets	(4,726)	(25,484)
Increase/Decrease in Creditors	139,078	(111,991)
Increase/Decrease in Provisions	239,313	134,668
Increase/Decrease in Other Liabilities	216,516	95,678
Net cash used by operating activities	<u>(11,736,884)</u>	<u>(9,930,011)</u>

23. QUEENSLAND DEPARTMENT OF ENVIRONMENT AND HERITAGE
GREAT BARRIER REEF MARINE PARK
STATEMENT OF RECEIPTS AND PAYMENTS FOR THE
YEAR ENDED 30 JUNE 1992

1990-91		1991-92	
\$		\$	\$
	The balance at 1 July comprised -		
	Recurrent Costs		
34,291	Salaries and Wages	58,645	
35,622	Operating Costs	(18,027)	
	Capital Works and Services		
210,850	Initial Program	239,137	
317,023	Post Initial Program	102,761	
-	Balance of proceeds from sale of Moveables	<u>11,112</u>	
<u>597,786</u>			<u>393,628</u>
	Receipts for the year were -		
	Recurrent Costs		
2,344,835	Salaries and Wages	3,517,342	
2,525,445	Operating Costs	2,341,411	
	Capital Works and Services		
317,844	Initial Program	223,194	
426,818	Post Initial Program	611,247	
214,665	Disposal of Moveables	145,940	
<u>14,052</u>	Other Receipts	<u>180,000</u>	
<u>5,843,659</u>	Total Receipts (Note 3)		<u>7,019,134</u>
	From which the following payments were made -		
	Recurrent Costs		
2,320,481	Salaries and Wages	3,573,161	
2,579,094	Operating Costs	2,291,732	
	Capital Works and Services		
289,557	Initial Program (Note 4)	221,526	
641,080	Post Initial Program (Note 4)	452,918	
203,553	To GBRMPA for Moveables sold	114,462	
<u>14,052</u>	To GBRMPA for Other Receipts	<u>180,000</u>	
<u>6,047,817</u>	Total Payments		<u>6,833,799</u>
(204,158)	Resulting in an excess (deficit) of receipts over payments of -		<u>185,335</u>
	Leaving a balance at 30 June comprising -		
	Recurrent Costs		
58,645	Salaries and Wages	2,826	
(18,027)	Operating Costs	31,652	
	Capital Works and Services		
239,137	Initial Program	240,805	
102,761	Post Initial Program	261,090	
11,112	Balance of proceeds from sale of Moveables	<u>42,590</u>	
<u>393,628</u>			<u>578,963</u>

The accompanying notes form an integral part of these financial statements

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENT

Note 1 Statement of Accounting Policies

(a) Basis of Accounts

The accounts have been prepared on a cash basis, consistent with the basis applied in the previous financial year and in the form approved by the Minister for Finance (Commonwealth), as required by the Agreement.

(b) Carryover Transfer to the Queensland Treasury Department

The balance of Commonwealth funds for the Great Barrier Reef Marine Park at 30 June 1992, which does not include the balance of proceeds from the sale of moveables, was transferred to the Treasury Department in terms of that Department's requirements. The amount transferred has been refunded to the Department of Environment and Heritage in July 1992. The total of receipts included in the Statement of Receipts and Payments for the year ended 30 June 1992 represents gross receipts excluding the transfer.

(c) Change in Accounting Policies - Non-Current Assets

From 1 July 1991 capitalisation occurs on all items which cost more than \$1,000.

This policy change resulted in a \$527,084 and \$100,276 write off adjustment to the Commonwealth and Queensland funded assets, respectively.

Note 2 Statement of Significant Items Outside the Ambit of the Statement

(a) Current Assets/Liabilities

Current assets and liabilities stood at a normal level at the beginning and end of the year.

(b) Contingent Assets/Liabilities

There were no known contingent assets or liabilities of a significant nature at 30 June 1992 (1991 \$NIL).

(c) Statement of Non-Current Assets (at cost) as at 30 June 1992, including movements for 1991-92 financial year.

