



# The Representative Areas Programme

## Protecting the Biodiversity of the Great Barrier Reef

### Key achievements of the Representative Areas Programme

- Development of a visionary new Zoning Plan for the Marine Park providing a framework for the conservation and sustainable use of the resources of the Great Barrier Reef, now and into the future.
- Protection of over 33% (>115,000km<sup>2</sup>) of the Marine Park within the world's largest network of highly protected 'no-take' areas.
- Creation of a network of highly protected areas representative of all 70 bioregions occurring within the Marine Park.
- One of the most comprehensive processes of community involvement and participatory planning for any environmental issue in Australia's history, including over 31,500 public submissions.
- Fostering community stewardship of the Great Barrier Reef throughout Queensland and Australia.
- Wide recognition of the planning process and outcome as 'world's best practice', leading to various regional, national and international awards.
- Development of a number of innovative planning tools, analytical approaches and public engagement methods developed by GBRMPA staff 'in-house', including:
  - A Great Barrier Reef-wide map of 'bioregions', which was a cornerstone of the new zoning network;
  - Specific operational principles, which guided the planning;
  - A comprehensive submissions database, enabling analysis of all public submissions;
  - 'Post-hoc' accounting, providing an effective evaluation and reporting system against the planning principles; and
  - Auto-generated legal boundary descriptions from GIS maps, allowing the zone locations to be translated into legal descriptions rapidly and accurately.



**Australian Government**  
**Great Barrier Reef**  
**Marine Park Authority**

# The Representative Areas Programme

Since 1975, the Great Barrier Reef Marine Park Authority (GBRMPA) has been the principal adviser to the Australian Government on the planning and management of the Great Barrier Reef Marine Park (the Marine Park). The uniqueness of the Great Barrier Reef was recognised in 1981 when it was inscribed on the World Heritage List.

From the late 1990s, there were concerns that the existing levels of protection did not adequately protect the range of biodiversity known to exist within the Great Barrier Reef Marine Park. These were considered inadequate to ensure that the Reef and the surrounding habitats remained a healthy, productive and resilient ecosystem into the future.

Between 1999 and 2004, the GBRMPA undertook a systematic planning and consultative programme to develop a new Zoning Plan for the Marine Park. The primary aim of the programme was to better protect the range of biodiversity in the Great Barrier Reef, by increasing the extent of 'no-take' areas (locally known as 'green zones'), ensuring they included 'representative' examples of all the different habitat types (hence the name, the Representative Areas Programme or RAP). A further aim was to minimise impacts on the existing users of the Marine Park. A comprehensive programme of scientific input, community involvement and innovation achieved these aims.

## Zoning

One of the primary tools for protecting marine habitats and species, as well as managing use within the Marine Park, is zoning. The entire Marine Park is zoned, with the different zone types specifying varying levels of protection. This multiple-use zoning approach provides high levels of protection for specific areas (eg Marine National Park Zone) whilst allowing reasonable uses, including most fishing and other extractive activities, to continue in other zones (eg Habitat Protection Zone). Each 'zone' specifies which activities can or cannot be undertaken and whether or not permission is required to undertake those activities (refer Figure 1). Accordingly, Zoning Plans apply to all users.

During the rezoning programme, all components of the Zoning Plan were open for comment and alteration. Given that the previous Zoning Plans were progressively developed over the last 17 years, some of the terms, management provisions and zone names differed slightly between various parts of the Marine Park. The rezoning programme saw the development of a single Zoning Plan for the Marine Park that removed these

inconsistencies. It also enabled the GBRMPA to address several other important planning tasks; for example:

- zoning, for the first time, 28 new coastal sections added to the Marine Park in 2000 & 2001; and
- implementing coordinate-based descriptions for all zone boundaries.

## The New Zoning Plan

The new Zoning Plan for the Marine Park became law on 1 July 2004. It increased the proportion of the Marine Park that was highly protected by 'no-take' zones from less than 5% to more than 33%, and now protects representative examples of each of the 70 bioregions (broad habitat types) occurring across the entire area, including the surrounding waters. Other zones also provide increased protection of biodiversity.

