

5. Operating environment

5 Operating environment

5.1 Overview of the operating environment

Management of the Great Barrier Reef takes place within a complex regulatory and policy environment, involving a range of national and State legislation and policy measures, formal and informal inter- and intra-governmental agreements and international conventions. This section examines these complex arrangements and their implications for management of the Great Barrier Reef.

The management of the Great Barrier Reef Marine Park is governed directly by the *Great Barrier Reef Marine Park Act 1975*. Additionally, there are around 20 key pieces of Commonwealth and State legislation and eight international conventions applicable (see Appendix F). Management of the Marine Park requires the Authority to interact with around 20 other Australian and Queensland government agencies (see Appendix G).

The maritime boundaries applied in Commonwealth and State legislation are defined under the United Nations Convention on the Law of the Sea 1982 and agreed with the States and Territories under the 1979 Offshore Constitutional Settlement. The application of these boundaries for different purposes in various Acts results in a range of overlaps, gaps and inconsistencies in the legislative framework. For example, construction of a tourist facility and marina on a Queensland island may require development approval from the Queensland Government, a permit from the Authority and an approval under the *Environment Protection and Biodiversity Conservation Act 1999* if the development is likely to have a significant impact on the World Heritage Area.

A further layer to the Marine Park operating environment is imposed by a broad range of national and international policy issues and programmes that intersect with regulation and management of the Marine Park. The key policy areas relevant to the Marine Park are those that relate to the major pressures facing the Great Barrier Reef. These include environment protection, biodiversity conservation, Australia's Oceans Policy, fisheries management, natural resource management (including the Natural Heritage Trust, the *National Action Plan for Salinity and Water Quality* and the *Reef Water Quality Protection Plan*), coastal development (including the *Framework for a National Cooperative Approach to Integrated Coastal Zone Management* (NRMCC 2003)) and climate change. Other policy areas of relevance include customs, maritime safety, Indigenous affairs, resources and energy. To ensure consistency of approach in the application at both a national and Marine Park management level, it is important that jurisdictional and agency responsibilities remain clear.

As noted above, management of the Marine Park is also subject to the jurisdiction of the Great Barrier Reef Ministerial Council. The Council has its basis in the Emerald Agreement of 1979 and is designed to facilitate cooperative management of the Great Barrier Reef.

5.2 Policy environment

International policy environment for the protection of the coastal and marine environments

In the 30 years since the initial establishment of the *Great Barrier Reef Marine Park Act 1975* there has been much international debate on the level of protection of the coastal and marine environment. Australia has participated in this debate and has become a party to a range of international agreements and conventions during this period.

The 1988 IUCN (World Conservation Union) General Assembly in Costa Rica recommended establishing a representative system of Marine Protected Areas to provide for the protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world in perpetuity. This approach was supported by the World Parks Congress in 1992 and 2003. In 1998, there was a 'call to action' by some 1 600 scientists for an increase in the number and effectiveness of Marine Protected Areas with an aspirational goal of 20 per cent of Exclusive Economic Zones and the high seas being protected by 2020. The United Nations Year of the Ocean in 1998 provided an international focus for the issue.

The 2002 World Summit on Sustainable Development emphasised the need to maintain productivity and biodiversity of important marine and coastal areas and proposed dates of:

- 2010 for the application of an ecosystem approach to ocean and fisheries management
- 2012 for the establishment of representative Marine Protected Area networks based on scientific information and consistent with international law
- 2015 for the restoration of depleted fish stocks.

National oceans and fisheries policy

The Australian Government released Australia's Oceans Policy in 1998. Its broad vision is 'Healthy oceans: cared for, understood and used wisely for the benefit of all, now and in the future'. The Policy provides for the ecologically sustainable development of the resources of Australia's oceans and the encouragement of internationally competitive marine industries, while ensuring the protection of marine biological diversity. The Policy sets in place a framework for ecosystem-based management of Australia's marine areas, and in particular, commits the Australian Government to the establishment of a national representative system of Marine Protected Areas.

At the 2002 World Summit on Sustainable Development in Johannesburg the Australian Government gave a commitment to establish a national representative system of Marine Protected Areas by 2012. Implementation of this commitment is being progressed in consultation with the States and Territories. A key objective of this process is to provide for the continuation of activities that are compatible with Marine Protected Area objectives.

Commonwealth fisheries are managed under the *Fisheries Management Act 1991* and the *Fisheries Administration Act 1991*. The objectives of these Acts are to manage fisheries on an ecologically sustainable basis and maximise the net economic returns to the Australian community from the management of those fisheries. Over the last decade, however, many Australian fisheries have been in decline. A Bureau of Rural Sciences (2004) report on the status of fish stocks managed by the Australian Government showed that 23 per cent of fish stocks are now over-fished and 54 per cent have uncertain status due to insufficient data availability.

In December 2005 the Australian Government released proposals for an extensive network of Marine Protected Areas covering 171 000 square kilometres of Commonwealth waters in the south-east of Australia off Tasmania, Victoria, eastern South Australia and far southern New South Wales. These proposals have been integrated with the government's \$220 million package, *Securing Our Fishing Future* (Australian Government 2005), to address over-fishing in Commonwealth managed fisheries. This package will provide financial assistance to deliver structural adjustment through reduction in fishing effort and the implementation of the Marine Protected Areas. The boundaries of the Marine Protected Areas in the South-East Marine Region are expected to be finalised in 2006, following public consultation.

Among Commonwealth Marine Protected Areas, the Great Barrier Reef Marine Park is the oldest, largest, most visited and most actively managed. Its management is ecosystem-based and provides for multiple use. It lies in both Commonwealth and State waters, but responsibility for the management of the 17 commercial fisheries within the Park rests with Queensland. As policy on Regional Marine Planning and Marine Protected Areas evolves, the implications for the Marine Park will need to be considered, especially in regard to Australian Government and State policy on fisheries management and structural adjustment.

Natural resource management

The Natural Heritage Trust and the *National Action Plan for Salinity and Water Quality* are the Australian Government's major programmes for natural resource management. Delivery of the Natural Heritage Trust and the *National Action Plan* is integrated and occurs on a regional basis in partnership with all levels of government and the community.

The Natural Resource Management Ministerial Council coordinates national approaches to natural resource management. It is supported by a Standing Committee and a number of advisory boards. A Marine and Coastal Committee advises the Standing Committee on issues of national significance relating to the conservation and ecologically sustainable development of marine and coastal ecosystems and resources.

Natural resource management in catchment areas adjacent to the Great Barrier Reef can have significant impacts on the Marine Park. The major issues are water quality and habitat protection, in particular, estuarine breeding grounds and wetlands. Pollutant discharges and run-off into the waters of the Great Barrier Reef pose a significant threat to biodiversity and can impact on the resilience of coral colonies and the health of marine ecosystems such as sea grasses, which are the main food source for dugong.

Recently, a major step to address natural resource management issues in catchments adjacent to the Great Barrier Reef was taken with the development of the *Reef Water Quality Protection Plan* in 2003. This Plan seeks to halt and reverse the serious decline in water quality entering the Great Barrier Reef over the next decade. The Plan contains over 60 agreed actions. Implementation is supported by the Natural Heritage Trust and *National Action Plan for Salinity and Water Quality* initiatives. The Prime Minister and the Queensland Premier oversee the implementation of the *Reef Water Quality Protection Plan* through the Great Barrier Reef Ministerial Council.

Coastal development

The 'sea change' phenomenon is a growing pressure on the coastal environment around Australia, including the coast adjacent to the Great Barrier Reef. In October 2003, Australian and State and Territory governments endorsed the *Framework for a National Cooperative Approach to Integrated Coastal Zone Management* (NRMCC 2003) in response to this increasing pressure. Priorities for the framework are:

- integration across the catchment-coast-sea continuum
- land- and marine-based sources of pollution
- impacts and opportunities of climate change and sea level rise
- pest plants and animals
- planning for population change
- knowledge, capacity building and access to information.

Climate change

Climate change presents one of the biggest future threats to the Great Barrier Reef ecosystem (IPCC 2001) and consequently to the social and economic welfare of the region. The Australian Government announced a comprehensive climate change strategy in 2004 (DEH 2005), supported by funding of \$1.8 billion, through which it is working to both reduce Australia's greenhouse gas emissions and build an effective global response to climate change.

The extent and effectiveness of the international response to climate change will be a major factor in the long-term survival of the Great Barrier Reef ecosystem. The World Parks Congress held in Durban in 2003, in its recommendations on a global system of Marine Protected Area networks (IUCN 2003), recognised that climate-related global threats cannot be addressed by conventional management measures alone.

Understanding the environmental, social and economic impacts of climate change, and how to improve the resilience of the Great Barrier Reef to such impacts, will be of critical importance in shaping both the management of the Marine Park and the whole-of-government approach to adaptation across the coast and catchment area. Chapter 7 provides further details on the pressure on the Great Barrier Reef presented by climate change.

5.3 Regulatory framework

A wide range of Australian and Queensland government regulatory and policy measures apply to activities affecting the Great Barrier Reef, both within and external to the Marine Park. In broad terms, these measures fall into the following categories:

- marine parks management
- environment protection and biodiversity conservation
- heritage management
- pollution and water quality controls
- fisheries management.

The application of these measures in particular geographical areas is complicated by the somewhat unusual jurisdictional boundaries and division of responsibilities applying to the Great Barrier Reef. These arrangements are summarised below and illustrated in Map 8 and Figure 4.

Marine parks management

The establishment of the Great Barrier Reef Marine Park, under the *Great Barrier Reef Marine Park Act 1975*, is the primary mechanism for achieving the protection and wise use of the Great Barrier Reef. The Marine Park lies within both Commonwealth and Queensland waters (see Chapter 4.2) up to the low water mark. A Queensland marine park, the Great Barrier Reef Coast Marine Park, covers the area in between the low and high water marks, as well as many areas within bays and inlets. Queensland has also established national parks in relation to many Queensland islands within the Great Barrier Reef. The Commonwealth and State parks are regulated and managed cooperatively.