	Funded by Commonwealth (cumulative from 1 July 1981)			
	Balance 1/7/91 \$	Acquisition 1991-92 \$	Disposal/ Write Offs 1991-92 \$	Balance 30/6/92 \$
Buildings and infrastructure	1,368,913	121,230	# 11,723	1,478,420
Vessels and associated equipment	901,789	138,812	*# 80,242	960,359
Vehicles	296,050	51,713	103,346	244,417
Other plant and equipment	<u>953,362</u>	<u>136,229</u>	<u>470,075</u>	<u>619,516</u>
	<u>3,520,114</u>	<u>447,984</u>	<u>* 665,386</u>	<u>3,302,712</u>

This represents correction of expenditure classification errors in previous years.

*# The cumulative figure for Commonwealth funded Vessels has been reduced by \$1,341 to correct an error in 1985-86.

	Funded by Queensland (cumulative from 1 July 1981)			
	Balance	Acquisition	Disposal/ Write Offs	Balance
	1/7/91 \$	1991-92 \$	1991-92 \$	30/6/92 \$
Buildings and infrastructure	130,887	17,134	-	148,021
Vessels and associated equipment	260,866	70,399	## 31,978	299,287
Vehicles	196,475	51,714	48,252	199,937
Other plant and equipment	135,830	87,213	71,556	151,487
	<u>724,058</u>	<u>226,460</u>	<u>** 151,786</u>	<u>798,732</u>
TOTAL	<u>4,244,172</u>	<u>674,444</u>	<u>817,172</u>	<u>4,101,444</u>

The cumulative figure for Queensland funded Vessels has been reduced by \$1,340 to correct an error in 1985-86.

* The cumulative figure for Commonwealth funded assets in 1991-92 has been reduced by \$665,386 (1990-91 \$317,587). This represents the cost price of the assets disposed of and written off during the year.

** The cumulative figure for Queensland funded assets other than Buildings and Infrastructure in 1991-92 has been reduced by \$151,786 (1990-91 \$78,585). This represents the cost price of the assets disposed of and written off during the year.

Stocktakes of assets other than Buildings and Infrastructure were carried out by officers of the Department of Environment and Heritage and equipment on hand was verified against the Moveable Lists. As a physical verification of Buildings and Infrastructure has not been carried out, values included in this note for this class of asset reflect purchase costs.

(d) Statement of Assets Disposed of/Written Off during 1991-92

A significant number of assets were written off in 1991-92 following an increase in the asset recognition criteria from \$100 to \$1,000 and the adjustment of accounting records as a consequence of stocktakes performed.

	Funded by Commonwealth		Funded by Queensland	
	1990-91 \$	1991-92 \$	1990-91 \$	1991-92 \$
Sale/Transfer of Assets	228,264	120,623	75,184	50,170
Write off due to:				
Damage and				
Obsolescence/Worn Out	76,902	4,615	276	-
Other	12,421	13,064	3,125	1,340
Asset criteria adjustment	-	527,084	-	100,276
	<u>317,587</u>	<u>665,386</u>	<u>78,585</u>	<u>151,786</u>

	1990-91	1991-92
	\$	\$
Note 3. Receipts during the year were provided from the following sources:		
Commonwealth Government:		
Recurrent 50%		
Salaries and Wages	1,172,417	1,758,671
Operating Costs	1,262,723	1,170,705
Capital Works and Services:		
Initial Program 100%	317,844	223,194
Post-Initial Program 50%	213,409	305,624
	<u>2,966,393</u>	<u>3,458,194</u>
Queensland Government:		
Recurrent 50%		
Salaries and Wages	1,172,418	1,758,671
Operating Costs	1,262,722	1,170,706
Capital Works and Services:		
Post-Initial Program 50%	213,409	305,623
	<u>2,648,549</u>	<u>3,235,000</u>
Disposal of Moveables	214,665	145,940
Other Receipts	14,052	180,000
	<u>5,843,659</u>	<u>7,019,134</u>