There were a number of factors that contributed to successful implementation of this planning task:

- **Focussing initially on the problem(s) to be addressed rather than the solution** - The GBRMPA recognised the need to inform stakeholders that the Great Barrier Reef was 'under pressure' and that the level of protection of the biodiversity was insufficient before stakeholders were willing to accept RAP as part of the solution.
- **Integrated approaches** - A combination of expert opinion, stakeholder involvement and analytical approaches were used to identify options for zoning networks. Areas selected to be new no-take zones aimed to maximise the protection of biodiversity while minimising negative social,



Experts applied their specific knowledge to help develop a map of 70 bioregions that became a fundamental cornerstone of the RAP for the entire Marine Park

economic or cultural impacts on Marine Park users and stakeholders. The linking of science, technical support and community participation was an essential three-way dynamic in the planning process.

The analytical approaches comprised marine reserve design software, adapted for use in the RAP, and a suite of GIS-based spatial analysis tools. The analytical software enabled the GBRMPA to integrate a number of data layers representing biophysical, social and economic values, and enabled a number of options to be generated and assessed.

- **Whole of agency priority and ownership** - While there was a Task Force set up within the GBRMPA specifically to coordinate the rezoning programme, an agency-wide commitment and ownership of the programme was generated and still exists. Genuine pooling of resources, expertise and capabilities was one of the enabling features in delivery of the new Zoning Plan.
- **Application of the precautionary principle** - The scientific understanding of how such a complex natural system as the Great Barrier Reef actually functions was far from perfect, and there was a call from some sectors to delay further protection in order to 'do more research'. Sufficient information was available, however, to indicate populations of key species in decline, especially those that were directly or indirectly impacted by extractive activities. The application of the precautionary principle, and the decision to 'adaptively manage' in the absence of perfect knowledge, were important factors to the success of the programme.

Activity	GBRMPA Zoning							
	Change for Zone	Green Zone	Yellow Zone	Orange Zone	Red Zone	Blue Zone	Pink Zone	White Zone
Aquaculture	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Ball netting	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Bowling, diving, photography	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Crabbing (trapping)	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Harvest fishing for aquarium fish, coral and sea cucumbers	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Harvest fishing for sea cucumber, trochus, tropical rock lobster	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Limited collecting	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Limited spearfishing (brockal only)	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Line fishing	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Netting (other than ball netting)	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Research (other than limited impact research)	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Shipping (other than in a designated shipping area)	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Tourism program	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Traditional use of marine resources	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Trawling	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Trolling	Permit	Permit	Permit	Permit	Permit	Permit	Permit	Permit

PLEASE NOTE: This guide provides an introduction to Zoning in the Great Barrier Reef Marine Park. Relevant Great Barrier Reef Marine Park Zoning Plans should be consulted for confirmation of use or entry requirements.

\* Additional restrictions / conditions apply.

ACCESS TO ALL ZONES IS PERMITTED IN AN EMERGENCY.

Figure 1: Activities Table



- Use of independent experts - Independent experts greatly assisted in the development of a number of 'products' that were important to the planning process, and were widely available for discussion early in the planning programme, in particular:

- Great Barrier Reef bioregionalisation - The map of 70 bioregions provided the fundamental foundation for the protection of the biodiversity that lead to the new Zoning Plan. Independent expert committees, that collectively had hundreds of years of experience in the Great Barrier Reef, helped develop the map. They used a wide range of data sets collated from a variety of institutions and agencies. Key stakeholders, including commercial fishermen and tourism operators, were also involved in developing the bioregions.

- Operational principles for developing the new network - External scientific and social-economic-cultural advisory committees were used to develop 11 biophysical principles and 4 socio-economic principles. These principles greatly assisted by clarifying the planning 'rules' up front for all to see and apply before any new zones were proposed.

