

Progress in implementing the National
Representative System of Marine Protected
Areas
(NRSMPA)

Marine Protected Areas Working Group

FINAL

Contents

Part I Report Summary and NRSMPA Overview.....	3
Part II Progress Report.....	15
Commonwealth	16
New South Wales	29
Northern Territory	37
Queensland	44
South Australia	51
Tasmania	54
Victoria	60
Western Australia	66
Appendix 1: MPA Working Group Membership	78
Appendix 2: NRSMPA Actions Implemented in the GBR.....	79

PART I: Report Summary and NRSMPA Overview

This report summary is a collaborative document with input from the Australian Government and the State and Northern Territory governments.

Report Summary

Purpose of document

The purpose of this report is to provide an overview of the progress in developing the National Representative System of Marine Protected Areas (NRSMPA) since June 2003. It is prepared in accordance with the Terms of Reference of the Marine Protected Areas Working Group (MPAWG) and will be presented to the Marine and Coastal Committee (MACC) of the Natural Resources Management Standing Committee.

The previous progress report *Outcomes, Experiences and Challenges – Progress in Implementing the National Representative System of Marine Protected Areas*¹ was presented to MACC on 16 July 2003 and covered progress in the development of the NRSMPA for the period of 1993-2003.

Context of the NRSMPA

Australia is committed to the protection of marine biodiversity and ecological processes, and to the sustainable use of marine resources through the principles and goals of ecologically sustainable development. In the early 1990s, Australian governments identified a need to establish marine protected areas to protect representative examples of the full range of marine ecosystems and habitats. The establishment of a representative system of protected areas is widely regarded, both nationally and internationally, as one of the most effective mechanisms for protecting biodiversity, while also permitting the sustainable use of natural resources where this is compatible with the aim of biodiversity conservation.

This commitment to ecologically sustainable development and the NRSMPA fulfils Australia's international responsibilities and obligations as a signatory to the Convention on Biological Diversity² and the major components of the Jakarta Mandate developed under that Convention. It also supports national commitments under the Inter-governmental Agreement on the Environment (IGAE)³, which are implemented through national actions and strategies such as:

- the National Strategy for Ecologically Sustainable Development⁴; and
- the National Strategy for the Conservation of Australia's Biological Diversity⁵.

¹ Task Force on Marine Protected Areas 2003, *Outcomes, Experiences and Challenges – Progress in Implementing the National Representative System of Marine Protected Areas*, Commonwealth of Australia

² United Nations Environment Programme 1992 <http://www.biodiv.org/default.shtml>

³ Commonwealth of Australia 1992 <http://www.environment.gov.au/esd/national/igae/index.html>

⁴ Commonwealth of Australia 1992 <http://www.environment.gov.au/esd/national/nse/d/index.html>

⁵ Commonwealth of Australia 1996

<http://www.environment.gov.au/biodiversity/publications/strategy/index.html>

The main goals of the National Strategy for the Conservation of Australia's Biological Diversity are to protect biological diversity and to maintain ecological processes and systems. In the marine environment the NRSMPA is a key component of a national approach to the conservation of marine ecosystems, habitats and species.

The *Guidelines for Establishing the NRSMPA* as endorsed by all Australian governments set out the goals and principles for the NRSMPA and the criteria for identifying and selecting MPAs. The primary goal of the NRSMPA is:

*to establish and manage a comprehensive, adequate and representative system of marine protected areas to contribute to the long-term ecological viability of marine and estuarine systems, to maintain ecological processes and systems, and to protect Australia's biological diversity at all levels.*⁶

At the 2002 World Summit on Sustainable Development (WSSD)⁷ in Johannesburg, South Africa, Australia affirmed its commitment to the development of a global system of marine protected areas by agreeing to implement the NRSMPA by 2012.

Marine Protected Areas Working Group - roles, functions and membership

MPAWG is a national committee enabling strategic oversight by the Australian, state and territory governments of the development and management of the NRSMPA. MPAWG's membership is drawn from the Australian Government and State and Northern Territory agencies responsible for marine conservation and fisheries management in Australian waters.

MPAWG reports to the Marine and Coastal Committee of the Natural Resource Management Standing Committee, which in turn reports to the Natural Resource Management Ministerial Council.

While the MPAWG provides coordination in the development of nationally agreed planning and policy frameworks and technical matters associated with developing the NRSMPA, it is the responsibility of each government in Australia to establish and manage marine protected areas within their jurisdiction.

MPAWG has a work programme focussing on:

- Providing national policy direction, where appropriate, for the development and management of the NRSMPA;
- Facilitating cross-jurisdictional cooperation and exchange of information;
- National reporting on the implementation of the NRSMPA; and

⁶ Australian and New Zealand Environment and Conservation Council 1998, Guidelines for Establishing the NRSMPA, <http://www.environment.gov.au/coasts/mpa/nrsmpa/guidelines.html>

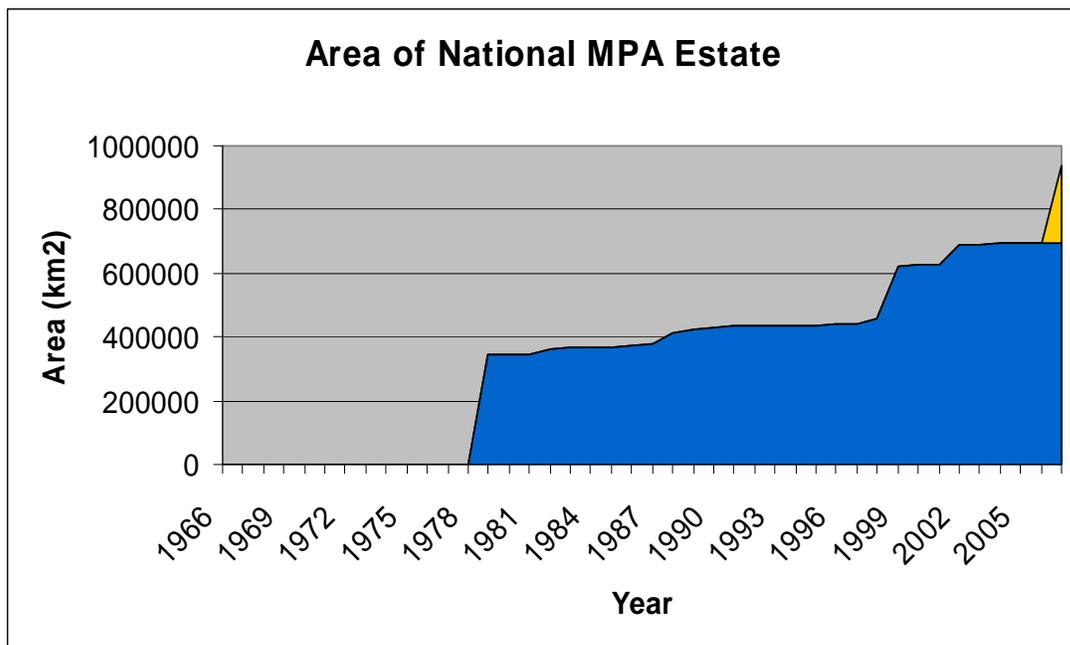
⁷ More about Australia's involvement at WSSD is available at <http://www.environment.gov.au/commitments/wssd/index.html#documents>

- The provision of advice on broader national marine environment goals as considered appropriate.

Key national achievements since 2003

New Marine Protected Areas

The governments of Australia have continued to implement the NRSMPA with some significant additions to Australia’s MPA estate. Since 2003 approximately 240 000 km² of ocean has been identified for inclusion in the NRSMPA, the majority of which is expected to be formally declared in the first half of 2007.



	Indicates growth in MPA coverage as described by the most recent national Collaborative Australian Protected Areas Database (CAPAD) report of 2004. ⁸
	Indicates estimated growth in MPA coverage from 2004 to 2007 based on figures reported by each jurisdiction. These figures include candidate MPAs yet to be declared and may be subject to some variation.

Some major achievements include:

- The Australian Government’s south-east network of 13 MPAs encompassing 226,155km² in waters off the coast of New South Wales, Victoria, Tasmania and South Australia;
- The recent declaration of the Port Stephens – Great Lakes Marine Park and the Batemans Marine Park. One third of the New South Wales marine jurisdiction is now protected by MPAs; and

⁸ CAPAD includes the numbers, declaration dates and types of marine protected areas in each jurisdiction – see www.environment.gov.au/parks/nrs/capad/index.html.

- The declaration of the Great Barrier Reef Coast Marine Park, an MPA protecting coastal waters between the Great Barrier Reef Marine Park and the Queensland coastline. This MPA was specifically designed with complementary zoning arrangements to those in the adjacent Great Barrier Reef Marine Park.

For more detail on these accomplishments and important achievements in other States and the Northern Territory, consult the individual reports for each jurisdiction. A summary table of newly declared and candidate MPAs, management plans and government processes since 2003 is on page 12.

Integrated Marine and Coastal Regionalisation of Australia version 4.0

In April 2006 the Natural Resource Management Ministerial Council endorsed a new Integrated Marine and Coastal Regionalisation of Australia, known as IMCRA version 4.0.⁹

IMCRA v4.0 is a spatial framework for classifying Australia's marine environment into bioregions that make sense ecologically and are at a scale useful for regional planning and as a framework for subsequent finer levels of planning and management. This framework will be used to support the development and implementation of the NRSMPA. IMCRA v4.0 provides spatial information that can be used to infer patterns in the distribution of biodiversity, ecosystem structure and ecological processes.

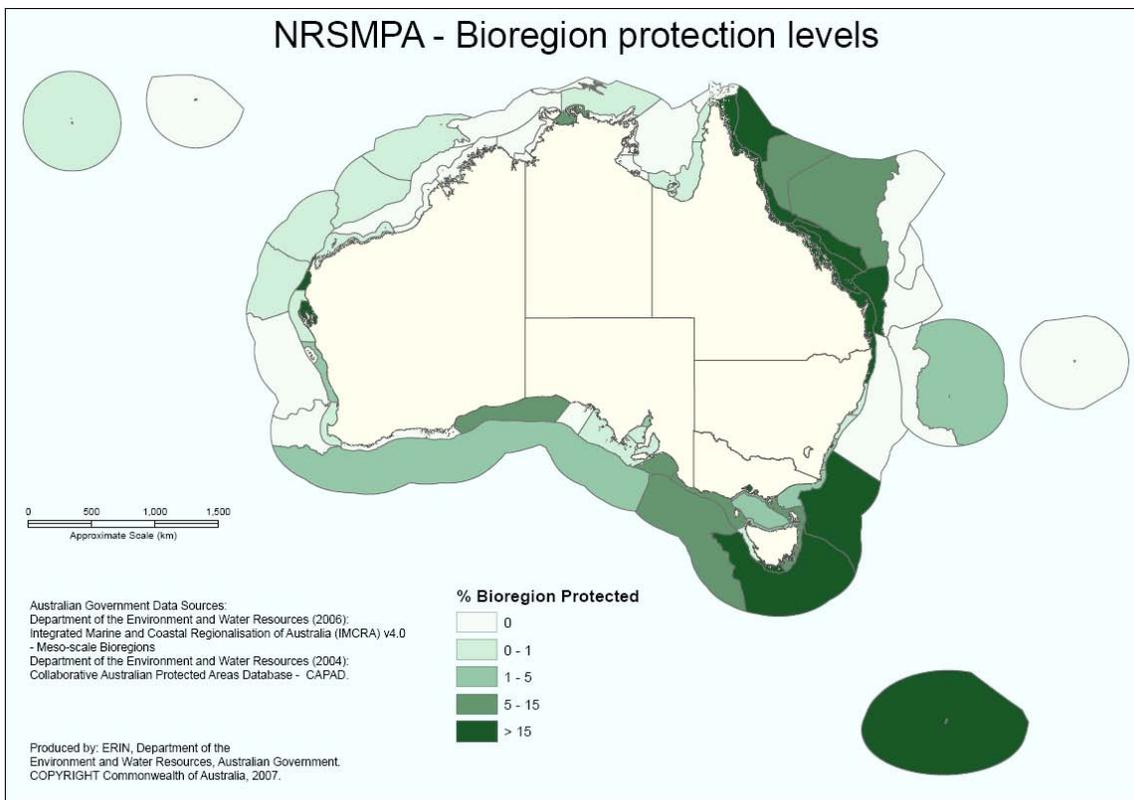
IMCRA v4.0 is the product of the combination of the Interim Marine and Coastal Regionalisation of Australia (IMCRA v3.3), which provided a marine regionalisation of continental shelf waters, with the National Marine Bioregionalisation (NMB), which regionalised off-shelf waters. In combining the two national scale marine regionalisations, IMCRA v4.0 covers Australia's waters from the coast to the edge of the Exclusive Economic Zone excluding Antarctica and Heard and Macdonald Islands.

IMCRA v4.0 is also being used as a basis for developing the NRSMPA and to report on progress in developing the NRSMPA. A number of gaps remain in Australia's distribution of MPAs. Of the 41 provincial bioregions 29 (or 70%) are represented in MPAs. Similarly, of the 60 meso-scale bioregions, 43 (or 71%) are represented in MPAs. The following map demonstrates the levels of protection that each provincial and meso-scale bioregion in Australia receives. The Australian Government has made it a priority to establish MPAs in large scale bioregions not already represented within the NRSMPA. State and Territory jurisdictions are also undertaking bioregional assessments to better understand gaps in representation and priority areas for MPAs development.

Other area-specific regionalisations have been undertaken for some parts of Australian waters to meet the specific planning needs for that area. For example, a bioregionalisation of the North West Shelf was conducted in 2002 by CSIRO Marine Research and the

⁹ All reports associated with IMCRA v4.0 and previous marine regionalisations are available at www.environment.gov.au/coasts/mbp/imcra/index.html.

Western Australian Department of Environmental Protection. Projects such as these can assist in the development of fine-scale marine planning and MPA design for specific areas of interest in the marine environment.



The First International Marine Protected Area Congress

The first International Marine Protected Area Congress (IMPAC1) was held in Geelong, Victoria on 23-28 October 2005. IMPAC1 was a highly successful event with over 800 participants from 80 countries. The purpose of IMPAC1 was to provide an international forum to progress the continuous improvement in methods for establishing and managing marine protected areas.¹⁰

The IMPAC1 programme covered a number of technical themes related to MPA development and management including: developing networks; sustainability and resilience; ecosystem processes; management effectiveness; and shared stewardship. Other major issues that were discussed included: Indigenous peoples and MPAs; fisheries; socio-economic issues; and high seas conservation.

In addition to the international exchange of MPA experiences and information, a major outcome of IMPAC1 was the support of both fisheries and marine protected area specialists to work collaboratively in the design of MPAs. The value of the anecdotal and historic knowledge of local communities and peoples was also recognised.

¹⁰ For more information see www.impaccongress.org

AUSCAN and NORFANZ

A number of scientific and technical projects have been undertaken that support the development of the NRSMPA. In mid-2003 two major research voyages were conducted in Australian waters. The AUSCAN and NORFANZ voyages were cooperatively sponsored by several partners and each made several important discoveries that have increased our knowledge of marine species and environments and may assist in the future development of the NRSMPA.

AUSCAN surveyed an area extending from the west coast of Tasmania north along the eastern end of the Great Australian Bight. The French research vessel *Marion Dufresne* was chartered for the expedition which included representatives of the National Oceans Office, Geoscience Australia, the Australian National University and the South Australian Research and Development Institute. The highlight of the voyage was the exploration of the Murray canyon group, a system of deep water canyons cutting into the continental shelf south of Kangaroo Island.¹¹

The NORFANZ voyage explored deep sea habitats around Lord Howe and Norfolk islands extending south towards New Zealand. The New Zealand vessel *RV Tangaroa* was commissioned for the voyage by the National Oceans Office and the New Zealand Ministry of Fisheries. Eleven research organisations were represented including CSIRO, NSW Fisheries and several museums and universities from Australia, New Zealand, France and the United States. The survey uncovered over 500 undescribed fish species and 1300 undescribed invertebrate species and explored a number of seamounts and sea floor habitats.¹²

The information gathered on voyages such as AUSCAN and NORFANZ improves our understanding of Australia's marine environment and contributes to the scientific knowledge available to support the design and management of MPAs.

Rezoning the Great Barrier Reef Marine Park

A new Zoning Plan for the Great Barrier Reef Marine Park came into effect on 1 July 2004. The proportion of the multiple-use Marine Park protected by 'no-take' zones (known also as 'green' zones) was increased from less than 5% to more than 33%, and now protects representative examples of each of the 70 mapped broad habitat types or bioregions.

Between 1999 and 2004, the Great Barrier Reef Marine Park Authority (GBRMPA) undertook a complex planning and consultative program to develop the new zoning for the Marine Park. The primary aim of the representative areas program (RAP) was to better protect the range of biodiversity in the Great Barrier Reef by increasing the extent of no-take areas and ensuring they included 'representative' examples of all the different

¹¹ AUSCAN <http://www.environment.gov.au/coasts/discovery/voyages/auscan/index.html>

¹² NORFANZ <http://www.environment.gov.au/coasts/discovery/voyages/norfanz/index.html>

habitat types. A further aim was to minimise impacts on the existing users of the Marine Park.¹³

Key achievements of the RAP include:

- Protection of over 33% (>115,000 km²) of the Marine Park within the world's largest network of highly protected 'no-take' areas.
- Creation of a network of highly protected areas that is representative of all 70 bioregions within the Marine Park.
- A comprehensive process of community involvement and participatory planning
- A new Zoning Plan for the conservation and sustainable use of the resources of the Marine Park.

In November 2004 the State of Queensland 'mirrored' the new zoning in most of the adjoining State waters to deliver complementary zoning for virtually all the State and Commonwealth waters within the Great Barrier Reef World Heritage Area¹⁴.

The approach taken in the RAP is now recognised as one of the most comprehensive and innovative global advances in the systematic protection of marine biodiversity and marine conservation in recent decades. The new regulatory framework will bring great benefits to the conservation of the entire Great Barrier Reef ecosystem as well as providing benefits for stakeholders and industries dependent on the Great Barrier Reef. It will significantly enhance the resilience of the Great Barrier Reef for future generations and assist industry to achieve increased levels of environmental and economic sustainability.

The Australian Government funded structural adjustment process resulting from the rezoning is expected to be completed by mid 2007.

Conclusion

In establishing and managing MPAs, jurisdictions face challenges in understanding the components and processes of marine systems, the role of MPAs within those systems and in monitoring and controlling human activities within MPAs and in adjacent catchments. Size, remoteness and accessibility of MPAs are factors affecting compliance and enforcement and field research for establishing MPAs and for ongoing monitoring.