Marine parks legislation provides an administrative and legal structure for managing sensitive areas of the marine environment. The two main instruments provided under the *Great Barrier Reef Marine Park Act 1975* are Zoning Plans (s. 32) and Plans of Management (Part VB s. 39).

Zoning Plans establish the management objectives and activities permitted in particular areas of the Park. The Act requires that 'as soon as practicable after an area has been declared to be part of the Marine Park, the Authority shall prepare a zoning plan in respect of the area'.

Map 8: Great Barrier Reef regulatory and management environment

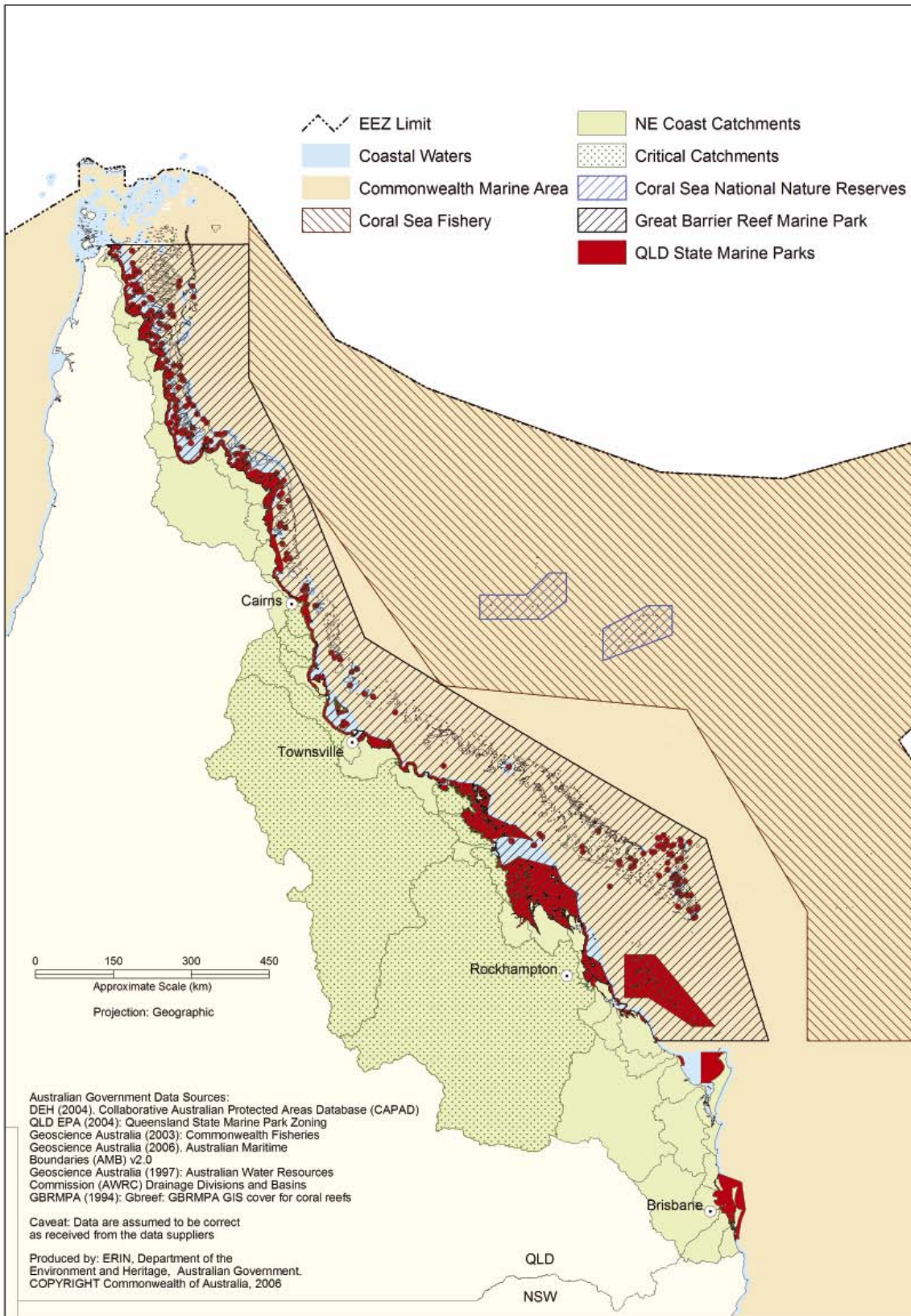
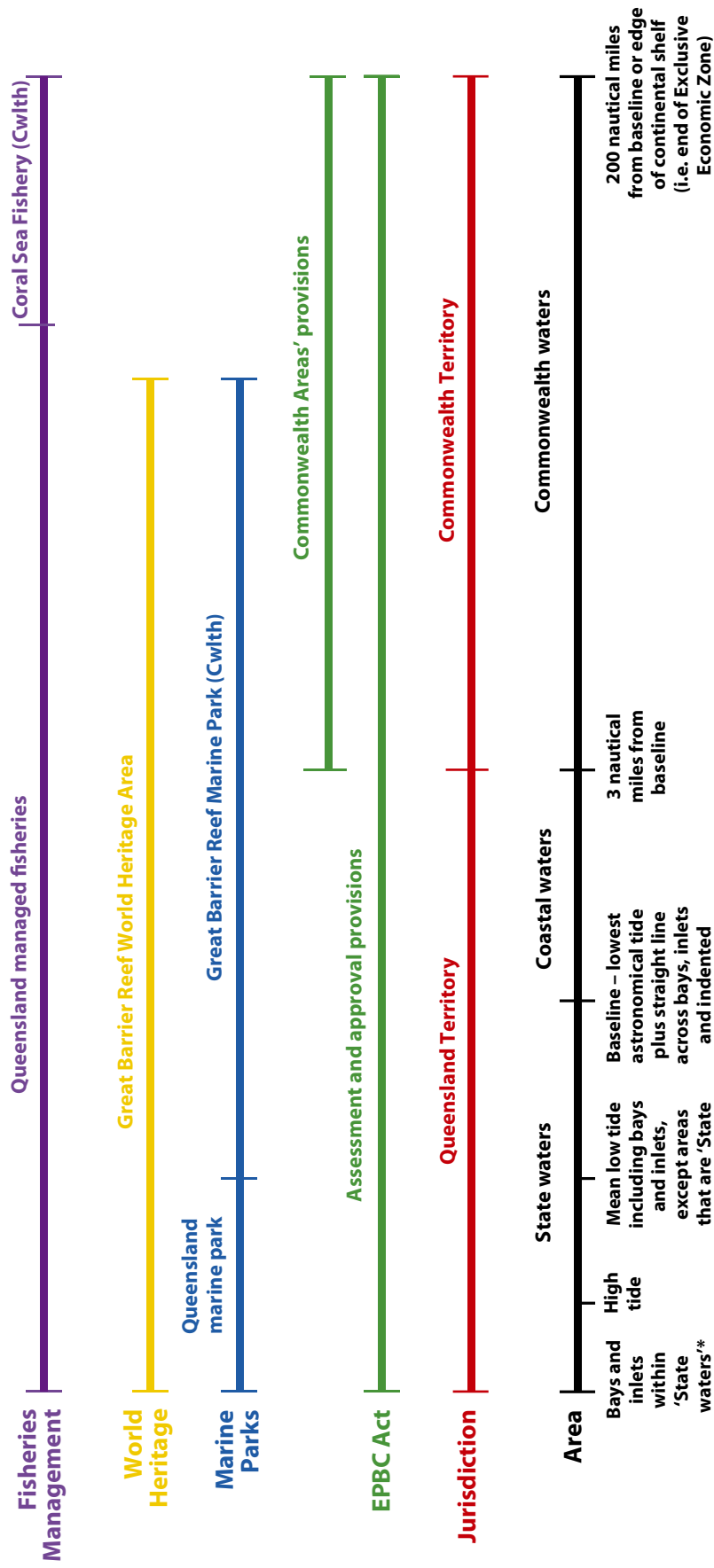


Figure 4: Great Barrier Reef jurisdictional boundaries and regulatory responsibilities



* 'State waters' refers to areas asserted to be waters within state limits for the purposes of s. 14 of the *Seas and Submerged Lands Act 1973*.

In preparing zoning plans, the Authority must have regard to the objects specified in s. 32(7)(a)–(e), which include conservation, allowing reasonable use, minimising the effect of activities that exploit resources, reserving areas for appreciation and enjoyment and preservation of areas in a natural undisturbed state. The 2003 Zoning Plan, which implemented the Representative Areas Programme, came into effect on 1 July 2004. Chapter 6 discusses the Representative Areas Programme in greater detail.

Plans of Management are directed at reducing threats to the Marine Park, facilitating the recovery of threatened species, managing areas of high use and/or value and other similar outcomes. Their objectives are given in s. 39(Y)(a)–(f) and are to ensure:

- that where the nature conservation values, cultural and heritage values and scientific values of a particular area are, or may be, threatened proposals are developed to reduce or eliminate the threats
- that there is adequate management for the recovery, protection and conservation of species and ecological communities that are vulnerable, endangered or may become extinct
- that activities within the Marine Park are managed on the basis of ecologically sustainable use
- that there is appropriate management of use of a particular area where that use may conflict with other uses of the values of the area
- that there is cooperative management of areas of special interest to particular community groups
- that people are able to use the Marine Park to participate in a range of recreational activities.

There are currently four detailed Plans of Management in place within the Marine Park. These Plans relate to the Cairns, Hinchinbrook, Shoalwater Bay and Whitsunday areas.