## Community Participation

The extensive public consultation programme throughout RAP included some 1,000 formal and informal meetings and information sessions involving engagement in over 90 centres along the Great Barrier Reef coast. This included local communities, commercial and recreational fishing organisations, Traditional Owners, tourism operators, conservation groups, etc. Meetings were held with peak organisations such as Sunfish, the Association of Marine Park Tourism Operators, WWF Australia, and all branches of the Queensland Seafood Industry Association in the Great Barrier Reef catchment area.

As required by the relevant legislation, there were two formal phases of community participation during the RAP. The resulting 31,500 public submissions (over 10,190 in the first formal phase, and 21,500 in the second phase), many of which included maps, were unprecedented compared to previous planning programmes in the Great Barrier Reef. It necessitated the development of fast and effective processes for analysing and recording the range of information that was received by the GBRMPA.

The public submissions were managed through a three-stage process:

- Initially, the contact details from each submission were recorded in a database, a unique identification number was assigned, and an acknowledgment card was sent to the person that made the submission.

- In the second stage, all submissions were individually scanned and the electronic files were saved into a custom-built submissions database.
- The third stage was the most important; a team of trained GBRMPA staff, read and analysed all the submissions following a coding framework consisting of a range of themes and attributes. The coding framework was developed from content analysis of a stratified random sample of submissions based on place of origin and sector. The team leader routinely checked a sample of the analysed submissions to ensure consistency of analysis.

A large number of the submissions included spatial information, including approximately 5,800 maps in the second formal phase alone. This spatial information was considered, coded and analysed with the other information contained in the submissions, and the maps were either digitized and/or scanned.

The Draft Zoning Plan was developed after consideration of available natural resource, social, economic and cultural information, management issues and community input. Fisheries data, and data on tourism and recreational use were essential in placing the zones to also help minimise the potential impact on known users. In the second formal consultation phase, the community was invited to comment on the Draft Zoning Plan.

To ensure local communities and stakeholders had opportunities to have their say, the GBRMPA undertook an extensive programme of public contact including:

- Hundreds of meetings with communities and stakeholders;



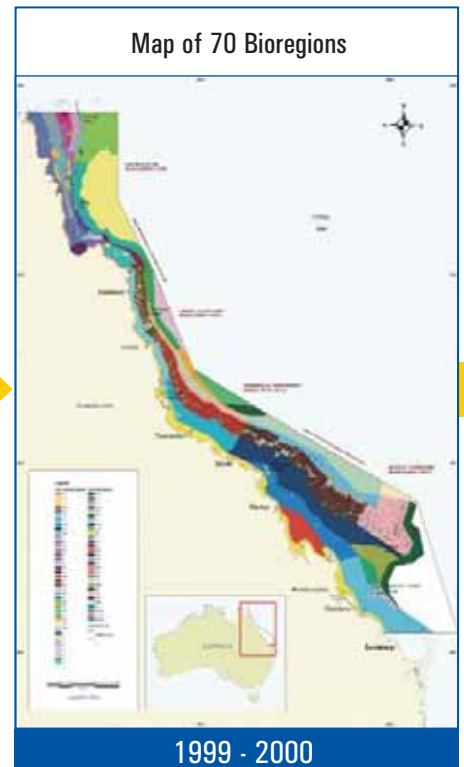
One of the many meetings held out in the various local communities along the Great Barrier Reef coast to explain the zoning process and to encourage public submissions as an important part of the planning programme.

- Over 10,000 packages of information, more than 50,000 submission forms, 29,000 explanatory brochures and 76,000 draft zoning maps were distributed;
- Approximately 2,000 calls were made by the public to the free-call 1800 number at the GBRMPA;
- All relevant information was available on the GBRMPA's web site which received over 35,000 'hits'; and
- Information for the public included some 1,500 community service announcements on television and radio, hundreds of newspaper articles and some 90 newspaper advertisements about RAP.



GBRMPA staff conducted community information sessions in over 90 centres along the coast, enabling interested individuals to get information and ask questions.

