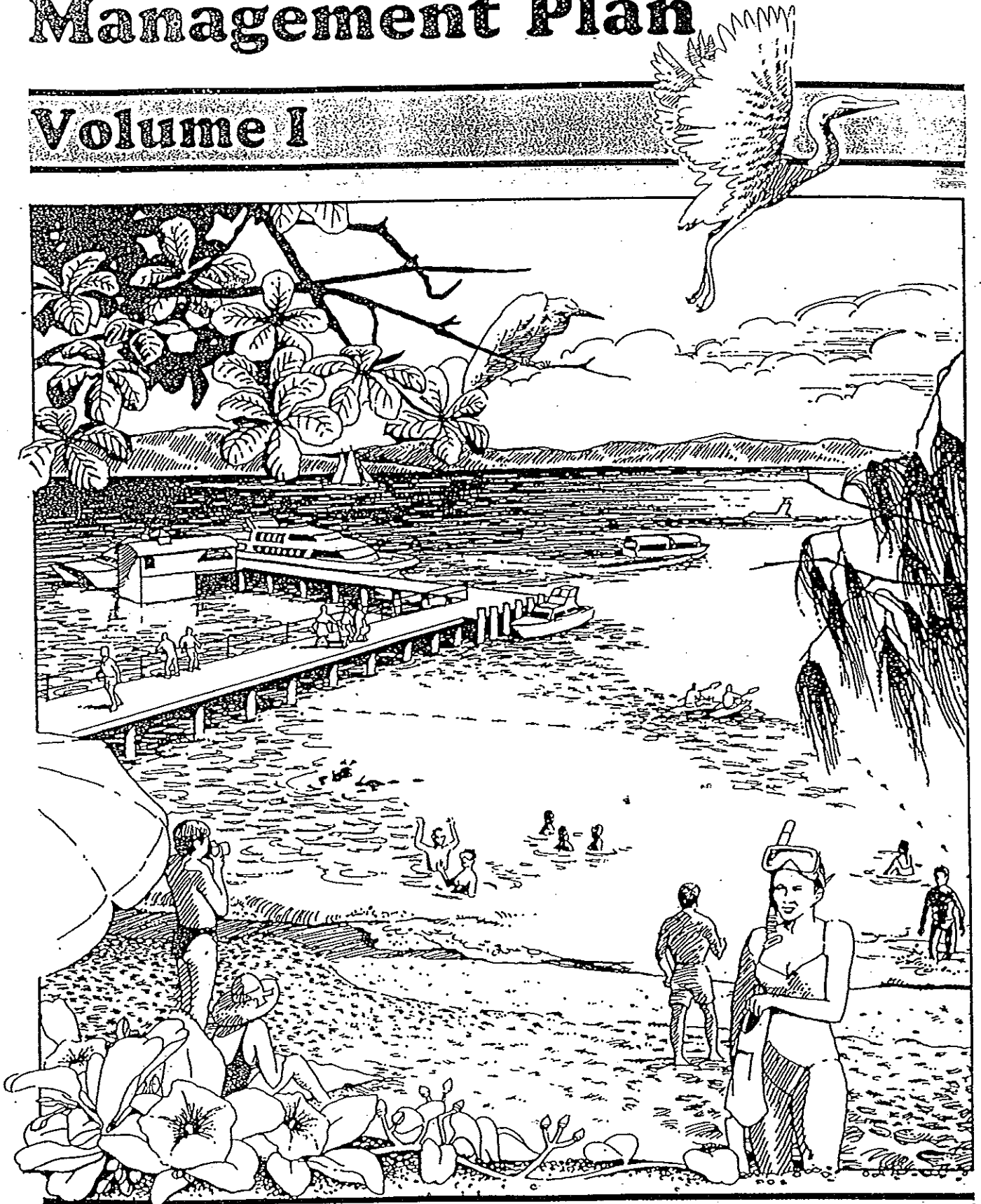


# Green Island and Reef Management Plan

## Volume I



Queensland  
Department of  
Environment and  
Heritage



Great Barrier Reef  
Marine Park  
Authority



CAIRNS PORT AUTHORITY

# GREEN ISLAND AND REEF MANAGEMENT PLAN

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prepared by:

Queensland Department of Environment and Heritage  
Great Barrier Reef Marine Park Authority  
Cairns City Council  
Cairns Port Authority  
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June 1993

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## ACKNOWLEDGMENTS

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The preparation of the draft 1990 Supplement to the Green Island and Reef Management Plan was coordinated by Peter Hunnam. The preparation of the final Management Plan was coordinated by Robert Zigterman and John De Campo, assisted by the Green Island and Reef Interim Working Group.

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Many other individuals from the private and public sectors made substantial contributions during the preparation of this Management Plan and their expert assistance is gratefully acknowledged.

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The 87 individuals or organisations who made submissions regarding the Draft 1990 Supplement to the Queensland National Parks and Wildlife Service are gratefully acknowledged for their contributions.

The preparation of the Management Plan represents a milestone in cooperation between Commonwealth, State and Local Government, and private enterprise and if successful will establish a model for dealing with similar sites along the Queensland coast.

\* Withdrew from the Working Group in October 1991.

## ABBREVIATIONS AND ACRONYMS

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CCC	:	<i>Cairns City Council</i>
CPA	:	<i>Cairns Port Authority</i>
DEH	:	<i>Department of Environment &amp; Heritage</i>
DoL	:	<i>Department of Lands</i>
DPI	:	<i>Department of Primary Industries</i>
GBRMPA	:	<i>Great Barrier Reef Marine Park Authority</i>
GBRMP	:	<i>Great Barrier Reef Marine Park</i>
GIRMC	:	<i>Green Island and Reef Management Committee</i>
GIRAC	:	<i>Green Island and Reef Advisory Committee</i>
QNPWS	:	<i>Queensland National Parks and Wildlife Service</i>
QRAMA	:	<i>Queensland Recreation Areas Management Authority</i>
QRAMB	:	<i>Queensland Recreation Areas Management Board</i>
RAM Act	:	<i>Recreation Areas Management Act 1988</i>

## EXECUTIVE SUMMARY

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The Green Island and Reef Management Plan (the "Management Plan") brings the 1980 Management Plan (the "1980 Plan") up-to-date by taking into account changes in administration and use, and addresses issues which have become prominent during the intervening decade.

Two of the main changes are the declaration of a Recreation Area over public areas of Green Island and reef in March 1990 and the change in ownership and configuration of the major resort lease on the island, in 1991.

Final preparation of the Management Plan has taken place under the provisions of the Recreation Areas Management Act, 1988.

The Management Plan sets out the general direction to be taken in managing Green Island and reef as a hierarchy of four broad purposes. These purposes form the guiding principle for the future management of the site and are as follows:

- |                |   |
|----------------|---|
| First Purpose  | Protection of the natural functioning and composition of the ecology of Green Island and reef.  |
| Second Purpose | Maintenance of the site's natural character and amenity.  |
| Third Purpose  | Provision of opportunities to all sectors of the public, for high quality recreational experiences which are based on the natural character and amenity of the island and reef. |
| Fourth Purpose | Provision for commercial tourist facilities and programs to use Green Island and reef.  |

In order that these purposes can be achieved within the context of issues confronting the management of the site, a series of management objectives have been developed. Actions to be taken to achieve these objectives are detailed in the Management Plan, including an implementation schedule.

Three major outcomes of the renegotiation of the main tourism lease have been the surrender of 1.028 hectares of the primary forest area for inclusion in the National Park, surrender of .3720 hectares of foreshore area for inclusion in the Esplanade as a foreshore buffer zone and the construction of a tertiary treatment plant to meet new Marine Park effluent discharge standards. The plant will be servicing new day-visitor facilities by the end of 1993.