There are also 10 Site Management arrangements in place: two in the Far Northern Management Area, two in the Cairns/Cooktown Management Area, three in the Townsville/Whitsunday Management Area and three in the Mackay/Capricorn Management Area. These Site Management plans are localised plans for use of particular sites. They identify significant values of the specific site and describe the management arrangements applying.

The *Great Barrier Reef Marine Park Act 1975* and the 2003 Zoning Plan specify permit requirements, charges and offences. Certain activities within the Marine Park require approval in order to manage their impacts, for example waste discharges, the installation and operation of structures and most commercial activities.

Environment protection and biodiversity conservation

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government's primary legislation for environment and heritage management and protection. It reflects the outcomes of an agreement between Federal, State and local governments on roles and responsibilities for the environment. The Act replaced a number of Acts related to environmental impact assessment, endangered species protection, protected areas and heritage management.

The application of the EPBC Act to areas of the Great Barrier Reef is somewhat complicated as some of its provisions apply only to areas that fall within the jurisdiction of the Australian Government (Commonwealth Areas), whereas other provisions regulate issues regardless of where, geographically, they occur. The EPBC Act can thus apply to activities that occur within the Marine Park or to those that transcend Park boundaries. The *Great Barrier Reef Marine Park Act 1975* predates the EPBC Act and there are both gaps and overlaps in their approach and coverage, particularly due to boundary definitions. This has resulted in some inconsistencies, duplicate processes and a lack of clarity of responsibilities in some areas (Figure 4, above).

EPBC Act provisions applying within Commonwealth Areas include offences and permit requirements related to protected species. In addition there are assessment and approval requirements for activities with significant environmental impacts undertaken within Commonwealth land or waters. These

EPBC Act provisions apply to Commonwealth islands and those parts of the Marine Park that are beyond Queensland coastal waters (Map 8 and Figure 4, above), that is, beyond three nautical miles of the low water mark (or more accurately, the 'baseline'). The *Great Barrier Reef Marine Park Act 1975* on the other hand, which has similar provisions, applies up to the low water mark by virtue of the *Coastal Waters (State Rights) Act 1980*. This means that differing regulatory requirements can apply to the same species, depending on whether the species and actions affecting it are within or outside the Marine Park. This creates regulatory complexity and duplication in some areas, which has only partially been addressed since the entry into force of the EPBC Act.

Under the *Great Barrier Reef Marine Park Act 1975*, most activities that may have an impact within the Marine Park require permission from the Authority. The Authority is required to assess the likely impacts of the activity before granting such a permission. Under the EPBC Act, activities (within or outside the Marine Park) having a significant impact on a 'matter of national environmental significance' may require assessment and approval by the Australian Government Minister for the Environment and Heritage. Such matters include the world heritage values of World Heritage List properties, listed threatened species and communities, listed migratory species, the marine environment within Commonwealth waters and the environment generally where the activity is undertaken within, or impacts on, Commonwealth land. The assessment and approval requirements of both the *Great Barrier Reef Marine Park Act 1975* and the EPBC Act can therefore apply to the same activity.

Under the Queensland *Environmental Protection Act 1994*, activities within Queensland territory having a significant impact on the environment require assessment and approval by the Queensland Environmental Protection Agency. This would apply to activities within the State marine park adjoining the Great Barrier Reef Marine Park and adjacent coast and catchment areas. In addition, the Queensland *Integrated Planning Act 1997* has implications for coastal development regulation. The *Integrated Planning Act 1997* forms the foundation of Queensland planning and development assessment legislation. Its purpose is to balance community well-being, economic development and the protection of the natural environment.

To address this duplication, the *Great Barrier Reef Marine Park Act 1975* assessment and approval requirements have largely been aligned with those of the EPBC Act and provision made for the streamlining of assessment and approval requirements, for example, through use of a single assessment process where multiple assessment and approval requirements arise.

Heritage management

The Great Barrier Reef is a World Heritage Area. The World Heritage Area covers the Commonwealth and parts of the State marine park, as well as islands that are Queensland national parks. Only 1 per cent of the World Heritage Area is not covered by a park. The requirements associated with listing as a World Heritage Area are covered in Chapter 3.

In addition, the Australian Government has established a Commonwealth Heritage List under the *Environment Protection and Biodiversity Conservation Act 1999* to protect natural, Indigenous and historic heritage places on Commonwealth lands and waters under Australian Government control. There are currently two sites within the Marine Park that are so listed: two 1870s light-stations located on Commonwealth-owned islands within the Marine Park. Listing on the Commonwealth Heritage List provides for the management of the sites through means such as management plans and environmental impact assessment and approval requirements.

The day-to-day management of the World Heritage Area and Commonwealth Heritage List sites, and in some cases administration of environmental assessment and approval requirements, is undertaken by the Authority. However, the *Great Barrier Reef Marine Park Act 1975* provides little recognition or guidance in relation to this role.

Pollution and water quality controls

Pollution prevention is another area where the requirements of a number of pieces of legislation may apply. Requirements under the *Great Barrier Reef Marine Park Act 1975* and 2003 Zoning Plan restrict polluting and potentially polluting activities within the Marine Park. Such activities generally require a permit and environmental impact assessment by the Authority. Polluting activities outside the marine parks are regulated through environment licensing by the Queensland Environmental Protection Agency. In both cases, regulation is guided by water quality objectives established by the Australian and New Zealand Environment and Conservation Council *Guidelines for Fresh and Marine Water Quality 2000*. Polluting activities may also trigger the assessment and approval requirements of the *Environment Protection and Biodiversity Conservation Act 1999*. Diffuse source pollution in the catchments adjacent to the Great Barrier Reef is regulated by Queensland through means such as land-use planning and vegetation management regulations, as well as through voluntary measures such as those stipulated under the *Reef Water Quality Protection Plan*.

Protection against pollution from ships is provided by Commonwealth and Queensland legislation prohibiting the discharge of pollutants and waste. Special protection is also provided to the Great Barrier Reef through recognition as a Particularly Sensitive Sea Area under the International Maritime Organization's International Convention for the Prevention of Pollution of the Sea by Ships (known as MARPOL). The Great Barrier Reef's status as a Particularly Sensitive Sea Area allows more stringent management of shipping in the area, for example through measures such as compulsory pilotage, traffic separation schemes, discharge restrictions and a vessel traffic management system. The Authority works closely with the Australian Maritime Safety Authority to monitor pollution from ships and where necessary, to pursue legal action.

Other Commonwealth legislation

In addition to the EPBC Act, a variety of Commonwealth legislation applies within and in the areas surrounding the Marine Park, including the:

- *Environment Protection (Sea Dumping) Act 1981* – which regulates the dumping of wastes at sea
- *Sea Installations Act 1987* – which regulates the construction of installations at sea, such as pontoons, platforms and floating hotels
- *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* – which regulates the discharge of pollution such as oil, toxic chemicals and waste from ships
- *Historic Shipwrecks Act 1976* – which protects the heritage and historical value of shipwrecks.

Measures have been put in place in relation to the above legislation to minimise duplication with the *Great Barrier Reef Marine Park Act 1975* and streamline regulatory requirements, for example, through delegation of approval responsibility to the Authority.

Fisheries management

Fisheries management arrangements affecting the Great Barrier Reef Marine Park are set out in a range of Commonwealth and State legislative measures and encompass fisheries management, environment protection and biodiversity conservation. There is also specific Commonwealth and State coastal and marine park legislation. Commercial fisheries are managed individually on a fishery-by-fishery basis from both an economic and a target/non-target species perspective. Marine parks and protected areas on the other hand, are broadly managed on an ecosystem and area basis. Commercial fishing effort can be quite mobile as fishers often hold a variety of licences and fish across a range of fisheries and thus across a range of ecosystems.

The areas of management and regulation that impact on fisheries are as follows:

- State, Commonwealth or joint management of the commercial fishery to be economically sustainable through input controls including effort caps, gear restrictions, seasonal and spatial closures
- Commonwealth assessment under the *Environment Protection and Biodiversity Conservation Act 1999* as to whether a fishery can be managed in a sustainable manner (Part 13A s. 303FN). Assessment and approval is required if there is an export component and/or the fishery is in Commonwealth waters and impacts on cetaceans, listed threatened species and communities, listed migratory species and listed marine species (Part 13 ss. 208A, 222A, 245, and 265)
- protection of the ecosystem and conservation of biodiversity under Commonwealth and/or State marine park legislation, including the *Great Barrier Reef Marine Park Act 1975*.

Queensland manages all fisheries within the Great Barrier Reef Marine Park, as agreed under a 1995 Offshore Constitutional Settlement and provided for by the *Fisheries Management Act 1991*. The Coral Sea Fishery to the east of the Marine Park is managed by the Australian Government through the Australian Fisheries Management Authority. The Torres Strait Fishery to the north of the Marine Park is managed by a joint authority comprising the Australian and Queensland governments and the Torres Strait Regional Authority.

Fisheries under Queensland control are managed under the *Fisheries Act 1994* (Qld). This Act provides for the management of fisheries resources across the broad range of users from commercial to recreational, charter and Aboriginal and Torres Strait Islander. The Act has as its object the sustainable use of fisheries resources. This is pursued through the development of Fisheries Management Plans and input controls such as licensing requirements, equipment limits, size limits and closed seasons.

There are 17 commercial fisheries that operate within the Great Barrier Reef Marine Park. By the end of 2005 Queensland had introduced Fisheries Management Plans for three of the five major fisheries—the *Fisheries (East Coast Trawl) Management Plan 1999*, the *Fisheries (Coral Reef Fin Fish) Management Plan 2003* and the *Fisheries (Spanner Crab) Management Plan 1999*. Management Plans are under development for the two other major commercial fisheries, the East Coast Inshore Finfish Fishery and East Coast Dive-Based Fisheries.