The governments of Australia have been collaborating in developing the NRSMPA since the mid-1990s. Since that time governments have gathered experience and knowledge on the best methods and practices for the development and implementation of MPAs in Australia. The ongoing development and implementation of the NRSMPA will continue with careful planning and with regard to existing and complementary conservation and management measures. While the role of MPAs continues to be debated nationally and

¹³ History of the Representative Areas Program
http://kurrawa.gbrmpa.gov.au/corp_site/management/zoning/rap/rap/index.html

¹⁴ The Great Barrier Reef World Heritage Area includes all of the Great Barrier Reef Marine Park and adjacent Queensland State Government waters up to the low water mark. Further information about the Great Barrier Reef World Heritage Area is available at
<http://www.environment.gov.au/heritage/worldheritage/sites/gbr/index.html>.

internationally, they are widely recognised as important tools to protect marine biodiversity.

Since the last report in June 2003, major advances have been made in the development of the NRSMPA. The governments of Australia have continued to develop MPAs within their own jurisdictions using a number of different strategies and approaches. The lessons learnt from these experiences will lend themselves to the development of improved approaches to MPA planning and development and in the longer term will assist Australia in establishing an NRSMPA by 2012.

Summary Table of New Declared and Candidate MPAs, Management Plans and Relevant Government Processes Since 2003

The following table is a list of key reserves, candidate MPAs, management plans and other relevant processes that have been introduced by the governments of Australia since June 2003. More detailed information on each jurisdiction's activities can be found in Part II of this report.

<p>Commonwealth</p>	<p>New Candidate MPAs</p> <ul style="list-style-type: none"> • Apollo Commonwealth Marine Reserve • Beagle Commonwealth Marine Reserve • East Gippsland Commonwealth Marine Reserve • Flinders Commonwealth Marine Reserve • Freycinet Commonwealth Marine Reserve • Huon Commonwealth Marine Reserve • South Tasman Rise Commonwealth Marine Reserve • Tasman Fracture Commonwealth Marine Reserve • Boags Commonwealth Marine Reserve • Franklin Commonwealth Marine Reserve • Zeehan Commonwealth Marine Reserve • Nelson Commonwealth Marine Reserve • Murray Commonwealth Marine Reserve • Cod Grounds Marine Reserve <p>New Management Plans</p> <ul style="list-style-type: none"> • Great Barrier Reef Marine Park Zoning Plan 2003 • Elizabeth and Middleton Reefs Marine National Reserve Management Plan • Great Australian Bight Marine Park (Commonwealth Waters) Management Plan • Heard Island and McDonald Islands Marine Reserve Management Plan <p>New Processes</p> <ul style="list-style-type: none"> • Marine bioregional planning under Section 176 <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) • Amendments to the EPBC Act
<p>New South Wales</p>	<p>New MPAs</p> <ul style="list-style-type: none"> • Port Stephens – Great Lakes Marine Park • Batemans Marine Park <p>New Management Plans</p> <ul style="list-style-type: none"> • Final zoning plan and operational plan for Lord Howe Island Marine Park • Final zoning plan for Cape Byron Marine Park • Final zoning plan for Port Stephens – Great Lakes Marine Park • Final zoning plan for Batemans Marine Park

Northern Territory	<p>New Candidate MPAs</p> <ul style="list-style-type: none"> • Bynoe Harbour Marine Park <p>New Management Plans</p> <ul style="list-style-type: none"> • Plan of Management for Garig Gunak Barlu (Cobourg Marine Park) <p>New Processes</p> <ul style="list-style-type: none"> • Integrated Natural Resource Management Plan 2005 • NT Marine Protected Areas Strategy • NT Coastal & Marine Biodiversity Strategy
Queensland	<p>New MPAs</p> <ul style="list-style-type: none"> • Great Barrier Reef Coast Marine Park • Great Sandy Marine Park • Margaret Bay Fish Habitat Area • Starke River Fish Habitat Area • Edgumbe Bay Fish Habitat Area • Elliott River Fish Habitat Area • Conservation park around ex-HMAS <i>Brisbane</i> <p>New Candidate MPAs</p> <ul style="list-style-type: none"> • Cleveland Bay Fish Habitat Area, Townsville • Fitzroy River Fish Habitat Area, Rockhampton <p>New Processes</p> <ul style="list-style-type: none"> • Review of previous marine park legislation resulted in the creation of the <i>Marine Parks Act 2004</i>, <i>Marine Parks Regulation 2006</i> and <i>Marine Parks (Declaration) Regulation 2006</i>
South Australia	<p>New MPAs</p> <ul style="list-style-type: none"> • Adelaide Dolphin Sanctuary • Great Australian Bight Marine Park <p>New Management Plans</p> <ul style="list-style-type: none"> • Great Australian Bight Marine Park Management Plan <p>New Processes</p> <ul style="list-style-type: none"> • Living Coasts Strategy for South Australia • Blueprint for the South Australian Representative System of Marine Protected Areas • South Australia's Strategic Plan • <i>Adelaide Dolphin Sanctuary Act 2005</i>
Tasmania	<p>New MPAs</p> <ul style="list-style-type: none"> • Kent Group Marine Nature Reserve • Port Davey – Bathurst Harbour Marine Nature Reserve <p>New Management Plans</p> <ul style="list-style-type: none"> • Macquarie Island Nature Reserve and World Heritage Area Management Plan 2006

<p>Victoria</p>	<p>New Management Plans</p> <ul style="list-style-type: none"> • Management Strategy for Victoria’s System of Marine National Parks and Sanctuaries 2003-2010 • Bunurong Marine National Park Management Plan • Cape Howe Marine National Park Management Plan • Corner Inlet Marine National Park Management Plan • Discovery Bay Marine National Park Management Plan • Ninety Mile Beach Marine National Park Management Plan • Point Addis Marine National Park Management Plan • Point Hicks Marine National Park Management Plan • Port Phillip Heads Marine National Park Management Plan • Twelve Apostles Marine National Park Management Plan • Wilsons Promontory Marine National Park Management Plan • Beware Reef Marine Sanctuary Management Plan • Eagle Rock Marine Sanctuary Management Plan • Point Danger Marine Sanctuary Management Plan • Ricketts Point Marine Sanctuary Management Plan • The Arches Marine Sanctuary Management Plan <p>New Processes</p> <ul style="list-style-type: none"> • <i>National Parks Act 1975</i> amendments
<p>Western Australia</p>	<p>New MPAs</p> <ul style="list-style-type: none"> • Jurien Bay Marine Park • Montebello Islands Marine Park • Barrow Island Marine Park • Barrow Island Marine Management Area • Muirion Islands Marine Management Area • Miaboolya Beach Fisheries Habitat Protection Area • Point Quobba Fisheries Habitat Protection Area <p>New Candidate MPAs</p> <ul style="list-style-type: none"> • Dampier Archipelago Marine Park • Cape Preston Marine Management Area • Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet ‘Capes’ Marine Park • Walpole and Nornalup Inlets Marine Park <p>New Processes</p> <ul style="list-style-type: none"> • <i>Conservation and Land Management Regulations 2002</i> as amended. • 2005 Memorandum of Understanding between Ministers for Fisheries and the Environment to establish principles of cooperation and integration in the management of WA’s marine protected areas.

PART II: Progress Report

This progress report is a compilation of reports provided by each jurisdiction represented on MPAWG on the establishment of marine protected areas in Australian waters since June 2003.

Commonwealth

Marine protected areas in Commonwealth waters include:

- Marine Parks
- Marine Reserves
- Marine National Nature Reserves
- the marine components of National Parks

Marine Protected Areas in Commonwealth waters are managed either under the *Environment Protection and Biodiversity Conservation Act 1999*¹⁵ or under the *Great Barrier Reef Marine Park Act 1975*¹⁶.

Mandate

Policies & Strategies

At the time of publication, the Department of the Environment and Water Resources of the Australian Government had responsibilities for 14 marine protected areas. 13 of these reserves are managed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Great Barrier Reef Marine Park is managed under the *Great Barrier Reef Marine Park Act 1975* (GBRMP Act). A Notice of Intent to declare an additional 13 Commonwealth Marine Reserves, comprising the South-east Network of MPAs in Commonwealth waters off New South Wales, Victoria, Tasmania and South Australia, was Gazetted in October 2006. They have not yet been declared. Additionally, the Cod Grounds Marine Reserve off the central NSW coast has already been subject to a statutory period of public review and is also awaiting declaration.

The Department also manages 4 terrestrial national parks that include a marine area within park boundaries, however these areas are considered to be part of the terrestrial national park rather than distinct marine protected areas.

*Australia's Oceans Policy*¹⁷ outlines the Australian Government's commitment to the accelerated development and implementation of the NRSMPA, to the identification of new protected areas through regional marine planning and to the protection of areas of outstanding conservation significance. This commitment is being met through the creation of Marine Bioregional Plans under section 176 of the EPBC Act which allows for the creation of bioregional plans in Commonwealth waters. Further discussion on marine bioregional planning is below.

The *Marine Protected Areas and Displaced Fishing: A Policy Statement* describes in general terms the Australian Government's position on structural adjustment for

¹⁵ More information on the EPBC Act is at <http://www.environment.gov.au/epbc/index.html>

¹⁶ More information on the GBRMP Act is at http://www.gbrmpa.gov.au/corp_site/about_us/legislation_regulations

¹⁷ More information on Australia's Oceans Policy 1998 is at <http://www.environment.gov.au/coasts/oceans-policy/index.html>

displaced fishing effort caused by MPAs and how it relates to other fisheries management processes. This policy is used to assist in the development of Australian Government structural adjustment programmes for activities displaced by MPAs.¹⁸

Other relevant strategies include the *National Strategy for the Conservation of Australia's Biological Diversity*¹⁹ and the *National Strategy for Ecologically Sustainable Development*²⁰.

Given the significance of Australia's energy resources, in developing MPAs the Australian Government must give consideration to the *Securing Australia's Energy Future* white paper released by the Prime Minister in 2004.²¹

Laws

Commonwealth Reserves under the EPBC Act

The EPBC Act and associated Regulations provide for the establishment and management of Commonwealth reserves, which include marine protected areas. The EPBC Act requires a high level of consultation on proposed declarations and the management of marine protected areas as well as the development of a management plan for the protection and conservation of each reserve by setting out how they are to be managed and what activities are allowed. As already discussed, the future development of MPAs will occur within the framework of Section 176 of the EPBC Act through the creation of marine bioregional plans.

Great Barrier Reef Marine Park

The Great Barrier Reef Marine Park is managed under the GBRMP Act and associated legislative instruments (including Regulations and Zoning Plans). The Authority also operates within the statutory framework of the EPBC Act. Various other legislation under Commonwealth and Queensland State law, together with international conventions, also impact on governance and management of the Great Barrier Reef Marine Park.

On 2 October 2006 the Australian Government released the review of the GBRMP Act. The Government supported the review's recommendations and has begun the implementation process.²²

¹⁸ More information on this policy is available at <http://www.environment.gov.au/coasts/mpa/displaced-fishing.html>.

¹⁹ Commonwealth of Australia 1996 <http://www.environment.gov.au/biodiversity/publications/strategy/index.html>

²⁰ Commonwealth of Australia 1992 <http://www.environment.gov.au/esd/national/nsepd/index.html>

²¹ More information on this paper is available at http://www.dpmc.gov.au/publications/energy_future/#fuel_reform

²² More detail on the review can be found at <http://www.environment.gov.au/coasts/publications/gbr-marine-park-act.html>.

Commonwealth Fisheries Closures

Commonwealth fisheries closures under the *Fisheries Management Act 1991*²³ are managed by the Australian Fisheries Management Authority. These closures are used to protect and maintain key species (both target and non-target species) in fisheries areas, and contribute to conserving marine biodiversity.

Establishing new marine protected areas

Overview of processes

The Australian Government's ongoing contribution to the NRSMPA will be delivered through the marine bioregional planning process under Section 176 of the EPBC Act. Marine Bioregional Plans will be developed in each of Australia's five marine regions. The first stage of the planning process involves developing a Regional Profile of each marine region. Regional Profiles are documents that describe each region's key habitats, species, natural processes, heritage values, human uses and benefits.

The Regional Profiles will give details about the various statutory obligations under the EPBC Act and other environmental legislation that applies in any region, as well as describing existing conservation measures and other marine spatial management measures such as area closures for fisheries.

The Regional Profiles will also set out the objectives for subsequent work to identify an MPA network for the marine region which will form part of the National Representative System of MPAs. The Regional Profile will be used in the development of a draft Marine Bioregional Plan.

Stakeholders will have an opportunity to provide input to the Government in the draft planning stage of the process, which focuses on identifying conservation priorities for the Region, threats to those priorities and the options to address them. The social and economic impacts of proposed conservation measures, including possible MPAs, will be evaluated in consultation with stakeholders. The results of this work will be included in the draft Marine Bioregional Plan.

The draft Marine Bioregional Plan will be open for public consultation under regulations to be made under the EPBC Act. The Marine Bioregional Plan will be finalised after public consultation. It will identify conservation values in the region, priorities and measures for the protection of these values, a network of MPAs and a set of sustainability indicators that will be used to help tell us about the health of the marine environment into the future.

The development of Marine Bioregional Plans will include a greater focus than has occurred previously on the provision of information for each region. This will be done via

²³ More information on the *Fisheries Management Act 1991* is at <http://www.affa.gov.au/content/output.cfm?ObjectID=FD7D5C06-04DA-40D1-90490CE302CDC897>

the internet. The public will be able to view maps of a region representing different types of information (e.g. species distribution, location of conservation values, spread and intensity of industries) as well as being able to provide comments on information contained in Regional Profiles, draft and final Marine Bioregional Plans.

Marine bioregional planning will not be applied to the Great Barrier Reef Marine Park which is managed under separate legislation. Information about the planning process undertaken in the Great Barrier Reef can be found at http://www.gbrmpa.gov.au/corp_site/management/zoning/planners_info.html.

Identification

Community Consultation

Commonwealth Reserves under the EPBC Act

The community and stakeholders are involved at all stages of the development of Commonwealth MPAs. The most recent example of such a process was the development of the South-east Network of MPAs in Commonwealth waters off New South Wales, Victoria, Tasmania and South Australia. DEW was involved in an intensive consultative approach involving detailed discussions with a range of stakeholder groups on MPA design, process and policy, the information base, and social and economic impacts. The key stakeholders included the oil and gas industry, the commercial fishing industry, the conservation sector, recreational fishing groups and scientific organisations. Relevant Commonwealth and State government agencies were also involved.

A User's Guide was developed with input from stakeholders and scientists to provide guidance on how to identify and select options for MPAs in the South-east Marine Region. The User's Guide was an opportunity for stakeholders to have direct involvement in the MPA design process by asking stakeholders to submit MPA options that meet biodiversity conservation needs and minimise impacts to industry.

A technical working group of fishing experts and marine scientists was also convened to identify and categorise risks to the marine environment resulting from different types of fishing effort. The findings of the Fishing Risk Assessment helped inform the range of permitted fishing activities within proposed multiple-use marine protected areas.

The then Minister for the Environment and Heritage released a draft MPA network on 14 December 2005. This draft network was based on the User Guide and design specifications, previously identified Broad Areas of Interest and input from stakeholders over the preceding three years. All interested stakeholder groups were invited to give feedback and alternative suggestions that would meet the specifications by the end of March 2006. Sixteen submissions were received from industry, conservation groups, scientists and members of the community.

In addition to these submissions, a Scientific Peer Review Panel provided advice and the Bureau of Resource Sciences (BRS) and the Tasmanian Aquaculture and Fisheries Institute (TAFI) analysed the socio-economic impacts of the proposal.

Based on the submissions received during public consultation, further discussions with stakeholder representatives and scientific advice, the Government finalised the boundary and zoning arrangements for the network. Release of the final proposed network was endorsed by the then Minister for the Environment and Heritage on 5 May 2006.

The statutory process for declaration of the MPA network as marine reserves under the EPBC Act is expected to be completed in the first half of 2007.

Great Barrier Reef Marine Park

As required by the GBRMP Act, there were two formal phases of community participation during the rezoning of the Marine Park. The resulting 31,500 public submissions (over 10,000 in the first formal phase, and 21,300 in the second phase) were unprecedented compared to previous planning programs in the GBR. It necessitated the development of fast and effective processes for analysing and recording the range of information provided, including specific areas of community concern, aspirations and/or support.

The Draft Zoning Plan for the GBR Marine Park was prepared having considered the submissions received in the first formal phase along with relevant information such as the map of bioregions and the operating principles. In the second formal phase, the community was invited to comment on the Draft Zoning Plan, and the GBRMPA undertook an extensive program of public contact including:

- Over 10,000 packages of information, more than 50,000 submission forms, 29,000 explanatory brochures and 76,000 Draft Zoning maps were distributed throughout Australia;
- A range of materials was developed to communicate the Draft Zoning Plan to users, and all relevant information was available on the GBRMPA website and provided on compact disc (2,000 CD's distributed).
- Approx. 2,000 calls were made by the public to the free-call 1800 number;
- There were over 35,000 'hits' on the GBRMPA website (63% from Australia, the rest from 99 countries); and
- Information for the public included community service announcements on regional television and radio, hundreds of newspaper articles and newspaper advertisements.

During the planning process there were also some 1,000 formal and informal meetings and information sessions involving public engagement in over 90 centres along the Great Barrier Reef coast.

The GBRMPA made many modifications to the Draft Zoning Plan due to detailed information provided by local communities and stakeholders, but in some locations there

were limited options available to modify proposed no-take areas, particularly in inshore coastal areas.

Following the huge public involvement in the rezoning program, it was recognised there was a need to maintain a high level of community consultation and involvement. A number of changes have therefore been put in place, to make the consultative mechanisms more targeted, participatory and effective. For example, Regional Liaison Managers/Officers have now been appointed to work with communities along the entire GBR coast and are based in Cairns, Townsville, Mackay and Rockhampton.

Declaration

Commonwealth Reserves under the EPBC Act

The process leading to the declaration of a Commonwealth reserve under the EPBC Act is:

- The Director of National Parks publishes a notice inviting the public to comment on the proposal to declare a Commonwealth reserve over an area, allowing a minimum period of 60 days for comments.
- Any native title holders, registered native title claimants and native title representative bodies for the area are notified of the proposed declaration and given an opportunity to comment.
- The Director of National Parks provides the Minister for the Environment and Water Resources with a report on the Commonwealth reserve proposal. The report must include any comments received and the Director's views on the comments.
- A Regulation Impact Statement examining any significant impacts that declaration of the proposed Commonwealth reserve would have on business is provided to the Minister.
- The Minister considers the report from the Director of National Parks and the Regulation Impact Statement.
- Once the Minister is satisfied that a reserve should be established the Governor-General is advised accordingly. The Governor-General makes a Proclamation declaring the area to be a Commonwealth reserve.

Great Barrier Reef Marine Park

In accordance with the GBRMP Act, once the Marine Park Authority was satisfied, the Zoning Plan was then submitted to the then Minister for the Environment Heritage for consideration. The Minister approved the Zoning Plan and tabled it in both Houses of Parliament on 3 December 2003. The Zoning Plan, as a statutory instrument, was required to be in both Houses of Federal Parliament for a minimum of 15 sitting days. Following the completion of this period, the Minister announced that the new Zoning Plan would be implemented on 1 July 2004.

