

## **PART 1: BACKGROUND**

### **1.1 The Great Barrier Reef Marine Park Authority**

#### ***1.1.1 Functions of the Authority***

The Authority was established in 1975 under the *Great Barrier Reef Marine Park Act 1975*.

Its functions (s. 7, 7(1B), 7A) include:

Managing the Marine Park;

Making recommendations to the Minister with respect to the care and development of the Marine Park, as to areas that should be declared parts of the Marine Park and with respect to regulations in relation to management of the Marine Park;

Undertaking by itself, or with other people and bodies, research and investigations relevant to the Park;

Preparing zoning plans;

Providing advice to the Minister on matters concerning the nature of the agreement between the Commonwealth and the Queensland Governments, and on the financial arrangements between the two governments in relation to Marine Park management. The Authority also receives and disburses monies involved in agreements between the Commonwealth and Queensland Governments and the Authority.

The provision of, or arranging the provision of, educational, advisory and informational services.

The provision of assistance to institutions and persons in matters relating to environmental management.

Other functions which are stated elsewhere in the Act and the regulations concerning zones, Special Management Areas, permissions for access, discharge of waste, moorings, fees for applications for permissions, environmental management charges, and pilotage.

### **1.1.2 The Authority's goal**

Its goal is:

*to provide for the protection, wise use, understanding and enjoyment of the Great Barrier Reef in perpetuity through the care and development of the Great Barrier Reef Marine Park. (GBRMPA 1993(b), p.6)*

### **1.1.3 The Authority's aims**

These are (GBRMPA 1993(b), pp. 6-7):

*To protect the natural qualities of the Great Barrier Reef, while providing for reasonable use of the Reef Region;*

*To involve the community meaningfully in the care and development of the Marine Park;*

*To achieve competence and fairness in the care and development of the Marine Park through the conduct of research, and the deliberate acquisition, use and dissemination of relevant information from research and other sources;*

*To provide for economic development consistent with meeting the goal and other aims of the Authority;*

*To achieve management of the Marine Park primarily through the community's commitment to the protection of the Great Barrier Reef and its understanding and acceptance of the provisions of zoning, regulations and management practices.*

*To minimise costs of caring for and developing the Marine Park consistent with meeting the goal and other aims of the Authority;*

*To minimise regulation of, and interference in, human activities, consistent with meeting the goal and other aims of the Authority;*

*To achieve its goals and other aims by employing people of high calibre, assisting them to reach their full potential, providing a rewarding, useful and caring work environment, and encouraging them to pursue relevant training and development opportunities;*

*To make the Authority's expertise available nationally and internationally;*

*To adapt actively the Marine Park and operations of the Authority to changing circumstances.*

Other elements which affect the impact on implementation of the Authority's goal and aims are:

Decisions of the Authority;

The Authority's *Corporate Plan, 1994-1999*; and

The *25 Year Strategic Plan for the Great Barrier Reef World Heritage Area*.

#### ***1.1.4 The importance of Marine Park management***

There is increasing evidence from around the world that coral reefs require careful management if they are not to be degraded and lose their values.

Hughes (Hughes 1994; *Townsville Bulletin* 11 October 1994; Russo 1994) found that in relation to the Jamaican reefs, "lack of ecological management produces disastrous consequences" (Russo 1994, p. 1) and that this experience is a warning to other countries with coral reefs. He found that human stress on the Jamaican reefs, mainly in the form of excessive fishing, has destroyed the reefs with the percentage of "coral cover" (live coral) declining from between 20% to 80% (depending on the reef, but mainly nearer to 80%) in

1977 to less than 5% in 1993. He concludes that the Jamaican reefs may be beyond recovery.

The Great Barrier Reef is currently considered to be in good condition, but there is little doubt that it would become degraded without careful management. Such degradation would have catastrophic consequences on the Marine Park tourism industry and others, and would be a major scientific disaster. Appropriate management of the Marine Park is not possible without adequate finance.