All the commercial fisheries that operate in the Marine Park are subject to the assessment and approval requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Approvals are for a specific period, generally three years. Assessment of the management arrangements for the East Coast Otter Trawl and Coral Reef Fin Fish Fishery under the EPBC Act has been completed. Fishing activities within the State coast marine park (the Great Barrier Reef Coast Marine Park) are also subject to the zoning, management and other requirements under the *Queensland Marine Parks Act 1982*. This area primarily includes the inshore net, pot, crab and beam trawl fisheries.

As manager of the Marine Park, the Authority under the *Great Barrier Reef Marine Park Act 1975* has a responsibility to protect the environmental and cultural values of the Marine Park and to provide opportunities for ecologically sustainable use. The Authority meets these responsibilities primarily through the development of Zoning Plans (s. 32) and Plans of Management (s. 39(Y) (a)–(f)). In particular, in the development of a Zoning Plan the Authority is required to minimise the effect of activities that exploit the resources of the Park (s. 32 (7)(b)). Thus, in the development and implementation of Zoning Plans the Authority considers the impacts of fishing activities in the Marine Park from an ecosystem, biodiversity and habitat perspective, taking into account both target and non-target species, threatened species and scientific values, as well as activities that present a conflicting use of the resource. Activities permitted in the various zones are commensurate with realising the objectives of the zone and, in conjunction with the whole of the Zoning Plan, sustainable management of the whole of the Great Barrier Reef ecosystem. The current Zoning Plan applying to the Marine Park is the *Great Barrier Reef Marine Park Zoning Plan 2003*.

Under the 2003 Zoning Plan, a permit is required to undertake fishing in a zone where it is not normally allowed, as well as for dive-based fisheries activities. Before granting a permit, the Authority must undertake an assessment of the impacts of the activity.

In 2000, provision was made in Section 4.3.2 of the *Far Northern Zoning Plan* for trawling in the General Use (Light Blue) Zone to have a Management Plan made under the *Fisheries Management Act 1994* (Qld) accredited by the Authority. This requirement was removed with the implementation of the *Great Barrier Reef Marine Park Zoning Plan 2003*.

Recreational fishing activities within the Marine Park and Queensland coast marine park generally do not require a permit. One circumstance where a permit is required is where the activity is part of a tourist activity, for example a charter boat. In that circumstance the tourist activity, as distinct from the fishing, may require a permit.

The involvement of the Authority in regulation and management that impacts on fisheries activities is a point of contention for many stakeholders. A number of submissions to the Review, particularly those associated with fishing activities and the marine services industry, put forward the view that the Authority's role in fisheries management duplicates management actions by the Department of the Environment and Heritage under the EPBC Act and by the Queensland Government.

Over the period 1996 to 2004 fishing activities within the Marine Park have been subject to regulation under at least six separate legal instruments, namely:

- *Great Barrier Reef Marine Park Zoning Plan 2003* (Representative Areas Programme)
- *Great Barrier Reef Coast Marine Park Zoning Plan 2004* (Qld)
- *Fisheries (East Coast Trawl) Management Plan 1999*
- *Fisheries (Coral Reef Fin Fish) Management Plan 2003*
- *Environment Protection and Biodiversity Conservation Act 1999*
- *Fisheries Management Act 1994* (Qld).

These regulatory instruments can have both similar and conflicting objectives for ecosystem protection, fisheries management and environment protection with responsibility being separated across agencies and jurisdictions. In particular, it is atypical that the Australian Government has responsibility for the management and protection of the Marine Park, while Queensland has separate responsibility for fisheries management in the same area. This issue is considered in more detail in Chapter 9 of this report, in the context of the functions of the Authority.

6. The Representative Areas Programme

6 The Representative Areas Programme

6.1 Introduction

The *Great Barrier Reef Marine Park Zoning Plan 2003* came into effect on 1 July 2004 as the primary planning instrument for the conservation and management of the Great Barrier Reef Marine Park. This completed the establishment of the Marine Park by integrating all 33 sections of the Park within a single comprehensive zoning plan and provided zoning for the 28 new coastal areas incorporated during 2000 and 2001. The 2003 Zoning Plan also implemented the Representative Areas Programme, an initiative which aimed 'to protect and conserve the biodiversity of the Great Barrier Reef ecosystem within a network of highly protected zones'.¹³

The development of the Representative Areas Programme and the 2003 Zoning Plan that gave it effect took place over the period 1998 to 2003. It increased the area of highly protected zones in the Marine Park from 4.5 per cent to 33 per cent (Figures 5, 6 and 7). Given that the Marine Park covers 344 400 square kilometres, extends along 2 300 kilometres of coastline, and has many alternative and competing uses and many different stakeholders, the development and implementation of the Representative Areas Programme was an undertaking of significant scale.

The outcome of the Programme has been acknowledged, both nationally and internationally, as an important achievement in the implementation of an ecosystem-based approach to conserving marine biodiversity. Awards it has received include the UNESCO (United Nations Educational, Scientific and Cultural Organisation) Man and the Biosphere Environmental Prize 2005, the WWF (World Wildlife Fund) Gift to the Earth Award 2005, the Planning Institute of Australia Ministerial Prize 2005 and an award in 2004 from the Banksia Environmental Foundation. Not everyone, however, was satisfied with the outcome of the Representative Areas Programme. Some stakeholders perceived that the rezoning had no basis in science, that the process had lacked transparency and that the Authority had actively worked against their interests.

This chapter looks in detail at the Representative Areas Programme and the way in which it was conducted. It examines the science and policy basis, the planning process, public consultation and communication, and stakeholder views. The way in which user interests were considered in the rezoning process is illustrated through a series of maps showing outcomes for the Park as a whole. The chapter concludes with a case study that shows at a local level how zoning proposals were developed for one area of the Marine Park.

6.2 Submissions to the Review about the Representative Areas Programme

The Representative Areas Programme and the associated development of the 2003 Zoning Plan drew a great deal of comment from stakeholders making submissions to the Review. Broadly, there were two countervailing perspectives. On the one hand, many stakeholders considered the Representative Areas Programme to be a globally significant conservation achievement, an example of environmental leadership and an initiative with robust scientific underpinning. This group considered the Authority had handled the rezoning process well, particularly given the size of the undertaking, and that the Authority had engaged constructively with different stakeholders to achieve workable arrangements that accommodated both economic and conservation needs. The stakeholder groups that were, on balance, satisfied with the process and its outcome included the tourism industry, shipping and maritime safety interests, the scientific community, conservation groups, the diving industry, sailboat operators and some local community groups.

¹³ *Great Barrier Reef Marine Park Zoning Plan 2003* Preface A3

Figure 5: Great Barrier Reef Marine Park zoning before implementation of the *Great Barrier Reef Marine Park Zoning Plan 2003*

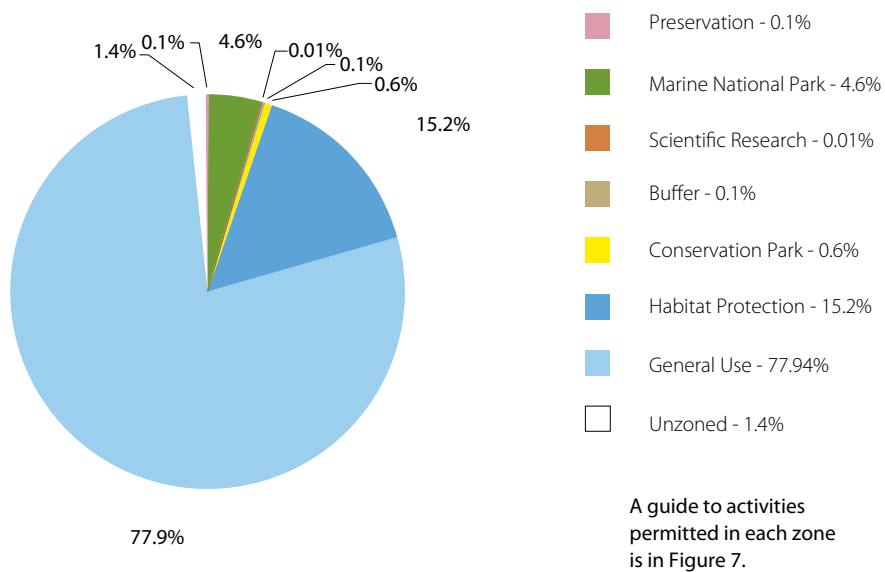


Figure 6: Great Barrier Reef Marine Park zoning after implementation of the *Great Barrier Reef Marine Park Zoning Plan 2003*

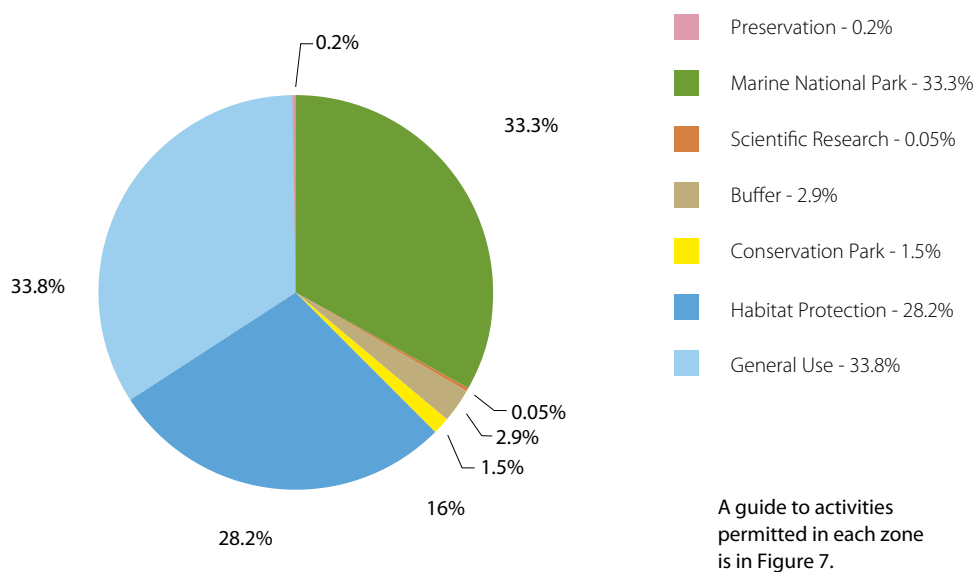


Figure 7: Great Barrier Reef Marine Park zoning – guide to activities permitted or prohibited within zones