The Management Plan specifies that there should be no more than 1900 visitors at the site in any one day and no more than 1400 at the site at any one time. It is recommended that no more than 800 visitors be allowed on the island itself at any one time, however it is expected that this limit may be exceeded during certain peak periods associated with the tourist season. Overall, the number of visitors transported to the site on permitted tourist operations will not be allowed to exceed 2050 in any one day.

The Management Plan includes provision for the establishment of the Green Island and Reef Management Committee which will be responsible for implementing the Management Plan. Membership of this committee will consist of representatives from Department of Environment and Heritage, Great Barrier Reef Marine Park Authority, Cairns City Council, Cairns Port Authority, Department of Lands, a member of the Aboriginal people associated with the site and the major leaseholder (Reef Ventures Pty Ltd). Provision is also made for the establishment of an Advisory Committee.

The major leaseholder proposes to fully redevelop their day tripper and resort overnight accommodation facilities by 1995.

The Management Plan will be implemented during this phase of major redevelopment on the island and consequently will be reviewed in 1996. The Management Plan specifies the type of monitoring and evaluation programs that need to be in place by 1996. A number of surveys will be undertaken during the life of the Management Plan to determine visitor perceptions and experiences in relation to the number of visitors allowed on the site.

## 1. INTRODUCTION

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This document was originally prepared as a draft Supplement to the 1980 Green Island Management Plan (the "1980 Plan"). The 1980 Plan addressed the responsibilities of Queensland National Parks & Wildlife Service, Queensland Fisheries Service, Department of Harbours & Marine, Lands Department, Queensland Tourist & Travel Corporation, Department of Works, Cairns City Council and the island tourist operators.

The 1980 Plan was in 5 Sections, covering Resources and their Utilisation; Planning for Green Island and its reef; Preferred Management Strategies; The Management Plan; and attached Appendices. It contained a total of 63 recommendations, aimed at improving overall arrangements for coordinating management, control of the levels and types of use, and the quality of services and facilities provided for visitors.

The 1980 Plan was adopted as State Government policy in 1980. An inter-Departmental Management Committee was charged with overseeing the implementation of its recommendations.

In broad terms, the 1980 Plan served its primary purposes of collating available information, reviewing the values of Green Island and reef, and formulating Government policy on how the balance between protecting these values and using the site should be achieved. Problems encountered by the Management Committee related primarily to the absence of a single responsible agency with authority and funds to implement recommendations which involved services on public lands under various tenures.

The 1980 Plan contained recommendations varying widely in scope and specificity. While some concerned simple actions able to be undertaken immediately, others were suggestions of a general or long-term nature. Those recommendations from the 1980 Plan which are still valid have been included in the Green Island and Reef Management Plan (the "Management Plan"), while other recommendations have been updated, and still others added.

A Recreation Area was declared over public areas of Green Island and reef in March 1990 under the Recreation Areas Management Act, 1988. This Management Plan has been finalised under the provisions of this Act and approved by the Queensland Recreation Areas Management Authority. The Great Barrier Reef Marine Park Authority agreed to the Marine Park surrounding Green Island being included in the Recreation Area, on condition that there is no inconsistency with the Great Barrier Reef Marine Park Act, 1975, Great Barrier Reef Marine Park Regulations or relevant Zoning Plan.

This Management Plan has been approved by GBRMPA in relation to management policy for use of areas in the Great Barrier Reef Marine Park. The Cairns City Council, Cairns Port Authority, Department of Lands and Department of Environment and Heritage have also approved this Management Plan. The Green Island and Reef Management Plan now replaces the 1980 Management Plan.

During the preparation of the Management Plan, the major lease on Green Island changed ownership. The leaseholder of the resort lease is referred to throughout this document as the "major leaseholder".

This Management Plan takes into consideration public comments received while the draft Supplement was available for comments between 23 July and 22 October 1990. A total of 87 submissions were received from individuals, groups and organisations interested in the island's future. An analysis of these submissions is contained in a document entitled "Analysis of Submissions on the Green Island and Reef Management Plan 1990 Supplement" prepared by Queensland National Parks and Wildlife Service in 1991.



The format of this Management Plan is as follows:

Section 2 is a statement of four Purposes for Green Island and reef. These derive from the legal obligations on local, State and Commonwealth Governments, and set the broad, common direction for use and management of the site.

Section 3 is a discussion of the complexity of issues prevailing at the site in relation to the four Purposes. It considers the management needs necessary to address the issues. These points are drawn together to form a set of Management Objectives.

Section 4 is a detailed resume of the Management Objectives and a series of Actions which are to be taken towards achieving each objective.

Section 5 details the basis for monitoring the site and evaluating this Management Plan.

This Management Plan includes a tenure map showing the new layout of lease boundaries on the island (Figure 2). The Management Plan will include a number of attachments, which will be incorporated into a Volume II following approval by the Green Island and Reef Management Committee.

This Management Plan recognises that planning and management for a site like Green Island and reef must be organised as a continuing process. This Management Plan documents decisions which affect the site, made by Government and the commercial leaseholders and operators, and the rationale for those decisions. This Management Plan also states the current requirements for research and regulations, the preparation of detailed plans and designs, and guidelines for activities. As such details are developed and management actions completed, they will be recorded as attachments to form part of Volume II of this Management Plan which will form the basis for revision of this management plan in 1996.

To this end site conditions will be monitored regularly. In 1996 the data collected as part of the monitoring programs, and progress with management actions will be reviewed. The relatively-short period of 3 years is chosen in view of the anticipated major changes at the site over this time in both tourist facilities and in the management of recreation. A program for monitoring and evaluation of this Management Plan is described in Section 5.

The word 'site' which is referred to in this document includes both the island (plus jetty and underwater observatory) and reef.

## 2. MANAGEMENT OBLIGATIONS AND PURPOSES

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Local, State and Commonwealth Governments have a range of obligations to manage Green Island and reef and the activities carried out there. These obligations derive from legislation and from the public interest in a sound future being achieved for the site.

Legislation which is generally or specifically relevant to the management of Green Island and reef is summarised in Table 1. This Management Plan brings together these obligations and serves as a set of explicit guidelines adopted by the Local, State and Commonwealth Governments as a statement of their management policy. It is essential that the Government agencies named in Table 1 continue to support, and assist in implementing the relevant provisions of the Management Plan under the Acts and Regulations for which they are responsible.

The general direction to be taken in managing Green Island and reef is stated in this Management Plan as a hierarchy of four broad Purposes. These have been agreed to by the Working Group members and will be adhered to by all parties involved in using and managing the site. The Purposes are listed below in priority order, based upon the relative importance of obligations to protect and make use of the site's values and resources:

- |                |  |
|----------------|--|
| First Purpose  | <i>Protection of the natural functioning and composition of the ecology of Green Island and reef.</i>  |
| Second Purpose | <i>Maintenance of the site's natural character and amenity.</i>  |
| Third Purpose  | <i>Provision of opportunities to all sectors of the public, for high quality recreational experiences which are based on the natural character and amenity of the island and reef.</i> |
| Fourth Purpose | <i>Provision for commercial tourist facilities and programs to use Green Island and reef.</i>  |

### 3. MANAGEMENT CONSIDERATIONS

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In this section the issues facing management of Green Island and reef are discussed in relation to the stated Purposes. The ways in which management will address the issues are listed as Management Objectives in the margin. Actions for achieving each Management Objective are described in Section 4.