In November 2004, the State of Queensland ‘mirrored’ the new zoning in most of the adjoining State waters, so now there is complementary zoning for virtually all the State and Federal waters within the entire Great Barrier Reef World Heritage Area.

Management Plans

Commonwealth Reserves under the EPBC Act

All of the existing 13 marine protected areas have management plans in place that meet the statutory requirements of the EPBC Act. Section 367 of the EPBC Act specifies the mandatory content of a plan, including a description of how the reserve is to be managed. The plans generally include specific descriptions of intentions for research, surveillance and compliance activities. The plans are reviewed during the period of two years before they expire, in the lead up to drafting a new plan.

A provision of the *Environment and Heritage Legislation Amendment Act (2006)*, extends the maximum period of operation of Commonwealth reserve management plans from seven to ten years to provide greater certainty to stakeholders regarding the management regime for Commonwealth reserves. This Act also provides for multiple MPAs to be covered under a single management plan.

Sections 368 and 370 of the EPBC Act specify the mandatory process for preparing each plan. The Director of National Parks must issue a public notice stating the intention to prepare a draft plan and invite comments on the proposal, specifying a period of at least 30 days to submit those comments. The draft plan is then prepared. The Director must then issue another public notice inviting comments on the draft plan and specify a period of at least 30 days to submit those comments. Those comments, and the Director’s responses to them, must be submitted with the plan to the Minister for approval. Any public comments that have not been given effect to in the plan, must also be submitted with the plan when it is laid before Parliament as a disallowable instrument.

Great Barrier Reef Marine Park

Within the Great Barrier Reef Marine Park, there are a wide range of statutory and non-statutory plans and other regulatory instruments²⁴. Statutory Plans of Management (PoMs) have been prepared for intensively used, or particularly vulnerable areas, or for the protection of vulnerable species or ecological communities. The objectives of PoMs are set out in the [GBRMP Act](#) (s.39Y). Plans of management complement zoning by addressing issues specific to an area, species or community in greater detail than can be accomplished by the broader reef-wide zoning plans.

There are currently four PoMs within the Great Barrier Reef Marine Park:

- [Cairns Area Plan of Management](#)
- [Hinchinbrook Plan of Management](#)

²⁴ See Table 2 (pp.12-13) in http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/docs/gbr_wh_part_ii.pdf

- [Shoalwater Bay \(Dugong\) Plan of Management](#)
- [Whitsundays Plan of Management](#)

Managing existing marine protected areas

Overview of processes

Commonwealth Reserves under the EPBC Act

A set of tools and policies have been developed to provide a consistent approach to management across the Commonwealth MPA estate. These include:

- Management and zoning plans which set out overarching objectives and specific strategies for management of the marine protected areas
- a risk assessment methodology to establish priorities
- implementation plans to implement the management plans and to manage significant risks
- a performance assessment framework and database, to review and report on progress
- research and monitoring plans
- compliance and enforcement plans
- cross-jurisdictional management arrangements with State Governments and other Commonwealth agencies.

Great Barrier Reef Marine Park

The management of the Great Barrier Reef Marine Park and World Heritage Area is based around the Day-to-Day Management Program (DDM), a jointly funded co-operative partnership between the Commonwealth and the State of Queensland that guides field operations and routine day-to-day activities.

An essential component underpinning Queensland's acceptance of this arrangement is that its role in management and decision-making is reflected in legislation and management arrangements for the Great Barrier Reef Marine Park. A close working partnership between Queensland and the GBRMPA has evolved over 30 years, including such aspects as complementary zoning and joint permits. This strong working partnership has ensured the effective management of the complex and inter-related mix of marine, coastal and island issues, and provides for integrated management of the Great Barrier Reef on a whole-of-ecosystem basis.

In addition to the DDM arrangements, Queensland Government agencies with State responsibilities for policy co-ordination, environment, local government, maritime matters, catchment and land use and fisheries are actively involved in administration and management of issues pertinent to the health and operation of the Marine Park. To carry out its functions effectively, the GBRMPA maintains comprehensive liaison and policy co-ordination arrangements with all of these, both at the operational and strategic levels.

This fundamental working relationship between Queensland and Australian Government agencies is of critical importance for effective management of the Great Barrier Reef, and consequently is afforded high priority by the GBRMPA Board and the Executive. In carrying out its functions, the Authority maintains strong partnership with a wide range of agencies, stakeholders, and community members with an interest in the protection, wise use, understanding and enjoyment of the Great Barrier Reef.

Effective service delivery requires constant interaction and discussion across all agencies and across all levels of management, and the maintenance of sound working relationships.

The DDM work program is delivered in keeping with four priorities established by the Authority. In priority order, these are:

- Compliance.
- Protection of Vulnerable Species and their Habitats
- Visitor Facilities, Permits Management, Presentation, Natural and Cultural Resource Protection.
- Implementation of Indigenous Co-management Programs

Compliance

Commonwealth Reserves under the EPBC Act

The Commonwealth Marine Protected Areas Program applies a range of flexible, targeted compliance and enforcement measures in order to achieve effective protection. The choice of compliance and enforcement measures is based on a number of factors which include: regular risk assessment; resource availability; the effectiveness of trialled measures; and stakeholder awareness and motivations.

A primary aim of marine protected area compliance and enforcement strategies is to nurture a culture of voluntary compliance, minimising the need for enforcement action. This is supported by strong potential penalties. Compliance measures such as communication and education activities and the timely provision of information and advice are designed to provide awareness of marine protected area management arrangements and encourage community and industry compliance. The main compliance risk across the marine protected areas estate is illegal fishing.

Aerial or surface surveillance and on water response services are provided to DEW through the Australian Customs Service and Australian Defence Force, as well as through arrangements and some state fisheries and parks management agencies through Annual Business Agreements. DEW has worked closely with these agencies to maintain or improve the quality of surveillance across the Commonwealth MPA estate, including through both strategic and tactical surveillance operations. DEW is also working cooperatively with the Australian Fisheries Management Authority to continually improve compliance by domestic commercial fisheries and to improve responses to illegal foreign fishing incursions.

Recent amendments to the EPBC Act have streamlined and strengthened compliance and enforcement in Commonwealth Reserves. Changes include the introduction of criminal penalties for certain offences within Commonwealth Reserves as well as the introduction of strict liability - such that ignorance of the fact that the area is a Reserve is not a defence. All Customs officers have also been made *ex-officio* wardens.

Of particular note also, is the introduction of a new Schedule 1 to the EPBC Act, which enables the apprehension of foreign nationals for EPBC Act offences (mirroring existing provisions for *Fisheries Management Act 1991* offences). This will result in significantly improved options for dealing with this priority threat. It will be made possible through close cooperation between DEW, Customs, AFMA and the Department of Immigration and Citizenship for apprehension, detention, prosecution and repatriation of illegal foreign fishers. It is expected that these provisions will be enforced from mid 2007 following finalisation of operational agreements with these agencies.

Great Barrier Reef Marine Park

Compliance and enforcement activities in the Great Barrier Reef Marine Park are undertaken by a number of Queensland and Commonwealth Government agencies working under contract or other less formal arrangements with the GBRMPA. (For example, the major work provider, Queensland Parks and Wildlife Service, as part of the Environment Protection Agency, operates under a memorandum of understanding and a jointly agreed annual business program). These government agencies include the Queensland Environment Protection Agency, the Queensland Boating and Fisheries Patrol (Department of Primary Industries and Fisheries), the Queensland Water Police, Coastwatch, the National Marine Unit (Customs), and the Australian Federal Police.

The Australian Government made an additional special funding allocation of \$8.9 million over three years which commenced on 1 July 2004. This funding was provided to manage the increased compliance requirements arising from the implementation of the new Zoning Plan for the Great Barrier Reef Marine Park.

The special funding has enabled new specialist compliance staff to be employed including intelligence, planning and investigations officers, and the development of an enhanced surveillance programme along with a compliance operations coordination centre in Townsville. Ongoing training has been provided to Coastwatch and other service providers following the implementation of new zoning; this training is specifically tailored to address the requirements identified and emerging trends following the zoning changes.

Enforcement

Commonwealth Reserves under the EPBC Act

The Commonwealth Marine Protected Areas Program has a number of formal agreements with other government agencies that provide compliance and enforcement services. DEW

provides these agencies with training in Commonwealth marine protected areas management requirements and law enforcement under the EPBC Act. This has resulted in many officers of various agencies being appointed as Wardens under the EPBC Act with authority to undertake enforcement action in Commonwealth marine protected areas. Formal agreements with these service providers continue to be developed and refined as relationships progress.

DEW recognises the importance of a high level of compliance and enforcement effort in order to provide effective protection to Commonwealth marine protected areas. DEW's compliance and enforcement capabilities have been enhanced over the last two years by the introduction of an Environment Investigations Unit – the Marine Division refers investigations to and seeks guidance from this Unit as required. Several matters have been finalised against domestic and foreign nationals; other matters are being investigated. A case management system has been introduced to improve management of investigations. The 24-hour duty phone has been maintained to manage responses by law enforcement officers in other agencies.

Great Barrier Reef Marine Park

Details of the enforcement efforts in the Great Barrier Reef Marine Park are routinely reported in the Annual Report²⁵.

Research and Monitoring

Commonwealth Reserves under the EPBC Act

A series of research and monitoring strategies are currently being developed at three levels - one overarching strategy for all Commonwealth MPAs, one strategy for each of three climatic regions (tropical, temperate and sub-Antarctic) and a strategy for each individual MPA. The overarching strategy will help to focus research and monitoring efforts toward monitoring, assessing and reporting on progress toward achieving the goals of the entire system of Commonwealth MPAs. Each of the three regional strategies will outline research and monitoring needs that are focused on common ecological characteristics and management issues of the MPAs in those regions. The strategies at the individual MPA level provide guidance on prioritising research and monitoring activities to focus on understanding and reporting on progress toward achieving management objectives that are explicitly stated in the management plan of each MPA.

Great Barrier Reef Marine Park

Having the best available information for decision making is essential to high quality, scientifically based management of the Great Barrier Reef Marine Park. The Authority has a strategic and coordinated approach to information acquisition, management, analysis, interpretation, dissemination and application. A comprehensive Research

²⁵ Annual Reports for the GBR Marine Park are at http://www.gbrmpa.gov.au/corp_site/info_services/publications/annual_reports/index.html

Information System²⁶ provides information on the research needs for management of the Marine Park and research projects that address those needs. However, as the Authority is a management agency, the majority of research is carried out by research institutions such as the CRC Reef Research Centre ([CRC](#)) and the Australian Institute of Marine Science ([AIMS](#)).

Performance Assessment

Commonwealth Reserves under the EPBC Act

In order to monitor, report on and improve management of Commonwealth MPAs, a system to track and improve management effectiveness is being developed. The system will comprise a database to hold and access information on progress toward achieving management objectives and reducing risks, and a series of research and monitoring strategies (described above) that will assist in providing critical knowledge for improving management.

The database and research and monitoring strategies will improve capacity to manage adaptively and effectively by providing a base for consistently:

- monitoring status and changes in the marine ecosystems and ecological processes that we are aiming to conserve;
- tracking our management activities and the impacts of those activities;
- reporting on our management processes and impacts; and
- applying new information and lessons learned to improve future planning and implementation.

Management activities and progress are regularly evaluated and reported relative to the performance indicators of different strategic programs and plans:

- Six-monthly against risks identified under the Risk Management Policy of the Director of National Parks;
- Annually against Key Results Areas as part of the statutory annual report for the Director of National Parks.
- Six-monthly against the performance indicators of the National Investment Stream of the Natural Heritage Trust;
- Periodically as part of the Marine Division's contribution to financial and progress reports for the Department;
- Periodically as part of State of Environment and State of the Marine Environment reporting; and
- At the end of the life of each individual management plan (7years) as part of the iterative statutory planning process.

²⁶ The research priorities database is available at http://www.gbrmpa.gov.au/corp_site/info_services/science/research_priorities/database/

Great Barrier Reef Marine Park

Within the GBR Marine Park, management effectiveness is regularly assessed against a number of strategic programs and plans:

- Annually against GBRMPA's Strategic Work Program (updated annually since 1999).
- Annually against the Portfolio Budget Statements;
- Periodically as part of the 'State of the Reef Report'²⁷; and
- Periodically against the 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area (1994).

One assessment of the performance of the Great Barrier Reef Marine Park can be seen in Appendix 1; another is the change in the extent to which the nine bioregions of the Interim Marine and Coastal Regionalisation for Australia (IMCRA) are currently represented within highly protected zones (i.e. no-take areas). This varies across the GBR Marine Park as shown below, but has changed markedly since the IMCRA bioregions were first depicted in 1999 (IMCRA version 3.1).

Table 1 – assessment against IMCRA bioregions

IMCRA bioregion	IMCRA Abbreviation	Percentage coverage within GBRMP	% within no-take zones (as of 1999)	% currently within no-take zones (as of 2005)
East Cape York	ECY	87.4% (ie most)	21.5	28.5
Ribbons	RBN	89.2% (ie most)	20.0	29.6
Wet Tropic Coast	WTC	91.7% (virtually all)	0.7	12.1
Lucinda-Mackay Coast	LMC	97.3% (virtually all)	0.3	13.9
Shoalwater Coast	SCT	92.4% (virtually all)	0.6	24.4
Central Reef	CRF	100.0	3.4	25.9
Mackay-Capricorn	MCN	100.0	0.2	29.1
Pompey-Swains	PSS	100.0	4.7	25.9
Tweed-Moreton	TMN	10.5% (minimal)	0	3.4

²⁷ State of the Great Barrier Reef On-line
http://www.gbrmpa.gov.au/corp_site/info_services/publications/sotr/index.html

New South Wales

Marine protected areas in NSW include:

- marine parks
- aquatic reserves
- the marine components of national parks and nature reserves.

Mandate

Policies and Strategies

The NSW Government (2001) has published “Developing a Representative System of Marine Protected Areas in New South Wales – An Overview”, which outlines its approach to planning and managing marine protected areas consistent with relevant legislation and the national guidelines (ANZECC TFMPA 1998). The NSW Government plans to develop a comprehensive, adequate and representative system of marine protected areas as part of the NRSMPA.

The Strategic Framework for the Evaluation and Monitoring of Marine Parks in NSW provides a outline and structure for the development of research and monitoring programs in NSW marine parks. The two main priorities for research and monitoring are (1) identification and selection of the location and nature of marine parks and their zones and (2) monitoring and evaluating the effectiveness of marine park zoning and related management arrangements.

Laws

The *Marine Parks Act 1997* aims to conserve marine biodiversity, habitats and ecological processes through the development of a representative system of marine parks. Where consistent with these objectives, it also aims to provide for the ecologically sustainable use of fish and marine vegetation (including commercial and recreational fishing) and provide opportunities for public appreciation, understanding and enjoyment of Marine Parks. The Act establishes the Marine Parks Authority (MPA).

The *Fisheries Management Act 1994* provides for the declaration and management of aquatic reserves. Aquatic reserves aim to conserve the biodiversity of fish and marine vegetation and, where consistent with that purpose, to protect fish habitat, threatened species, populations and ecological communities, and to facilitate educational activities and scientific research. Fishing restrictions vary between aquatic reserves. A management plan may be made for reserves under the Act.

The *National Parks and Wildlife Act 1974* provides for the conservation of natural and cultural heritage, and the management of wildlife, including many marine and coastal species. A comprehensive, adequate and representative system of reserves is being established under the Act. The Act establishes the National Parks and Wildlife Service (NPWS), now part of the Department of Environment and Conservation (DEC). The

NPWS manages national parks and nature reserves and the marine areas they contain in accordance with management principles specified in the Act and as part of larger coastal parks. Management principles vary between national parks and nature reserves. A Plan of Management is required under the Act for each reserve.

Establishing New Marine Protected Areas

Overview of Process

The general process for establishing new marine protected areas is:

- identification of candidate marine protected areas using ecological criteria adapted from national selection criteria (ANZECC TFMPA 1998)
- selection of marine protected areas following consideration of social, economic and cultural criteria
- announcement and declaration of marine protected areas
- management plans prepared as required to establish the management arrangements
- management arrangements implemented
- management plans reviewed.

Formal public consultation occurs at various stages in this process. For marine parks, the primary focus of public consultation is on zoning plans.

Identification

The MPA in conjunction with DEC and DPI is assessing:

- marine biodiversity in NSW waters of each bioregion
- the location of any new marine parks.

The basis for bioregional assessments in NSW is a geographical information system (GIS) and decision support system for marine conservation planning. The GIS covers all marine waters of NSW (oceanic and estuarine), including the five mesoscale marine bioregions identified in NSW waters (IMCRA Technical Group 1998).

A limitation is the lack of detailed information on marine biodiversity at the scale of bioregions. Consequently assessments at this scale rely primarily on ecosystems and habitats as coarse surrogates for biodiversity, supplemented with finer scale community and species data where available.

The data set also includes existing conservation measures such as marine protected areas. Aligning boundary information with the State cadastre has allowed precise assessment of the area currently protected.

To compare options for marine parks, the MPA uses explicit models of marine protected area objectives, criteria and performance indicators, and a range of reserve selection and multiple criteria decision support tools. This approach also provides a basis for ongoing planning, management and research, including zoning in newly created marine parks.

Community Consultation

The MPA undertakes extensive community consultation throughout the process of developing zoning plans for marine parks in NSW. A local community-based Advisory Committee is established for each marine park in the early stages of park planning to advise the MPA. Focus groups that complement the local Advisory Committee are often subsequently formed to further advise the MPA on key issues. To better understand broad community views on marine park values and management a Community and Visitor Questionnaire is typically then undertaken in conjunction with community meetings. Collation and mapping of this information helps to outline usage patterns for marine parks.

A draft zoning plan is then prepared by the MPA and the community for each marine park, with advice from the local Advisory Committee. Once the draft zoning plan is developed, there is a three month public consultation period during which the public are invited to comment. More stakeholder and focus group meetings are held during public exhibition of the draft zoning plan. The planning process also involves consultation with the State Marine Parks Advisory Council.

The NPWS undertakes detailed community consultation in developing plans of management for national parks and nature reserves. This includes invitation for public comment on plans of management, usually over a period of three months.

The DPI undertakes extensive consultation in respect to the selection and management of all aquatic reserves.

Declaration

Since the release of the TFMPA NRSMPA Report June 2003, MPA has finalised marine biodiversity assessments of NSW waters in the Manning Shelf (2004), Hawkesbury Shelf (2005) and Batemans/Two-fold Shelf (2005) bioregions.