The Authority is not, of course, the only government body whose policies impact on the Marine Park. In various degrees, decisions made by a wide range of local, State and Commonwealth organisations affect the Marine Park directly or indirectly. The Authority and QDEH are, however, the pre-eminent management bodies.

#### ***1.1.5 The management agreement***

The agreement between the Commonwealth and Queensland Governments provides that:

The Commonwealth fund all initial capital works (lasting the first three years or so) required to establish the management of the Great Barrier Marine Park on a sound basis but that on-going capital works be funded equally by the two governments.

Moveable property which is acquired under the arrangements is to be used and administered by the Queensland Government; funds raised from its sale are paid into the day-to-day management account to offset Commonwealth and Queensland Government contributions on a 50/50 basis.

Fixed assets acquired under the arrangements are used by the Queensland Government and administered by which ever government (or Authority) owns the land on which they are located.

QDEH is to conduct the day-to-day management of the Park, subject to the Authority and the inter-government agreement.

The two governments fund equally the recurrent costs of day-to-day management of the Park, which may include Queensland national or marine parks which would or might affect the Great Barrier Reef Marine Park.

Expenditure on day-to-day management is to be in accordance with an annually agreed program.

The Authority is to administer funds provided by the Commonwealth and Queensland Governments for these purposes.

#### *1.1.6 The importance of EMC revenue*

The Authority's EMC revenue over the first year of operation of the charge (1993/94) was \$1.22 million. This is equivalent to 8.3% of the Authority's total operational revenue of \$14.61 million for the year, but 24.8% of the Authority's non-appropriation operational revenue of \$4.92 million. The EMC has clearly made a significant contribution to the Authority's attempt to become less dependent on revenue from government appropriations.

Circumstances and possible changes in the future may allow the Authority to further reduce its dependence on appropriations. These include the following:

Total EMC revenue will increase approximately in proportion to the number of visitors to the Marine Park. Providing visitor-related expenditure by the Authority does not increase in the same proportion, the EMC revenue will make an increasing net contribution to non-appropriation revenue.

This review makes recommendations and suggestions which, if implemented, will increase non-appropriations revenue. They include the recommendation that the Authority continue with its attempts to introduce a charge on private boat users of the Marine Park, and the suggestion that other charges be imposed on users who cause monitoring costs to be incurred, such as shipping, or whose actions cause damage or the threat of damage to the Marine Park.

At present, the permit application assessment fees do not recover the costs of assessment and these charges may be increased. In addition, there is the possibility of introducing charges based on resource rents.

#### **1.1.7 Uses of EMC funds**

In accordance with an understanding with the Marine Park tourism industry established before the introduction of the EMC, revenue from it is largely hypothecated to research, education and the production of information largely for the benefit of tourism. A large proportion is allocated to the *Cooperative Research Centre for the Ecologically Sustainable Development of the Great Barrier Reef* (CRC) whose objective includes "expanding sustainable Reef-based economic activity, with particular emphasis on tourism". Five of its eleven Board members are currently involved in Marine Park tourism and the CRC's research projects reflect the above objective (CRC 1994). The Authority's financial commitments to the CRC are \$500,000 in the first year of the CRC's operation (1993/94), rising to \$750,000 in the second year, and reaching \$1,102,000 in year seven, all stated in 1992/93 values. In 1993/4, apart from supporting the CRC, EMC revenue was spent on education, research and management of the Marine Park, with only 10% being spent on the administration of the EMC.

### **1.2 Stakeholders and beneficiaries and the Authority's revenue**

There are many people and groups whose welfare is affected by management of the Marine Park. These stakeholders include people who use the sea, inshore areas, and the coast, as well as people living inland whose actions impact on the Marine Park by the discharges of waste and those who gain incomes from its existence. Preservation of the region causes both benefits and costs to these stakeholders.