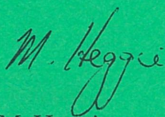
Note 4. Capital Works and Services

- Initial Program		
Buildings and infrastructure	121,361	104,096
Vessels and associated equipment	52,214	68,413
Vehicles	32,320	-
Office and field equipment	83,662	49,017
	<u>289,557</u>	<u>221,526</u>
- Post Initial Program		
Buildings and infrastructure	33,638	34,268
Vessels and associated equipment	275,545	140,798
Vehicles	253,180	103,427
Office and field equipment	78,717	174,425
	<u>641,080</u>	<u>452,918</u>
	<u>930,637</u>	<u>674,444</u>

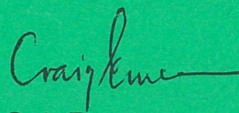
CERTIFICATE OF THE QUEENSLAND DEPARTMENT OF ENVIRONMENT AND HERITAGE

We have prepared the foregoing annual financial statement in relation to the operation of the Great Barrier Reef Marine Park as required by the relevant Agreements dated 10 May 1988 between the Commonwealth and Queensland Governments and the Great Barrier Reef Marine Park Authority and certify as follows -

- (a) the foregoing financial statement and appended notes to and forming part thereof are in agreement with the accounts and records of the Queensland Department of Environment and Heritage;
- (b) the receipt and expenditure of monies were in accordance with the approved programs and in accordance with the aforementioned agreements and previous draft agreements executed between the Commonwealth and Queensland Governments with regard to day-to-day management and control and ownership of assets; and
- (c) in our opinion -
 - (i) the prescribed requirements in respect of the establishment and keeping of accounts have been complied with in all material respects; and
 - (ii) the foregoing annual financial statement has been drawn up so as to present a true and fair view, on a basis consistent with that applied in the financial year last preceding, of the transactions of the Queensland Department of Environment and Heritage in relation to the Great Barrier Reef Marine Park for the period 1 July 1991 to 30 June 1992 and of the financial position as at the close of that year.



M. Heggie
Acting Executive Manager (Financial Services)
Department of Environment and Heritage




Craig Emerson
Director General
Department of Environment and
Heritage

27 August 1992

CERTIFICATE OF THE AUDITOR-GENERAL

I certify that, in my opinion:

- (1) the foregoing Statement of Receipts and Payments and appended notes for the period 1 July 1991 to 30 June 1992 are based on proper accounts and records and are in agreement with those accounts and records; and
- (2) the expenditure of moneys was in accordance with the relevant Agreements dated 10 May 1988 between the Commonwealth and Queensland Governments and the Great Barrier Reef Marine Park Authority in respect of financial assistance for the Great Barrier Reef Marine Park.



B M Rollason
Acting Auditor-General

1 September 1992

APPENDIX L

AUDITOR-GENERAL'S REPORT

The Honourable the Minister for the Arts,
Sport, the Environment and Territories
Parliament House
CANBERRA ACT 2600

Dear Minister

GREAT BARRIER REEF MARINE PARK AUTHORITY

A copy of the audit report on the Great Barrier Reef Marine Park Authority's financial statements for the year ended 30 June 1992 together with a copy of the financial statements, is attached.

Yours sincerely

P. A. Farrelly
for J. C. Taylor
Auditor-General 20 October 1992

INDEPENDENT AUDIT REPORT

To the Minister for the Arts, Sport, the Environment and Territories

Scope

I have audited the financial statements of the Great Barrier Reef Marine Park Authority for the year ended 30 June 1992. The statements comprise:

- . Statement of Financial Position
- . Operating Statement
- . Statement of Cash Flows
- . Certificate by Chairman and Executive Officer, and
- . Notes to and forming part of the financial statements.

The Authority's Chairman and Executive Officer are responsible for the preparation and presentation of the financial statements and the information they contain. I have conducted an independent audit of the financial statements in order to express an opinion on them to the Minister for the Arts, Sport, the Environment and Territories.

