

PACIFIC

AUSTRALIA

Great Barrier Reef



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II.1 Introduction

Year of Inscription 1981

Organisation Responsible for the Report

- Great Barrier Reef Marine Park Authority (GBRMPA)
P O Box 1379, Townsville 4810
Queensland
Australia

II.2 Statement of Significance

Inscription Criteria N i, ii, iii, iv

Statement of Significance

- Proposed as follows:
“The biodiversity & the interconnectedness of species and habitats makes the GBR and the surrounding areas one of the richest and most complex natural systems on earth. While coral reef, mangrove & seagrass habitats occur elsewhere on the planet, no other WH Area contains such biodiversity. As the world’s largest coral reef ecosystem, it is also a critical global resource.”
A summary of significant features highlights: (i) over 2000 km² of mangroves, including 54% of the world’s mangrove diversity; (ii) over 2900 coral reefs built from over 360 species of hard coral; (iii) over 3000 km² of sea grasses; (iv) a breeding area for humpback & other whale species; (v) some 2000 fish & 6 turtle species; (vi) one of the world’s largest dugong populations; and (vii) 2200 species of native plants (25% of Queensland’s total).
“The geographic extent of the GBR including the area north of the Marine Park boundary, extending beyond Cape York and into the Torres Strait, is culturally important to both Aboriginal & Torres Strait Islander people.”
- An indicative table of WH attributes was attached.

Status of Site Boundaries

- “No revision of the GBR WH Area (GBRWHA) boundary has occurred since listing as a WH property. The extent of the GBR Marine Park, however, has increased and now comprises 99.25% of the GBRWHA [which] covers 348,000 km² (an area bigger than the UK, Holland & Switzerland combined).”
- The Marine Park now includes the subsoil beneath the seabed to a depth of 1,000m, and the airspace above the waters to a height of 915m.
- “In terms of ‘buffering’, the zoning spectrum provides increasing levels of protection for the more restrictive zones within the Marine Park”, including regulations beyond the marine park boundaries.

II.3 Statement of Authenticity/Integrity

Status of Authenticity/Integrity

- “Neither the GBRWHA nor the Marine Park are static and hence neither is the management for either area. Use patterns and technology are constantly changing and the marine environment itself is dynamic - subject to both human use and natural impacts.”
- Over 70 coastal Aboriginal & Torres Strait Islander groups maintain strong cultural relationships to the GBR, and about “11 native-title claims are registered over parts of the WHA”.

II.4 Management

Administrative and Management Arrangements

- The national “‘GBR Marine Park Act’ (1975) was enacted ‘to provide for the protection, wise use, understanding & enjoyment of the Great Barrier Reef in perpetuity (...)’ thus protecting the area’s biodiversity whilst also “providing for reasonable use” through a spectrum of multiple-use zones.

State of Conservation of the World Heritage Properties in the Asia-Pacific Region

- Since 1999, the GBRMP Act provides regulations on activities that occur outside the Marine Park such as “control point discharges from new aquacultures developments up to 5km inland”.
- The national Environment Protection and Biodiversity Conservation Act 1999 protects the value of the WH property.
- The International Maritime Organisation has declared the GBR a ‘Particularly Sensitive Area’ ensuring “compulsory pilotage for large vessels”. The national ‘Environment Protection (Sea Dumping) Act’ (1981) prohibits dumping from any vessel, aircraft or platform without approval.
- Other relevant state legislation includes: (i) ‘Fisheries Act’ (1994); (ii) ‘Transport Infrastructure Act’ (1994); (iii) ‘Environmental Protection Act’ (1994); (iv) ‘Coastal Protection & Management Act’ (1995); and (v) ‘Integrated Planning Act’ (1997).
- Day-to-day management of the WHA is delivered by the Queensland Parks & Wildlife Service (QPWS) in collaboration with agencies such as the Water Police, ‘Coastwatch’ & Customs National Marine Unit.
- In September 2001, the GBR Marine Park Authority (GBRMPA) released its ‘Great Barrier Reef Catchment Water Quality Action Plan’.
- Although inscribed under natural criteria, “all the cultural attributes [such as historic shipwrecks] described in the nomination are today dealt with through legislative mechanisms”.
- Between 1991-94, a 25-Year Strategic Plan was endorsed by 60 stakeholder groups. A comprehensive table of all associated ‘Plans for the management of the GBRWHA’ was attached.

Present State of Conservation

- In 1998, the ‘State of the Great Barrier Reef WH Area’ provided the first comprehensive synthesis of all available information on the property. The report is currently being updated.
- In the report, each environmental attribute was treated according to a ‘State-Pressure-Response’ model. “The overall picture was that while some elements of the GBR are subject to intensive pressures, the ecosystem as a whole is in good health.”
- 28 coastal areas “initially precluded from the GBR Marine Park” in the mid-1970s have recently been incorporated within the park boundaries.