The NSW Government has declared the following marine protected areas to date:
6 marine parks:

- Solitary Islands Marine Park (2 January 1998, following initial declaration as a Marine Reserve in 1991), Tweed-Moreton Bioregion
- Jervis Bay Marine Park (2 January 1998, following Marine Reserve proposals in the early 1990's), Batemans Shelf Bioregion
- Lord Howe Island Marine Park (26 February 1999), Lord Howe Province
- Cape Byron Marine Park (1 November 2002), Tweed-Moreton Bioregion
- Port Stephens–Great Lakes Marine Park (1 December 2005), Manning Shelf Bioregion
- Batemans Marine Park (7 April 2006), Batemans Shelf Bioregion

12 aquatic reserves:

- 10 in Hawkesbury Shelf bioregion
- 1 in Tweed-Moreton Bioregion
- 1 in Batemans Shelf Bioregion

62 national parks and nature reserves that contain marine protected areas:

- in all coastal bioregions and primarily including estuaries, ocean beaches and rocky shores.

The most recent developments are:

- Port Stephens–Great Lakes Marine Park (declared on 1 December 2005), covering approximately 98,000 ha of oceanic and estuarine waters between Cape Hawke (near Forster) and Stockton Beach, including Smiths Lake, Myall Lakes, Myall River, Karuah River and Port Stephens
- Batemans Marine Park (declared on 7 April 2006), covering approximately 85,000 ha and located between Bawley Point and Wallaga Lake. This park includes:
 - the Murramarang coast, containing large areas of rocky reef and islands used for breeding by seabirds
 - important coastal lagoons, including Durras, Brunderee, Tarourga and Brou Lakes
 - the Tollgate Islands, an important breeding site for grey nurse sharks
 - important estuarine areas in the Clyde River and Batemans Bay
 - the waters surrounding Montague Island, which contains important sites for seals, grey nurse sharks, penguins and many seabird species.

About 34% of NSW waters are in marine parks. Approximately 18,600 ha of sanctuary zones have been implemented in marine parks since 2003 (over 100 individual zones). An additional 33,400 ha (approx.) of sanctuary zones will come into effect in by mid 2007 with the implementation of the zoning plans for Port Stephens–Great Lakes Marine Park and Batemans Marine Park.

Further, a strategic action of the New South Wales Coastal Policy (NSW 1997) is to add intertidal areas to adjacent National Parks and Wildlife Service reserves. A staged approach has been adopted with intertidal areas progressively being added.

Management Plans

Zoning plans and operational plans are used in the management of marine parks. Details include:

- final zoning plan for Port Stephens-Great Lakes Marine Park announced (to commence on 21 April 2007)
- final zoning plan for Batemans Marine Parks announced (to commence on 30 June 2007)
- final zoning plan for Lord Howe Island Marine Park (commenced 1 December 2004)

- operational plan for the Lord Howe Island Marine Park (August 2004)
- final zoning plan for Cape Byron Marine Park (commenced 1 May 2006).

An inventory and evaluation of marine protected areas in national parks and nature reserves has been prepared. Strategies for the management of marine ecosystems and habitats on parks are currently being prepared.

Management planning for the marine components of national parks and nature reserves is being increasingly integrated with whole-of-park management plans. Of the 62 national parks and nature reserves that contain marine protected areas, 45 have draft plans of management or final plans of management in place (7 draft plans of management, 38 final plans of management).

Managing Existing Marine Protected Areas

Overview of Processes

The MPA manages marine parks in accordance with zoning plans and operational plans. National parks and nature reserves are managed by the NPWS according to plans of management and principles outlined in the National Parks and Wildlife Act 1974. Aquatic reserves are managed by general regulation or under a specific management plan.

The MPA, DEC, and DPI work closely with many organisations including NSW catchment management authorities, local councils, government agencies and community groups.

Compliance

The NSW Government implements compliance programs at local and at statewide levels. Marine Parks have dedicated compliance staff. Staff of other government agencies can also be appointed as marine park rangers. DPI manages compliance in aquatic reserves and allocates time and staffing according to regional priorities. NPWS manages compliance in the marine components of national parks and nature reserves in accordance with the arrangements for individual reserves.

The MPA, DEC and DPI are active in numerous advisory programs targeting the wider community, school students and marine park users. Programs include snorkelling and rocky shore tours, informative presentations, training workshops, school excursions, sporting club briefings and attendance at conferences and expos. The MPA has also hosted numerous public exhibitions and meetings to discuss draft zoning plans.

NPWS runs Discovery Programs, some of which are directly concerned with the marine areas in or adjacent to national parks and/or undertaken in Marine Parks in cooperation with Marine Parks Authority staff.

DPI has an on-going community education program, including conservation programs and fishing clinics to improve awareness and understanding of the importance of Aquatic Reserves and the marine environment generally.

Marine Parks operate under individual compliance strategies, providing a framework for routine and tactical compliance in each marine park. High-risk areas and seasonal activities may be targeted, such as estuarine crab trapping, inshore lobster trapping and illegal netting.

Compliance activities in marine parks provide the opportunity for education of marine park users through the distribution of information. Educational presentations and telephone and face-to-face enquiry services are used to distribute information.

Jervis Bay and Solitary Islands marine parks have been operational since 2002 (with Solitary Islands Marine Park preceded by a Marine Reserve that was operational from 1991 to 2002). Surveillance and compliance in Jervis Bay Marine Park for the reporting period was largely focused on education of marine park users at key locations such as boat ramps, fishing club meetings and briefings for participants in fishing competitions. Compliance activities in the Solitary Islands Marine Park in the reporting period also provided for the distribution of advisory material to thousands of marine park users. Presentations were provided to many interest groups to highlight ecological values and to outline the marine park zoning scheme.

Enforcement

Regular boat-based patrols monitor user activity and ensure compliance with regulations. Compliance effectiveness is enhanced with the cooperation of other agencies. A total of 491 patrols were conducted in 2004-05 in Jervis Bay Marine Park, and a high level of compliance across the different park zones was observed. In Solitary Islands Marine Park approximately 350 patrols were undertaken over the 2004-05 period, which also indicated a high level of compliance with marine park regulations. In Lord Howe Island Marine Park approximately 250 hours of vessel-based surveillance was undertaken in the period 2004-05.

Research and Monitoring

The NSW Marine Parks Strategic Research Plan 2005-2010 builds on the Strategic Framework for Evaluation and Monitoring of Marine Parks in NSW. Each established marine park has a research workplan that outlines and prioritises both long-term monitoring initiatives as well as site-specific research. The research workplans are available on the MPA website.

Research and monitoring programs either address questions important to ongoing management initiatives (highest priority for research) or provide relevant information about the biotic and abiotic patterns and processes in the marine park.

Knowledge of ecosystems, habitats and key species distributions is essential to management and conservation planning efforts. A key area of research is concerned with habitat mapping, using swath mapping technology. Recently, this has been carried out in parts of Solitary Islands (about 70km²), Port Stephens–Great Lakes (about 110 km²) and Batemans (about 115 km²) marine parks to map the location and cover of different habitat types and to aid the development or review of zoning plans and park management generally. Video groundtruthing has been carried out in some of these areas, and some sediment particle analysis has also been carried out in Solitary Islands Marine Park.

Research is also focused on the effectiveness of sanctuary zones for the protection of biodiversity. The abundance and diversity of fish and invertebrate species is measured at most of the marine parks in NSW using diver transect surveys and underwater video recording methods. These studies compare sites within and outside sanctuary zones to determine long-term benefits of sanctuary zone protection. This type of work has been performed at sub-littoral rocky reefs in Jervis Bay Marine Park, firstly in 1996, and subsequently each year since 2000 (except 2002). This research, along with similar studies being conducted at other temperate locations will help to inform marine park management and biodiversity conservation.

Studies on social, economic and cultural values provide important information for the establishment and management of marine parks in NSW. Conducting community and visitor questionnaire surveys, focus group meetings and obtaining advice from local Advisory Committees during the development of draft zoning plans provides information on the economic values and potential socio-economic impacts on the community associated with the development of the marine park, as well as maximising the benefits to the community.

The MPA has commissioned economic research for marine parks in four main areas:

- framework for economic analyses of marine parks – this framework has been designed for modelling the economic impact of declaring and zoning marine parks. In particular, data requirements to estimate economic impacts of marine parks were identified. This framework has been used to guide investigations of economic impacts of NSW marine parks
- collection of baseline economic data –collection of base-line economic data on marine parks using the framework outlined above. Data has been collected from Solitary Islands, Jervis Bay and Cape Byron Marine Parks, and the Bateman's region. Data collection is continuing
- recommended economic work program –an economic work program to meet the policy and management objectives of the MPA
- research on the economic impacts of Batemans and Port Stephens–Great Lakes marine parks on commercial activities.

A recent survey of small businesses adjacent to the Solitary Islands Marine Park assessed the impacts of the 2001 zoning plan for that marine park on local business activity. It indicated growth in visitation since the creation of the marine park that benefited accommodation businesses. There is no evidence that the 2001 zoning plan for this marine park adversely affected the turnover of the other businesses surveyed.

Solitary Islands Marine Park has performed a Visitor Monitoring Survey Program every summer for five years following implementation of the zoning plan in 2002. This program collects information on visitation patterns, park user activities and the utility of advisory brochures and signage. Park visitors have indicated a high level of satisfaction with park management, with an overall rating between 5.3 and 6.5 (out of 7) for those surveyed.

Studies of invasive and pest species and disease are conducted in marine parks. Specific studies include:

- necropsies on marine mammals and reptiles (Cape Byron)
- sedimentation and the invasive algae *Caulerpa taxifolia* (Jervis Bay)
- marine pest planning (Jervis Bay)
- crown-of-thorns starfish (Lord Howe Island)
- marine pest surveys (Lord Howe Island)
- coral disease (Lord Howe Island).

There is also a range of other research projects to study key species in each marine park, as well as a series of studies designed to measure patterns of fine-scale biodiversity, which is valuable in the development of marine park zoning plans.

Several studies are also examining recreational fishing and SCUBA diver user patterns in each marine park.

Performance Assessment

The NSW Government has not evaluated the overall effectiveness of its marine protected area network at this stage, although various research programs in marine parks consider the effectiveness of biodiversity conservation.

The NSW Government is committed to reviewing marine park zoning plans after five years of implementation to monitor and manage the marine park performance.

Northern Territory

Marine protected areas in the Northern Territory include:

- Marine Parks
- Aquatic Life Reserves
- Dugong protection zone(s)
- Existing Reserves under the *Territory Parks and Wildlife Act*, with a marine component

Fisheries regulations and closures also contribute to the protection and conservation of marine biodiversity within the Territory and may form a component of the marine protected areas system.

Mandate

Policies and Strategies

The Northern Territory is committed under both, national and international obligations, to establishing a comprehensive, adequate, and representative (CAR) system of Marine Protected Areas (MPA), as part of the National Representative System of Marine Protected Areas.

The Northern Territory Government has developed several strategies and policies relevant to marine and coastal biodiversity conservation and planning, and is currently undertaking several strategic planning and biodiversity conservation planning initiatives for the waters within its jurisdiction.

The Draft Northern Territory Parks and Wildlife Conservation Master Plan (2005) provides a broad strategic direction for development and management of the reserve system in the Territory consistent with the National Reserve System Guidelines. It focuses on setting priorities for conservation, with a key initiative being the development of a marine policy and planning framework to enhance the conservation of marine biodiversity.

The *Integrated Natural Resource Management Plan for the Northern Territory* (2005) is a comprehensive strategy to help inform the development of natural resource policy in the Northern Territory, including coastal and marine assets. It recognises the need for closer integration of policies and management programs across different government agencies and much greater levels of collaboration among industries, governments and communities. Under the plan, the Northern Territory Government is currently undertaking a stakeholder-inclusive process to develop a '*Marine Protected Areas Strategy*' for the NT. The Strategy will outline the strategic approach (i.e. policy, planning and technical framework) to the identification, selection and management of a CAR system of MPAs in the NT, as part of the NRSMPA.

Further, the Strategy will outline the necessary administrative and legislative arrangements, resources, and programs necessary to implement and manage a system of MPAs in the NT. The Strategy development process itself will not identify any particular area as a potential MPA or implement any MPAs, rather the implementation process will be articulated by the NT MPA Strategy. Given the significant indigenous interests, tenure and rights along the NT coastline, it is expected that a range of potential MPA management models (i.e. government managed MPAs, co-managed MPAs, indigenous MPAs) will be explored as part of the development of the Strategy.

Some 85% of the Northern Territory coastline is under Aboriginal ownership and control. This makes the Northern Territory unique in Australia and provides unique challenges but also opportunities and obligations for Aboriginal people with rights and interests in coastal areas to be involved in management. Much of this area is owned under the provisions of the Aboriginal Land Rights Act (NT) 1976 (ALRA).

There are also a range of fisheries management arrangements and initiatives which support and complement broader marine planning processes.

Laws

The *Territory Parks and Wildlife Conservation Act 1993* enables the establishment of new marine and terrestrial parks and reserves. The Act and its By-laws apply to management of these areas.

The *Fisheries Act 1988* provides for the Minister to declare an area or place to be a fishery management area or a fishery to be a managed fishery. Where a management area or managed fishery is declared a plan for the whole or part of the management area or managed fishery needs to be prepared, as soon as practicable after the declaration. The plan may have regard for a range of purposes including the need to ensure that the habitats of fish or aquatic life and the general environment is not detrimentally affected. Among other things, a fishery management plan may prohibit the fishing for all or certain species of fish and aquatic life in that area, or permit fishing only by specified types of vessels, gear, methods or persons. The Minister also has a range of general powers related to the management of fish or aquatic life. The Act and *Fisheries Regulations* also apply to management of fish in areas protected under other legislation.

In the Northern Territory, MPA planning also needs to take account of the existing range of legislation regarding coastal customary and cultural rights, interests of Indigenous communities and Traditional Owners. While there are ongoing issues surrounding marine tenure and ownership in the NT, which present major challenges to MPA planning and establishment in the NT – a cooperative framework (and legislation) has been developed for Cobourg Marine Park – the only Marine Park in the NT. The *Cobourg Peninsula Aboriginal Land, Sanctuary and Marine Park Act 1996* provides a management framework for Gurig National Park and the Cobourg Marine Park. The park was first declared in 1983 under the *Territory Parks & Wildlife Conservation Act 1993* (Section 12) and was re-declared in 2002 - under section 12 (1) (aa) - to recognise possibility of existence of native title interests and rights. Recently, the Cobourg Marine

Park Plan of Management was released for public comment. Submissions have now been received with recommendations for any amendments to the plan currently being prepared.

Development of the NT MPA Strategy will examine a range of management options and approaches including the development of 'tenure-free; cooperative or joint management frameworks for MPAs, which acknowledge the cultural and customary rights and interests of Indigenous people in the NT.

MPA planning in the NT also needs to take account of Indigenous or cultural legislation which provide for the establishment of closed areas, such as 'sea closures' and 'sacred sites'. While these areas have primarily been reserved for cultural purposes, like fisheries management areas, they also contribute to biodiversity protection:

- Under the *Aboriginal Land Act (ALA)* the Northern Territory has legislation which regulates access onto Aboriginal land consistent with the provisions of the Aboriginal Land Rights Act. The ALA has provisions to enable Traditional Owners of coastal areas to close seas up to 2 kilometres from the boundary of the Aboriginal land held under the Land Rights Act. The provisions in the Act have been considered somewhat cumbersome by Aboriginal people however and have been frequently investigated but rarely used. However, there are two areas around Millingimbi where successful closure applications have been made.
- The *Northern Territory Sacred Sites Act (1989)* allows for the recording and registering of sacred sites in the sea. All sacred sites are afforded protection by the Act whether registered or not but registration provides prima facie evidence in the event that a prosecution for violating a site is brought. The Aboriginal Areas Protection Authority is a statutory authority responsible for administration of the Act.

Establishing New Marine Protected Areas

Overview of Process

The Northern Territory Government is currently developing a strategic policy, planning and technical approach to MPA establishment (ie. identification, selection, consultation, management), through the development of an NT Marine Protected Areas Strategy. An NT Marine Protected Areas Advisory Committee (NT MPAAC) has been established to provide stakeholder input on the development of the Strategy. The NT MPAAC will advise Government on the development of a policy and technical framework for the establishment and management of a comprehensive, adequate and representative system of Marine Protected Areas (MPAs), under the NRSMPA, in the Northern Territory, including:

- Identifying the goals, definitions and principles for implementation of MPAs;
- Identifying an appropriate technical and participatory process for determining the need for, and the identification, selection, prioritisation and establishment of, a

NT representative system of MPAs (NTRSMMPA), on a bioregion basis, based on best practice, science-based planning;

- Identifying proposed administrative / management arrangement for MPAs, including an investigation of a range of MPA governance types and models (eg. government managed protected area, co-managed protected area), recognising and acknowledging the complex social, cultural processes involved in marine conservation planning; and
- Identifying proposed types of MPAs (ie. including zoning scheme, permitted activities), and if possible, potential linkages and integration with existing closures such as marine-IPAs;

The NT MPAAC is expected to complete its task and report to Government by the end of 2007.

MPA planning is also being undertaken by the Australian Government in the offshore waters of the NT (beyond three nautical miles) through the Commonwealth Northern Regional Marine Plan. A Memorandum of Understanding (MOU) has recently been developed to facilitate cross-jurisdictional collaboration and cooperation on regional planning and MPA planning between the Governments in areas of shared responsibility or mutual interest.

Identification

The Northern Territory Government has identified Bynoe Harbour as a candidate for a marine protected area. Planning for the area will follow a multiple use approach, allowing a number of activities to occur with a high level of management. The planning process is in the early stages, with an advisory committee formed to assist with the development of a draft plan of management. The planning process has however recently been deferred, pending the development of the over-arching NT Marine Protected Areas Strategy. This will inform and assist the planning process for Bynoe Harbour.

Several indigenous communities have formally identified MPAs or marine extensions of existing Indigenous Protected Areas through the development of regional sea country plans: *Yolgnuwu Monuk Gapu Wanju Sea Country Plan: A Yognu Vision and Plan for Sea Country* (Dhimurru 2006); or specific MPA proposals: *Marine Park - Sir Edward Pellews Islands, McArthur River and Coastal Areas, Boorooloola* (Mabunji Aboriginal Resource Association 2006).

The Government recognises that while the number of marine protected areas in the Territory is low compared with some jurisdictions, vast areas remain untouched and in pristine condition. The Government also considers that domestic threats and pressures on the Territory marine environment are significantly less than those in most other States due to relative inaccessibility and low population numbers. Precautionary fisheries management arrangements also help ensure the sustainability of aquatic resources and the conservation of biodiversity. All major commercial fisheries in the Northern Territory have Fishery Management Plans and most undergo regular resource assessment.

Numbers of participants are relatively low and zoning of fishing areas vastly reduces the impact of fishing activities. For example, virtually all rivers (apart from two) in the Northern Territory are closed to commercial fishing.

Limited available information about the Northern Territory marine environment means that broad-scale and site-specific marine survey work is needed to assist in identifying candidate marine protected areas. The development of the regional marine plan in northern Australia and the establishment of a presence in Darwin by the Australian Institute for Marine Sciences (AIMS) will help generate this information, which will assist in future coastal and oceans planning processes.