#### 3.1 ORGANISATION OF MANAGEMENT

The nature, small size and high levels of use of Green Island and reef make it essential for the various public and private interests in the site to be reconciled and for the organisations involved to adopt a common set of purposes and work together to achieve them. This Management Plan defines the areas of agreed compromise and the issues which require complementary actions by several parties.

Management of Green Island and reef is complex despite its small size. The site has two private leases together with public lands and waters managed under various jurisdictions. Prior to 1990 existing legislation did not take into account the nature, use or significance of the site as a whole. In March 1990, the Green Island Recreation Area was declared under the provisions of the RAM Act. It includes Green Island National Park, the Esplanade and the portion of the Cairns Marine Park and Great Barrier Reef Marine Park enclosed within a line 1.6 kilometres beyond the edge of the reef. Also included is the navigation channel consisting of the harbour and jetty. The RAM Act provides for the collection of funds from the users or intending users of the recreation facilities and services provided within the Green Island Recreation Area. The declaration of Green Island and reef as a Recreation Area provides the means to bring together and co-ordinate the recreation planning and management of otherwise separate areas.

The RAM Act allows for the establishment of Advisory Committees to advise the Queensland Recreation Areas Management Board on matters within the 'terms of reference' as are referred to those committees by the Board. Two full-time committees will be established, a management committee and an advisory committee. The management committee will establish technical committees as required to deal with particular technical issues and to advise the management committee on those issues.

Sound planning and management of Green Island and reef depend upon an understanding of its ecology and its uses. Some information is available currently on different aspects of the site, but there is a need for a comprehensive program of research and monitoring to gain further understanding of all major components of the ecological and social systems and their interactions. The management of Green Island and reef will provide a valuable opportunity to initiate such a program.

#### Objective 1.

To achieve and maintain efficient management of the whole site with mutual understanding, cooperation and equitable cost-sharing between commercial operators, private users and Local, State and Commonwealth Government agencies involved.

#### Objective 2.

To implement by-laws under the RAM Act to enable all portions and uses of those areas of Green Island and reef declared under the RAM Act to be managed efficiently as a single ecological unit, and to implement the management actions proposed.

#### Objective 3.

To achieve an understanding of the factors affecting the ecological functioning of Green Island and reef, the effects of human activities, the use of the site for recreation, and the effectiveness of management.

## 3.2 PROTECTION OF THE NATURAL ECOLOGY, NATURAL CHARACTER AND AMENITY

### 3.2.1 General

Management of Green Island and reef aims to protect the natural qualities and character of the site and provide access and facilities for recreation and tourism. These two aims may conflict to some extent, however compromise has to be accepted. Some controlled alteration of the ecology, some loss of amenity, and some limits to recreational use and associated development may occur to achieve this regime of management.

The point of balance between protection and use is a matter of judgement rather than technical calculation. The characteristics and values of Green Island and reef, and of other sites in the general region, need to be taken into account. The parties involved directly, and the local community, need to discuss and agree upon the desired environmental and social conditions for the site. These desired conditions form the basis for the specific management objectives which are central to this Management Plan.

The natural character of Green Island and reef will be maintained so that the landscape is characterised primarily by natural features. To this end built structures and facilities which are to be upgraded, constructed or installed, shall be designed to minimise impacts on the natural character of the island and reef. Cairns City Council in conjunction with relevant State Government authorities is responsible for planning, regulating and guiding future development on Green Island. This is achieved through legislation, by-laws, policy and guidelines. CCC has adopted a Policy Plan for Green Island to support the Interim Development By-law and will be contained in Volume II. During the life of this Management Plan, CCC will be undertaking a review of their Town Planning Scheme and it is likely that a Development Control Plan will be prepared for Green Island.

The desirable future use and amenity of Green Island and reef is to provide for a site with permanent tourist facilities which present the Great Barrier Reef environment to large numbers of visitors with minimum future alteration of the natural character. Activities that reduce some aspects of visitor enjoyment may be expected. There are unlikely to be opportunities for solitude, however parts of the island and reef will be managed to provide areas free of large numbers of people.

Generally operations involved in transporting large numbers of visitors to the island and reef are appropriate.

The use of the reef for tourist activities at night may be permitted, within a controlled setting.

Given the constraining size and nature of the site, the four general strategies for management are (a) restriction of the amount and types of use; (b) reduction of the impacts of uses which are allowed; (c) "hardening" of the site (ie. enhancing the

#### Objective 4.

To limit the general extent of impacts upon the site's natural features, by controlling access, activities and development.

#### Objective 5.

To control activities which have high potential to damage the natural ecology, natural character and amenity of the site.

resilience of the site to human impacts); (d) monitoring. A combination of these strategies will be implemented in order to achieve the purposes for the site (ie. protection of the ecology and natural amenity while providing for recreation and commercial tourism development).

### 3.2.2 Protection of the natural ecology

Green Island and reef has been degraded in a variety of ways over the past century of recreational use, by construction of buildings, jetties, groynes, tracks; disposal of wastes (especially sewage) low-level pollution of air; water and soil; disturbance of sensitive bird-nesting; extraction of ground water; introduction of pest animals and weed species; dredging of sediments; removal of fish, shells and other reef organisms.

Successive aggregations of Crown of Thorns starfish have resulted in a reduction of live coral cover, resulting in a temporary loss of the site's natural value for tourism and possible effects on the overall ecological functioning of the reef.

The island's vegetation provides habitat for a range of birds, many of which nest on the island. Of significance is the Torresian Imperial Pigeon population. Some ground-nesting species are no longer present due to the introduction of rats during the last 100 years. Further action is required to remove this pest in particular and to attempt the reintroduction of ground dwelling native species.

The level of ecological degradation which is considered acceptable needs to be defined. Some buildings, harbour operations and machinery are necessary at a multi-purpose site like Green Island. However, much of the historical degradation has occurred as a result of ignorance or carelessness and very little could be considered to have been a necessary result of allowing recreation or tourism. There is a need for further damage to be minimised and for degraded elements to be rehabilitated.

It must be recognised that Green Island and reef, as an accessible, intensively-used site which is already degraded, requires considerably more attention paid to ecological safeguards than has been the case in the past.

All activities which take place or are planned on the reef or island will be assessed for their effects upon the physical environment and living communities. Actions to mitigate impacts will be researched and introduced. High risk activities will be prohibited.

A tertiary sewage treatment plant will be built by the end of 1993 to provide a reticulated sewage system to all facilities on the island.

Both Commonwealth and State environmental impact assessment legislation will apply to development proposals (both private and public) which may result in risks to the site's ecology, character and amenity.

#### Objective 6.

To rehabilitate to as near natural state as is possible degraded portions of island and reef, whilst recognising the rights of existing leaseholders.

### 3.2.3 Protection of the natural character and amenity

The second highest purpose for managing Green Island and reef is to protect the natural character and amenity. This means protecting those qualities of the natural features which are salient and attractive to visitors. These features include the obvious major ecological components - forest, foreshore vegetation, coral sand beaches, reef flat and seagrass beds, reef edge, surrounding waters and associated fauna.

Wherever possible, these natural features should be the main influences on the Green Island visitor's experience. The impacts of other people and of the built environment need to be minimised. This consideration should be applied at both small and large scales, and for all the human senses. For example, the design and location of machinery and signs; the siting, appearance and finishes of buildings; the alignment, surfacing and edging of tracks; the use of natural vegetation as screening; the protection of open vistas; the control of noise and use of public address systems. The presence of other people, or their activities and behaviour, should not intrude excessively upon any individual's experience.

CCC has a major role in protecting the natural character and amenity of the island through its planning and building regulations (see 3.2.1).

