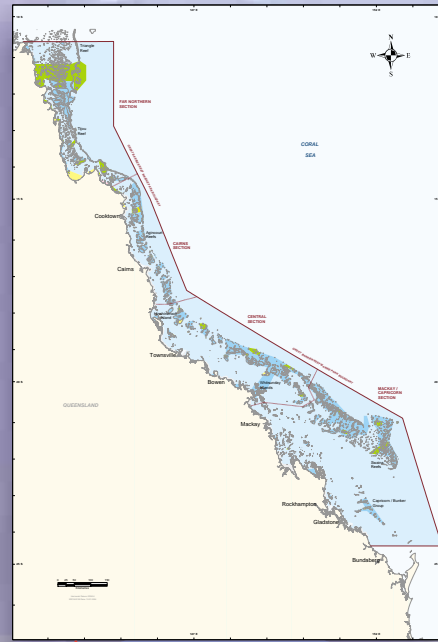


# The Great Barrier Reef **Representative Areas Program**

an ecosystem approach to protecting biodiversity



Australian Government  
Great Barrier Reef  
Marine Park Authority

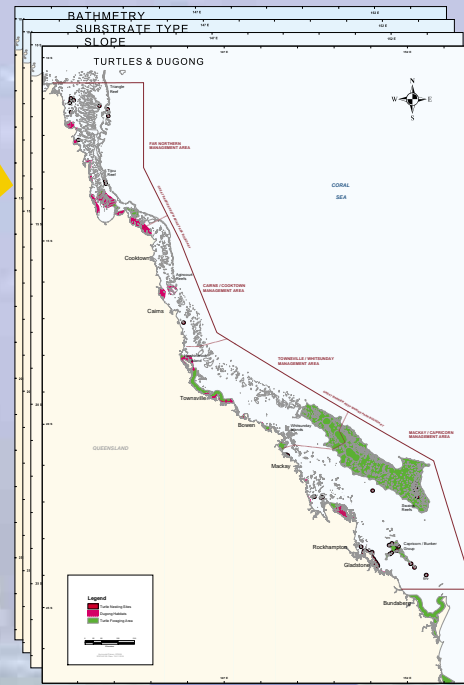


**1** Original Zoning Plan

**2**

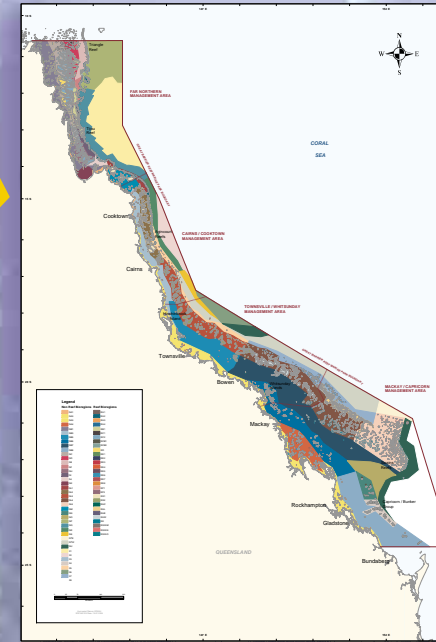
Realisation that existing Zoning Plans inadequate for the protection of biodiversity