Community Consultation

Guiding principles for planning, establishing and managing marine protected areas in the Northern Territory include the adoption of effective consultation processes to address social, economic and cultural issues. The Northern Territory's coastline is characterised by a large area and a diversity of stakeholders. There have been some very successful consultative committees set up which create a forum for stakeholders to identify priority issues, create partnerships and develop appropriate management responses.

Recently, the Bynoe Harbour Marine Park Advisory Committee was established to develop an integrated, ecosystem-based plan to conserve the natural values of the area. User groups involved include recreational and commercial fishermen, indigenous interests, pearling and environmental groups. Likewise, the Darwin Harbour Advisory Committee, an independent community based reference group, was established to provide advice on the development and subsequent implementation of the Plan of Management for Darwin Harbour and its catchment.

With 85% of the Northern Territory coastline owned or controlled by Indigenous people, widespread consultation is essential among this group. Aboriginal Fisheries Consultative Committees were formed around the Northern Territory in response to the acknowledgment by the Northern Territory Government of Aboriginal people as a major user group with a keen interest in the well-being of the fisheries resource. Eight committees are located in different areas around the coast, with four meeting on a regular basis.

An NT Marine Protected Areas Advisory Committee with representatives from all stakeholder groups has recently been established to progress the development of the NT Marine Protected Areas Strategy.

Declaration

While the Northern Territory Government is committed to progressing marine protected areas, no new areas have been formally declared since last reporting. The establishment of a Marine Park in Bynoe Harbour has commenced, but has been deferred, pending the development of the Marine Protected Areas Strategy.

Given the significant indigenous interests and native title rights along the NT coastline, it is expected that the NT Marine Protected Areas Strategy will explore a range of potential MPA management models (i.e. government managed MPAs, co-managed MPAs, indigenous MPAs), and further, define a consultative, technical and planning approach to progressing MPAs in marine waters adjacent Aboriginal land.

Management Plans

No management plans have been implemented since 2003, however the Plan of Management for Garig Gunak Barlu (Cobourg Marine Park) covering some 229 000 hectares has advanced significantly with final recommendations being prepared prior to implementation.

In the past, conflicting clan interests and dispersed decision-making responsibility frustrated the development of a Plan of Management for Garig Gunak Barlu.. Indigenous interests and the Parks and Wildlife Service jointly manage the Marine Park, while responsibility for the management of fish within it rests with the Department of Primary Industry, Fisheries and Mines. The Marine Park Board, including a majority of traditional owners, has finalised a zoning plan which includes the zoning of a dugong and marine turtle sanctuary, buffer zones around protected areas and zones permitting various levels of commercial and recreational fishing.

Managing Existing Marine Protected Areas

Overview of Processes

Generally the Northern Territory Government establishes an Advisory Committee to enable stakeholders to have their say in the zoning and management of each marine protected area. Joint management of Garig Gunak Barlu (Cobourg Marine Park) is achieved through the Marine Park Board. Increased involvement of the local community and joint management arrangements for future marine protected areas are likely trends for the Northern Territory.

Compliance and Enforcement

On-site park rangers are responsible for monitoring and enforcing the *Territory Parks and Wildlife Conservation Act* By-laws. The Fisheries and Marine Enforcement Section of the Northern Territory Police is responsible for enforcing the provisions of the *Fisheries Act 1988*. Lack of resources can be an impediment to promoting compliance. Park rangers and the Fisheries and Marine Enforcement Section collaborate on enforcement matters. The remoteness of Garig Gunak Barlu (Cobourg Marine Park) and Northern Territory offshore waters in general is an added enforcement difficulty.

Research and Monitoring

Some research has been undertaken at East Point Coastal Reserve and Cobourg Marine Park. Monitoring of coral reef fish assemblages (Gomelyuk 2003a) and also, coral bleaching (Gomelyuk 2003b) has been undertaken at Port Essington by NRETA. Monitoring has also occurred through commercial fisher's logbook returns for Cobourg Marine Park. A study was also undertaken on toxic dinoflagellates at Black Point (Gomelyuk 2005). Marine pest monitoring and monitoring of rock oysters (Gomelyuk 2002) has also been undertaken.

A comprehensive research and monitoring program is currently being developed for Cobourg Marine Park by NRETA, as a key outcome of the plan of management.

The Department of Primary Industry, Fisheries and Mines also undertakes a substantial amount of research on the Territory's fisheries and aquatic resources, including annual monitoring of stock status. This research is a valuable input to the MPA planning process. In addition, a tropical rivers research project will provide useful data on northern Australian rivers.

Performance Assessment

Performance assessment of Garig Gunak Barlu (Cobourg Marine Park) has been restricted to annual reporting of achievements. The complications and delays in finalising the zoning plan have prevented discussion on assessing performance. A range of performance assessment criteria will be developed as part of the Plan of Management.

Queensland

Marine protected areas in Queensland include:

- Marine Parks
- Some national parks that include significant marine habitats, e.g. Hinchinbrook Island
- A Conservation Park for the Ex-HMAS Brisbane
- Declared Fish Habitat Areas
- Grey Nurse Shark Protection Areas
- Dugong Protection Areas

Mandate

Policies and Strategies

The Queensland Government adopts a range of policies that foster cooperation in establishing and managing marine protected areas. The Government promotes ecological sustainable development and importantly the comprehensive, adequate and representative principle and multiple-use approach in achieving a balance between conservation and use of the marine environment. The Government recognises the values of a multitude of instruments that apply to the marine environment and its resources, including fisheries, shipping, marine pollution and offshore structures. The Government seeks to harmonise the introduction of marine protected areas with established policy to address and minimise the impacts on social, economic and cultural values.

In 2000 the Queensland Government released a discussion paper, *Marine protected areas in Queensland – a draft planning framework*, to guide and support the establishment of the National Representative System of Marine Protected Areas in Queensland.

The Queensland Government is committed to establishing a continuous system of marine parks from the Gold Coast to the Gulf of Carpentaria and a more targeted declared Fish Habitat Area network. The Queensland Government also committed to expanding the protection of two existing marine parks (Hervey Bay and Woongarra Marine Parks).

These commitments involved the establishment of the Great Barrier Reef Coast Marine Park and Great Sandy Marine Park. These two new marine parks and the existing Moreton Bay Marine Park produce the largest area of State Marine Park in Australia. These marine parks make a significant contribution to the National Representative System of Marine Protected Areas.

The establishment of the Great Barrier Reef Coast Marine Park adopted a complementary policy appropriate with the model developed for the Great Barrier Reef Marine Park owing to the overlap of Queensland and Commonwealth Governments jurisdiction in the region. This approach provides consistency across jurisdictions in management and use of the marine environment.

The Queensland Government has recognised the integrity of this approach by taking a further policy position for marine parks to be consistent as far as practicable with the Great Barrier Reef Marine Park zoning scheme.

Expansion of the existing Hervey Bay and Woongarra Marine Parks has resulted in the establishment of the Great Sandy Marine Park, which commenced in August 2006. This process adopted the Great Barrier Reef Marine Park zoning approach to provide consistency throughout marine parks in Queensland.

The Great Sandy Marine Park was being developed during the 'Year of Consolidation' in 2005 in which the Government sought to finalise outstanding legislative commitments and establish a shared commitment and understanding of the future of the fishing industry. This resulted in Government position to specifically minimise the impacts of the introduction of the new marine park on commercial fishing.

The Queensland Government further considered the development of marine aquaculture in the Great Sandy region resulting in a whole-of-government policy to prohibit intensive marine aquaculture activities in the Great Sandy Marine Park. Regional marine aquaculture planning is currently underway with the Great Sandy region the first area to be examined.

The declared Fish Habitat Area program over a period of 35 years has established a network of key coastal fish habitats critical to long-term sustainability of the fishing industry incorporating commercial, recreational and indigenous sectors. The program continues to identify and declare targeted estuarine and inshore marine fish habitats for protection from the impacts of coastal development.

The extent of constraint on development within declared Fish Habitat Areas is dependent on the level of Management, 'A' or 'B'. The former allows for limited public works and infrastructure; the latter allows for these and limited private works associated with access. There are a number of operational policies that relate to the declaration and management of declared Fish Habitat Areas (refer www.dpi.qld.gov.au). All forms of legal fishing are permitted within this type of marine protected area.

Laws

The Environmental Protection Agency administers the marine parks and protected areas under the marine parks and nature conservation legislation and the Department of Primary Industries and Fisheries administers fisheries legislation.

The *Marine Parks Act 2004* is the primary legislation in the establishment and management of marine parks in Queensland. This Act commenced in 2006 following a comprehensive review of the previous Act and supporting regulations. The purpose of this legislation is conservation of the marine environment and it identifies the development of a zoning plan as the tool to be used in the management and regulation of activities and uses. The Act also provides for the preparation of statutory management plans.

The *Nature Conservation Act 1992* provides for the establishment and management of protected areas, including national parks and conservation parks. The Act also provides for the preparation of statutory management plans.

The *Fisheries Act 1994* provides for establishing and managing declared Fish Habitat Areas, Grey Nurse Shark Protection Areas, and Dugong Protection Areas. The declared Fish Habitat Area network is being integrated with local government through Council planning schemes.

Establishing New Marine Protected Areas

Overview of Process

The Queensland Government has developed policies for assessment, selection and consultation in the establishment of marine protected areas. In general, the steps involved in the process include:

- Notification of commencement of process and the area of interest;
- Assessment of key resources and conservation values;
- Pre-development of a draft proposal consultation;
- Drafting of marine protected area proposal;
- Formal public consultation on draft proposal;
- Review and consideration of submissions;
- Formal recommendation to Minister with analysis of submissions;
- Government endorsement;
- Legislative drafting;
- Governor in Council approval;
- Gazettal; and
- Advice to stakeholders for gazettal.

Identification

The Queensland Government has undertaken to establish a continuous system of marine parks. Priority was given to implementing State and Commonwealth commitments for protecting the Great Barrier Reef World Heritage Area. This has led to establishing the Great Barrier Reef Coast Marine Park, which runs along the Queensland coastline for the entire length of the Great Barrier Reef Marine Park. This was followed by the Great Sandy Marine Park that commenced in August 2006 and expands marine park protection in the region to encompass the Fraser Island World Heritage Area, Great Sandy Strait RAMSAR site, and significant habitats for threatened marine species.

Declared Fish Habitat Area selection and assessment procedures and Fish Habitat Area plans showing boundaries are available on the Department of Primary Industries and Fisheries website www.dpi.qld.gov.au.

Community Consultation

Queensland's marine parks legislation has statutory requirements for public consultation. Community input is sought into the dedication and zoning of marine protected areas through comments on draft proposals and release of Regulatory Impact Statements. Further targeted consultation is generally undertaken throughout the planning process for marine protected areas.

Declared Fish Habitat Area consultation procedures are available on the Department of Primary Industries and Fisheries web site (www.dpi.qld.gov.au).

Declaration

Since 2003 the following declared Fish Habitat Areas have been declared: Margaret Bay and Starcke River (both on eastern Cape York), Edgumbe Bay (Bowen) and Elliott River (Bundaberg). Cleveland Bay (Townsville) and Fitzroy River (Rockhampton) are scheduled for declaration in 2007. Albatross Bay (Weipa) and Leeke's Creek (Great Keppel Island) are currently under investigation.

Fishing restrictions came into effect on 19 December 2003 at four aggregation sites in south-east Queensland to protect the endangered grey nurse shark. These sites are Wolf Rock off Double Island Point, Flat Rock, Henderson Rock and Cherub's Cave in Moreton Bay Marine Park.

In 2004 the Great Barrier Reef Coast Marine Park was declared.

In 2005 a conservation park under the *Nature Conservation Act 1992* was created around the ex-HMAS Brisbane (a former warship), 9km by boat from the mouth of the Mooloolah River, to aid in the protection and use of this site.

In August 2006 the Great Sandy Marine Park was declared and a zoning plan commenced.

The Moreton Bay Marine Park Zoning Plan is due to expire in September 2008. The review of this marine park will commence in 2007.

Management Plans

The Queensland Government manages marine protected area through the relevant Acts, regulations and policies. In addition, all existing marine parks are managed under individual zoning plans. Management plan may also be prepared to address site specific or local issues. Legislation, zoning plans, management plans and policies are subject to periodical review.

Fisheries legislation allows for the development of specific management plans in declared Fish Habitat Areas.

Managing Existing Marine Protected Areas

Overview of Processes

The foundation of the Queensland Government approach to the establishment and management of marine parks is a multiple-use approach through the development of a zoning plan. A zoning plan provides a tiered level of conservation and protection with provision to manage and regulate activities and uses based on the objectives of the zone. Central to a zoning plan is the establishment of highly protected areas while acknowledging ecologically sustainable use. This approach is consistent with the Commonwealth model in the Great Barrier Reef region.

Zoning plans are subordinate legislation and under the *Statutory Instruments Act 1992* expire after 10 years. All subordinate legislation must therefore be reviewed and remade within 10 years.

The Queensland Government manages declared Fish Habitat Area as either 'A' or 'B' management areas, for which the *Fisheries Act 1994* and *Fisheries Regulation 1995* stipulate compatible works and activities. Declared Fish Habitat Area management policy defines the level of acceptable impact that may be approved for each type of compatible works or activity. Day-to-day management of the Fish Habitat Area network occurs from regional fisheries centres.

The Grey Nurse Shark Protection Areas place restrictions on fishing and diving and the Dugong Protection Areas place restrictions on netting. Restrictions and boundaries are described under the *Fisheries Act 1994* and *Fisheries Regulation 1995*.

Compliance and enforcement

The Queensland Parks and Wildlife Service, as part of the Environmental Protection Agency, manages compliance with marine park zoning plans with many programs in the Great Barrier Reef being joint State-Commonwealth marine park officers.

The Queensland Boating and Fisheries Patrol (Department of Primary Industries and Fisheries) manage compliance with declared Fish Habitat Areas, Dugong Protection Areas and Grey Nurse Shark Protection Areas, operating from 22 districts distributed along the Queensland coast. The presence of the Queensland Boating and Fisheries Patrol contributes to a high level of compliance with fishery management requirements.

Education and public awareness is a major and essential component of marine park management. The implementation of the Great Sandy Marine Park includes education and public awareness on the new marine park and its management. This includes the preparation of a map brochure, visitor guide, purchase of a boat and installation and upgrade of signs and markers to assist users and promote compliance of the zoning plan.

Research and Monitoring

Research and monitoring relevant to Queensland marine parks is most commonly part of a broader strategy relating, for example, on seabirds, turtles, dugong, coral bleaching, water quality and lyngbya. The Environmental Protection Agency conducts significant research on marine turtles, including the endangered loggerhead turtle, at the Mon Repos turtle rookery located in the Great Sandy Marine Park.

A CRC Coastal, Estuary and Waterway Management PhD study evaluated the effectiveness of inshore marine reserves in Moreton Bay Marine Park. Effectiveness was assessed in terms of the marine reserves ability to sustain fisheries species and conserve marine biodiversity. Results revealed that the marine reserves provided benefits to a range of fisheries species included exploited invertebrates and finfish. The marine reserves were also found to provide protection to aspects of marine biodiversity, thus partially achieving their management objective.

Other programs that contribute to research and monitoring of marine protected areas include Seagrass Watch and projects undertaken by Natural Resource Management bodies. Recent research that has contributed to establishing the Great Sandy Marine Park includes coral surveys and studies on the threatened Indo-Pacific Dolphins ecology.

Griffith University, Gold Coast is undertaking a comparison of urban development and its impacts on two declared Fish Habitat Area values and functions: Coombabah Fish Habitat Area, Gold Coast, and at Lake Weyba within the Noosa River Fish Habitat Area.

Performance Assessment

The Queensland Government undertakes routine reviews on marine protected areas legislation, zoning plans and management plans.

A major review of the Great Barrier Reef zoning resulted in the introduction of a revised Commonwealth zoning plan in 2004. Queensland complemented these new arrangements with the introduction of the Great Barrier Reef Coast Marine Park in November 2004.

A review of previous marine park legislation resulted in the commencement of the *Marine Parks Act 2004*, *Marine Parks Regulation 2006*, and *Marine Parks (Declaration) Regulation 2006*, in 2006.

Initiated by the need to review the Hervey Bay and Woongarra Marine Park zoning plans, the creation of the Great Sandy Marine Park resulted in more than doubling the area for conservation and protection of marine environments in the Great Sandy region.

A review of the Moreton Bay Marine Park Zoning Plan will begin in 2007 due to the automatic expiry under the *Statutory Instruments Act 1992*. This process will include bringing the zoning plan in line with other marine parks in Queensland in accordance with Government policy and the new legislation.

The Ex-HMAS Conservation Park stems from the need to manage and regulate activities and use around the site.

The condition and trends of Queensland's fish stocks and habitats are regularly monitored and reviewed by Department of Primary Industries and Fisheries. This provides an overview of the combined effectiveness of fisheries management strategies in Queensland, of which Fish Habitat Areas are a key component.

South Australia

Marine protected areas in South Australia include:

- Adelaide Dolphin Sanctuary
- Aquatic reserves
- Artificial reef areas
- Fisheries closures (e.g. netting, trawling)
- Great Australian Bight Marine Park
- Terrestrial reserves with a marine extent
- Historic shipwreck protected zones

Mandate

Policies and Strategies

- Living Coast Strategy for South Australia (Government of South Australia, 2004)
- Blueprint for the South Australia Representative System of Marine Protected Areas (Government of South Australia, 2004)
- South Australia's Strategic Plan – Creating Opportunity (Government of South Australia, 2005)

Laws

- Adelaide Dolphin Sanctuary Act 2005
- Fisheries Act 1982
- Harbors and Navigation Act 1993
- Historic Shipwrecks Act 1981
- National Parks and Wildlife Act 1972
- Wilderness Protection Act 1992

Establishing New Marine Protected Areas

Overview of Process

MPAs in South Australia are developed in accordance with relevant legislation and Government policies.

For example, the Blueprint for the South Australia Representative System of Marine Protected Areas articulates that future marine parks will be developed, dedicated and managed in an orderly manner, based on sound scientific research and a comprehensive program of public participation, to ensure that social, economic and environmental issues are adequately considered. This approach will ensure that South Australia protects representative examples of all marine ecosystems for future generations, while minimising impacts on existing marine activities and uses.

Boundary selection will be the initial stage in establishing effective marine parks. Following this stage, there will be an extensive period of information gathering and community engagement, which will be instrumental in developing a multiple-use zoning arrangement for each marine park. As part of this process, it is proposed that there will be two formal periods of public consultation, where interested persons will be invited to make written submissions to the process.

Furthermore, a local Consultative Committee will be established to provide regular advice during the development of each marine park. These committees will be selected from local community nominations and will have a wide range of skills and an understanding of industry, conservation and recreation requirements relating to the marine environment.

Identification

The Blueprint for the South Australia Representative System of Marine Protected Areas sets out the focus areas for future marine parks, based on a detailed technical review of South Australia's marine environment. At this time, however, the boundaries of these proposed marine parks have not been determined and local scientific investigation and community consultation have not yet commenced.

