

# Planning for the Great Barrier Reef Marine Park

**P McGinnity**

*Great Barrier Reef Marine Park Authority, PO Box 1379, Townsville Qld 4810*

## Abstract

Planning for the Great Barrier Reef Marine Park is undertaken at a variety of scales and for a wide range of management issues. Plans currently in place: set strategic direction to coordinate management over the next twenty-five years by all agencies and stakeholders in the World Heritage Area; establish a zoning framework for the Park that regulates use of each area to achieve conservation and sustainable-use objectives; and establish specific strategies necessary to manage use at a number of the most intensively-used reefs. Plans currently being developed are: addressing the impacts of coastal land-use, intensive reef-based tourism, and private recreation at the regional level; identifying strategies for conserving threatened species; regulating damaging activities such as anchoring at a number of heavily used sites; addressing the contemporary, cultural, heritage and use values of indigenous peoples in the Far Northern section and at a number of other locations; are reviewing the adequacy of the representation of the various biological communities in the current protected areas strategy; and are assessing whether there is a need to introduce a wilderness strategy for the Park.

## Introduction

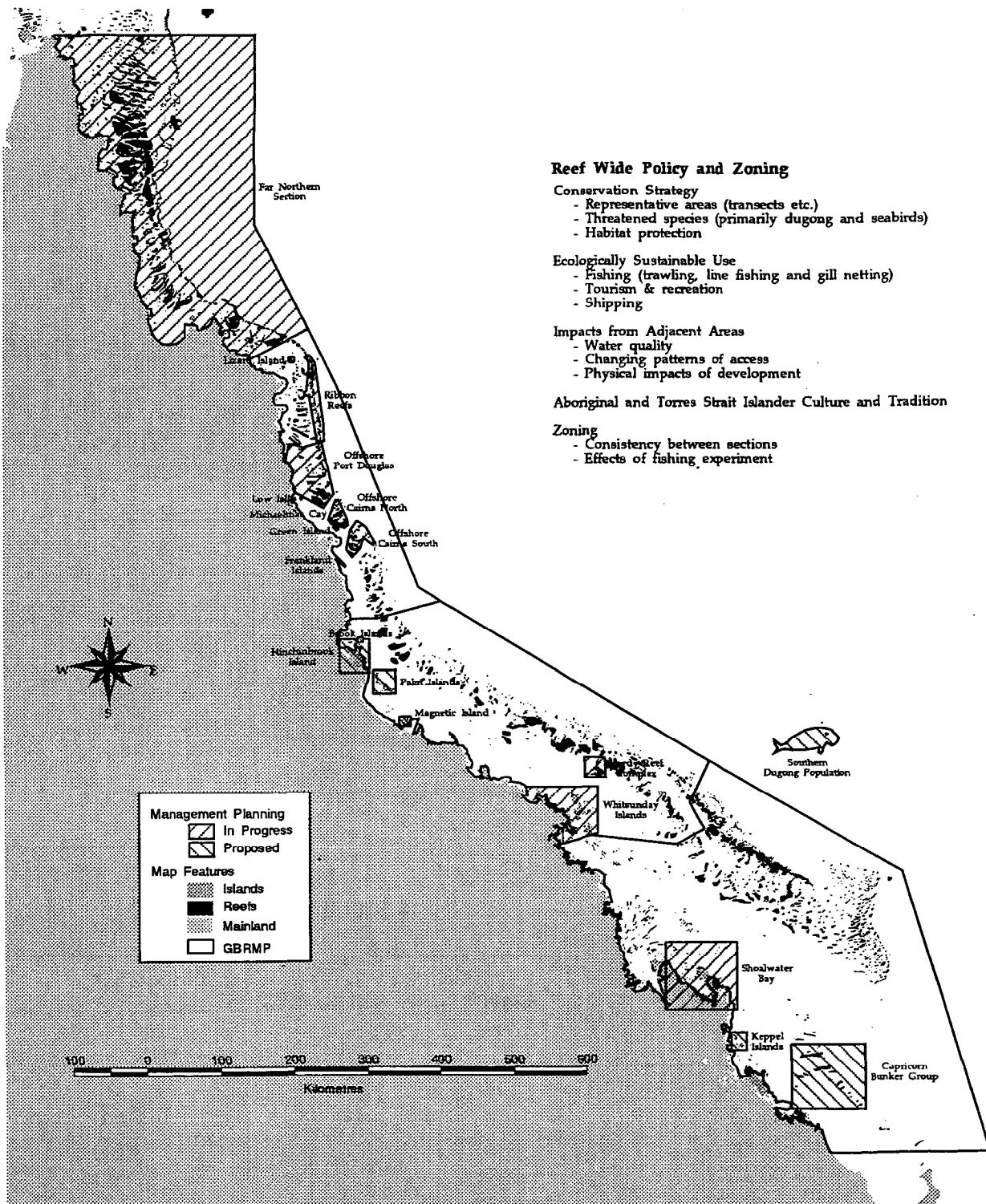
Planning for the conservation and reasonable use of the Great Barrier Reef began by defining the areas to be included in the Marine Park and arranging for their legal declaration. Historically, the Park was established in a number of sections which have since been combined or modified to the four Sections currently in place (see Fig. 1). The sequential approach of dealing with zoning for one section at a time made allowance for the complexity of the tasks involved in assessment of conservation values and management requirements over such large areas. Section boundaries were originally defined based on a combination of factors including:

- natural boundaries such as differences in oceanographic currents, reef types, fish communities etc.;
- intensity of human use, with the more intensively used areas having highest priority for initial inclusion; and
- consideration of existing administrative boundaries for state agencies and local government.

For a number of reasons some coastal waters, often associated with urban areas or ports etc., were not originally included in the Park. The Authority proposes to review this situation and it is likely that many of these areas will be incorporated over the next few years.

The Great Barrier Reef Marine Park is managed to provide for multiple use where this use can be managed to be consistent with the requirements for conservation of the Reef. The *Great Barrier Reef Marine Park Act 1975* (the Act) banned oil drilling and mining. Both activities were considered to be of too great a threat to the coral reefs. Management of the vast array of remaining activities is undertaken through a system of plans, including:

- World Heritage Area Strategic Plan;
- Marine Park Zoning Plans;
- Management Plans; and
- Special Management Areas.



**Figure 1.** Management planning in the Great Barrier Reef Marine Park

### Strategic plan for the Great Barrier Reef World Heritage Area

The aim of the 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area is to achieve agreement between the various agencies and interest groups on the long-term management objectives and to focus the resources of all groups towards the most effective and efficient path for achieving those objectives.

In essence the Plan is a formula to achieve integrated planning and management by all relevant agencies and interest groups, recognising the different expertise and responsibilities of the various parties. Through this process longer-term problems, for example the need to reduce the inflow of nutrients from agricultural practices and sewage discharge into the Park, can be addressed. The five-year objectives established through the Strategic Plan will be the basis for each agency and group to derive their work programs for the next five years.

### **Zoning plans**

Zoning is the spatial partitioning of an area into a variety of uses to meet the overall objectives of conservation with reasonable use.

The Great Barrier Reef Marine Park Act sets out the objects which are to be considered in developing a zoning plan. They are:

- (a) the conservation of the Great Barrier Reef;
- (b) the regulation of use of the Great Barrier Reef so as to protect the Great Barrier Reef while allowing for the reasonable use of the Great Barrier Reef Region;
- (c) the regulation of activities that exploit the resources of the Great Barrier Reef Region so as to minimise the effect of those activities on the Great Barrier Reef;
- (d) the reservation of some areas of the Great Barrier Reef for its appreciation and enjoyment by the public; and
- (e) the preservation of some areas of the Great Barrier Reef in its natural state undisturbed by man except for the purposes of scientific research.

Policy guidance is also given in drawing up the plan. For example:

- (a) the zoning plan should be as practicable as possible;
- (b) the plan should minimise regulation of and interference in human activities, consistent with the goal of the Marine Park Authority; and
- (c) as far as practicable the following policy guidelines should be applied:
  - single zoning should surround areas with a consistent geographic description;
  - samples of areas representative the various habitats and biological communities found in the Park should be kept free from extractive activity;
  - plans drawn up under Commonwealth and State Queensland Marine Parks legislation should complement each other; and
  - the pattern of zones should avoid a sudden transition from highly protected areas to areas of relatively little protection.

Some of the features of zoning currently in place include:

- establishment of 'representative areas' of protected habitats as flora and fauna refuges and scientific reference areas;
- protection of sensitive habitats from activities that threaten them (e.g. trawl fishing is precluded from coral reef and seagrass communities);
- separation of conflicting uses (e.g. scientific research zones exclude commercial and recreational fishing);
- maintenance of areas of the Reef as marine national parks, free from fishing and collecting, for appreciation and enjoyment by the general public; and
- permit provision for individual activities that may have significant environmental impacts.