ACTIVITIES GUIDE (see relevant Zoning Plans and Regulations for details)	Zoning Plans and Regulations						
	General Use Zone	Habitat Protection Zone	Conservation Park Zone	Buffer Zone	Scientific Research Zone 2	Marine National Park Zone	Preservation Zone
Aquaculture	Permit	Permit	Permit ¹	X	X	X	X
Bait netting	✓	✓	✓	X	X	X	X
Boating, diving, photography	✓	✓	✓	✓	✓ ²	✓	X
Crabbing (trapping)	✓	✓	✓ ³	X	X	X	X
Harvest fishing for aquarium fish, coral and beachworm	Permit	Permit	Permit ¹	X	X	X	X
Harvest fishing for sea cucumber, trochus, tropical rock lobster	Permit	Permit	X	X	X	X	X
Limited collecting	✓ ⁴	✓ ⁴	✓ ⁴	X	X	X	X
Limited spearfishing (snorkel only)	✓	✓	✓ ¹	X	X	X	X
Line fishing	✓ ⁵	✓ ⁵	✓ ⁶	X	X	X	X
Netting (other than bait netting)	✓	✓	X	X	X	X	X
Research (other than limited impact research)	Permit	Permit	Permit	Permit	Permit	Permit	Permit
Shipping (other than in a designated shipping area)	✓	Permit	Permit	Permit	Permit	Permit	X
Tourism programme	Permit	Permit	Permit	Permit	Permit	Permit	X
Traditional use of marine resources	✓ ⁷	✓ ⁷	✓ ⁷	✓ ⁷	✓ ⁷	✓ ⁷	X
Trawling	✓	X	X	X	X	X	X
Trolling	✓ ⁵	✓ ⁵	✓ ⁵	✓ ^{5,8}	X	X	X

PLEASE NOTE: This guide provides an introduction to Zoning in the Great Barrier Reef Marine Park. Relevant Queensland Marine Park Zoning Plans or the Queensland Environmental Protection Agency should be consulted for confirmation of use or entry requirements.

- Restrictions apply to aquaculture, spearfishing and harvest fishing for aquarium fish, beachworm and coral in the Conservation Park Zone.
- Except for One Tree Island Reef (SR-23-2010) and Australian Institute of Marine Science (SR-19-2008) which are closed to public access and shown as orange, all other Scientific Research Zones are shown as green with an orange outline.
- Limited to 4 catch devices (eg. crab pots, dillies and inverted dillies) per person.
- By hand or hand-held implement and generally no more than 5 of a species.
- Maximum of 3 lines/rods per person with a combined total of 6 hooks per person.
- Limited to 1 line/rod per person and 1 hook per line. Only 1 dory detached from a commercial fishing vessel.
- Apart from traditional use of marine resources in accordance with s.211 of the *Native Title Act 1993*, an accredited Traditional Use of Marine Resources Agreement or permit is required.
- Pelagic species only. Seasonal Closures apply to some Buffer Zones.

Detailed information is contained in the Great Barrier Reef Marine Park Zoning Plan and Regulations.

- Permits are required for most other activities not listed above.
- Commonwealth owned islands in the Great Barrier Reef Marine Park are zoned "Commonwealth Islands Zone" - shown as cream.
- All Commonwealth Islands may not be shown.
- Special Management Areas may provide additional restrictions at some locations.
- The Zoning Plan does not affect the operation of s.211 of the *Native Title Act 1993*.

ACCESS TO ALL ZONES IS PERMITTED IN AN EMERGENCY.

On the other hand, a group of stakeholders with strongly held views expressed great dissatisfaction with the rezoning process and questioned the science behind it. This group considered that the Authority lacked accountability and was not only biased but had actively worked against them. The stakeholders expressing such considerable dissatisfaction did so largely in relation to the treatment of recreational and commercial fishing interests and the impacts on associated land-based businesses such as boatyards, bait and tackle suppliers and land-based fish processing and marketing enterprises.

The Review Panel heard a range of stakeholder representations in this regard, of which key elements were:

- perceptions that the objectives and intent of the Representative Areas Programme were not clearly communicated
- unmanaged expectations about the process and achievable outcomes
- inadequate consideration of socio-economic factors
- lack of transparency about the weighting of factors used in decision making
- lack of scientific basis, or 'poor science', for the Representative Areas Programme and for specific zoning decisions
- inadequate arrangements for consultation in some cases and timelines too short for making submissions
- perceptions that the Authority failed to provide adequate explanatory feedback in cases where specific zoning suggestions were not able to be accommodated
- perceptions that there had been inconsistent application of ground rules, lack of natural justice, and in some cases, political interference
- perceptions that the information provided to the Authority by stakeholders was used to close favourite fishing areas.

6.3 Science and policy underpinning the Representative Areas Programme

Two fundamental approaches to marine environment protection underpin the Representative Areas Programme. The first is that of establishing a representative system of Marine Protected Areas to contribute to long-term ecological viability of marine and estuarine systems, maintain ecological processes and protect biological diversity (ANZECC 1999). The second is that a proportion of all Marine Protected Areas should be set aside as 'highly protected' marine sanctuaries, often referred to as 'no-take' zones, which humans can continue to access, but where extractive activities such as fishing and marine collecting are prohibited.

Both these approaches are part of an ecosystem-based approach to marine management that seeks to manage human activities by identifying and addressing their direct and indirect effects on ecosystem components and by integrating planning and management activities across sectors within a defined ecosystem (ANZECC 1999).

Marine Protected Areas and environmental management

The overarching goal of the Representative Areas Programme was to ensure the adequate protection of representative examples of all the areas in the Great Barrier Reef with similar environmental, physical and climatic conditions and characteristic ecosystems of plants and animals. By protecting these 'bioregions', as they are commonly known, biological communities can be better maintained, ecological processes supported and habitats of key species preserved. This helps to ensure that the health and integrity of the

ecosystem as a whole, as well as its component parts, is enhanced and maintained. A healthy ecosystem is more resilient to and can more readily recover from external impacts such as climate change, poor water quality, cyclones, crown-of-thorns starfish and oil spills.

In addition to environmental benefits, a representative system of protected areas can deliver social, cultural and economic benefits. Tourism to the Great Barrier Reef, for example, is highly reliant on healthy ecosystems and pristine environments. Fish stocks can also potentially benefit, as 'no-take' areas can protect fish breeding and nursery areas and allow unhindered development of young fish. Adult fish and their offspring are not confined to the 'no-take' areas and can move into adjoining areas, creating a 'spill-over' effect that can help replenish fish stocks in areas where fishing is permitted. Studies have shown that in highly protected coral reef areas population densities of animals, including fish, can significantly increase over a period of around two to four years (Clark 1989; Polunin & Roberts 1993, 1994; Williamson 2000).

Marine Protected Areas and sustainable fisheries

Ecosystem-based management is not, as discussed above, primarily aimed at managing fish stocks, but is nonetheless closely interlinked with fisheries management measures. Ecosystem-based fisheries management is a recognised approach that looks at the impact of fishing on all aspects of the marine environment, including the impact on the target species, by-catch species, protected species, habitats and communities.

Management of the Queensland East Coast Otter Trawl Fishery provides an example of ecosystem-based management. This fishery has been accredited under the *Environment Protection and Biodiversity Conservation Act 1999*, which requires ecologically sustainable use of natural resources—in this case the fishery. The assessment report for this fishery (DEH 2004), in considering whether it meets the criterion of being 'conducted in a manner that minimises the impact of fishing operations on the ecosystem generally' (DEH 2001), notes that 'the location of a large proportion of the fishery within the Marine Park, which has significant closures implemented to protect ecological values, aids the fishery in meeting this guideline'. Furthermore, the assessment report recommends that there be an investigation of whether the current Marine Park closures are enough to protect the ecosystem generally from the fishery and whether additional closures outside the Marine Park are required.

A representative system of protected areas can therefore be seen to complement and complete fisheries management measures, which in turn complement the sustainable management of the ecosystem as a whole.

Science and policy developments

The principles behind Marine Protected Areas have been debated at length by scientists and policy makers over the past two decades (see Chapter 5), with one of the drivers being a steady deterioration of reefs and associated ocean ecosystems in many parts of the world (Australian Marine Sciences Association 2002, GCRMN 2000, 2004). In 1988, the IUCN (World Conservation Union) recommended establishing a worldwide representative system of Marine Protected Areas to provide for the protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world in perpetuity. This was supported by the World Parks Congress in 1992 and 2003. In 1995, a joint report by the Great Barrier Reef Marine Park Authority, the World Bank and the World Conservation Union (1995) identified priority areas for the establishment and management of a global representative system of Marine Protected Areas across 18 marine regions of the world, including the Great Barrier Reef.

The protection of representative samples of all bioregions within the Great Barrier Reef was foreshadowed in 1994 in the *25 Year Strategic Plan for the Great Barrier Reef World Heritage Area* (GBRMPA 1994). This Strategic Plan was developed by the Australian Government, State and local governments in conjunction

with tourism, commercial and recreational fishing representatives, conservationists and scientists in a joint process with an independent Chairperson. The Plan was developed in consultation with some 60 stakeholders in total.