### 3.2.4 Limits to use and development

The small size of the coral cay, the demand for permanent tourist facilities, and the objective of protecting the natural qualities of the site make it essential to limit the numbers and activities of people using Green Island and reef.

Commercial operators carry the majority of visitors to Green Island and reef, and provide a range of services for them at the site, such as scuba-diving, glass bottom boat coral viewing and beach equipment hire. These tourist operations need to be able to attract sufficient customers to remain economically viable, but not at the expense of the site's natural ecology, character and amenity.

There should be no more than 1900 visitors at the site in any one day. Maximum visitor numbers currently permitted for tourism operations to Green Island and Reef totals 2050 passengers in any one day. This figure includes provision for no more than 90 overnight guests accommodated at the resort and no more than 20 people on vessels moored at the site overnight. For the life of this management plan, the number of visitors on permitted tourist operations to Green Island and Reef will not exceed 2050 passengers in any one day. Current and projected levels of actual use suggest it is unlikely that visitor numbers will exceed 1900 in any one day during the life of this plan.

No more than 1400 visitors will be allowed at the site at any one time and it is recommended as a guide to approving authorities

#### Objective 7.

To achieve a style and standard for the design, appearance and maintenance of all built structures and surfaces at the site, in order to minimise their impacts upon the natural character and amenity.

that no more than 800 visitors be allowed on the island itself at any one time, however it is expected that this limit will be exceeded during certain peak periods associated with the tourist season. Separate to the above figures up to 50 staff will be accommodated on the island overnight by all lessees.

This Management Plan, including the specified peak numbers of visitors, will be reviewed in 1996. At this time the significant investments made in development at the site by the major leaseholder will be taken into account in any decision to vary peak numbers.

### 3.3 PROVISION OF RECREATION OPPORTUNITIES

#### 3.3.1. General

The third major purpose for managing Green Island and reef is to enable large numbers of people from all sectors of the public to enjoy the natural character and amenity of the site.

It is considered important that, in addition to attracting overseas and inter-state tourists, reasonable opportunities continue for residents of Cairns and other local centres to access and enjoy Green Island and reef.

#### 3.3.2 Transportation

Commercial passenger vessels have operated between Cairns and Green Island on most days for over 50 years. A range of operations is considered desirable to increase visitors' choice of trip-times and the types of craft and services. Safe, efficient and comfortable transport from the mainland is essential.

The area and depth of the harbour limit the size and numbers of vessels able to be at the site at any one time. Surveys are needed to determine the possible future requirement for dredging to maintain an adequate depth profile for existing permitted operators. Dredging must be kept to a minimum in order to reduce the impact of the operation on the adjacent reef and associated fauna and flora. Recent studies by CPA indicate that the existing jetty is structurally deficient and will need to be replaced in the near future.

Appropriate studies will be undertaken in accordance with Commonwealth and State environmental impact procedures to determine the likely impact of dredging and new jetty construction on the natural environment and ecological processes.

#### 3.3.3 Recreational facilities and services

There is a need for visitors to be able to get close to and appreciate the range of natural habitats and living organisms which comprise Green Island and reef. It is considered important for the future Green Island experience to be distinguished by its high standard of services and facilities designed for this purpose.

In addition, facilities are needed for visitors to be reasonably

#### Objective 8.

To maintain easy access for all sectors of the public, including residents of local mainland centres.

#### Objective 9.

To provide facilities for the comfort and safety of the public, with capacities suitable for the planned peak numbers of visitors.

comfortable during their time at the site, including toilets, showers, change rooms, shaded seating areas, and refreshments.

On-site facilities are needed to orientate and inform visitors of the opportunities available at the site and how to make the most of their visit. Other facilities and services for visitors must be arranged to complement one another and their capacity and design must be adequate to provide the planned volume of visitors with a high quality experience. It is considered important that the types of facilities and services provided and their design, location and operation reflect clearly the special qualities of the natural character and amenity of Green Island and reef.

On-site facilities will include information on pre-European use of the site by Aborigines and the significance of the site to their traditional beliefs and customs.

DEH will utilise the resort manager's previous residence as a ranger base on Green Island. The residence was previously within the resort lease and is now within the National Park. The residence will be refurbished and connected to the new electrical, sewage and water services to be provided as part of the resort lease redevelopment.

The Green Island underwater observatory, adjoining the jetty, was first opened to the public in 1955 and a seabed lease was first granted in 1961 pursuant to the Land Act, 1962 and the Harbours Act, 1955. This observatory has mostly remained unchanged up until the present and consists of a viewing chamber 4.9 metres below mean sea level with a capacity of 25 to 30 people. When constructed the observatory was a novel attraction and the first of its kind in the world, and for the first fifteen years of operation was very popular.

The 1980 Management Plan found the observatory to be inadequate in terms of size and design to accommodate for increasing visitor numbers and recommended an extended lease tenure to accompany a new facility. A new design was proposed by the original owners in 1982 which included a viewing chamber with a capacity for 100, an interpretive centre and an observation tower. Plans for the observation tower were later dropped and shortly after approval was given for the redevelopment by the Great Barrier Reef Marine Park Authority. The seabed lease was expanded and vested in the Cairns Port Authority.

Before plans went ahead for redevelopment, the facility was sold to the "Dreamworld Corporation" in 1987. While no redevelopment was undertaken by the new owner concept plans and a preliminary environmental report were prepared and commented upon by DEH. The facility was again sold in 1990 to the major leaseholder who is designing a facility which suits the natural character and amenity of the site, and which poses no threat to the ecology of the reef environment.

Any re-development of the underwater observatory will need to be considered under Commonwealth and State environmental impact legislation.

#### **Objective 10.**

**To develop a well-coordinated range of high standard information, education and recreation opportunities for all visitors.**



### 3.4 PROVISIONS FOR TOURIST FACILITIES AND PROGRAMS

Recreational use of Green Island and reef has been facilitated by commercial tourist operations for over fifty years. These extend now to commercial passenger vessels and a seaplane service from the mainland; the island resort with cafeteria, restaurant, shops and overnight accommodation; and to other commercial attractions such as the underwater observatory and Marineland Melanesia and various ancillary services including equipment hire and diving.

The mechanics and economics of running these businesses must be recognised in the management of Green Island and reef. They provide the infrastructure necessary for large scale recreation. It is important that they are able to function efficiently within constraints that are realistic.

At the same time, in all aspects of managing Green Island and reef, the purposes of protecting the natural ecology, natural amenity and recreational opportunities must have priority over the protection of the commercial tourist operation (Section 2, hierarchy of major Purposes). The commercial leases occupy a substantial portion of Green Island, and if management overall is to be successful, the developed facilities must be constructed, finished, landscaped and operated in ways which enhance rather than detract from the natural character and amenity, and ecology of the site.

The original leases for the Resort, Theatre, Observatory and Marineland were designed to allow the developed facilities to complement one another, to provide without conflict the range of attractions demanded by visitors at the time - refreshments and accommodation, souvenirs, natural history information, reef viewing, an aquarium and zoo.

To a large extent this principle has been adhered to. However, the relative popularity and success of the various attractions has fluctuated over the years. The increased tendency for visitors to be more interested in personal exploration of the natural attractions of the reef, beaches and island rather than the built environment, has had an impact upon some of the previous leaseholders.

With this changing demand in mind, the existing operations should be developed to improve the quality of service provided. At the same time the protective principle of complementary leases needs to be fostered so that conflicts between the two remaining leaseholders do not arise while still allowing free market forces to prevail.