Zoning of all existing sections was completed in 1988. The Authority currently has a policy of reviewing each zoning plan every five years or so. Reviews have been completed for the Capricornia, Cairns and Cormorant Pass Sections and a review is currently underway for the Far Northern section.

The zoning process used by the Authority has been widely publicised and is now utilised as a basis for planning marine protected areas in a number of locations around the world.

### **Management plans**

Management plans establish strategies for management of individual reefs and islands, or for groups of islands and reefs. Management plans complement zoning plans by addressing issues specific to the area in greater detail than can be accommodated in the broader-reaching zoning provisions. Management plan provisions may be more but not less restrictive than the relevant zoning plan.

Management plans drafted to date have addressed:

- the conflicts between nature conservation and tourism use at Michaelmas Reef, Green Island and Lady Musgrave Island; and
- appropriate levels and types of use at Low Isles, a site of significance for conservation of the heritage-listed lighthouse, a very long history of intensive research and high demand as a tourism destination.

Management plans are currently in preparation addressing conservation issues including anchor damage and protection of bird rookeries, cultural heritage protection, and tourism and coastal development impacts in the Whitsundays Islands and reefs offshore from Cairns. Management planning is also being undertaken in Shoalwater Bay to ensure long-term protection of the very important conservation and Defence training area.

### **Special management areas**

Special Management Areas (SMAs) may be prepared for a bay or part of a reef to implement controls that may be necessary specifically at a site. Currently emphasis is being given to introducing mooring and anchoring strategies for heavily used sites. Previously SMAs have also been used at high profile tourism sites to protect fish stocks.

### **Future directions**

By the end of 1996 the Authority should have completed the current management planning projects and the review of the Far Northern section Zoning Plan. It is also anticipated that work will have been completed to amend the existing zoning plans as necessary to introduce a major experiment investing the effects of line fishing. Over the next few years it is anticipated that the 'establishment phase' will have been fine tuned and completed. This will involve reviews to:

- achieve consistency of provisions between all zoning plans; and
- incorporate and zone coastal waters of the Region that are not currently part of the Park.

Significant changes to the historic planning approach are presently being considered. The aim is to break off the shackles of the section by section zoning approach, which while essential in the establishment phase of the Park, is now constraining the ability to deal with Park-wide issues in a more strategic manner. The future is never certain, but is likely to include:

- a need to more adequately address management needs associated with indigenous peoples contemporary use and traditional association with the Park;
- a continuing need for tactical planning to address issues as they develop in high usage areas such as Cairns and the Whitsundays;
- strategy plans that address major issues such as dugong and turtle conservation, effects of fishing, maintenance of water quality, growth in recreational and tourism use with zoning plans and regulations amended as required on a Park-wide basis most probably; and

- increased emphasis on integrated planning with other agencies to address in-Park issues such as fishing and tourism, and off-Park issues such as coastal development and downstream effects of agriculture.

## **Appendix 1**

### **Great Barrier Reef Marine Park Summary of Planning to Date**

#### **Strategic Plan for the Great Barrier Reef World Heritage Area**

The Strategic Plan is an agreement between the various agencies and interest groups on the long-term management objectives for management of the World Heritage Area. Through this Plan longer-term problems, for example the need to reduce the inflow of nutrients from agricultural practices and sewage discharge into the Park, can be addressed. The plan was endorsed by all stakeholders and released by the Prime Minister in the early part of 1994.

#### **Zoning Plans**

Zoning Plans have been prepared for all four sections with the original Capricornia (now part of the Mackay/Capricorn section) and Cairns plans having been reviewed. Work on review of zoning plans halted during the preparation of the World Heritage Strategic Plan, and there is now a ten to twelve year lag between finalisation of each plan and commencement of the review. Review of the Far Northern section began in late 1993 and is expected to be completed in 1997. Consideration of Aboriginal and Torres Strait Islander rights and needs, review of the adequacy of the current system of highly protected areas and development of a wilderness strategy and major focuses for the Far Northern section review and will establish precedents for other areas of the Park.

#### **Management Plans**

##### *Michaelmas Reef Management Plan*

Prepared jointly by the Authority and Queensland Department of Environment (QDoE), this plan addresses the potential conflicts of intensive tourism use at a site of regional significance for nesting sea birds. The plan was approved in 1986.