In 1998 the Government announced Australia's Oceans Policy, in which it committed to an ecosystem-based approach to marine protection and to a national representative system of Marine Protected Areas in Australian territorial waters. In 1999, the Australian and New Zealand Environment and Conservation Council (ANZECC) released its *Strategic Plan of Action for the National Representative System of Marine Protected Areas: A Guide for Action by Australian Governments*, which included the Great Barrier Reef. This was followed by the Australian Government's commitment at the 2002 World Summit on Sustainable Development to establish a representative system of Marine Protected Areas within its jurisdiction by 2012.

A substantial body of scientific opinion has also supported this approach. In 1998, some 1 600 international marine scientists called for an increase in the number and effectiveness of Marine Protected Areas to 20 per cent of Exclusive Economic Zones and the high seas by 2020.¹⁴ In 2001, a statement by 161 leading marine scientists and experts on marine reserves in the United States of America declared marine reserves to be a highly effective tool to help alleviate the 'declining state of the oceans and the collapse of many fisheries' (American Association for the Advancement of the Sciences 2001).

In October 2002, the Centre for Coral Reef Biodiversity at James Cook University in Queensland, with funding from the Queensland Government, invited 15 scientists from the USA, Europe and Australia to participate in a Forum entitled *Managing Coral Reefs in the Face of Global Change*. This Forum brought together for the first time fields such as ecology, geology, palaeontology, oceanography, climatology and economics, and these scientists collectively concluded:

*... over-harvesting and pollution have had major negative impacts on coral reefs over the past two centuries. If these trends continue, coral reefs will decline further, leading to accelerating losses of biodiversity and economic value... We need to better protect food webs and key groups... as insurance for sustainability. 30–50 per cent of reefs should be set aside as no-take zones, for long-term protection, not just of fish, but of entire reef ecosystems.*¹⁵

Extent of protection

At the time the Representative Areas Programme was under development, a number of scientific publications on the establishment of 'no-take' zones sought to estimate the level of protection required relative to the conservation or management objective. A reference list of some 20 such publications is provided at Appendix I. The estimates were developed both through modelling and field studies. The objectives assessed included the management of risk in fisheries, maximisation of fisheries yield, minimisation of by-catch, biodiversity representation, maintenance of genetic variation and connectivity among reserves. The publications covered a broad range of management objectives ranging from fisheries management to ecosystem protection and a high proportion found that to achieve these objectives a range from 20 to 50 per cent of the area needed to be protected as 'no-take'.

In the field, the introduction of zoning to implement 20 per cent 'no-take' areas was announced for the Galapagos Marine Reserve off the coast of Ecuador in March 2000. In late 2004, following the implementation of the Great Barrier Reef Representative Areas Programme, the Western Australian Government announced an increase in the 'no-take' zones in the Ningaloo Coral Reef Marine Park (State waters), from 10 to 34 per cent protection.

¹⁴ *Troubled Waters: A Call for Action*, statement of 6 January 1998, United Nations International Year of the Ocean

¹⁵ International Forum on Threats to Coral Reef Biodiversity, Townsville 14–19 October 2002

6.4 Development and implementation of the Representative Areas Programme

Legislative requirements for Great Barrier Reef zoning plans

The *Great Barrier Reef Marine Park Act 1975* (Part V ss. 32 and 33) sets out the minimum statutory obligations for developing zoning plans for the Marine Park. As soon as practicable after an area has been declared as part of the Marine Park, the Authority must prepare a zoning plan for that area. Zoning plans must have regard to the following objectives:

- conservation of the Great Barrier Reef
- regulation to protect the Marine Park but allow reasonable use of the Great Barrier Reef Region
- regulation of activities that exploit resources in the Great Barrier Reef Region so as to minimise their effect on the Great Barrier Reef
- reservation of some areas of the Great Barrier Reef for appreciation and enjoyment by the public
- preservation of some areas of the Great Barrier Reef in their natural state undisturbed by man except for the purposes of scientific research.

Before preparing a zoning plan the Authority must publicly state its intention to do so through a public notice and must invite representations within a period of not less than one month. Public notice inviting representations is also required in relation to a draft zoning plan. Representations made before the due date must be given due consideration by the Authority. The Authority, after consideration of the representations can, if it thinks fit, alter the plan accordingly and submit it to the Minister to accept it or refer it for further consideration by the Authority. The Minister is required to accept the plan as soon as practicable after receipt, or after alterations to the plan. If the Minister makes alterations to the plan before it goes to Parliament, he or she must also table a report on the amendments.

Zoning plans are disallowable instruments. They must be laid before both Houses of Parliament within 15 days of the Minister's acceptance of the plan. The plan is 'passed' if there is no motion to disallow passed within 15 days of tabling. The plan comes into force on the date specified in the plan. Section 37 of the *Great Barrier Reef Marine Park Act 1975* provides for the Authority to amend or revoke a zoning plan at any time through the same process as specified in ss. 32 and 33.

Objectives and operational principles

The underlying objectives of the Representative Areas Programme were first made public by the Authority in 1999.¹⁶ In accordance with the key principles behind representative Marine Protected Areas, these were stated as

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

In 2000, the Authority established an independent Scientific Steering Committee to develop guidelines for zoning decisions in the Representative Areas Programme. The Committee had expert representation which included CSIRO (the Commonwealth Scientific and Industrial Research Organisation), James Cook

¹⁶ *An Overview of the Great Barrier Reef Marine Park Authority Representative Areas Program* Great Barrier Reef Marine Park Authority May 1999

University, the Cooperative Research Centre for the Great Barrier Reef World Heritage Area, the Australian Institute of Marine Science, the University of Western Australia, Queensland Parks and Wildlife Service and the Queensland Department of Primary Industries and Fisheries. The Committee developed a set of 11 principles, based on the best available scientific information of the time, to inform the zoning process. These *Biophysical Operational Principles* (Appendix H) sought, among other things, to protect a minimum of 20 per cent of each habitat type, to represent the diversity of plants and animals across the range of environments and to protect biophysically special or unique places.

At the same time, an independent Social, Economic and Cultural Steering Committee was established, with representation from the Queensland Department of Primary Industries and Fisheries, the Queensland Seafood Industry Association, the Australian Heritage Commission, James Cook University Department of Tourism, the Australian National University Centre for Resource and Environmental Studies, the Aboriginal Coordinating Council, the Queensland Parks and Wildlife Service and the World Wildlife Fund. This Committee defined a set of *Social, Economic, Cultural and Management Feasibility Operational Principles* (Appendix J), which included such things as maximising complementarity of no-take areas with human activities, recognising social costs and benefits and spatial equity between communities, and maximising public understanding and acceptance of 'no-take' areas.

Both sets of Operational Principles were made publicly available by the Authority and were further refined following public feedback.

Table 6: Representative Areas Programme milestones

Mid-1998–early 2002	Internal commencement in the Great Barrier Reef Marine Park Authority; informal public consultations; key stakeholder briefings; technical workshops, formal communications strategy, <i>Representative Areas Program Update</i> quarterly newsletters
15 April 2002	Declaration of last remaining section of Great Barrier Reef Marine Park, the Far Northern Section
7 May 2002	First Formal Community Participation Phase (CP1) commenced with gazettal of Public Notice to prepare a Draft Zoning Plan
7 August 2002	CP1 closed – 10 190 submissions received
2 June 2003	<i>Great Barrier Reef Marine Park Draft Zoning Plan</i> publicly released, along with <i>Basis for Zoning Decisions Report – Consultation Draft</i>
2 June 2003	Second Formal Community Participation Phase (CP2) commenced
4 Aug 2003	CP2 closed – 21 500 submissions received
October–November 2003	Additional consultation round with key stakeholders
Mid-November 2003	Government endorses the proposed 2003 Zoning Plan
3 December 2003	2003 Zoning Plan, accompanied by socio-economic analysis reports, tabled in Parliament by Minister for the Environment and Heritage, the Hon Dr David Kemp MP
25 March 2004	Announcement by Minister for the Environment and Heritage that 2003 Zoning Plan would come into force on 1 July 2004
1 July 2004	<i>Great Barrier Reef Marine Park Zoning Plan 2003</i> entered into force
November 2005	<i>Report on the Great Barrier Reef Marine Park Zoning Plan 2003</i> released on Great Barrier Reef Marine Park Authority website

The process

The rezoning of the Marine Park was a comprehensive process which stretched over a total of six years (1998–2003). There were 10 distinctive planning phases, which were publicised before and during the process: Classification, Review, Identification, Selection, Formal Input Public Phase 1, Draft Zoning Plan, Formal Input Public Phase 2, Final Zoning Plan, Ministerial and Parliamentary Approval, and Monitoring.

In the final stages the process was particularly intense, with only 18 months between the formal gazettal of intent to rezone, in May 2002, and the tabling in Parliament of the final 2003 Zoning Plan in December 2003. The First Formal Community Participation Phase (CP1) occurred over a three-month period, providing two months longer for stakeholder submissions than the statutory minimum (s. 32(2b)). During this first phase 10 190 public submissions were received. The Authority then had 12 months between the first and second formal consultation phases to prepare the Draft Zoning Plan. The time allowed for the Second Formal Community Participation Phase (CP2) was one month longer than the statutory minimum (s. 32(8)) and this second phase resulted in 21 500 public submissions. The Authority then had three months to analyse the submissions, to review and amend the Draft Zoning Plan and to submit the Plan to government. In this part of the process, some 94 changes were made to the draft plan to reflect community and stakeholder preferences (66 to accommodate fishing interests and 28 for tourism and conservation reasons).

Throughout the process, the Authority met and consulted with large numbers of stakeholders. During 2000 and 2001, the period of informal consultations prior to the first formal phase, it held over 140 meetings with more than 1 800 people. In 2002 and 2003, during the two formal consultation phases, the Authority held a further 500 meetings with over 6 000 people.