The leases for the Resort, Theatre and Observatory are now owned by one leaseholder and have been amalgamated into one lease. This lease may be substantially redeveloped during the life of this Management Plan. It is most important that this development is planned and carried out with careful regard for the management objectives for the whole site.

#### Objective 11.

To ensure that the commercial operators are involved in the management of Green Island and reef, are aware of the prescriptions and guidelines in the Management Plan, and actively support the management objectives.

#### Objective 12.

To ensure commercially-operated facilities and services for visitors are of a reasonably-high standard and appropriate to Green Island & reef.

During the reconstruction phase, contractors and their employees will be required to comply with Codes of Environmental Practice. One Code of Environmental Practice will be prepared by the major leaseholder and issued to all workers employed on the site during the reconstruction phase. This Code will inform workers of the environmental sensitivity of the site in terms of its flora and fauna, underground aquifer and National and Marine Park significance. Additional Codes of Environmental Practice will be prepared by DEH and GBRMPA and attached to Marine Parks permits issued for future construction works in the marine park and will be directed at contractor level.

Limited hire of recreational equipment (eg. surf skis, snorkelling gear and umbrellas) of a high standard, reflecting both the character of the setting and significance of the site for tourism is considered appropriate at the site.

The commercial operators have a major role to play in ensuring that the objectives in the Management Plan are met, in particular through the way in which on-site facilities are constructed, operated and maintained. In addition, opportunities exist for the commercial operators to reflect the higher purposes of managing Green Island and reef in the products they provide to visitors. To provide the best possible service and opportunities for visitors, and to develop the existing facilities in the most appropriate manner, the commercial tourist leaseholders and operators need to work together to identify ways of improving the overall package of services available.

#### 4. MANAGEMENT OBJECTIVES & ACTIONS

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The overall management strategy is described in this Section, as a series of Management Objectives and Actions. The schedule for implementation of these Actions is summarised in Table 2. Abbreviations used for agencies and committees are indicated in the front of this document.

##### ORGANISATION OF MANAGEMENT

1. To achieve and maintain efficient management of the whole site with mutual understanding, cooperation and equitable cost-sharing between commercial operators, private users and Local, State and Commonwealth Government agencies involved.

- a. Queensland Recreation Area Management Authority (QRAMA) to establish the Green Island and Reef Management Committee (GIRMC) under Section 16 of the RAM Act.
  - . membership to consist of a representative from DEH (as lead agency), GBRMPA, CCC, CPA, DoL, the Aboriginal people with traditional association with the site, and Reef Ventures P/L (as major lessee).
  - . besides it's functions as specified in Section 16 of the RAM Act, GIRMC will be responsible for endorsing future attachments to Volume II of this Management Plan and establishment of technical committees as required to deal with particular technical issues and to advise GIRMC on those issues.
- b. GIRMC to establish a Green Island & Reef Advisory Committee under Section 16 of the RAM Act to represent leaseholders, tourist operators, local users and community groups.
- c. DEH to increase Park Ranger presence on-site.
  - . to undertake duties on behalf of the DEH, CCC, CPA and GBRMPA using Recreation Area funds and existing Marine Parks funding.
  - . to maintain and operate a ranger station within the general provision of this Management Plan.
- d. DPI to continue to maintain and operate a marine research station with accommodation for research staff on the island which will also be used by staff of other research institutions as agreed to by DPI.
  - . DPI to maintain external appearance and any signage within the general provisions of this Management Plan.
  - . re-development of the station will be undertaken within the general provisions of this Management Plan.
- e. CCC to negotiate with major leaseholder and organise the provision of the major services of sewage and waste disposal, water and power supply.
- f. GIRMC to establish and manage a Green Island Recreation Area Management Fund, to provide visitor facilities and services and to maintain the natural amenity of the site; by collecting revenue from commercial operators and visitors to the

island or reef, in an equitable manner.

- . to assess the need for obtaining appropriate funding from Government or private sources to provide initial working capital;
  - . to prepare a program for disbursement of the recreation fund;
  - . to impose a fee for commercially carried visitors to the recreation area by permitted tourist operators;
  - . to impose a fee for private visitors to the recreation area to offset management costs, including their use of facilities and services on the island.
- g. CCC to regulate construction of buildings and landscaping through the provisions of planning, health and building regulations.
- h. DoI to monitor the compliance of lease conditions.

**2. To implement by-laws under the RAM Act to enable all portions and uses of Green Island and reef to be managed efficiently as a single ecological unit, and to implement the management actions proposed.**

- a. DEH, GBRMPA & GIRMC to jointly manage the permit systems under National Park, Marine Parks and Recreation Area regulations.
- . use mirror provisions, one-stop service, single payments, single data returns, and synchronous issue and renewal of permits;
  - . Green Island Recreation Area by-laws to be consistent with Commonwealth legislation.

#### **PROTECTION OF THE NATURAL ECOLOGY, CHARACTER AND NATURAL AMENITY**

**3. To achieve an understanding of the factors affecting the ecological functioning of Green Island and reef, the effects of human activities, the use of the site for recreation, and the effectiveness of management.**

- a. GIRMC, DEH & GBRMPA to design and implement an integrated, multi-disciplinary, research and monitoring program, using both general and specific funds, and a combination of staff, students, academics and consultants.
- b. GIRMC, DEH & GBRMPA to implement the monitoring program defined in Section 5 and assess data obtained as part of the review and evaluation of the Management Plan.
- c. GIRMC, DEH & GBRMPA to ensure specific proponents of developments and activities fund associated monitoring programs.

**4. To limit the general extent of impacts upon the site's natural features, by controlling access, activities and development.**

- a. GIRMC, DEH & GBRMPA to devise detailed strategies to keep maximum numbers of commercially-carried visitors to the site within 1400 at any one time and 1900 in any one day and to aim to achieve no more than 800 visitors on the island at any one time. These figures include provision for no more than 90 overnight guests accommodated at the resort and no more than 20 people on moored vessels permitted overnight. In addition to the above figures no more than 50 staff and residents will be accommodated on the island overnight. Current visitor numbers carried by permitted tourism operations to Green Island and Reef are calculated at 2050. Current and projected levels of actual use suggest it is unlikely that visitor numbers will exceed 1900 in any one day during the life of this plan. Up to 2050 visitors per day will continue to be permitted unless this number is shown to be ecologically unsustainable.
- b. DEH, DoL, GBRMPA, CCC & leaseholders to restrict development and other prescribed activities at the site to defined precincts, designated for infrastructure, recreation and conservation (Figure 1).

5. To control activities which have high potential to damage the natural ecology or natural character and amenity.

- a. GIRMC to develop guidelines for activities with significant environmental risk, including construction of buildings, foreshore erosion management and harbour dredging, and fuel oil transport.
- b. GIRMC, GBRMPA & CCC and leaseholders to prepare site-specific contingency plans for preventing impacts from oil spills, sewage effluent discharge, chemicals and other noxious/harmful substances.
- c. CCC, DEH & GBRMPA to regulate and control outputs from the tertiary sewage treatment plant which is to service all facilities on the island, including nutrient stripping, disposal of island sewage effluent and sludge as permitted under permit/licence conditions set by DEH, GBRMPA and CCC.
- d. GIRMC, DEH & GBRMPA to ensure that tourist operators do not carry visitors to the island in the event of the sewage system not operating to the permitted effluent discharge standards.
- e. DEH & GBRMPA to phase out the discharge of wastes into the Marine Park from vessels visiting the site.
  - . DEH & GBRMPA to assess the need for declaring a Special Management Area over the Infrastructure and Recreation Precincts (Figure 1) to regulate waste discharge;
  - . Commercial tourist and private vessel operators to be encouraged not to discharge human wastes while located at the site and use island facilities instead.
- f. GIRMC, DoL & CCC to prepare landscaping policy guidelines.
  - . GIRMC, DoL & CCC to restrict the introduction of exotic plants, animals and soils to Green Island.
- g. DEH, CCC, DoL & leaseholders to control pest and weed species.
  - . plan and implement a coordinated pest and weed control program.