Some of the more important direct stakeholders are local residents who use it for recreation and who enjoy the scenery, coastal Aboriginal people for whom the region constitutes their traditional estates, tourists and the tourism industry, professional and amateur fishers, the mariculture industry, the shipping industry, local governments who use the coastal outfall methods of disposing of waste, farmers whose activities impact on the region, potential miners of the region, scientists, and the public at large who benefit from simply knowing that the reef is being preserved.

The indirect stakeholders are the people and institutions who are affected by the activities of the direct stakeholders. These include the builders of coastal homes, boat and ship builders, retailers, wholesalers, the transport industry, suppliers of inputs to mariculture, the coastal farming industries, and coastal local governments who receive greater rates because of real estate development which takes place adjoining the Marine Park.

Some of the stakeholders are beneficiaries of the Authority's management activities. The economic worth of benefits is called the total economic value (TEV) which is the sum of the benefit from current use ("actual use value" or UV), the benefit from knowing that the resource will be available for use in the future ("option value" or OV) and the benefit from simply knowing the resource is being preserved ("existence value" or EV). Against this must be set the costs (C) to stakeholders who are adversely affected by the preservation of the region (mining companies and some developers, for instance). Thus

$$TEV = UV + OV + EV - C$$

The presumption has been that TEV is greater than zero, and while there is no systematic study of the issue, it would certainly appear to be so.

It is reasonable to require all of the beneficiaries of management of the Marine Park to financially contribute to its costs. Thus financial contributions from users such as visitors, private boat users and businesses who operate in the Marine Park can be justified. They obtain benefits of the UV type. The public at large also benefits through option and existence benefits (OV and EV). The importance of the option and existence value of the Marine Park

is underlined by the fact that it is now a World Heritage Area. Indeed, it has been argued that the use value of some environmental assets (such as the Marine Park?) may be only one fifth of their total economic value. (Walsh et al. 1981, 1985)

It follows from this that although direct users of the Marine Park should be required to contribute to the Authority's finances, it would be inequitable to require them to fund all, or even the majority of its costs. Equity requires that a substantial part of the Authority's income must come from the public at large, through consolidated revenue.

### 1.3 Some use values

Sally Driml (1994) provides some data on the actual use value to some of the beneficiaries. A summary of her results is provided in table 1.3. In this table:

*Gross financial values* are measured as either total expenditure (by tourists, for instance) or total revenue (from the sale of fish by commercial fishers). They measure the flow of dollars resulting from the activity and give a broad indication of an activity's contribution to Gross Domestic Product, but it does not measure it (intermediate purchases must be subtracted).

Direct financial values are immediate expenditures or revenues. Another issue is the impact of an industry on the immediate region and to examine this the *direct plus indirect* figures are used which include the regional multiplier effects as well. The regional multiplier used was 1.7 for tourism.

The *economic benefit* figures in the table are an attempt to measure "use value" as defined in section 1.2. There is considerable doubt about these figures and they constitute only one part of the total economic value of the GBRWHA.

As can be seen from the table, the total gross value of revenue (or expenditure) generated by tourism, commercial fishing, recreational fishing and boating and research in the GBRWHA

in 1991/92 was \$923m. In June 1994 prices this total is \$954m and that for tourism is \$705m. Thus the total of EMC charges as a percentage of gross revenue for the GBRWHA tourism industry overall is only 0.2%. It must be remembered, however, that not all tourism businesses pay the EMC, so that this percentage will be much larger for some operators.

**Table 1.3 Financial and economic values of some uses of the GBRWHA**  
**Per annum for 1991/92**

Use	Description	Gross financial values	Economic benefit
Tourism	2.2m visitors	Direct: \$682m Direct plus travel: \$1,080m Direct plus indirect: \$1,159m	\$23m to \$584m
Commercial fishing	About 16,000 tonnes	Direct: \$128m Direct plus indirect: \$256m	Not known
Recreational fishing and boating	24,300 boats	Direct: \$94m + Direct plus indirect: \$168m	\$52m to \$124m
Aboriginal contemporary use			\$86m
Research	GBRMPA and AIMS	Direct: \$19.4m	Not known
Total		Direct: \$923m	

Source: Driml 1994, p. 16.