The 2003 Zoning Plan – allocation of zoning

During 1998 and 1999, the Authority began mapping the biological and physical diversity of the Great Barrier Reef Marine Park. More than 40 sets of biophysical, biological and oceanographic data were compiled and, in consultation with experts and community stakeholders, 70 biologically distinct habitat types, or 'bioregions', were identified across the Marine Park as the fundamental basis for zoning decisions.

The starting point for the process of developing the Draft Zoning Plan was to collate the information on bioregions with other available data. Computer software called MarXan, specifically developed for reserve design,¹⁷ was used to integrate the layers and sets of information, for example, on bioregions, fishing effort, minimum protection levels and special and unique sites, to produce 'optimal' networks of 'no-take' areas.

A dedicated planning team within the Authority, with both geographic and sectoral expertise, then augmented and refined these 'optimal' proposals by considering additional information including economic and social principles, views expressed in the public submissions, local knowledge and other feedback.

Each of the nearly 32 000 submissions received from the two formal consultation processes was scanned by the Authority, analysed, codified and the contents entered into a database. This information was then able to be sorted and recalled in different groupings such as geographical location, affiliations, user groups, expertise or points of view.

The Authority also gathered a wide range of additional information and data to inform the Draft Zoning Plan, including commercial fishing logbook data, recreational fishing data, logbooks and diaries, interview and questionnaire data, existing Marine Park zoning, permits, State fisheries closures within the Marine Park, State zoning of adjacent land and waters, boat ramps, moorings and anchorages, Native Title claims,

¹⁷ Used in the design of parks and reserves, this software takes into account desired outcomes (in terms of amounts of protection) and considers constraints (e.g. existing protected areas, popular fishing areas). The software then suggests an optimal network.

Aboriginal and Torres Strait Islander databases for the Register of the National Estate, historic heritage places and historic shipwrecks, tourism usage data, Cairns Area and Whitsundays Plans of Management, shell collecting areas and Coastwatch aerial surveillance data.

6.5 Public consultation on the rezoning process

Close community and stakeholder involvement in the rezoning exercise was regarded as key by the Authority and provision for wide public consultation was an integral part of the rezoning process. An internal Communication Plan was developed in 1999 and in it the Authority articulated a belief that strong community ownership of the zoning outcomes would be critical to the success of the Representative Areas Programme.

Throughout the process, the Authority maintained regular communication with key stakeholders and the general public, both before, during and after the formal consultation periods. Regular public newsletters called *Representative Areas Program Update* were issued with detailed information and progress reports on the planning process. Around 40 fact sheets covering scientific, technical and planning issues relating to the rezoning were widely distributed, and several information sheets covering Frequently Asked Questions were released.

The Authority recognised that the zoning changes would have particular impacts for commercial and recreational fishers and it began formal consideration of associated communication needs in 1999. The strategies it adopted included regular briefings to the fisheries-related Marine Advisory Committees and presentations and face-to-face contact with peak bodies such as the Queensland Seafood Industry Association and Sunfish, which represented recreational fishers. The Authority also communicated through industry newsletters, radio broadcasts, information mail-outs, briefings at industry events and representation at boat shows and fishing expos. The Queensland Fishing Industry Development Council received three-monthly formal updates on the rezoning process from senior Authority staff, as well as regular informal briefings.

The Authority held a total of 360 meetings with fishing stakeholders between June 1999 and November 2003, and 20 debriefing sessions were conducted in June and July 2004. During the final months, the Authority had numerous exchanges with peak fishing groups to try to reach solutions that would satisfy the needs of fishers as well as those of other stakeholders, as well as respecting the Biophysical Operational Principles and the rezoning objectives.

During the development of the 2003 Zoning Plan, more than 66 major changes were made to the Draft Zoning Plan to accommodate submissions and representations by the commercial and recreational fishing sectors. As the final zoning proposals neared submission to Parliament, briefings were arranged for fishing peak bodies and local Federal Members of Parliament.

Table 7: Overview of public communications and consultation

May 1999	Formal advice to the public with release of booklet <i>An Overview of the GBRMPA Representative Areas Program</i>
May 2000	<i>RAP Update 1</i> – outlined objectives, process, definitions, procedure for public input and timelines
September 2000	<i>RAP Update 2</i> – sought public comment on draft map of bioregions through formal questionnaire
October–December 2000	Over 300 people attended workshops on rezoning, including peak bodies, recreational fishers, tourism operators and Local Marine Advisory Committees (LMACs)
July 2000–July 2001	The Authority held over 140 meetings with over 1 500 stakeholders, including Sunfish, Queensland Seafood Industry Association, Australian National Sportfishing Association, Landcare, LMACs, Reef Advisory Committees, conservation groups, marine tourism industry associations, regional yachting and motor boat clubs, the Great Barrier Reef Consultative Committee, and the Queensland Government
March 2001	<i>RAP Update 3</i> – advised 9 fundamental changes occurring to bioregions on basis of public feedback. New maps available on web and in hard copy
December 2001	<i>RAP Update 4</i> – advised identification of 70 bioregions and their boundaries, outlined existing levels of protective ‘no-take’ zoning
May–August 2002 (CP1)	<ul style="list-style-type: none"> • Over 200 formal meetings with approx 6 000 people • Community information sessions in 22 regional centres • 33 000 submission brochures distributed • 4 000 calls to toll-free number, 38 000 hits on website • 60 radio spots, 10 TV spots, over 100 newspaper articles • Approx 70 newspaper ads in 20 regional papers • <i>Correcting Misinformation</i> fact sheet distributed to counter claims that the Authority had already predetermined locations of Green Zones • <i>GBR Under Pressure</i> TV campaign • Briefings for Queensland Members of Parliament and Members of the Legislative Assembly
September 2002	Release of <i>Correcting Misunderstandings and Providing Facts about RAP</i> , refuting claims that the Authority was targeting people’s favourite fishing areas for closure; refuting claims of ‘secret lines’ on the maps; confirming reef line and inshore net fisheries management were a Queensland responsibility
October 2002	<i>RAP Update 5</i> – feedback on CP1; update on process; feedback on public comment; listed available public documents
March 2003	<i>RAP Update 6</i> – summarised key themes in public submissions; listed available complementary information to the Draft Zoning Plan
June 2003	<i>Basis for Zoning Decisions Report</i> publicly released to accompany Draft Zoning Plan, giving detailed explanations of reasons for zone allocation
June–August 2003 (CP2)	<ul style="list-style-type: none"> • <i>Great Barrier Reef – Let’s Keep it Great</i> TV ad campaign • 17 RAP Information Sheets • More than 300 meetings along the Great Barrier Reef coast • 76 000 maps, 57 000 submission forms, 29 000 explanatory brochures, 2 100 CD-ROMs distributed • More than 500 media reports, 88 newspaper ads • 2 000 calls to toll-free number; 35 000 hits on website (63% from Australia)

6.6 Synopsis of the Representative Areas Programme process and key issues

The development of the Representative Areas Programme and its implementation through the *Great Barrier Reef Marine Park Zoning Plan 2003* was an extensive undertaking by any measure, for which there was no precedent in terms of scale, scope and process. The most important component, the development of the final 2003 Zoning Plan, was undertaken in the last six months of what was a six-year process.

With nearly 32 000 submissions, very large numbers of stakeholders were actively engaged in the process and there were high expectations that all suggestions could be accepted and implemented. The Review Panel considers that the Authority made extensive efforts to achieve effective engagement with stakeholders on the zoning process with the aim of delivering a balanced outcome. However, some key stakeholders perceived that the process did not provide sufficient transparency and accountability to meet their expectations.

The 2003 Zoning Plan brought about an overall increase in the level of protection across the Marine Park that went beyond the highly protected 'no-take' zones. This further increased the volume of analytical work in handling the submissions. The timeframe, process and resources however were finite and were stretched to accommodate these important additional dimensions.

The development of the Representative Areas Programme drew on well-considered scientific and policy approaches. The volume of documentation and amount of web-based information made available by the Authority was extensive, and a large number of meetings with stakeholders took place. The Authority analysed all public submissions and appointed an expert team, aided by specialist software, to integrate stakeholder views with environmental objectives, Operational Principles and other relevant data to achieve a balanced outcome.

The 2003 Zoning Plan changes for the Marine Park occurred at a time when a number of fisheries management controls were introduced by Queensland, and mirror zoning of the State coastal marine park was also introduced.

The Authority made a considerable effort to balance differing stakeholder requirements and to achieve compromise outcomes between key stakeholder groups, and many stakeholders did feel that they were heard and valued and were largely satisfied with the outcome. The Authority relied on an iterative approach of engagement with different stakeholders to develop the final, 2003 Zoning Plan. The Authority sought to achieve mutually acceptable outcomes wherever possible whilst adhering to the published Biophysical, and Social, Economic, Cultural and Management Feasibility Operational Principles. While a report, *Basis for Zoning Decisions*, (GBRMPA 2003a) was issued with the Draft Zoning Plan, the equivalent debriefing document on the outcome of the final 2003 Zoning Plan was not available until November 2005 (GBRMPA 2005a).

The perceptions of some stakeholders were that the scientific evidence for the Representative Areas Programme was either lacking or not made available in a way that was clear and compelling. Stakeholders in recreational and commercial fishing largely held strong views that their concerns were unheard and considered the engagement and outcome biased against them. A number expressed mistrust of the Authority and a concern that there was not a clear process for making individual resource allocation decisions on alternative or competing uses. Some of these stakeholders considered that the Authority had actively worked against them to close favourite fishing locations. This view was heightened because no explanation or rationale for changes between the draft and final zoning plans was publicly available at the time the final 2003 Zoning Plan was tabled in Parliament.

Commercial and recreational fishing stakeholders and those involved in the associated upstream and downstream industries also considered that the social and economic impacts of the Zoning Plan on their businesses had not been adequately taken into account. Some of these stakeholders expressed the

view that the Zoning Plan had made their businesses marginal or uneconomic and that the high-level aggregate economic analysis of the Zoning Plan changes was flawed in not making the extent of this problem apparent.