Staffing and Training Needs

- In June 2001, the total staff of the GBRMPA in Townsville numbered 157, along with some 94 staff within QPWS.

- The Cooperative Research Centre (known as the ‘Reef CRC’) was established in July 1993 as a joint venture between James Cook University, the marine tourism industry, scientific bodies & the MPA.
- In 2001, the MPA developed a “comprehensive list of its high priority research needs” used to strategically co-ordinate research on the GBR.
- A list of about 75 websites was attached for “hundreds of scientific & technical studies”.

Financial Situation

- “It is difficult to estimate the total annual expenditure to range the GBRWHA across all relevant agencies & interest groups.” Estimated spending is “in the order of AUD\$ 78 million [US\$ 46.8 million] per annum”, spanning the government, universities & the private sector.
- According to the 1979 ‘Emerald Agreement’, matching funds are provided by the Commonwealth & Queensland Governments for basic park management.
- In 2000-2001, the operating expense for the Marine Park was about AUD\$ 30.6 million (US\$ 18.4 million).
- * International Assistance from WHF: none.

Access to IT

- No information supplied.

Visitor Management

- Approx 1.6 million tourists visit the Marine Park per annum. Around 90% of these are concentrated in 10% of the area (offshore Cairns & Whitsunday area).
- A ‘Reef HQ Educational Program’ plays a major role in raising reef awareness for visitors to the ‘Reef HQ Aquarium’ in Townsville, as well as throughout the country by school visits & video-link programs.
- A wide range of interpretive facilities include: (i) zoning plans & introductory guides for each section of the marine park; (ii) a ‘Tourism Operators Handbook’; (iii) an ‘Interpretive Manual for reef guides’; and (iv) numerous bulletins & leaflets.

II.5 Factors Affecting the Property

Threats and Risks

- Water quality issues & coastal development (terrestrial runoff: sediment & nutrients),
- Increasing fishing effort & impacts (bottom trawling for prawns, line, net & pot fisheries),
- Increasing tourism & recreational use (40% of visitors arrive with 10 major operators),
- Biodiversity loss (pollutant loads, decline in turtles & Dugong),

“28 coastal areas initially precluded from the GBR Marine Park in the mid-1970s have recently been incorporated within the park boundaries.”

- Coral bleaching through global warming,
- Crown of Thorns starfish (COTS) outbreaks.

Counteractive Plans

- Water quality measures include: (i) 'end-of-river' pollution targets; (ii) codes of practice for agricultural industries; (iii) 'timelines' to upgrade sewerage discharge facilities.
- Fisheries measures include: (i) reduced numbers of trawler ships; (ii) 'by-catch' reduction devices; (iii) satellite tracking & enhanced vessel surveillance.
- Tourism measures include: (i) statutory 'plans of management' (PoMs); (ii) 'best environmental practices' register; (iii) reef-wide mooring policy.
- A 'Representative Areas Programme' (RAP) has been launched to increase the level & extent of 'no-take' areas (currently 4.5% of the area) as examples of 70 major different habitats known as "bioregions".

II.6 Monitoring

Monitoring Arrangements

- "One of the highest levels of monitoring of any world heritage area takes place on the GBRWHA." This is undertaken primarily through the Reef CRC & the Australian Institute of Marine Science.

Monitoring Indicators

- Major thematic monitoring areas cover: (i) long-term coral reef health; (ii) 'QDPI Seagrass Watch'; (iii) coral bleaching; (iv) chlorophyll *a*; and (v) coordinated water quality.



Map of the Great Barrier Reef showing WH Area (in darker blue)

II.7 Conclusions and Recommended Actions

Conclusions and Proposed Actions

- "Where matters are outside the GBRMPA's direct control", such as in fisheries management & water quality issues, the MPA takes an "active role in negotiating suitable outcomes".
- New management tools have had to be developed such as plans of management, no-anchoring zones,

vessel monitoring systems & Dugong protection areas.

- For “broader [global-scale] issues like coral bleaching or changes in sea level (...) little can be done by local management agencies”.
- “Various proposals have been developed by coastal Aboriginal groups to incorporate their interests into Marine Park & WHA management, including several proposals for Indigenous co-operative management, [which] are currently being investigated.”
- The MPA is “continually looking outwards”, both within the WHA & internationally “to develop the best outcomes for marine area management.”

* State of Conservation Reports

1986 CC-CONF.003/INF.4 A proposal to revoke 390 ha of Lindeman Island for expansion of a holiday resort was tabled in the Queensland Legislative Assembly in February 1986. Public interest in this action was high and the proposal was withdrawn. Another potential threat from a proposed silica mine at Shelbourne Bay was the subject of an official IUCN enquiry.