South Australia's representative marine parks system will be identified with expert independent advice from a Scientific Working Group, which includes nine of South Australia's pre-eminent scientists, and a skills-based Marine Advisory Committee with a broad understanding of industry, conservation and recreation requirements relating to the marine environment.

Community Consultation

Since 2003, there has been community consultation undertaken in relation to various new or proposed MPA in South Australia, including:

- Adelaide Dolphin Sanctuary
- netting closures under the Fisheries Act 1982
- Encounter Marine Park
- Great Australian Bight Marine Park

Note: The Encounter Marine Park, located between the Murray Mouth and Kangaroo Island, is being developed as a 'pilot' for the marine parks program. This pilot will inform the development of new Marine Parks legislation, which will cover the process for community and stakeholder consultation and zoning, as well as the arrangements for displaced commercial fishing and aquaculture effort.

Declaration

Since 2003, a number of new netting closures have been declared around South Australia (under the Fisheries Act 1982) and the Adelaide Dolphin Sanctuary Act 2005 was proclaimed.

Note: Following the proclamation of the Marine Parks Act, the Government will proceed with the creation of the State's representative system of marine parks, through:

- finalising the management plan for the Encounter Marine Park; and
- developing management plans for the remaining 18 marine parks, in consultation with key stakeholders and local communities.

Management Plans

Since 2003, the management plan for the Great Australian Bight Marine Park has been reviewed and the management plan for the Adelaide Dolphin Sanctuary is in preparation. Management plans for various terrestrial reserves with a marine extent are also in preparation or under review.

Managing Existing Marine Protected Areas

Overview of Processes

DEH and PIRSA have the lead role in managing MPAs in South Australia, in accordance with relevant legislation, management plans and other Government policies:

PIRSA - Aquatic reserves, Great Australian Bight Marine Park, fisheries closures (e.g. netting, trawling), artificial reef areas

DEH – Terrestrial reserves with a marine extent, Adelaide Dolphin Sanctuary, Great Australian Bight Marine Park, historic shipwreck protected zones

Compliance

Officers from DEH and PIRSA conduct the majority of MPA compliance activities.

Enforcement

Officers from DEH and PIRSA conduct the majority of MPA enforcement activities.

Research and Monitoring

A research and monitoring program is in place for the Great Australian Bight Marine Park. A broader program is being developed to support future marine parks across South Australia, including the Great Australian Bight Marine Park.

Performance Assessment

A performance assessment system is being developed for all South Australian waters, as part of the Marine Planning Framework for South Australia. Performance assessment of individual MPAs will be integrated into this system.

Tasmania

Marine protected areas (MPAs) in Tasmania include:

- Nature Reserves
- National Parks

Mandate

Policies and Strategies

In the past, the lack of a clear policy framework and entrenched industry opposition hindered attempts to establish MPAs in Tasmanian waters. Individual proposals were debated without a clear understanding of the Tasmanian Government's aims and the criteria to be applied in selecting and managing such areas.

In 2001, the Marine and Marine Industries Council of the Tasmanian Government prepared the *Tasmanian Marine Protected Areas Strategy* (Tasmania 2001), which sets out the Tasmanian Government's policy and strategic direction for establishing and managing a representative system. The Strategy provides a "systems based approach for the protection of the Tasmanian marine environment" within the framework of the *Integrated Marine and Coastal Regionalisation of Australia* (IMCRA). It also clearly links to, and supports, the national *Strategic Plan of Action* (ANZECC TFMPA 1999).

The primary goal of the strategy is to establish and manage a comprehensive, adequate, and representative system of MPAs to contribute to the long-term ecological viability of marine and estuarine systems, to maintain ecological processes and systems and to protect Tasmania's biodiversity.

Laws

Relevant legislation for the creation and management of MPAs in Tasmania are the Nature Conservation Act 2002, the National Parks and Reserve Management Act 2002 and the Living Marine Resources Management Act 1995. There are no legal impediments to the establishment of MPAs.

Establishing New Marine Protected Areas

Overview of Process

The 2001 *Tasmanian Marine Protected Areas Strategy* outlines 12 steps to develop a representative system of MPAs, with clear identification, selection and formal establishment phases, and an independent process for public involvement and consultation. The Tasmanian Resource Planning and Development Commission (RPDC) manages the assessment and consultation processes for MPA proposals.

The Tasmanian Government considers and decides on any RPDC recommendations. MPAs are then established under the Nature Conservation Act 2002 and the Living Marine Resources Management Act 1995.

Identification

To improve the ecological basis for identifying candidate areas, Tasmania has developed a seabed habitat classification scheme and embarked on a program to map the entire Tasmanian coastline. Known as SEAMAP Tasmania, the program is being conducted by the Tasmanian Aquaculture and Fisheries Institute (TAFI). It aims to improve understandings about the Tasmanian marine environment and the management of marine resources throughout the state's coastal waters.

The Bruny bioregion was initially mapped in 2000, followed in 2002 by the Kent Group of Islands, Bathurst Channel and Mercury Passage. Since this time, mapping of the North East Coast was completed in 2004, and Great Oyster Bay was completed in 2005. During 2006, the Cradle Coast region from outside the Tamar River to Robbins Island, NRM South region from Schouten Island to Bicheno, and Moulting Lagoon were mapped.

Following completion of the 2001 *Tasmanian Marine Protected Areas Strategy*, the Tasmanian Government referred two MPA proposals in the Port Davey area and in the Kent Group of Islands to the RPDC. This resulted in the establishment of two new MPAs in January 2005, one at the Kent Group of Islands in the Twofold Shelf bioregion, and one at Port Davey-Bathurst Harbour in the Davey bioregion.

The Tasmanian Government aims to assess all Tasmanian bioregions in accordance with the 2001 *Tasmanian Marine Protected Areas Strategy* by 2010. The RPDC is currently considering 'a reference' with respect to MPAs in the Bruny bioregion. In this respect, the conduct of inquiries into establishing MPAs is prescribed in Part 2 of the Public Land (Administration and Forests) Act 1991. Inquiries are initiated by 'a reference' from the Tasmanian Minister for Planning.

The Tasmanian Government has taken an approach of dealing with one bioregion at a time, rather than considering the development of MPAs at the State level through a one-off process. In this respect, the Inquiry relating to the Bruny bioregion is the first example of the process of identification and selection of MPAs being run from first principles by the RPDC. The RPDC received many submissions to the inquiry relating to the establishment of MPAs in the Bruny bioregion. Given the breadth of the submissions received to the Inquiry, the reporting process has needed to be extended. No reporting timeframe has yet been determined.

Community Consultation

Under the 2001 *Tasmanian Marine Protected Areas Strategy* there are multiple phases of public consultation. The first occurs when the Tasmanian Government gives 'a reference' to the RPDC to undertake an inquiry. The second is on the release of a background report, and a third on the release of a Draft Recommendations Report.

The Department of Tourism, Arts and Environment (DTAE) also incorporates the use of volunteer assistance in general marine and MPA conservation, education and interpretation at key sites.

Declaration

Since the establishment of the Task Force on Marine Protected Areas, the Tasmanian Government has declared one marine Nature Reserve of 75,000 hectares around Macquarie Island, one of 29,000 hectares at the Kent Group of Islands, and one of 17,000 hectares at Port Davey-Bathurst Harbour.

The Department of Primary Industries and Water (DPIW) manages the proclamation of reserves, including MPAs. This entails obtaining Tasmanian Cabinet approval for MPA establishment under either the Nature Conservation Act 2002 or Living Marine Resources Management Act 1995, based on management objectives, allowable uses and IUCN category. DPIW consults with the Parks and Wildlife Service (PWS) of DTAE prior to establishing a MPA under the Nature Conservation Act 2002.

The purpose of MPAs established under the Nature Conservation Act 2002 relates primarily to nature conservation, while the purpose of MPAs established under the Living Marine Resources Management Act 1995 relates to marine resource management. To date, all MPAs in Tasmania have been established under the Nature Conservation Act 2002, with marine resource management dealt with concurrently under the *Living Marine Resources Management Act 1995*.

Management Plans

Once a MPA is declared under the Nature Conservation Act 2002, the on-ground management of the MPA (including the preparation of a management plan that is in accordance with the National Parks and Reserves Management Act 2002) is the responsibility of the DTAE.

It is the intention of DTAE to have up-to-date and effective management plans and arrangements for all MPAs in Tasmania. However, there are currently no specific management plans for Tasmanian MPAs. Nonetheless, management prescriptions for a number of MPAs are referred to broadly within integrated land and marine management plans.

The *Tasmanian Wilderness World Heritage Area Management Plan 1999* and *Melaleuca-Port Davey Area Plan 2003* seek to protect, maintain and monitor the marine and estuarine ecosystems within the MPA at Port Davey-Bathurst Harbour. These management plans are largely directed towards protecting terrestrial land but refer to overarching objectives in MPA management.

The *Maria Island National Park and Ile Des Phoques Nature Reserve Management Plan 1998* refers to overarching objectives in MPA management around Maria Island. The

plan designates five management zones including the Darlington zone, Point Lesueur (Long Point) zone, recreation zone, natural zone and marine zone. The marine zone is currently divided into fishing and no fishing areas. In addition, the *Kent Group National Park (Terrestrial Portion) Management Plan 2005* has been developed to manage terrestrial land. Although the Kent Group National Park now includes a significant marine portion, marine management is not covered under this plan. Draft internal documents also provide guidance to those managing the smaller MPAs of Governor Island, Ninepin Point and Tinderbox.

The *Macquarie Island Nature Reserve and World Heritage Area Management Plan 2006* replaces the *Macquarie Island Nature Reserve Management Plan 1991* and takes account of changes in reserve size, tenure, governing legislation, World Heritage status and adjacent Australian Government protected marine areas. This statutory plan, prepared under Tasmanian legislation, only applies to the Macquarie Island Nature Reserve and that part of the World Heritage Area that is within the area (state waters to three nautical miles from low-water mark). It does not apply to that part of the World Heritage Area between three and 12 nautical miles, nor does it apply to the Macquarie Island Marine Park on the eastern side of the reserve between three and 200 nautical miles. While this plan does not bind the Australian Government, a cooperative and complementary approach to the management of adjacent protected marine areas is supported.

The plan establishes three management zones. The first zone covers the Australian Government Antarctic Division research station on the Isthmus, the second zone covers the rest of the terrestrial reserve and adjacent sea stacks, and the third zone covers the marine environment. Within the marine zone the Highly Protected Zone of the Macquarie Island Marine Park and the marine waters around Macquarie Island are managed to protect important foraging areas and a variety of benthic habitats. In accordance with IUCN Category 1a management principles, these waters are managed primarily for scientific research and environmental monitoring, and no fishing or resource extraction can occur. The northern and southern Species/Habitat Management Zones are managed to ensure the maintenance of habitats.

Managing Existing Marine Protected Areas

Overview of Processes

DTAE has responsibility for managing national parks and reserves on land and in the marine environment under the National Parks and Reserves Management Act 2002. Where a MPA is established under the Nature Conservation Act 2002, DTAE becomes the agency responsible for its management. DTAE is required to prepare, and have approved, a management plan for each MPA.

In the event of a policy decision to establish a MPA under the Living Marine Resources Management Act 1995, DPIW is responsible for preparing a draft management plan for the area for ministerial approval.

The National Parks and Reserves Management Act 2002 cannot be used to protect fish or control fishing within the marine environment, even where that environment is protected under this instrument as a MPA. DPIW is responsible for managing fish resources within MPAs and in the marine environment more generally. To ensure that fish (which use or are contained within MPAs) are adequately protected, and the requirements for fish in relation to MPAs are reflected in fishery management plans and other tools under the Living Marine Resources Management Act 1995, DTAE consults with DPIW when developing management arrangements for a MPA.

Compliance

Poaching is the main compliance risk. However, the Tasmanian Government considers the level of compliance is reasonable in state waters. Management of compliance risks includes Ranger and Marine Police patrols and surveillance.

Ongoing education and interpretation support compliance efforts. The Tasmanian Government produces brochures, Internet web-based information, signs, summer ranger and volunteer activities, and education campaigns for existing and new MPAs.

Enforcement

There have been a number of successful prosecutions relating to illegal activities in MPAs.

Research and Monitoring

The Tasmanian Government continues to sponsor long-term biological monitoring and research into changes in biodiversity that arise from implementing the Tasmanian MPA system. This monitoring and research commenced before the establishment of the first MPAs in 1991 and includes comparison with sites outside these protected marine areas.

DPIW and TAFI are collaboratively undertaking a series of exploratory studies of existing MPAs through a joint partner *ArcLinkage Project* to assess the performance of MPAs in the marine jurisdictions of Tasmania, New South Wales and Western Australia. The Tasmanian component of the *ArcLinkage Project* involves annual field surveys of MPAs at Port Davey-Bathurst Harbour and the Kent Group of Islands, and biannual surveys of Tasmanian east-coast MPAs, with associated reporting and recommendations.

A report titled, *Baseline Surveys of Subtidal Reefs in the South West National Park Marine Nature Reserve 2004-2005*, was recently completed by TAFI under the *ArcLinkage Project*. The report focuses exclusively on surveys conducted on the rocky reefs of Port Davey-Bathurst Harbour. A second report titled, *Baseline Surveys of the Subtidal Reef Biota of the Kent Group Marine Nature Reserve 2004-2006*, has also been completed under the *ArcLinkage Project*. This report focuses on surveys conducted in the Kent Group Nature Reserve and adjacent external reference locations.

In addition, the Conservation of Freshwater Ecosystem Values (CFEV) Project, as part of the implementation of the State Water Development Plan for Tasmania, aims to provide ecologically sustainable water development opportunities for Tasmania into the future. It also aims to provide information on conservation values for the Tasmanian Government to draw upon when undertaking conservation planning and management of natural resources, which includes MPA planning. The CFEV Project has completed a two-year audit of Tasmania's freshwater dependant ecosystems. In particular, CFEV has identified conservation management priorities for Tasmanian estuaries and lagoons located in the Bruny bioregion.

Performance Assessment

As part of the development of the 2001 *Tasmanian Marine Protected Areas Strategy*, the Tasmanian Government released a background report in 2001 that included an evaluation of the performance of its MPA system. Both long-term monitoring programs and short-term research studies supplement these measures.

DTAE is also currently reviewing the *Tasmanian Reserve Management Code of Practice 2003* with the view of including a marine component, evaluating the management arrangements of existing MPAs, and refocussing its communication efforts with the general public.

Victoria

Marine protected areas in Victorian waters include:

- marine national parks
- marine sanctuaries
- marine parks
- marine and coastal parks
- marine (usually intertidal) and estuarine components of terrestrial national, state and coastal parks

Mandate

Policies and strategies

Marine protected areas were first established in Victoria in 1979 with the creation of 5 small marine reserves under fisheries legislation in southern Port Phillip Bay. In 1981 an additional reserve in north west Port Phillip Bay was established under fisheries legislation. In the mid-1980s five larger marine protected areas were established near Wilsons Promontory in eastern Victoria under national parks legislation. In 1991 the Bunurong Marine Park was established under both national parks and fisheries legislation, after more than a decade of community input. All of these 12 areas were managed for multiple uses, with most waters being available for commercial and recreational fishing, and minerals and petroleum exploration and extraction. In 1992, less than 0.05 per cent of Victorian waters were highly protected.

In response to criticisms of this piecemeal and protracted approach to establishment of marine protected areas, in 1991 the Victorian Government requested its then public land use planning body, the Land Conservation Council, to conduct an investigation into Victoria's marine and coastal environment and make recommendations, amongst other things, on the establishment of a representative system of marine protected areas.

The Land Conservation Council (LCC) and its successor, the Environment Conservation Council (ECC), published several reports including three sets of draft recommendations before the ECC delivered its final recommendations to Government in 2000 (ECC 2000).

The Government responded to the report in 2001 and in 2002 the Victorian Parliament passed legislation to create a representative system of highly protected marine national parks and marine sanctuaries. The 13 marine national parks and 11 marine sanctuaries were all established on 16 November 2002.

The new parks and sanctuaries incorporated many existing marine protected areas. Where they are not subsumed within the new parks, the existing parks are retained under their current management regimes.

In late 2004 the Victorian Government announced that there would be no petroleum exploration, including seismic exploration, in Victoria's marine national parks and sanctuaries. This decision is implemented through the policy of excluding blocks

containing marine national parks and marine sanctuaries from acreages released for the purposes of exploration for oil and gas. Transit through a park or sanctuary while conducting a seismic survey program in an adjacent area is allowed provided there is no discharge of airguns in the park.

Laws

The *National Parks (Marine National Parks and Marine Sanctuaries) Act 2002* amended the *National Parks Act 1975* and the *Fisheries Act 1995* to establish the system of marine national parks and marine sanctuaries and provide for management of these areas.

Commercial and recreational fishing is prohibited in marine national parks and sanctuaries, along with drilling for oil and gas and other extractive activities.

As a transitional measure, recreational and commercial fishing was allowed to continue in four parks and part of one sanctuary until 1 April 2004. On this date all commercial and recreational fishing ceased in Victoria's marine national parks and sanctuaries.

Schedules Seven and Eight were added to the National Parks Act for the marine national parks and marine sanctuaries. The legislation also amended the Fisheries Act to make transitional provisions for compensation for eligible commercial fishers and fishing charter operators, and to establish an independent compensation assessment and appeals process.

The annual cost of compensation to commercial fishermen has increased between 2004/5 and 2005/6. This is due to compensation for the additional four marine national parks and one sanctuary where fishing ceased in 2004. The compensation period for these five areas expires in April 2007. Applications for compensation will close in September 2007, after which no further claims for lost catch or increased operating costs incurred as a result of the parks and sanctuaries can be considered.

In addition to the highly protected system of marine national parks and marine sanctuaries, the Wilsons Promontory Marine Park, Bunurong Marine Park and the Shallow Inlet, Corner Inlet and Nooramunga Marine and Coastal Parks are managed for multiple uses and are included in Schedule Four of the *National Parks Act 1975*.

The National Parks (Park) Regulations 2003 apply to marine national parks and sanctuaries and, in part, to Schedule Four parks.

In 2006 amendments were made to the National Parks Act which improve the ability to enforce the fishing prohibition and to encourage compliance with it (see Enforcement section below).

Establishing new marine protected areas

Overview of process

The Victorian Government has no current policy to establish new marine protected areas. The new system of marine national parks and sanctuaries meets Victoria's commitments to implement the NRSMPA.

Identification

The Victorian Government established the representative system following nine to ten years of research, discussion and debate by the LCC and the ECC.

With Commonwealth funding assistance the Victorian Government mapped and classified marine environments. Victoria's Environmental Inventory Program and related initiatives provided a comprehensive statewide coverage of Victoria's major marine habitats at a scale of 1:100 000 for the open coast and at scales of 1:25 000 for all major bays and inlets. The ECC developed principles for the selection and management of marine protected areas, and community and industry groups and individuals provided their ideas and views on proposals (see below).