##### *Lady Musgrave Reef and Island Management Plan*

Lady Musgrave reef and island are located in the Capricorn/Bunker group at the southern end of the Great Barrier Reef. Lady Musgrave Island is an important turtle and bird-nesting site, it is also popular as a recreational camping and tourism location. The reef is one of the best known all weather anchorages, popular for fishing boats and cruising yachts. The plan for this area was prepared jointly by the Authority and QDoE and was approved in 1989.

##### *Low Isles Management Plan*

Completed during 1993, the Low Isles Management Plan establishes a framework for management of this very important reef and island complex. Low Isles is significant because of its diversity of reef and mangrove habitats, the presence of a light house listed on the register of Australian Heritage properties, a history of intensive research dating back to 1928, and a high demand for tourism and recreation. An interesting feature of Low Isles management is the establishment of the Low Isles Preservation Society, a local community group who voluntarily take an active role in management.

##### *Whitsundays National and Marine Parks Management Plan*

A draft plan was released for this area in October 1993 and covers marine and national parks in the area. The Whitsundays has very high conservation values, but is also an important growth

area for island, reef and coastal tourism development. The major focus of the plan is protection of fringing reefs and sensitive coastal sites. Several user conflicts of overcrowding and noisy activities such as waterskiing in 'quiet anchorages' are also being addressed.

#### *Offshore Cairns*

The Cairns area has been the fastest growing tourism area in Australia for the past ten years or so. Plans are currently being developed to ensure public access is adequately provided for at approximately thirty reefs. These plans will ensure that cumulative impacts associated with intensive tourism, such as anchor damage and displacement of other users, are appropriately addressed. The plans will identify sites that are suitable for intensive tourism and maintain appropriate levels and types of use at other reefs as well as implementing measures necessary to preserve unique conservation or cultural values.

#### *Shoalwater Bay*

Shoalwater Bay is a coastal area in the Mackay/Capricorn section. This area has very high conservation values and is the site of a Defence Force training facility. A Commonwealth Commission of Inquiry recently recommended exclusion of sandmining from the area and the development of a strategic plan for the area to protect the World Heritage values. Cabinet accepted the recommendations and allocated funds to the Authority to commence planning in January 1995.

#### *Special Management Areas*

Zoning plans provide for small areas of the Reef to be specifically managed for the purposes of conservation, undisturbed scientific research, appreciation by the public or public safety. These provisions have been widely used throughout the park to:

- protect areas immediately adjacent to tourist operations from fishing and collecting; and
- protect reef areas from anchor damage by banning anchoring, generally in combination with the installation of public moorings.

#### *Replenishment Area*

Zoning plans provide for temporary closure of selected high-use reefs to fishing, with the aim of allowing fish stocks to replenish. Replenishment closures have been used sparingly with a closure applied at Bolt Reef in the Capricorn Bunker Group and more recently at Bramble Reef in the Central section. In both cases the closures were subject to intensive monitoring. Management of Bramble Reef was overseen by an advisory group of local stakeholders.

#### *Turtle and Dugong Strategy*

The Turtle and Dugong Strategy has been prepared to address conservation of dugong and turtle throughout the Marine Park. The strategy was released following Ministerial Council endorsement during the early part of 1994. Implementation of the strategy is to be coordinated by a working group comprising researchers, representatives of fishing and traditional hunting groups and other relevant management agencies.

**Appendix 2**  
**Great Barrier Reef Marine Park Planning Program as at July 1996**

<b>Plan</b>	<b>First Public Participation</b>	<b>Second Public Participation</b>	<b>Plan Finalised</b>
Far Northern Review <sup>1</sup>	completed	early 1997	mid-1997
Effects of Fishing Zoning Amendments <sup>2,3</sup>	completed	July 1996	December 1996
Cairns Section Management Plans	completed	February 1997	July 1997
Low Isles Management Plan	completed	February 1997	July 1997
Whitsundays Management Plan	completed	February 1997	July 1997
Shoalwater Bay Strategic Plan	completed	September 1996	Late 1997
Dugong Plan	completed	September 1996	December 1996

<sup>1</sup> While re-zoning will be completed in this period, this program will require the preparation of management plans, with the first two commencing in 1996 but others being developed in later years, to implement more localised management measures - particularly those associated with Aboriginal cultural interests.

<sup>2</sup> Originally included a program to achieve more consistent zoning provisions between sections, however this aspect has been delayed and will hopefully commence during 1997.

<sup>3</sup> Future zoning amendments will implement the outcomes of a review of the current system of representative areas, the review will be undertaken over two years and is currently planned to commence in late 1996.