1997 WHC-CONF.208/8BRev IUCN reported on concerns received over the Oyster Point development, potential damage to the WHA from acid sulphate soils, and an associated timetable of actions to protect the Reef. Australia responded that acid sulphate soils have been recognized along the whole east coast for many years, and very

stringent controls exist at Oyster Point. Australia also pointed out that a regional plan controlled development & restricted certain types of fishing.

1998 WHC-CONF.201/3b Since 1997, WHC received a letter from ‘The Wilderness Society’ signed on behalf of 13 Australian conservation groups. The letter referred to threats (e.g. mining, fishing, logging & tourism projects) within/adjacent to 4 natural WH properties (including GBR) and to 2 mixed properties. The Chairperson transmitted the letter to the PD of Australia to UNESCO, IUCN & ICOMOS seeking their comments. IUCN acknowledged in its report to WHC that it received a large volume of reports & statements concerning many of the 13 WH sites of Australia and does not have the capacity at its HQ to evaluate them all. IUCN’s Australian

Committee offered to undertake annual assessments of selected properties in November 1997.

The Bureau recommended that IUCN: (a) establish a mechanism for assessing the stream of information on the state of conservation of Australian WH sites; and (b) provide an updated report on the GBR & one other natural site.

1998 WHC-CONF.202/4 The Extended Bureau was informed that the Australian authorities have set rigorous environmental conditions on activities in the Hinchinbrook region, and have implemented several measures to strengthen the conservation of the GBR. In accordance with the review, the Australian Government has reorganized the GBRMPA. The Extended Bureau was informed that IUCN had received reports on this site from its Australian National Committee, GBRMPA & Australian NGOs.

1999 WHC-CONF.204/5 IUCN transmitted to WHC a report entitled ‘GBR WHA: Condition, Management and Threats’ compiled by ACIUCN using a comprehensive monitoring process to draw together government & non-

government members to focus on the scale & complexity of management of the WHA, as well as a range of threats including fishing, catchment issues, oil spills & oil shale mining. The report made 29 recommendations concerning the implementation of a representative system of protected areas, including IUCN categories I & II (no-take zones),

and the management of the property by a single dedicated authority such as the GBRMPA with long-term funding & organisational stability.

1999 WHC-CONF.209/14 In October 1999, Australia transmitted to WHC & IUCN a set of ‘Focused Recommendations’ and a ‘Framework for management’ for the GBR. IUCN reviewed the recommendations grouped under 5 priority action areas: 1. The management of land & coastal catchments; 2. The management of fisheries; 3. The management of shipping & ship-sourced pollution; 4. Representative marine protected areas; and 5. Resources for research & management. IUCN reiterated its view that catchment issues pose the most serious threat to the WHA & recommended that the GBRMPA receive a core budget



Aerial view of the Great Barrier Reef

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sufficient to allow it to meet its WH obligations. IUCN considered the proposed 'Framework' to be comprehensive and agreed that many of the issues would require socio-economic changes at a scale which would take years to achieve. The Committee commended the State Party for the consultative approach adopted in developing a basis for monitoring of the GBRWHA, and recommended its adoption for the management of other WH natural properties in Australia.

2000 WHC-CONF.204/10 IUCN reviewed the progress report on the implementation of the 'Focused Recommendations' involving the establishment of a number of community-based Catchment Management Committees & associated projects. The Bureau invited the State Party to sustain the pace of progress.

2001 WHC-CONF.205/5 In November 2000, a Malaysian container vessel went aground on Sudbury Reef within the WH property, and was refloated after 13 days. The Malaysian company was fined AUS\$400,000 under the Environmental Protection Act for the damage caused to an area of 1500m². A larger area of 30,000m² was also affected by relatively low levels of contamination from the dispersal of flakes of paint. A clean-up effort which included MISC representatives and a team of divers using pumps, barges & underwater vacuums was completed in March 2001. Large pieces of coral were replaced in the trench area to facilitate natural recovery. IUCN further noted a report on Crown of Thorns starfish on the GBR and concerns that human-induced factors including nutrient & sediment-laden coastal run-offs may be shortening the interval between natural outbreaks.

The Bureau invited the State Party to continue follow-up actions to improve shipping safety & launch a long-term site monitoring programme.

2001 WHC-CONF.208/10 In September 2001 the Australian Government released a scientific report 'GBR Catchment water Quality Action Plan' (<http://www.gbrmpa.gov.au/>) which recommended end-of-river pollution targets for all 26 catchments adjacent to the GBR for 2011. The Plan proposed a mix of regulatory & non-regulatory measures including: proper EIAs; 'constraint mapping' for current & future agricultural development; enforcement of sewerage & wastewater standards; industry codes of practice; and catchment-specific education programmes.

The Committee invited the State Party to provide regular reports on the implementation of the plan.