The process is described in the ECC's final report to Government, available on the Victorian Environmental Assessment Council's website at <http://www.veac.vic.gov.au/ecc/marine/report2000.htm>.

Community consultation

In the preparation of LCC and ECC recommendations to Government over a nine-year period, six formal periods of public consultation were held and there was ongoing consultation with stakeholders. More than 4500 written submissions and letters were received and hundreds of meetings held in coastal regions of Victoria. A special project was commissioned to facilitate input from Aboriginal groups on the draft recommendations, resulting in the participation of all Victorian Aboriginal coastal communities.

Declaration

The Victorian Government has declared thirteen highly protected marine national parks and eleven marine sanctuaries, all in November 2002, and covering nearly 54 000 hectares or 5.3 per cent of Victoria's marine waters. No new marine protected areas have been declared since that time.

On 1 April 2004, legislative provisions came into effect resulting in the cessation of all commercial and recreational fishing in the marine national parks and sanctuaries.

Management plans

A management plan must be prepared for each marine national park and marine sanctuary. The Government endorsed the ECC's recommendation that plans be completed within three years of the establishment of the parks and sanctuaries.

A broad *Management Strategy for Victoria's System of Marine National Parks and Sanctuaries 2003-2010* (Parks Victoria 2003) for Victoria's new system of marine national parks and marine sanctuaries has been completed, to guide management planning and day to day management.

Since 2003, management plans have been prepared for all 13 marine national parks and 11 marine sanctuaries, with final plans being approved for 10 marine national parks (Bunurong, Cape Howe, Corner Inlet, Discovery Bay, Ninety Mile Beach, Point Addis, Point Hicks, Port Phillip Heads, Twelve Apostles and Wilsons Promontory marine national parks), and 5 marine sanctuaries (Beware Reef, Eagle Rock, Point Danger, Ricketts Point and The Arches marine sanctuaries) and draft plans being released for public comment for the remaining 3 marine national parks (Churchill Island, French Island, and Yaringa marine national parks) and 6 marine sanctuaries (Barwon Bluff, Jawbone, Marengo Reefs, Merri, Mushroom Reef and Point Cooke marine sanctuaries).

Unlike management plans in many other jurisdictions, the plans for Victoria's new system of marine national parks and sanctuaries do not involve zoning or decision-making about uses such as fishing. These decisions have already been made through the LCC/ECC recommendations and Government responses, and permitted and prohibited uses are largely established in primary legislation. Management planning is therefore not as controversial as for other jurisdictions, and is seen as a positive means of engaging the community in custodianship of the system.

Draft management plans were prepared in the early 1990s for the existing multiple-use parks, but were not finalised pending the completion of the LCC/ECC investigation. Plans for the Wilsons Promontory Marine Park and the Bunurong Marine Park have now been finalised.

Managing existing marine protected areas

Overview of processes

Protected area establishment and policy is the responsibility of the Public Land division within the Department of Sustainability and Environment (DSE).

Oversight and delivery of marine fisheries compliance services in Victoria is the responsibility of the Fisheries Division of the Department of Primary Industries.

Parks Victoria is a statutory authority which provides management services for Victoria's parks system (including marine national parks and sanctuaries) under a Management Services Agreement between the Minister for Environment, the Secretary of DSE and

Parks Victoria. Under the *Parks Victoria Act 1998*, Parks Victoria's responsibilities are to provide services to the State and its agencies for the management of parks, reserves and other public land.

A compliance strategy has been jointly developed by DSE, DPI and Parks Victoria for enforcement of the provisions of the marine national parks and sanctuaries legislation (see below).

Compliance

Although Parks Victoria is responsible for overall management of marine protected areas within Victorian waters, other agencies are responsible for planning, managing or regulating certain activities in these areas.

As part of agreed service delivery arrangements, the Department of Primary Industries – Fisheries Victoria – has primary responsibility for fisheries compliance. Fisheries Victoria and Parks Victoria continue to collaborate during implementation of the Statewide Compliance Strategy and at regional levels with Regional Compliance Plans. The Regional Compliance Plans outline priorities and principles for co-operation and the delivery of regional compliance outcomes.

Enforcement

An important aspect of managing Victoria's system of marine national parks and sanctuaries is the protection of all marine life, including high value commercial species such as abalone, and the deterrence of illegal activity.

A large proportion of successful prosecutions under the *National Parks Act 1975* are for the offence of recreational fishing in a marine national park or sanctuary (25 of a total of 54 in 2004-05 and 39 of 45 offences in 2005-06).

The experience gained since 2003 from enforcing the 'no fishing' provisions of the National Parks Act and from prosecuting in the courts contributed to several amendments to those provisions in 2006. The amendments do not alter the fundamental position in law that fishing is prohibited in marine national parks and marine sanctuaries, but improve the ability to enforce the prohibition and to encourage compliance with it.

Research and monitoring

A research partnership was formed in 2005 between Parks Victoria and the Coastal Zone Co-operative Research Centre (CRC) and a project was undertaken in 2005 and 2006 to map the deep water habitats in six of the largest outer coast marine national parks in Victoria (Cape Howe, Discovery Bay, Point Addis, Point Hicks, Twelve Apostles and part of Wilsons Promontory). The project has involved some of the most comprehensive seabed mapping undertaken in Victoria, employing the combined expertise of universities, government agencies and private enterprise.

Detailed habitat mapping has been finished for the shallower (less than about 10m) areas of 15 of the 24 marine national parks and sanctuaries by using aerial photography. The Victorian marine habitat mapping classification system has been updated on the basis of the park mapping and is available for other users in the Parks Victoria Technical Series (Vol. 26).

Marine baseline data collection (for future monitoring) has been done in 19 of the 24 marine national parks and sanctuaries in a form relevant to the major habitat types. Diver-based transect surveys for subtidal reefs occurs at most sites. Intertidal reef monitoring occurs at 9 parks with higher use on the intertidal platforms. Some towed video surveys have been done in a few parks to augment baseline monitoring.

Since 2003 there has been a series of workshops across Victoria on threat identification to gauge the risks to the natural values of the marine national parks system. Identified threats to parks are used in the development of management plans and strategies to reduce risks to natural values.

Community based monitoring protocols have been developed for use in marine national parks and marine sanctuaries. These purpose-built monitoring kits allow community groups to collect data that are compatible with other scientific research carried out in marine national parks and sanctuaries. Under the Sea Search Program, administered by the People and Parks Foundation, the kits and monitoring protocols have been distributed to volunteer groups across the state, and monitoring carried out at more than nine sites.

Performance Assessment

The *National Parks Act 1975* establishes the statutory basis for the protection, use and management of Victoria's national and other parks. An annual report on the working of the *National Parks Act 1975* is required to be provided to the Minister and tabled in Parliament.

The performance assessment framework for the new system of marine national parks and sanctuaries is outlined in the *Management Strategy for Victoria's System of Marine National Parks and Sanctuaries 2003-2010* (Parks Victoria 2003). It covers ecological and environmental conditions, management effectiveness, and social indicators such as awareness, attitudes and visitation.

Substantial work was undertaken in Victoria prior to the establishment of the parks to establish baseline ecological data, and these data provide an invaluable reference for ongoing monitoring of ecological conditions.

Two projects (one funded by an Australian Research Council Linkage Award) are underway aimed at developing performance measurement tools to assess the ecological performance of marine national parks and marine sanctuaries. One project (partnered with the University of Melbourne) focuses on subtidal reefs, while the other (partnered with La Trobe University) focuses on soft sediment communities.

Western Australia

Marine protected areas in Western Australia are declared under the Conservation and Land Management Act 1984 (CALM Act) and include:

- marine nature reserves;
- marine parks; and
- marine management areas.

Twelve marine protected areas are currently established under the CALM Act encompassing an area of approximately 1.5 million hectares. Reserve planning processes for four new MPAs in the Dampier Archipelago area, south-west ‘Capes’ and Walpole and Nornalup Inlets are well-advanced.

Marine protected areas can also be established under section 115 of the Fish Resources Management Act 1994 (FRM Act) as Fish Habitat Protection Areas (FHPAs). There are currently five FHPAs in the State, covering approximately 292,000 hectares. Closures to all forms of fishing can be implemented under section 43 of the FRM Act. These closures help support full or partial restrictions on fishing that may be contained within the zoning schemes of CALM Act MPAs. In addition, section 43 closures may be applied within FHPAs and there are also a number of closures along other parts of the Western Australian coast.

There is one marine protected area established by the Rottnest Island Authority Act 1987, covering approximately 3,828 hectares.

Mandate

Policies & Strategies

NEW HORIZONS – The Way Ahead in Marine Conservation and Management (Western Australian Government 1998) outlines the policy framework for establishing the Western Australian marine conservation reserve system which contributes to the National Representative System of Marine Protected Areas. The 1994 report of the Marine Parks and Reserves Selection Working Group *A Representative Marine Conservation Reserve System for Western Australia* provides an important strategic framework for establishing a representative marine reserve system in Western Australia, identifying over 70 candidate areas.

Key aspects for the establishment and management of the marine reserve system include:

- The role of the Marine Parks and Reserves Authority (MPRA), a statutory authority made up of members of the community which was established in 1997. All CALM Act marine protected areas are vested (i.e. legally entrusted) in the MPRA. The MPRA also plays a key role in ensuring that management plans are prepared and in auditing the implementation of the management plans. The

MPRA also provides independent advice to the Minister for the Environment regarding the establishment and management of the marine reserve system.

- The Department of Environment and Conservation (DEC), which has overall responsibility for managing CALM Act marine protected areas, working closely with the Department of Fisheries and other agencies as required.

The MPRA and DEC have developed a series of operational frameworks and tools that support establishment and management of the marine reserve system developed under the CALM Act. This includes frameworks for establishing the priorities for new marine protected areas, policies on applying the marine reserve categories, a structure for outcome-based management plans, and community involvement in marine protected areas planning processes.

The New Horizons policy also notes that 'Fish Habitat Protection Areas' (FHPAs) can be created under the FRM Act. FHPAs are vested with the Western Australian Minister for Fisheries and managed by the Department of Fisheries (DoF). The DoF are responsible for assisting in the proclamation of Fish Habitat Protection Areas which can be closed in part or full to all fishing activities and other forms of development.

While there are divergent views and aspirations in the community regarding marine protected areas, extensive consultative processes over the past five years are raising general awareness of the program. It is anticipated that this, in conjunction with ongoing community awareness programs, will lead to enhanced public support and stewardship of marine protected areas in Western Australia.

Laws

The CALM Act provides for protecting indigenous marine flora and fauna through, inter alia, establishing and managing marine protected areas. Integrated regulations came into effect in 2002, improving the legal basis for managing marine protected areas.

The Wildlife Conservation Act 1950 protects indigenous flora and fauna throughout the state including outside the reserve system. The Western Australian Government plans to repeal this Act and replace it with a Biodiversity Conservation Act.

The FRM Act provides for the conservation of fish and their environment, and for the management of fishing activities in all waters within Western Australia including marine conservation reserves established under the CALM Act and in the Australian Fishing Zone. Section 43 of the FRM Act permits the Minister for Fisheries to prohibit any form of fishing for a particular purpose. Section 115 of the FRM Act permits the establishment of Fish Habitat Protection Areas. All fishing activities, as well as other activities which may have an impact on the physical environment, such as boating, dredging and other forms of development may be controlled within a Fish Habitat Protection Area. These activities are managed through specific regulations under the FRM Act.

To avoid any conflict of vesting or management responsibility with the DEC, a Fish Habitat Protection Area cannot be established over an area where a CALM Act marine conservation reserve exists. In the event of a CALM Act marine conservation reserve being established over a Fish Habitat Protection Area, the Fish Habitat Protection Area ceases to exist automatically.

Establishing new marine protected areas

Overview of processes

Conservation and Land Management Act 1984

The main steps are:

- The Western Australian Government approves consideration of a candidate marine protected area including definition of an approved Study Area.
- Relevant agencies conduct a resources assessment to establish the biological and social information required to undertake the planning process.
- The Marine Parks and Reserves Authority and the Western Australian Government establish consultative processes (e.g. advisory committees) to develop the proposal.
- Consultative bodies advise on the proposal (i.e. indicative management plan) with extensive public participation and community consultation.
- The Marine Parks and Reserves Authority and the Western Australian Government consider the indicative management plan, publish a Notice of Intent to create the proposed reserve, and approve the release of indicative management plan for public comment over three months.
- The Marine Parks and Reserves Authority and the Western Australian Government consider submissions on the indicative management plan.
- The Western Australian Government approves establishment of the marine protected area (following statutory concurrence of the Minister for Fisheries and the Minister for Mines).
- The Western Australian Government legally establishes the marine protected area through publication of a notice in the Government Gazette and releases the approved management plan.

Fish Resources Management Act 1994

Establishment of a Fish Habitat Protection Area under Section 115 of the Fish Resources Management Act 1994:

The main steps to formally establish a Fish Habitat Protection Area are as follows:

- The proponent (usually community group) is encouraged to engage in informal discussions with staff of the Fish and Fish Habitat protection program of the Department of Fisheries to discuss a Fish Habitat Protection Area proposal, including purpose, and perceived need for protection. Guidance can be provided at this stage as to whether proposal is likely to be considered to have merit, and

whether the area is within or proposed to be included within a CALM Act marine conservation reserve.

- The proponent submits an expression of interest to declare a Fish Habitat Protection Area, in writing, for support 'in principle' by the Western Australian Minister for Fisheries. This needs to demonstrate clear and strong community support.
- The proponent undertakes public consultation, including key stakeholder groups, to identify issues of concern and proposes boundaries of Fish Habitat Protection Area.
- The proponent is responsible for the preparation of a draft plan of management, in accordance with DoF guidelines, for submission to the Minister for Fisheries' for approval to release for public review.
- DoF reviews the submissions that have been received and incorporates changes and suggestions where appropriate in the draft plan.
- The final Plan of Management is approved by the Minister for Fisheries and a notice of intent to set aside the area as a Fish Habitat Protection Area is made public.
- The final Plan of Management is publicly released by the Minister for Fisheries.
- The Fish Habitat Protection Area is declared and gazettal of regulations is made by the Western Australian Government.
- The strategies contained within Plan of Management are implemented.

Closures to fishing under section 43 of the FRM Act may be implemented at the discretion of the Minister for Fisheries. The steps outlined above are indicative and are subject to some modifications by DoF.

Identification

Conservation and Land Management Act 1984

A clear framework for identifying and prioritising candidate areas exists in Western Australia and this is used to support MPRA and Government identification of a forward program of reserve planning for proposed marine protected areas. This is reflected in the Western Australian Government's clear policy commitments for the establishment of specific marine protected areas made in its previous and current terms of office. The 1994 report of the Marine Parks and Reserves Selection Working Group provides a key strategic framework for identification of candidate marine protected areas and identified over 70 candidate areas for the establishment of a representative marine reserve system.

Fish Resources Management Act 1994

Under the FRM Act, any aquatic area can be nominated as a Fish Habitat Protection Area if it is outside a gazetted CALM Act marine conservation reserve and can meet the following specific criteria:

- Fish protection – an area which provides for the protection, conservation, or maintenance of protected, endangered, or threatened species of fish or other aquatic organism
- Habitat protection – areas of significant value for breeding, spawning, feeding, sheltering, or which serve as nursery areas or migration routes for fish and other aquatic organisms
- Resource protection – areas of scientific interest of importance for the economic or biological sustainability of particular aquatic ecosystems
- Rehabilitation – areas of importance for fish and fish habitat, which have been degraded through human impacts, but which have the potential to be rehabilitated
- Aquaculture and research – areas which may be of special value for culturing and breeding of fish (i.e. a significant source of brood stock) or for conducting aquatic research
- Human use and resource sharing – areas used by commercial and recreational users, where their activities may impact adversely on the aquatic environment or lead to resource-sharing problems
- Observation and education – areas of value for public education on various aspects of fish and interpretation of issues associated with fish and their habitats or of value for the observation or appreciation of fish.

Community Consultation

Conservation and Land Management Act 1984

A range of mechanisms are used for community consultation in the establishment and management of marine protected areas. For the reserve planning component approaches include:

- The use of community-based advisory committees appointed by the Minister for the Environment that works with the DEC to develop recommendations and a draft indicative management plan for a proposed marine protected area. The draft indicative management plan is provided to the vesting authority, the MPRA, who provide their independent advice to the Minister for the Environment.
- The use of ‘focus groups’ and/or sector reference groups in the development of the indicative management plan.
- Public displays, briefings and stakeholder consultations.
- The release of the indicative management plan for a statutory a public submission period.
- Following an analysis of public submissions, the advisory committee or focus group for a proposed marine protected area may be requested to provide further advice to the MPRA and subsequently the Minister on public submissions received on the indicative management plan.

Ongoing management of marine protected areas may also involve community consultation on specific management issues of concern and the formation of management advisory committees for each marine protected area. The establishment of such community management committees across the whole marine reserve system is a clear commitment within the management plans but has not yet been fully implemented.

Fish Resources Management Act 1994

FHPAs are declared under the FRM Act and the vesting and management rests as a responsibility of the Minister for Fisheries. However, the control and management of a FHPA may be vested in a body corporate (by notice from the Minister) subject to specific conditions. A range of community consultation mechanisms are used in engaging with the community and facilitating the establishment and management of these areas. A draft management plan must be prepared, which is released for a three month public comment period.

An intention to set aside an area as a FHPA must also be publicly advertised in the print media not less than two months before an order is made to declare a FHPA and the final management plan for the FHPA is released. Any member of the public then has a 30 day period in which to make representations concerning the proposed FHPA before formal declaration of the FHPA is made by order under the FRM Act. Other community consultation mechanisms include the use of advisory committees, sector reference groups, and stakeholder consultations.

Declaration

Conservation and Land Management Act 1984

Since the establishment of the ANZECC (now MACC) Task Force on Marine Protected Areas the Western Australian Government has declared several new marine protected areas under the CALM Act. These include:

- The Jurien Bay Marine Park (82,376 hectares) - gazetted 26 August 2003
- The Montebello Islands Marine Park (56,943 hectares) - gazetted 10 December 2004
- The Barrow Island Marine Park (4,112 hectares) - gazetted 10 December 2004
- Barrow Island Marine Management Area (115, 453 hectares) – gazetted 10 December 2004
- Muiron Islands Marine Management Area (28,616 hectares) – gazetted 30 November 2004.

In additional, substantial extensions to both the existing Ningaloo and Rowley Shoals marine parks were gazetted in 2004.

Significant progress has also been made on a number of other MPA proposals that are expected to result in the establishment of four large multiple-use marine protected areas by 2008. They include:

- Dampier Archipelago Marine Park (approximately 122,170 hectares)
- Cape Preston Marine Management Area (approximately 92,750 hectares)
- Geographe Bay/Leeuwin-Naturaliste//Hardy Inlet ('Capes') Marine Park (approximately 124,500 hectares)
- Walpole and Nornalup Inlets Marine Park (approximately 1,442 hectares)

The primary challenges to implementing the Western Australian Government's policy are:

- Differing views across the community, particularly between fishing and conservation stakeholders on the roles and benefits of marine protected areas.
- Achieving a socially acceptable balance between biodiversity conservation and social usage within marine protected areas. The candidate areas for inclusion into the marine conservation reserve system often overlap with areas that are particularly significant for commercial fisheries, recreational fishing, pearling, aquaculture, shipping and/or the petroleum industry.