1983 - 1988



**3** 40 Datasets

1998 - 1999



**4** Maps of Bioregions

1999 - 2000

New Coastal Areas added to the GBRMP

**5**

Develop operating principles

**6**

Community Participation **Phase 1**  
10 000 public submissions

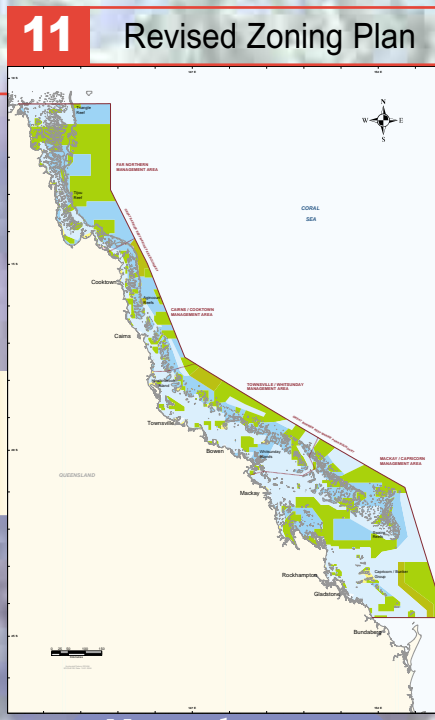
**7**

2002

ACTIVITIES GUIDE (see Revised Zoning Plan for details)	Zoning Zones						
	General Use Zone	Habitat Protection Zone	Conservation Park Zone	Buffer Zone	Scientific Research Zone	Marine Reserve Zone	Preservation Zone
Aquaculture	Permit	Permit	Permit	X	X	X	X
Bait netting	✓	✓	✓	X	X	X	X
Boating, diving, photography	✓	✓	✓	✓	✓	✓	X
Crabbing	✓	✓	✓	X	X	X	X
Harvest fishing for aquarium fish, coral and beachworm	Permit	Permit	Permit	X	X	X	X
Harvest fishing for sea cucumber, trochus, tropical rock lobster	Permit	Permit	X	X	X	X	X
Limited collecting	✓	✓	✓	X	X	X	X
Limited impact research	✓	✓	✓	✓	✓	✓	Permit
Limited spearfishing (snorkel only)	✓	✓	✓	X	X	X	X
Line fishing	✓	✓	✓	X	X	X	X
Netting (other than bait netting)	✓	✓	X	X	X	X	X
Research (other than limited impact)	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Shipping (other than in a designated shipping area)	✓	Permit	Permit	Permit	Permit	Permit	X
Tourism program	Permit	Permit	Permit	Permit	Permit	Permit	X
Traditional use of marine resources	✓	✓	✓	✓	✓	✓	X
Trawling	✓	X	X	X	X	X	X
Trolling	✓	✓	✓	✓	X	X	X

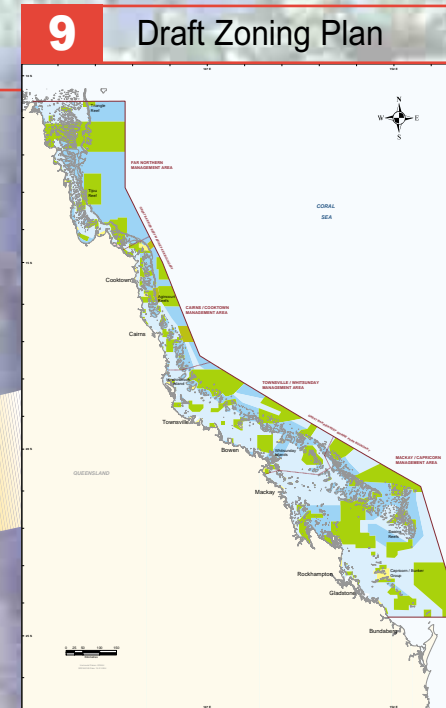
The objective of the RAP was to increase the protection of biodiversity within the GBRMP through increasing the extent of no-take areas (locally known as Green Zones) to:

- maintain biological diversity of the ecosystem, habitat, species, population and genes;
- allow species to evolve and function undisturbed;
- provide an ecological safety margin against human-induced disasters;
- provide a solid ecological base from which threatened species or habitats can recover or repair themselves; and
- maintain ecological processes and systems.



**11** Revised Zoning Plan

November 2003



**9** Draft Zoning Plan

June 2003

**8**

Identify zoning options

Community Participation **Phase 2**  
21 000 public submissions  
June - Aug. 2003

**10**

Revised Zoning Plan submitted to Parliament  
December 2003

**13**

**12**

Regulatory Impact Statement

**14**

New Zoning Plan in effect mid 2004



# The Great Barrier Reef Representative Areas Program - The planning process in detail



## 1 Original Zoning Plans (1983-1988)

Between 1983 – 1988, zoning plans were developed for the four main sections of the Great Barrier Reef Marine Park (GBRMP) – namely the Far Northern, Cairns, Central and Mackay/Capricorn Sections. These Zoning Plans resulted in ~ 4.5% of the GBRMP being declared in 'no-take' areas (locally known as 'green zones'<sup>1</sup>) and were based on the best available information available at the time.