- h. DEH to minimise the illegal taking of fish, shells and other reef biota.
  - . maintain a program of enforcement, publicity and interpretation.
- i. GIRMC, DEH & GBRMPA to separate conflicting activities and restrict activities which are unreasonably obtrusive to visitors.
  - . implement by-laws, educate site visitors, and enforce the bans;
  - . negotiate to limit the number, type and operation of motorised vehicles on all parts of the island;
  - . demarcate reef and beach activity precincts for moorings, swimming, snorkelling, diving, coral viewing vessels, seaplane and helicopter access, barge access and use of beach hire equipment (Figure 1).
- j. GIRMC, DEH & GBRMPA to regulate and manage activities as per Table 3.
- k. CCC & GIRMC to implement the Policy Plan for Green Island and any other measures designed to maintain the island's character and amenity.
- l. GBRMPA & DEH to ensure environmental impacts are assessed in association with proposals for a new jetty, harbour dredging, new underwater observatory or any other proposals under relevant Commonwealth and State legislation.

**6. To rehabilitate to as near-natural state as is possible, degraded portions of island and reef**

- a. DEH, CCC and major leaseholder to survey all areas, and prepare and implement a comprehensive planting program for the entire island.
- b. DEH & CCC and major leaseholder to develop and operate a plant nursery on the main lease for the planting program.
- c. DEH to survey the western reef area, and remove all introduced seabed debris of no historical or cultural value.
- d. GBRMPA to continue research and consider site-specific plans for control of reef biota, including future outbreaks of the crown-of-thorns starfish, and transplantation of hard coral.
- e. The major leaseholder, DEH and CCC to enter into an agreement to implement an aesthetically attractive and low impact stabilisation of the western foreshore.
  - . detail a program of works to establish a vegetated foreshore buffer zone, including extension of the jetty, replacement of the existing sand-bag wall with a sloped revetment and reconstruction of pathways and shaded seating;
  - . CCC to remove all unnecessary equipment and other materials which have accumulated on the esplanade.

**7. To achieve a style and standard for the design, appearance and maintenance of all built structures and surfaces at the site, in order to minimise their impacts upon the natural amenity.**

- a. GIRMC to implement the Policy Plan and establish design standards for all structures and surfaces.

- b. GIRMC to plan and implement a long-term program of works to up-grade existing structures and surfaces as opportunities allow.

#### PROVISION OF RECREATION OPPORTUNITIES

8. To maintain easy access for all sectors of the public, including residents of local mainland centres.

- a. GIRMC to encourage the provision of reasonably-priced commercial tourist programs for local residents.

9. To provide facilities for the comfort and safety of the public, with capacities suitable for the planned peak numbers of visitors.

- a. Major leaseholder to provide, maintain and operate public facilities, including toilets, showers and change-rooms, on the resort lease.
  - CCC to remove existing public facilities from the esplanade and resort lease.
- b. GIRMC to assist in the maintenance of public facilities through RAM Act charges, and provide an appropriate level of facilities such as picnic sites and shaded seating, on the national park, esplanade and north-west beaches.
- c. Owners of the jetty to prepare a harbour and jetty development plan in accordance with the provisions of this Management Plan.
- d. Major leaseholder to provide public access to public facilities located on the resort lease.

10. To develop a well-coordinated range of high standard information, education and recreation opportunities for all visitors, using the resources and facilities of DEH, CCC, GBRMPA, Marineland Melanesia and major leaseholder.

- a. GIRMC to prepare and implement a comprehensive plan for the development of facilities, services and activities to be provided for different types of visitors.
- b. GIRMC (through RAM Act charges) and major leaseholder,
  - to provide an orientation centre in the form of a shelter with outdoor quality displays, on the island esplanade, to provide all visitors with guidance towards all the natural and built environment attractions on the island and reef;
  - to provide a series of permanently-open facilities which enable the public to access, explore, enjoy and understand the natural features of the site, including self-guiding forest walk/s, snorkelling trail/s and reef interpretive stations.
- c. DEH & GBRMPA to prepare a visitor information sheet as a concise handout introduction to all aspects of Green Island and reef's ecology, heritage, management and tourist attractions.
- d. DEH to organise an efficient program of visitor liaison as part of the on-site

ranger's duties.

- e. DEH and members of the Aboriginal people associated with the site to develop a program to inform visitors of pre-European use, customs and traditions associated with Green Island and reef.
- f. DEH & GBRMPA to provide opportunities to train staff of commercial tourist operators in reef and island interpretation.
- g. Major leaseholder to provide a visitor information centre in consultation with DEH and GBRMPA.

GIRMC to assist with maintenance and operation of the visitor information centre through RAM Act charges.

## PROVISIONS FOR TOURIST FACILITIES AND PROGRAMS

**11. To ensure that the commercial operators are involved in the management of Green Island and reef, are aware of the prescriptions and guidelines in the Management Plan, and actively support the Management Objectives through their operations and the visitor services they provide.**

- a. Commercial tourist operators using the site to be encouraged to participate in GIRAC.
- b. DEH, GBRMPA & GIRMC to consult with commercial operators during the implementation of the Management Plan over strategies to achieve objectives of the management plan in terms of visitor numbers.
- c. The proponent of construction activities in consultation with DEH, GBRMPA & CCC to prepare a Code of Environmental Practice to be issued to all workers involved in construction activities at the site.

**12. To ensure commercially-operated facilities and services for visitors which are of a reasonably high standard and appropriate to Green Island & reef.**

- a. GIRMC, DEH & GBRMPA to confirm the numbers and types of commercial tourism activities to be permitted at the site.
- b. GIRMC to review the visitor services and facilities offered by existing leaseholders and tourism operators, and to suggest ways to improve or develop those services and facilities in line with the provisions of this Management Plan.



## 5. MONITORING AND EVALUATION

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### 5.1 Introduction.

The Management Plan sets out the general direction to be taken in managing Green Island and reef as a hierarchy of four broad purposes (Section 2). In order that the purposes can be achieved within the context of issues confronting the management of Green Island and reef, a series of Management Objectives have been developed (Section 3). Actions for achieving these Management Objectives are listed in Section 4.

The Management Plan will be reviewed in 1996, consequently between now and 1996, a program needs to be in place to enable evaluation of the Management Plan in terms of:-

- a. Ensuring that objectives are being achieved as per the actions described in Section 4 and in the Implementation of Management Actions schedule (Table 3).
- b. Establishing indicators and a program for monitoring indicators.
- c. Continuing the broad research and monitoring program.

### 5.2 Monitoring Achievement of Objectives.

The schedule of management actions will be followed, and at the end of each financial year, a review will be prepared of progress made specifically with each action and generally towards each management objective. Progress against the Implementation of Management Actions schedule will be evaluated. This will be undertaken by DEH staff in conjunction with GIRMC and GIRAC.

### 5.3 Monitoring Selected Indicator Conditions.

In addition to 5.2 a detailed program will be prepared to provide for precise monitoring and evaluation. This will be used as a measure of the effectiveness of management.