#### **1.4 Entry charges for Australian national parks**

The following table provides an indication of the charging methods and rates for world heritage areas and national parks in Australia.

It can be seen that there is no consistency in the method of charging and rates vary greatly across Australia. In some cases entry is free, or fixed regardless of the period of stay, or based on car entry, or levied only on camp sites. It is therefore not possible to convert all of

these charges to a per person per day basis without additional information, to provide comparisons.

**Table 1.4 Entry and other charges for some Australian national parks**

<b>World Heritage Area or National Park</b>	<b>Fee</b>
Wet Tropics, Qld	nil
Fraser Island, Qld	Vehicle permit, various for commercial operators, camping fees
Kakadu, NT	\$10 per person entry
Uluru, NT	\$10 per person entry
Lord Howe Island, NSW	\$10 per person entry
Tasmanian WHA	\$5 per day adults, \$8 per weekend, \$20 per month, \$40 yearly pass (children under 18 free, pensioners discount)
Shark Bay Heritage Area	nil
Monkey Mia Reserve, WA	\$4 per day adult, \$10 per day family, \$10 long visit adult
Francis Peron	\$3 per vehicle, \$20 seven nights camping
Jervis Bay, ACT	\$5 per car per week, \$25 per car per year
Willandra Lakes, NSW	nil
NSW Rainforest/CERA	nil
NT parks	nil, "parks are for people, no charge for entry" philosophy
Most Victorian national parks	Charges generally on camp sites and vehicles

Source: Commonwealth Department of the Environment, Sport and Territories, NT Conservation Commission, Victorian Department of Conservation and Natural Resources, QDEH.

## 1.5 The Authority's and other charges on tourism operators

Another way of assessing the size of the Authority's charges is to consider them in relation to other charges and costs associated with tourism operations in the Marine Park.

Unlike users of many terrestrial parks who can gain access by foot, bicycle or private car, users of the Marine Park, other than private boat users, cannot access it without the services of a tourism operator. This means that all indirect taxes and government charges paid by the operator associated with providing access to the Marine Park can be considered to be government revenue from the operations of the Marine Park and can also be interpreted as costs of entry to the Marine Park.

Burgess (1994) reports that his company, Quicksilver Connections, paid an EMC of \$190,000 and other Authority charges of \$35,000 over a year. However, the company paid a total of \$1,701,000 in indirect government taxes and government required expenditures for that year, of which the Authority's charges amounted to only 13.23%. Some of these taxes, charges and required expenses were levied on entertainment and sales, which are not essential for gaining access to the Marine Park.

Considering only those which were directly related to gaining access to the Marine Park, the taxes and charges (fuel excise, etc), including those paid to the Authority, amount to about \$1,092,000 or equivalent to \$5.75 per Quicksilver customer per day. Thus the total contribution to government finances excluding companies tax, or the total "entry fee", for Quicksilver Connections was \$5.75 per visitor per day. This is high when compared with the charges in table 1.4 and may be higher than the per day equivalent entry fee of any Commonwealth park excepting Uluru.

Further, these costs are compounded by the administrative difficulty for operators of providing a service in a sensitive and highly regulated environment, the benefit from which is enjoyed by users and non-users alike. Again using Quicksilver Connections as an example, it is required to hold over forty permits and to liaise with twenty-two government departments, and to maintain bonds on its pontoons of \$1,100,000.

While the details of these charges and administrative costs will vary greatly between operators, it is clear that they must ultimately be borne by the visitor and that these charges are generally substantial.

Thus the Commonwealth, when considering its contribution to the Authority's funding and when formulating its views about the Authority's self-raised revenue, should take into account the total contribution visitors and operators make to government revenue and the costs to the operators and visitors of maintaining an environment which is to the benefit to all Australians.