## 2 Commencement of Representative Areas Program (1998)

In the late 1990s, it was recognised that the existing zoning did not adequately protect the range of biodiversity now known to exist within the GBRMP. Many biological communities (for example, inshore marine habitats) were poorly represented in no-take zones. It was clearly recognised that all plants, animals and their habitats within the GBRMP played important roles in maintaining the health and resilience of the GBR ecosystem. A systematic program was therefore commenced (the Representative Areas Program or RAP), which was specifically designed to determine the major habitat types of the GBR region, and develop a new Zoning Plan based on protecting 'representative' examples of each habitat type within a network of no-take areas. RAP is designed to maintain the health and resilience of the ecosystem and provide benefits for present and future users.

## 3 Collation of data sets (1998-1999)

To determine the main habitat types, all available biophysical, biological and oceanographic datasets were compiled (e.g. bathymetry, reef morphology, slope, tidal range, substrate type, soft and hard

corals, etc – see: [http://www.gbrmpa.gov.au/corp\\_site/key\\_issues/conservation/rep\\_areas/maps.html](http://www.gbrmpa.gov.au/corp_site/key_issues/conservation/rep_areas/maps.html)). In addition to existing biological data, surrogates were used to approximate different habitat types. Reef and non-reef experts also advised the GBRMPA on what they considered were the primary physical factors determining the distribution of specific organisms.

## 4 Development of map of bioregions (1999-2000)

More than 40 sets of GBR data were compiled. This data was then used in workshops by reef and non-reef experts to help classify the biological and physical diversity of the GBR. Analytical methods were used to spatially cluster areas of similar species composition. Collectively this information helped to define 70 'bioregions'<sup>2</sup> (30 reef bioregions and 40 non-reef bioregions) across the GBR that were the fundamental basis for the RAP. More information can be found at <http://www.reefED.edu.au/rap/bioregions/>

## 5 New coastal areas added to the GBRMP (1998-2001)

In 1998, the Gumoo Wojobuddee Section was incorporated into the GBRMP. Between August 2000 and July 2001, 28 new coastal areas that had previously been excluded, were also added to the GBRMP. These coastal areas had been excluded when the GBRMP was first declared. It is a statutory requirement that Zoning Plans be prepared for any new areas as soon as practicable after their proclamation as part of the GBRMP.

## 6 Development of operating principles

The biophysical operating principles (BOPs), which guided decision-making throughout the RAP process, were

developed by an independent Scientific Steering Committee including marine scientists of international standing in their fields. The Scientific Committee used the best available science to recommend eleven biophysical principles including minimum amounts of protection per bioregion, levels of protection for important habitat types, and replication of no-take areas throughout each bioregion (for more information, see <http://www.reefED.edu.au/rap/overview/principles/bops.html>). A set of social, economic and cultural operational principles were similarly defined and agreed by another expert committee (see <http://www.reefED.edu.au/rap/overview/principles/seps.html>).

## 7 First formal Community Participation Phase (May - August 2002)

A public notice to prepare a Draft Zoning Plan (DZP) was issued on 7 May 2002 with input invited until 7 August 2002. It was proposed the DZP would comprise a single zoning plan for the entire Marine Park, including the 28 new coastal sections.

The first formal Community Participation Phase (CPP1) was extremely resource-intensive, and involved a variety of techniques to ensure all coastal communities were aware of RAP. As a result, 10,190 written submissions were received from the public, the largest number ever received by the GBRMPA for a zoning or management planning exercise. The unprecedented level of publicity about the rezoning program and the large number of written submissions required GBRMPA to implement a number of innovative ways to handle the huge amount of information.

## 8 Identifying options for no-take area networks

A combination of expert opinion, stakeholder involvement and analytical approaches were used to identify options for no-take area networks. The analytical approaches comprised marine reserve design software, adapted and expanded for use in RAP, and a suite of GIS-based

spatial analysis tools. The analytical software enabled 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 (for example, to what extent did a 'candidate' area network meet the biophysical operating principles, and how much did it impact on the known socio-economic values in the available data layers).

## 9 Developing a Draft Zoning Plan (late 2002 - mid 2003)

Areas selected to be new no-take zones aimed to maximise the protection of biodiversity while minimising negative social, economic or cultural impacts on GBRMP users and stakeholders. Using information from the submissions and a range of other data sources, the GBRMPA developed a DZP and addressed several other tasks:

- zoning, for the first time, the 28 new coastal sections;
- ensuring consistency of zoning provisions throughout the GBRMP; and
- implemented coordinate-based descriptions for zone boundaries.