The program will specify a number of Indicator Conditions covering the various aspects of the ecology and amenity of Green Island and reef. For each indicator, a replicable monitoring procedure will be detailed, to enable a series of comparable, quantitative data on the current condition of the site. For each Indicator, a Standard will be defined against which the present condition of the Indicator can be evaluated. This program will be prepared by DEH staff in consultation with GBRMPA.

### 5.4 Broad Research and Monitoring Program.

To ensure the long-term protection and enjoyment of Green Island and reef it is essential to develop knowledge of its complex and dynamic ecology, and of its use for recreation and tourism. To this end, it is proposed that an integrated, multi-disciplinary program of research and monitoring will be planned and implemented (Management Action Table 2, 3a). It is envisaged that this program will cover visitors' perceptions, behaviour and satisfaction; reef processes and population dynamics; ecological impacts of activities; island fauna and flora, including introduced species.

A program to reintroduce ground fauna to the island will be investigated. A review of current knowledge of Green Island and reef is contained in Green Island: Review of Current Knowledge by I. Baxter, Dept of Marine Biology, James Cook University for GBRMPA (1990). It is proposed that this report will be continually kept up to date.

GBRMPA will continue as the lead agency responsible for implementing this research and monitoring program. The program will be expanded to include recreation experience studies.

Additional funding will be sought from CCC, Far Northern Queensland Promotion Bureau Ltd, leaseholders, DEH, GBRMPA and from the Green Island Recreation Area fund.

#### 5.5 Specific Developments

It will be the responsibility of the proponent of specific developments in the marine environment to fund monitoring programs to identify any impacts associated with the construction and/or operation of the development. Such programs will be supervised by the relevant government agency.

## 6. REEF ACTIVITIES PLAN

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### 6.1 Introduction

As a part of the overall management strategy for Green Island Reef, restrictions are to be placed on activities which impact on the site's natural ecology and natural character or amenity.

An activities zoning scheme has been defined as a means of restricting development and other prescribed activities to defined portions of the reef and to separate incompatible activities and restrict activities which are unreasonably obtrusive.

Three reef activities precincts have been defined:

- . Infrastructure Precinct
- . Recreation Precinct
- . Conservation Precinct

The locations of the precincts are shown on figures 1 and 2. The landward boundary of the precincts extends up to highest astronomical tide (HAT) and the seaward boundary extends no further than 1.6 kilometres beyond the reef edge. The seaward boundary of the infrastructure precinct extends no further than the outlet point of the sewage outfall pipeline situated fifteen metres below low water mark.

### 6.2 Infrastructure Precinct

**Purpose:** To provide for the development of permanently-fixed structures associated with access and use of the site for tourism and recreation.

**Description:** The precinct covers the jetty, harbour and navigation channel. Permanently fixed structures including the jetty, underwater observatory, navigation aids and sewage outfall pipeline are confined to this precinct.

**Activities:** Access and egress by passenger ferries; operation of the under-water observatory; provision of services such as water and fuel supply; and operation of a sewage outfall pipe. Swimming and snorkelling except in navigation channel.

### 6.3 Recreation Precinct

**Purpose:** To provide for intensive recreational use and enjoyment of the reef, with artificial structures limited to re-locatable facilities of low key design.

**Description:** This precinct covers the north-west sector of the reef and is free of permanently fixed structures.

Facilities for recreational access, enjoyment, interpretation, and site protection are allowed; including a swimming enclosure, interpretive stations, shade structures, pontoons, and moorings. All facilities are to be designed and located in an unobtrusive manner in keeping with the site's

natural character and setting.

**Activities:** Operation of coral viewing vessels; operation of pontoons; certified and resort scuba diving; snuba diving; swimming and snorkelling; use of beach hire equipment; guided interpretive activities; recreational and commercial vessel anchoring and mooring; sea-plane landing/take-off and taxiing; and barge access.

#### 6.4 Conservation Precinct

**Purpose:** To maintain a large portion of the reef free from built facilities.

**Description:** This precinct covers the remainder of the reef as shown on the attached plan. This area is open to recreational activities, but will be kept free from all structures and fixtures other than vessels and permitted mooring installations.

**Activities:** Swimming and snorkelling; certified and resort scuba diving; guided interpretive activities; and recreational and commercial vessel anchoring and mooring; base-line monitoring program; traditional fishing and hunting.

TABLE 1

## GOVERNMENT AGENCIES INVOLVED IN MANAGEMENT OF GREEN ISLAND &amp; REEF

Local Authorities	Legislation	Main Responsibilities
Cairns City Council	Local Government Act 1934 Local Government (Planning and Environment) Act 1990 Building Act 1975 Health Act 1937 Food Act 1981 Sewage and Water Supply Act 1990	esplanade management; building controls; town planning controls; public health; toilets & sewage system
Cairns Port Authority	Harbours Act 1955 Marine Act 1958	jetty, helipad & harbour management; observatory and jetty lease administration
Queensland Authorities		
Department of Environment & Heritage; Divisions of Environment and Conservation	National Parks & Wildlife Act 1975 Marine Parks Act 1982 Fauna Conservation Act 1974 Noise Abatement Act 1978 Clean Waters Act 1971 Clean Air Act 1963 State Development and Public Works Organisation Act 1981 Beach Protection Act 1968 Environment Protection Act 1992	national park and marine park management; fauna & flora protection; water, air, and noise pollution management; environmental coordination; and advice on foreshore & beach management
Queensland Recreation Areas Management Authority	Recreation Areas Management Act 1988	Green Island Recreation Area management
Department of Lands	Land Act 1962	island lease administration
Department of Transport	Marine Act 1958 Harbours Act 1955	boating navigation & safety;
Tourism & Travel Corporation	Old Tourism & Travel Corporation Act 1979	tourism promotion & planning

Local Authorities	Legislation	Main Responsibilities
Commonwealth Authorities		
Great Barrier Reef Marine Park Authority	GBR Marine Park Act 1975	GBRMP management
Australian Heritage Commission	Australian Heritage Commission Act 1975 World Heritage Property Conservation Act 1983	Administration of World Heritage and National Estate Areas
Department of the Arts, Sports, the Environment, Tourism and Territories	Environment Protection (Impact of Proposals) Act 1974	Administration of Environment Protection requirements

TABLE 2

## IMPLEMENTATION OF MANAGEMENT ACTIONS

No.	Action	Schedule
1a.	QRAMA to establish GIRM/C	1993-94
1b.	GIRM/C to establish GIRAC	1993-94
1c.	DEH to increase Park Ranger presence on site	1993-94
	DEH, CCC & CPA to organise multi-tasked Rangers	1993-94
	DEH to maintain and operate ranger station	1993-96
1d.	DPI to maintain and operate marine research station	1993-96
1e.	CCC to negotiate with major leaseholder and organise provision of major services	1993-96
1f.	GIRM/C to establish and manage Recreation Area Management Fund	1993-96
	- assess need for obtaining initial working capital	1993-94
	- prepare program for disbursement of fund	1993-94
	- impose fee for commercially carried visitors to the recreation area	1993-94
	- impose fee for private visitors to the recreation area	1993-94
1g.	CCC to regulate construction of buildings and landscaping	1993-96
1f.	DoL to monitor compliance of lease conditions	1993-96
2a.	DEH, GBRMPA & GIRM/C to jointly manage permits	1993-96
3a.	GIRM/C, DEH & GBRMPA to design and implement research & monitoring program	1993-94
3b.	GIRM/C, DEH & GBRMPA to monitor and review Management Plan as per Section 5	1993-96
3c.	GIRM/C, DEH & GBRMPA to ensure funding of monitoring programs by proponents	1993-96
4a.	GIRM/C, DEH & GBRMPA to devise detailed strategies to control numbers of commercially carried visitors within set limits	1993-96
4b.	DEH, DoL, GBRMPA, CCC & leaseholders to regulate island and reef precincts	1993-96
5a.	GIRM/C to develop guidelines for significant environmental risk activities	1993-94
5b.	GIRM/C, GBRMPA, CCC & leaseholders to prepare pollution contingency plans	1993-94
5c.	CCC, DEH & GBRMPA to regulate treatment and disposal of sewage wastes	1993-96
5d.	GIRM/C, DEH & GBRMPA to ensure access to the island is restricted if sewage system is not operating correctly	1993-96
5e.	DEH & GBRMPA to phase out waste discharge into Marine Park from vessels visiting the site	1993-94
	DEH & GBRMPA to assess need for declaring a Special Management Area over Tourism & Recreation Precincts	1993-94
5f.	GIRM/C, DoL & CCC to prepare landscaping policy guidelines	1993-94
	GIRM/C, DoL & CCC to restrict the introduction of exotic plants, animals and soils	1993-96
5g.	DEH, CCC, DoL & leaseholders to control pest and weed species	1993-96
	DEH & CCC to plan and implement coordinated pest and weed control program	1993-96
5h.	DEH to minimise the illegal taking of fish, shells and other reef biota	1993-96