The audit has been conducted in accordance with Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards, to provide reasonable assurance as to whether the financial statements are free of material misstatement. Audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statements, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial statements are presented fairly in accordance with Australian accounting concepts and standards and statutory requirements so as to present a view of the Authority which is consistent with my understanding of its financial position and the results of its operations.

As disclosed in Note 1(c) of the financial statements the Authority has not applied the recoverable amount test for valuation of non-current assets. This is in accordance with an exemption provided under the Guidelines for Financial Statements of Public Authorities and Commercial Activities. I agree with this departure from Australian Accounting Standard, AAS10, 'Accounting for the Revaluation of Non-current Assets'. Application of the recoverable amount test would be misleading because a reduction in the valuation based on the ability of the non-current assets to generate net cash inflows from their continued use and subsequent disposal does not represent a decline in the service value of these assets.

The audit opinion expressed in this report has been formed on the above basis.

Audit Opinion

In accordance with section 55 of the Great Barrier Reef Marine Park Act 1975, I now report that the statements are in agreement with accounts and records of the Authority, and in my opinion:

- (i) the statements are based on proper accounts and records
- (ii) the statements show fairly the financial transactions for the year ended 30 June 1992 and the state of affairs of the Authority at that date
- (iii) the receipt, expenditure and investment of moneys, and the acquisition and disposal of assets, by the Authority during the year have been in accordance with the Act, and
- (iv) the statements are in accordance with the Guidelines for Financial Statements of Public Authorities and Commercial Activities, which require compliance with Statements of Accounting Concepts and applicable Accounting Standards.

P. A. Farrelly

P. A. Farrelly
Group Director, Canberra ACT 20 October 1992

No.	Place	Project Type	Proponent	Current Status of Applications	In the Marine Park
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FAR NORTHERN SECTION

1	Owen Channel	Pearls Space Base Pty Ltd	Barrier Pearls Pty Ltd	Renewal	Wholly No
2	Cape York	Space Base Pty Ltd	Bromley Holdings	Ongoing Assessment	
3	Lloyd Bay Reef and Rainforest	Resort	Farnedale Pty Ltd	Prelim Assessment	Partially

CAIRNS SECTION

4	Arlington Reef	Pearls	Atlantic Fishing Pty Ltd	Renewal	Wholly
5	Arlington Reef	Pearls	W.A.P. Holdings Pty Ltd	Approved/Monitor	Wholly
6	Arlington Reef	Clams	Reefarm Pty Ltd	Renewal	Wholly
7	Batt Reef	Pearls	Coral Sea Pearls Pty Ltd	Assessment	Wholly
8	Batt Reef	Pearls	Pearling Qld Pty Ltd	Assessment	Wholly
9	Cooktown	Pearls	Pirate Pearls Pty Ltd	Renewal	Partially
10	Agincourt 3 Reef	Tourist Pontoon	Quicksilver Connections P/L	Further info requested	Wholly
11	Tongue Reef	Tourist Pontoon	Nodnoc Pty Ltd	Further info requested	Wholly
12	Norman Reef	Tourist Pontoon	Reef Management Pty Ltd	Assessment near completion	Wholly
13	Hastings Reef	Artificial Wreck	Tropical Traders Pty Ltd	Further info requested	Wholly
14	Hastings Reef	Tourist Pontoon	Hostel Reef Trips	Further info requested	Wholly
15	Arlington Reef	Tourist Pontoon	Declar Pty Ltd	Permit issued - pontoon installed June 92	Wholly
16	Green Island	Waste Discharge	Reef Ventures Pty Ltd (Daikyo)	Permit issued - works about to commence	Partially
17	Green Island	Jetty Works	Reef Ventures Pty Ltd (Daikyo)	Permit issued - works about to commence	Partially
18	Green Island	Barge Access	Reef Ventures Pty Ltd (Daikyo)	Permit issued - works nearing completion	Partially
19	Green Island	Underwater Observatory	Great Adventures (Daikyo)	On hold pending finalisation of redevelopment plans	Wholly
20	Moore Reef	Tourist Pontoon	Declar Pty Ltd (T/A Sunlover Cruises)	Permit issued - pontoon installed	Wholly
21	Moore Reef	Tourist Pontoon	Reef Management Pty Ltd (T/A Great Adventures)	Further info requested	Wholly
22	Trinity Inlet	Resort and Residential Development	Sailfox P/L	IAS prepared and released for public comment	Outside