## 10 Second formal Community Participation Phase (June - August 2003)

The DZP was released in June 2003 and the community invited to provide submissions by 4 August 2003. The second Community Participation Phase (CPP2) included:

- more than 360 meetings/information sessions with thousands of people along the GBR coast;
- the distribution of 76,000 maps, 57,000 submission forms, 29,000 explanatory brochures and more than 2,100 Compact Discs;
- more than 500 media reports;
- 88 newspaper advertisements;
- almost 2,000 calls to the free-call 1800 number; and
- 35,000 hits on the RAP website (63% from Australia, the rest from 99 countries).

Over 21,500 submissions were received by the close of CPP2 from a wide range of users, Traditional Owners, local communities, other stakeholders and the public. Like CPP1, the huge number of submissions required an innovative and effective process for analysis, and each submission was scanned, analysed by GBRMPA staff and recorded in a detailed database.

## 11 Revised Zoning Plan (November 2003)

The DZP was revised following consideration of all the information received in the second phase of community participation. The social, economic, cultural and practical implications were major determinants in the final selection of the zoning network, while still maintaining or enhancing levels of protection of biodiversity. Many modifications to the DZP were made when preparing the revised Zoning Plan (ZP), but in some locations there were limited options available to modify proposed no-take areas, particularly in inshore coastal areas. The revised ZP provides protection for 33.3% of the GBRMP in no-take zones and protects adequate examples of all 70 bioregions as defined by the BOPs. A copy of the statutory ZP can be viewed at [http://www.reefED.edu.au/rap/pdf/ZP\\_25-11-03.pdf](http://www.reefED.edu.au/rap/pdf/ZP_25-11-03.pdf) and the zoning maps are at <http://www.reefED.edu.au/rap/maps.html>

## 12 Regulatory Impact Statement (November-December 2003)

It was recognised that the revised ZP was likely to cause localised economic impacts in relation to a number of fisheries, such as the inshore commercial and recreational fisheries. Independent experts, including the Bureau of Rural Sciences, the Bureau of Tourism Research and consultants with expertise in the field, conducted assessments of the social and economic impacts of the revised ZP. They quantified the range of benefits and costs for all effected industries including commercial fisheries, recreational fisheries, tourism, research and the non-extractive recreational industry, as well as estimating the conservation and other

indirect community benefits (e.g. the non-transferable ecosystem service benefits such as the maintenance of habitats, maintaining resilience, waste assimilation, and the value for bio-prospecting).

These reports assisted in the preparation of a Regulatory Impact Statement (RIS) that was submitted to the Federal Government when the ZP was tabled in Parliament [http://www.reefED.edu.au/rap/pdf/RIS\\_25-11-03.pdf](http://www.reefED.edu.au/rap/pdf/RIS_25-11-03.pdf)

## 13 Submission of the Zoning Plan to Parliament (December 2003)

The revised ZP was submitted to the Federal Minister for Environment and Heritage who tabled it in both Houses of the Australian Parliament on 3 December 2003.

## 14 RAP Implementation (scheduled mid 2004)

Once the ZP has been before the Parliament for the statutory time period, the Minister will determine a date for the new ZP to come into effect. Implementation of the ZP is therefore not expected before mid 2004, and the date of commencement will be widely advertised.

The Australian Government has agreed in principle to a structural adjustment package for those adversely affected by the new ZP; this will be considered as a part of the RAP implementation.

RAP is just one of a number of strategies developed to achieve the protection of biodiversity. Other strategies, coordinated by the GBRMPA, have focussed on water quality, sustainable fishing, tourism management and indigenous issues.

A healthy GBR and the associated marine and coastal areas mean a secure future for all coastal communities. Given the pressures on the GBR, an effective network of no-take areas as has been developed in RAP is a critical part of the solution to ensuring that the GBR remains healthy.

<sup>1</sup> A Green Zone is the locally known term for a 'no-take' area, marine sanctuary or Marine National Park Zone (MNPZ). Anyone can enter a Green Zone and boating, swimming, sailing and snorkelling can all occur in Green Zones. However, extractive activities like fishing or collecting are not allowed unless the written permission of the Authority has been obtained. Travelling through a Green Zone with fish on board is also allowed (it is only an offence if the fishing occurs inside the zone).

<sup>2</sup> Bioregions have habitats, communities (e.g. areas of seagrass) and physical features (e.g. sediment type, depth) that are more similar within the bioregion than those occurring in other bioregions.