The Western Australian Government is achieving improvements in the intra-government communication, co-ordination and collaboration for the planning and implementation of marine protected areas. This has been facilitated by the signing of a memorandum of understanding by the Minister for Fisheries and the Minister for the Environment that promotes improved collaboration between the DoF and DEC.

A criticism of the up-front consultation and concurrence approach to establish new marine protected areas in Western Australia has been the lengthy consultation and approvals process, which slows the establishment of new marine protected areas. In many respects the Western Australian Government has chosen to deal with the most contentious areas first, requiring protracted dialogue with industry and community groups.

The addition of five new marine protected areas since 2003 is a significant achievement particularly given that the proposals are proceeding in areas of high recreational and commercial use. The Western Australian Government has developed effective working relationships with the major stakeholders that should provide a platform for the future extension and acceleration of the marine protected areas program.

It may be possible to provide a more coherent strategic framework for the establishment of marine protected areas by first undertaking broad strategic and cross-sectorial regional marine planning. The Western Australian Government is committed to undertaking regional marine planning for the south coast of the State and work on this has accelerated since mid 2006.

Fish Resources Management Act 1994

Areas closed to fishing under section 43 of the FRM Act in 1994 include Gantheume Point, Broome; Samson II and Kumunya wreck, Karratha; Point Samson, Karratha; Yallingup Reef Lagoon; Cowaramup Bay; HMAS Swan wreck, Geographe Bay; HMAS Perth wreck, Albany; Sanko Harvest wreck, Esperance; and Esperance jetty.

Since the establishment of the Task Force, the following FHPAs have also established in Western Australia:

- Abrolhos Islands FHPA (approximately 279,000 hectares) in 1999
- Lancelin Island Lagoon FHPA in 2001
- Cottesloe Reef FHPA in 2001
- Miaboolya Beach FHPA in 2003
- Point Quobba FHPA in 2004

Fish Habitat Protection Areas provide a useful opportunity for community groups to take a direct role in protecting the marine environment. The process for establishing Fish Habitat Protection Areas is relatively quick and straightforward.

Management Plans

Conservation and Land Management Act 1984

Following amendments to the Conservation and Land Management Act 1984 in 1997, marine protected areas can only be created following the release of an indicative management plan and the formal concurrence of the Ministers Fisheries and Mines. Prior to this reserves were first gazetted and then a management plan was prepared.

Of the twelve marine protected areas currently making up the marine conservation reserve system, eleven have approved final management plans. The draft management plan for the existing Shoalwater Islands Marine Park is expected to be finalised and approved by mid 2007.

Indicative management plans were released for two new marine protected areas: the proposed Geographe Bay/ Leeuwin-Naturaliste/ Hardy Inlet Marine Park and the Walpole and Nornalup Inlets Marine Park in September and August 2006 respectively. The public submission periods closed in late 2006.

The Marine Parks and Reserves Authority and DEC have significantly improved the structure of management plans to focus on managing risks and delivering outcomes, and to provide for auditing of management performance.

Fish Resources Management Act 1994

All FHPAs are required to have a plan of management, with clear identifiable objectives and strategies to implement the plan. There is an option to review these plans of

management in 10 years. Guidelines for the preparation of plans of management are clearly described in Guidelines for the establishment of fish habitat protection areas (Fisheries WA 2001).

To implement strategies contained within the plans of management for each Fish Habitat Protection Area, working groups are established. Working groups include representation from relevant local and state government departments, stakeholder groups and the DoF. The community is encouraged to take the lead in implementing and strategies wherever possible. This includes participation in monitoring programs.

DoF is preparing a revised plan of management for the Abrolhos Islands FHPA, which is located off the coast from the town of Geraldton.

Managing Existing Marine Protected Areas

Overview of processes

Conservation and Land Management Act 1984

The DEC, in conjunction with the MPRA, have developed a series of components and guidance documents that collectively contribute to an overall management system. These components include:

- Outcome-based management plans
- MPRA Audit Policy
- A performance assessment/ audit framework, including annual reviews and proposed three yearly formal audits of the implementation of the management plan and outcomes
- Annual marine work plans (detailing annual program taken from the management plan for education, public participation, compliance, research, monitoring etc)
- A marine geographic information system

- Establishment of marine protected area management advisory committees (MACs) for some reserves

In addition to the above items, in September 2005, the Minister for the Environment and the Minister for Fisheries signed a Memorandum of Understanding (MOU) to establish principles of cooperation and integration in the management of the State's marine protected areas. This has led to the development of joint working plans to guide DEC and DoF delivery of efficient and effective management of CALM Act marine protected areas.

Once marine protected areas are gazetted in Western Australia the operational management of the marine protected area becomes the responsibility of the appropriate District or Regional office of the DEC's Regional Services Division.

Fish Resources Management Act 1994

FHPAs are vested with the Minister for Fisheries. The control and management of a FHPA can be vested in a body corporate by notice from the Minister for Fisheries, subject to specific conditions. An overview of the processes required to establish a FHPA is given in Fisheries Management Paper 152 (Fisheries WA 2001).

It is a DoF responsibility to ensure that the FHPAs are managed in accordance with the plan of management for each specific FHPA. However, the local community is encouraged to take carriage of and educate the public about the purpose of the FHPA and management strategies to protect the area.

Compliance

The major compliance issue in Western Australia's existing marine protected areas is ensuring that fishers observe fishing prohibitions within 'no take' sanctuary areas, or in other zones where fishing may be partially restricted.

The Government's commitment to the establishment and management of new marine protected areas has resulted in substantially increased funding for new reserves for both the DEC and DoF, including for patrol and enforcement programs.

To date, the general level of public awareness of the marine environment and marine protected areas has not been fully addressed through a strategic education program. However, the Western Australian Government has recently made funding available for such an initiative and a program will be launched in the near future. This will complement current DEC education programs for marine protected areas and the DoF "Fish for the Future" education program.

Enforcement

CALM Act Regulations came into effect in 2002 that substantially increase the legal basis for enforcement in Western Australian marine protected areas and the Regulations were further amended in 2006.. The 2005 MOU between the Ministers for the Environment and Fisheries provides for greater collaboration between DEC and DoF for the efficient and effective management of marine protected areas. Initial achievements include the development of 'collaborative operational plans' for CALM Act marine reserves, substantial cross-authorisation training being completed, implementation of joint and coordinated patrols, and broad agreement on a performance assessment approach for collaborative management arrangements.

Performance Assessment

The Western Australian Government has not formally evaluated the overall effectiveness of its marine protected area network.

However, all marine protected areas created under the CALM Act are subject to an annual review of management plan implementation by the MPRA and a formal audit every three years has been proposed. Performance is assessed against the management targets identified in the management plan and the progress in implementation of the management plan. Performance assessment considers the condition of key values, the pressures acting upon those park values, and the management responses.

Permanent long-term monitoring sites have progressively been and will continue to be established across the marine reserve system. The major impediments to properly assess the performance of marine protected areas in Western Australia are an absence of long-term data at representative, undisturbed ecological reference sites in marine bioregions to enable changes due to natural influences and human use to be distinguished.

Further, a significant amount of fisheries research information is available on the effects of fishing as well as fish population structure/biomass estimates etc, which has yet to be fully integrated into marine protected area performance assessment processes. DEC and DoF along with the MPRA intend to address this matter in the near future.

Research and monitoring

Prior to the formal initiation of marine reserve planning processes, resource assessments to establish the biological and social information necessary to undertake planning processes are commenced. This includes collation of existing research and initiating new research projects as necessary. To ensure that Western Australia's marine biodiversity conservation program is based on good science, a new Marine Science Program has been established in 2006 within the Science Division of DEC.

The Marine Science Program will focus on ecological and social marine science necessary to inform adaptive management of the State's marine protected areas. The program also takes the lead role in ensuring that the biophysical and social surveys and research needed to identify and plan for new marine protected areas are undertaken. This includes through the continuing establishment and delivery of marine science through strategic collaborations with universities, the Australian Institute of Marine Science, CSIRO, other agencies such as the Department of Fisheries, industry and community groups. The program also takes the lead role in DEC's participation in 'Node 3' of the Western Australian Marine Science Institution, including the Ningaloo Research Program.

Key research and monitoring contributions to the planning and management of marine protected areas include:

- marine biodiversity mapping
- monitoring of ecological and social values against specified management targets
- community monitoring projects
- development of research plans for each marine protected area;
- support of relevant postgraduate research projects through seed funding

- advice and reports from DoF regarding a wide range of fisheries management issues, such as fishing effort and distribution, fish aggregation and spawning sites, and the status of various fish stocks.

DoF has a large fisheries management research and monitoring program that contributes to appropriate management of fisheries across the State. The Research Division within DoF provides expert scientific knowledge and advice to make informed management decisions essential for the conservation, sustainable management and development of Western Australia's fish resources and management of fish habitats. Fisheries research and community education has a clear focus through the Western Australian Fisheries and Marine Research Laboratories at Hillarys, in Perth.

An ongoing priority is to build Western Australia's institutional monitoring and research capability to address ecological and socio-economic issues in the marine environment and to service the performance assessment needs of the Government's marine conservation program. The Western Australian Government will continue to support the establishment and long term monitoring of a network of ecological reference sites in all marine bioregions around Western Australia by Commonwealth research agencies (ie Australian Institute of Marine Science, CSIRO Marine Research and Geoscience Australia) to quantify natural variability of key ecosystem structure and function.

Appendix 1: MPA Working Group Membership and Other Participants

Name	Agency
Commonwealth	
Stephen Oxley (Chair)	Department of the Environment and Water Resources
Bernie O’Neil	Department of the Environment and Water Resources
Hilary Sullivan	Department of the Environment and Water Resources
Jon Day	Great Barrier Reef Marine Park Authority
Shelley Spriggs	Department of Agriculture Fisheries and Forestry
Geoff Richardson	Australian Fisheries Management Authority
John Gunn	CSIRO Marine and Atmospheric Research
New South Wales	
Rodney James	NSW Department of Environment and Conservation
Andrew Read	NSW Department of Primary Industries
Northern Territory	
Karen Edyvane	Department of Natural Resources, Environment and the Arts
Stephen Sly	Department of Primary Industry, Fisheries & Mines
Queensland	
Ian Garven	Environmental Protection Agency
John Beumer	Department of Primary Industries and Fisheries
Kurt Derbyshire	Department of Primary Industries and Fisheries
South Australia	
Grahame Byron	Department for Environment and Heritage
Tasmania	
Dennis Witt	Department of Primary Industries and Water
Victoria	
Joan Phillips	Department of Sustainability and Environment
James Andrews	Department of Primary Industries
Western Australia	
Peter Dans	Department of Environment and Conservation (Marine Policy and Planning Branch)
Andrew Hill	Department of Fisheries (Fish and Fish Habitat Protection Program)

Appendix 2: Extent to which the 34 Actions outlined in the NRSMPA Strategic Plan of Action (SPA) have been implemented in the Great Barrier Reef Marine Park

SPA Action	Comments	Extent to which the SPA Action was implemented in GBR Marine Park
Understanding comprehensiveness	Establishing a comprehensive, adequate and representative system (ie meeting the CAR principles) was a key aspect of the Representative Areas Program (RAP). Biophysical Operating principles # related directly to the CAR principles, and were achieved.	Achieved
Understanding adequacy		Achieved
Understanding representativeness		Achieved
Vulnerable ecosystems	Recognised and addressed by Biophysical Operating principle #10 (see < http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/rep_areas/documents/tech_sheet_06.pdf >	Achieved
Identifying priorities for candidate MPAs	The planning process used, including the application of the 11 Biophysical Operating Principles and the four Socio-economic-Cultural-Management principles, enabled candidate areas to be identified and assessed against specified criteria	Achieved
Ecosystem mapping	Broad-scale ecosystem mapping was achieved by the development of the map of 70 bioregions (40 reef and 30 non-reef bioregions). See < http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/rep_areas/documents/bioregions_2001_06.pdf >	Achieved
Developing data collection standards	Effective service delivery across the GBRWHA requires frequent liaison between agencies and across all levels of management, the maintenance of sound working relationships, including consistent methods of data collection. For example Water Quality monitoring in the GBR conforms with ANZECC guidelines.	Achieved
Review methods for ecosystem mapping	Many of the methods developed for the RAP bioregions were used in developing the National Bioregionalisation.	Achieved
Rapid assessments	N/A, as entire area already part of NRSMPA (however rapid assessments of management effectiveness eg. using the World Bank scorecard approach, have been applied	N/A

Threat analysis research	Risk assessments comprising the level of impact (ie threats) and probability of occurrence have been conducted for the key issues in the GBR Marine Park (eg compliance, vulnerable species, visitor facilities, natural and cultural resource protection).	Achieved
Apply threatening processes analysis	The risk assessments in (10) above have been undertaken, enabling priority areas for management efforts to be identified and targeted. These have also guided broader whole of government programmes, for example, Reef Water Quality Protection Plan (RWQPP).	Achieved
Harness community knowledge	The RAP included one of the most comprehensive processes of community involvement and participatory planning for any environmental issue in Australia's history, including over 1,000 formal and informal meetings, plus some 31,500 public submissions.	Achieved
Harness industry knowledge	Community and industry knowledge continue to be harnessed through the new Community Partnership arrangements recently introduced	Achieved
Oceans Policy	The recent rezoning of the Great Barrier Reef implemented key components of the National Oceans Policy relating to a commitment to integrated and ecosystem-based planning and management, and a representative system of marine protection. The GBRMPA was instrumental in developing the RWQPP that encompasses several policy initiatives of the Australian Government and provides an implementation framework at a regional level. The RWQPP and the rezoning are fundamental for maintaining the health and integrity of marine ecosystems, which is another key aspect of the Oceans Policy.	Achieved
Provincial level regionalisation	The 70 bioregions outlined in (6) above have provided a provincial level regionalisation	Achieved
Baseline data collection	Many research and monitoring programs in the GBR have, and continue to, provide baseline data (some of the more widespread include the current Seabed Biodiversity project, seagrass surveys, chlorophyll a, dugong surveys, etc)	Achieved
Enhancing taxonomic capacity	Continuing research (eg the CRC Seabed Biodiversity project < http://www.reef.crc.org.au/resprogram/programC/seabed/index.htm >) is helping to address the taxonomic understanding of the GBRMP	Achieved
Maintaining core datasets	Information from GBRMPA is frequently used to maintain core datasets (eg CAPAD and the National Marine Bioregionalisation)	Achieved

Comparable databases	We share information in consistent databases across a number of agencies for example, water quality data with AIMS, Seagrass data with QDPI/Ports Corporation Qld.	Achieved
Resource needs for database establishment and management	GBRMPA has numerous on-line databases (stakeholder, reef and island, permits, traditional owner information) and has access to many other databases at AIMS and Reef CRC	Achieved
Analysis of information programs	Following the huge public involvement in the RAP, improvements have been undertaken in the consultation processes and information programs. A number of changes have been put in place to make the consultative mechanisms more targeted, participatory and effective. For example, Regional Liaison Managers/Officers have been appointed to work with communities along the entire GBR coast and are based in Cairns, Townsville, Mackay and Rockhampton. We also develop periodic State of the Reef reports based on the analysis of long-term monitoring programmes, eg Coral and Water Quality	Achieved
Stakeholder understanding	As well as the new Community Partnership arrangements recently introduced, there is also comprehensive range of expert and local advisory committees feeding into locally relevant decision-making. This includes: ten geographically-focused Local Marine Advisory Committees; four issue-focussed Reef Advisory Committees; and the GBR Consultative Committee that includes a range of expertise and representation, and provides another link to Marine Park stakeholders whilst also reporting directly to the Federal Minister. regular reporting undertaken on the GBR, eg State of Reef report and other communication products, eg the GBRMPA newsletter (SeaRead)	Achieved
Information availability	The GBRMPA website < http://www.gbrmpa.gov.au/ >, the ReefED website < http://www.reefed.edu.au/ >, Reef CRC webpages < http://www.reef.crc.org.au/ >, the Reef HQ Aquarium, and GBRMPA's Public Information Unit all service the information needs of the broader community.	Achieved
Analysis of IUCN categories	Tables A & B in Attachment 1 shows the application of the existing IUCN categories in the GBR Marine Park. This information is readily available on the GBRMPA website	Achieved

Application of IUCN categories	< http://www.gbrmpa.gov.au/corp_site/management/zoning/documents/area_statement_082004_updated_w3version.pdf >	Achieved
IUCN protected area management category reporting		Achieved
National consistent nomenclature	Many of the zone names used by other jurisdictions (WA, NSW, SA) have built upon the zoning nomenclature and provisions developed in the GBRMP (eg WA uses General Use Zone; NSW and SA uses General Use and Habitat Protection Zones; all use Sanctuary Zone for no-take areas)	Achieved
Joint management arrangements	The Day-to-Day Management Program (DDM), a jointly funded co-operative partnership between the Commonwealth and the State of Queensland, coordinates the routine day-to-day activities and field operations required for the management of the Marine Park and GBR World Heritage Area. Implementation of the DDM program is undertaken by a number of Queensland and Commonwealth Government agencies working under contract or other less formal arrangements with the GBRMPA. For example, the major work provider, Queensland Parks and Wildlife Service, operates under a memorandum of understanding and a jointly agreed annual business program. (see Attachment 1 for more details).	Achieved
Indigenous interests	GBRMPA's Indigenous Partnerships Liaison Unit continues to liaise with Traditional Owners, Indigenous community groups and Native Title Representative Bodies to ensure the conservation of species/values that are important for all parties (ie culturally important and important for conservation), with the long-term objective to facilitate Aboriginal and Torres Strait Islander involvement in the effective management of the Great Barrier Reef Marine Park.	Achieved
Models of industry cooperative management	The GBRMPA works closely with a wide range of industries, including the tourism industry, shipping industry, ports industry, the sugar cane industry and the fishing industry. Many of these arrangements are regarded as models of cooperative management (eg. co-operative management with the tourism industry includes voluntary best environmental practices, industry codes of conduct, educational and interpretive programs for visitors, staff training, accreditation and involvement in monitoring programs).	Achieved

Best practice management planning	The approach taken in the Representative Areas Programme (RAP) is now recognised as one of the most comprehensive and innovative global advances in the systematic protection of marine biodiversity and marine conservation in recent decades. The GBRMPA has received regional, national and international recognition of the RAP and the rezoning process with a number of awards.	Achieved
MPA performance assessment	Refer to 1.4.5 of the Report	Achieved
Bioregion performance reporting	Refer to 1.4.5 of this Report.	Achieved
NRSMPA performance assessment	This table provides a performance assessment report against all 34 NRSMPA SPA Actions	Achieved