# An Ecosystem Approach to Protecting Biodiversity



Realisation that existing Zoning Plans inadequate for the protection of biodiversity

Developed operational principles



**June - August 2003**  
Community Participation Phase 2 21,500 public submissions



**May - August 2002**  
Community Participation Phase 1 10,190 public submissions

**New Zoning Plan**  
in effect  
1 July 2004

Regulatory Impact Statement



## Revising the Draft Zoning Plan

The submissions and additional information about uses of the Marine Park were important in guiding the revision of zones. The GBRMPA made many modifications to the Draft Zoning Plan using detailed information provided by local communities and stakeholders, but also additional information that became available during the planning process (for example, deep water biodiversity). In some locations, particularly in inshore coastal areas, there were limited options available to modify proposed no-take areas whilst maintaining the planning principles.

## Final Approvals

In accordance with the *Great Barrier Reef Marine Park Act 1975*, once the revised Zoning Plan was approved by the Board, it was submitted to the Minister for the Environment and Heritage for consideration. A Regulatory Impact Statement and comprehensive assessments of the social and economic impacts of the revised Plan were also submitted. The Minister approved the Zoning Plan and tabled it in both Houses of Federal Parliament on 3 December 2003. Following the statutory period for Parliamentary consideration (15 sitting days), the Minister announced that the new Zoning Plan would be implemented on 1 July 2004.



Many public submissions used the submission forms that were specifically prepared and widely distributed by the GBRMPA



Listening to the views of local fishers was an important part of the planning process

## Conclusion

The approach taken in the RAP is now recognised as one of the most comprehensive, innovative and exciting global advances in the systematic protection of marine biodiversity and marine conservation in recent decades.

As the Marine Park moves into its fourth decade, the new regulatory framework will bring benefits to the conservation of the entire Great Barrier Reef ecosystem as well as providing benefits for all users and industries dependent on the Great Barrier Reef, and future generations. There is, however, also a need to monitor over time the nature and degree of the effect of the Zoning Plan in a cost-effective way as part of the adaptive management process.

The RAP is just one of a number of strategies undertaken by the GBRMPA to maintain the health and resilience of the Reef. Other strategies have been developed focussing on water quality, tourism management and sustainable fishing issues.

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.



Some of the local and national media after the RAP was finalised

# Recognition for the Representative Areas Programme

The Great Barrier Reef Marine Park Authority has received regional, national and international recognition and a number of awards for the Representative Areas Programme and the rezoning process, including:

- 2004 Banksia Environmental Award (for Government Leading by Example for a Sustainable Future);
- 2004 Eureka Prize for Biodiversity Research;
- 2004 Overall Winner - Australian Government Regional Heads Forum Excellence Awards;
- 2004 ESRI International User Conference Award (Special Achievements in Geographical Informational Systems);
- 2004 Planning Institute of Australia, Queensland Division – three awards, Overall Winner for Excellence in Planning; Award for Environmental Planning/Conservation and Award for Community Based Planning;
- 2004 US Coral Reef Task Force Award for Outstanding Management (International);
- 2005 Planning Institute of Australia, National Awards, Planning Minister's Award and Overall National Award for Excellence in Planning, and National Award for Community Based Planning;
- 2005 UNESCO/Man and the Biosphere (Sultan Qaboos Environmental Prize).



At the 2005 National Planning Awards ceremony, the Planning Minister's Award was accepted on behalf of all staff of the GBRMPA.

For more information on the zoning of the Marine Park visit [www.gbrmpa.gov.au](http://www.gbrmpa.gov.au). More detailed information on the Representative Areas Programme can also be found on the Great Barrier Reef Marine Park Authority website under Zoning, 'Information for Managers and Planners'.

Great Barrier Reef Marine Park Authority  
2-68 Flinders Street East  
Townsville QLD 4810

Phone: 07 4750 0700  
Email: [info@gbrmpa.gov.au](mailto:info@gbrmpa.gov.au)



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**Marine Park Authority**



**Natural Heritage Trust**  
*Helping Communities Helping Australia*  
A Commonwealth Government Initiative



**our great barrier reef**  
**let's keep it great**