CENTRAL SECTION

23	Dent Island*	Harbour	Hamilton Island Enterprises	Further info requested	Partially
24	Dent Island*	Golf Course	Hamilton Island Enterprises	PER Under Preparation	Partially
25	Hamilton Island (Northern)	Harbour	Hamilton Island Enterprises	Further info requested	Partially
26	Pioneer Bay & Woodwark Bay	Marina	Kumagai/Wardley	PER submitted	Partially
27	Hardy Reef	Walkway	Hamilton Island Enterprises	PER Accepted	Wholly

No.	Place	Project Type	Proponent	Current Status of Applications	In the Marine Park
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CENTRAL SECTION

28	Daydream Island	Marina	Jennings Property Development P/L	New permit to be issued	Partially
29	Kelso Reef	Tourist Pontoon	Pure Pleasure Cruises	Renewal Assessment	Wholly
30	Lindeman Island (Club Med)	Jetty	Holiday Villages (Aust) Pty Ltd	Prelim Assessment	Wholly
31	Hamilton Island	Airport extension	Hamilton Island Enterprises	Prelim Assessment	Partially
32	Young Bay (Magnetic Is.)	Barge Ramp	Palm Island Barge Service	Assessed/Withdrawn	Wholly
33	Nelly Bay (Magnetic Is.)	Barge Ramp	Palm Island Barge Service	Prelim Assessment	Wholly
34	South Molle Is.	Marine Outfall	Ansett Transport Industries	Monitor	Wholly
35	Hook Island	Marine Outfall	Permanant Trustee Company	Assessment	Wholly
36	Bedarra Island	Marine Outfall	Ansett Transport Industries	Monitor	Partially
37	Palm Island	Clam research	Aquasearch/Bralely	Assessed	Partially
38	Goold Island	Pearl Farm	Indian Pacific Pearls Pty Ltd	Prelim Assessment	Wholly
39	White Lady Bay	Clam Research	Aquasearch/Bralely	Renewal	Wholly
40	Long Island	Jetty & Marine Outfall	Mytarc Pty Ltd	Renewal Assessment	Partially
41	Cleveland Bay	Channel Extension	Townsville Port Authority	Monitor	No

MACKAY/CAPRICORN SECTION

42	Keswick Island	Resort	Transtate Pty Ltd	Prelim Assessment	Partially
43	St Bees Island	Resort	St Bees Island Pty Ltd	Prelim Assessment	Partially
44	Wistari Reef	Walkway / Pontoon	P&O Resorts	Installed/Monitor	Wholly
45	Heron Island	Jetty	P&O Resorts	Installed/Monitor	Wholly
46	Lady Elliott Island*	Resort-Education Program	Lady Elliott Island Holidays Pty Ltd	Monitoring	Wholly
47	Lady Musgrave Island	Tourist Pontoon	Mr L Woodrow	Prelim Assessment	Wholly
48	Midge Point	Marina	Whitsunday Gold Pty Ltd	Prelim assessment	Partially
49	Lady Musgrave Island	Tourist Pontoon	Great Barrier Reef Tourist	Ongoing Assessment	Wholly
50	Halliday Bay	Resort	Reef Village Resort Pty Ltd	Monitoring	Partially
51	Curtis Island	Resort	Monte Christo Properties Pty Ltd	Monitoring	Partially
52	One Tree Island	Research Station	University of Sydney	Renewal	Wholly
53	Bustard Bay	Exploration	Department of Resource and Industry	Prelim Assessment	Partially
54	Hummock Hill	Resort	Walsteam Pty Ltd	Ongoing Assessment	Partially

*These Commonwealth islands are part of the Great Barrier Reef Marine Park and are managed by the Authority.