No.	Action	Schedule
	DEH to maintain a program of enforcement, publicity and interpretation	1994-96
5i.	GIRMC to separate conflicting activities and restrict obtrusive activities	1993-96
	- implement by-laws, educate site visitors and enforce bans	1993-96
	- negotiate to limit numbers, types and operation of vehicles on island	1993-94
	- demarcate reef and beach activity precincts for specific activities	1993-94
5j.	GIRMC, DEH & GBRMPA to regulate and manage activities as per Table 3	1993-96
5k.	CCC & GIRMC to implement CCC Policy Plan	1993-96
5l.	GBRMPA & DEH to assess impacts of proposed redevelopments of jetty and underwater observatory.	1995-96
6a.	DEH, CCC & major leaseholder to prepare and implement island planting program	1993-96
6b.	DEH, CCC & major leaseholder to develop and operate plant nursery	1993-96
6c.	DEH to remove introduced seabed debris from western reef area	1995-96
6d.	GBRMPA to monitor status of reef biota	1993-96
6e.	Major leaseholder, DEH and CCC to plan and implement western foreshore stabilisation program	1993-94
	- detail program of works for stabilisation of western foreshore	1993-94
	- implement short and long term program of works in line with resort redevelopment	1993-94
	CCC to arrange for removal of unnecessary material and junk from Esplanade	1993-94
7a.	GIRMC to implement policy plan; establish design standards for structures and surfaces	1993-96
7b.	GIRMC to plan and implement long-term structural up-grading program	1993-96
8a.	GIRMC to encourage provision of reasonably priced fares for local residents	1993-96
9a.	Major Leaseholder to provide, maintain and operate public facilities on the resort lease	1993-96
	CCC to remove existing public facilities from Esplanade	1993-94
9b.	GIRMC to assist in maintenance and operation of public facilities through RAM Act charges	1993-96
9c.	Jetty owners to prepare and implement harbour and jetty development plan	1992-93
9d.	Major leaseholder to provide public access to public facilities on the resort lease	1993-96
10a.	GIRMC to plan coordinated visitor facilities & services	1993-94
10b.	GIRMC and major leaseholder to provide interpretation facilities	1993-96
	- design and construct orientation display	1993-94
	- design and install self-guiding forest walk/s, snorkelling trail/s and reef interpretive stations	1993-94
10c.	DEH & GBRMPA to prepare visitor information sheet	1993-94
10d.	DEH to organise visitor liaison by Ranger	1993-96
10e.	DEH and Aboriginal people associated with the site to inform visitors about pre-European cultural heritage	1993-96
10f.	DEH & GBRMPA to provide interpretive training for tourist operator staff	1993-96
10g.	Major leaseholder to provide visitor information centre on resort lease	1994-95
	GIRMC to assist with maintenance and operation of visitor information centre through RAM Act charges	1993-96



No:	Action	Schedule
11a.	GIRAC to involve commercial operators	1993-96
11b.	DEH, GBRMPA & GIRMC to consult with commercial operators to achieve management plan objectives in terms of visitor numbers	1993-94
11c.	Proponent of construction activities to prepare a code of environmental practice for construction workers at the site	1993-94
12a.	GIRMC, DEH & GBRMPA to confirm numbers and types of commercial tourism activities	1993-94
12b.	GIRMC to review and recommend improvements to tourist facilities and services	1993-94

TABLE 3

## ACTIVITIES RESTRICTED TO SAFEGUARD THE NATURAL AMENITY OF GREEN ISLAND &amp; REEF

- restrictions would not apply in emergencies involving risk of injury, serious environmental threat, or safety of a vessel or other craft;
- other activities which are inconsistent with the management Purposes or Objectives may be restricted also.

Activities	Restrictions	Legislation
Island vehicle operation	For service use only; speed limit of 5 kph; limited to certain tracks; limited in number	RAM Act by-laws
Helicopter, Seaplane and Ultralight Aircraft Operation	Generally prohibited within 500 metres out from the reef edge except for permitted tourist programs and emergency evacuation by helicopter from SW groyne	To be designated as an Area to be Avoided by Aircraft under Zoning Plan provisions
Jet-skiing, water-skiing, water scooters, para-gliding and other noisy water sports	Unacceptable activities owing to disturbance to natural amenity and safety risks. Speed limit of 6 knots to be imposed	Special Management Area under Zoning Provisions to be designated over north-west reef area
Boat navigation and anchoring	Excluded from buoyed swimming area	Special Management Area as above, to restrict all vessel navigation in buoyed swimming area
SNUBA & SCUBA-dive training programs and introductory dives	Activity to be restricted to specific sites in accordance with Marine Activities Plan and group size kept to a minimum	Marine Parks, tourist program permit conditions
Feeding birds	Prohibited	RAM Act by-law
Organised fish feeding	Limited to permitted operations for reef-viewing, diving or snorkelling	Marine Park permit conditions
Overnight camping on the island	Prohibited	RAM Act by-law
Erection of shelter canopy, tent, etc.	Subject to permit; otherwise limited to temporary, free-standing beach umbrellas or similar structures	RAM Act by-law
Possession of spear-guns or fishing tackle	Applies to all vessels where equipment must be stowed securely throughout time on site	Zoning Plan provisions
Lighting fires	Prohibited	RAM Act by-law

Activities	Restrictions		Legislation
Littering	Prohibited		RAM Act by-law
Use of loud-hailers or noisy, sound reproduction equipment, compressors, generators and any other equipment which in the assessment of the responsible agency is inconsistent with the management objectives	Prohibited		RAM Act by-law and lease conditions

TABLE 4

PROJECTS FOR WHICH FUNDS HAVE BEEN COMMITTED DURING  
1991/92

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PROJECT	AGENCY
Hard coral revegetation and juvenile COTS at Green Island	GBRMPA
Analysis of Green Island data	GBRMPA
Evaluation of the effect of sewage discharge at Green Island	GBRMPA

# Reef Activities Plan

Figure 1

## Green Island and Reef Management Plan

KEY

-  National Park
-  Esplanade
-  Leases
-  Infrastructure Precinct

- A Swimming Enclosure
- B Overnight Commercial Moorings
- C Coral Viewing Vessels
- C1 Coral Viewing Vessels/Divng and snorkelling
- D Diving and Snorkelling
- E Seaplane Main Landing/Take-off
- F Barge Access Route

G1&G Beach Hire Equipment Limits