The Review Panel considered that these views on engagement with recreational and commercial fishers and socio-economic impacts of the Zoning Plan warranted more detailed examination, in particular as these impacts appeared to be locally very intense in some areas. The development of the zoning in regard to fishing activities and the nature of the socio-economic analysis undertaken is therefore considered in Chapters 10 and 11 of this report.

Section 6.7 below provides an overview of the evolution of zoning and the respective impacts at an aggregate level on commercial and recreational fishing and on shipping. Section 6.8 examines at a local level how the Representative Areas Programme integrated competing stakeholder interests with planning objectives, using the Capricorn Bunker Region as a case study.

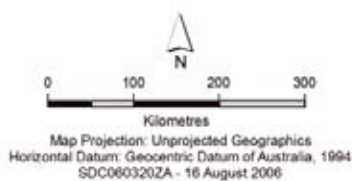
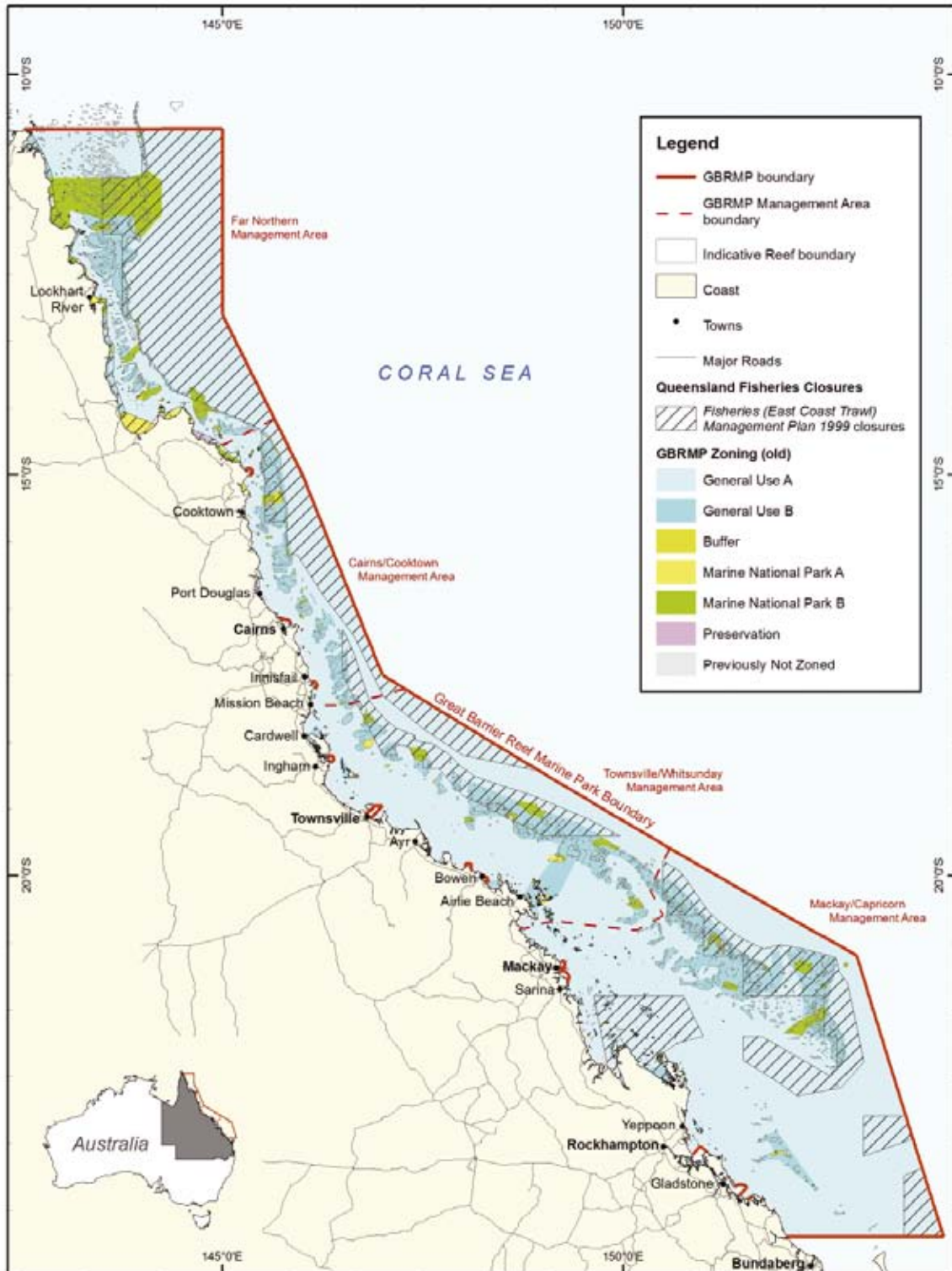
6.7 How user activities were addressed in the *Great Barrier Reef Marine Park Zoning Plan 2003*

The following section presents a series of maps that show at an aggregate level how zoning evolved in the Great Barrier Reef Marine Park during the Representative Areas Programme, and illustrate the way in which various uses of the Marine Park have been considered in reaching the final zoning proposals for the 2003 Zoning Plan.

Table 8: Summary of maps

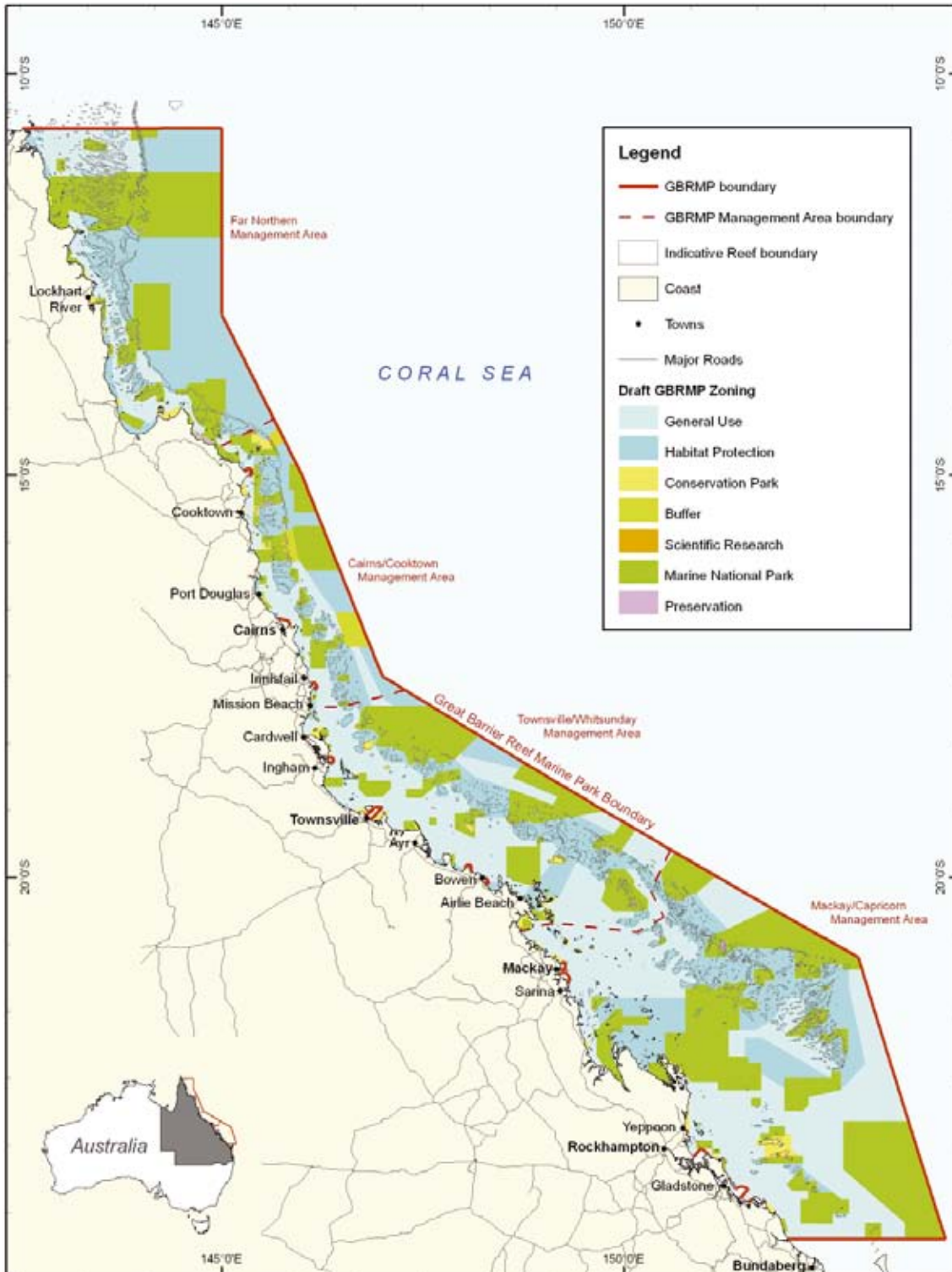
Map 9	Marine Park zoning prior to July 2004
Map 10	Draft zoning developed during the Representative Areas Programme
Map 11	Zoning under the final <i>Great Barrier Reef Marine Park Zoning Plan 2003</i>
Maps 12–15	Zoning overlaid on fishing data, showing that, at an aggregate level, the areas of highest use by and greatest value to commercial fishers remain largely outside areas closed to relevant fishing activities
Map 16	Illustrates that the 2003 Zoning Plan provides security of access for shipping, through Designated Shipping Areas
Map 17	Shows how the 2003 Zoning Plan closures relate to areas used by recreational fishers, based on recreational fishing diary data collected by the Queensland Government

Map 9: Great Barrier Reef Marine Park zoning prior to 1 July 2004



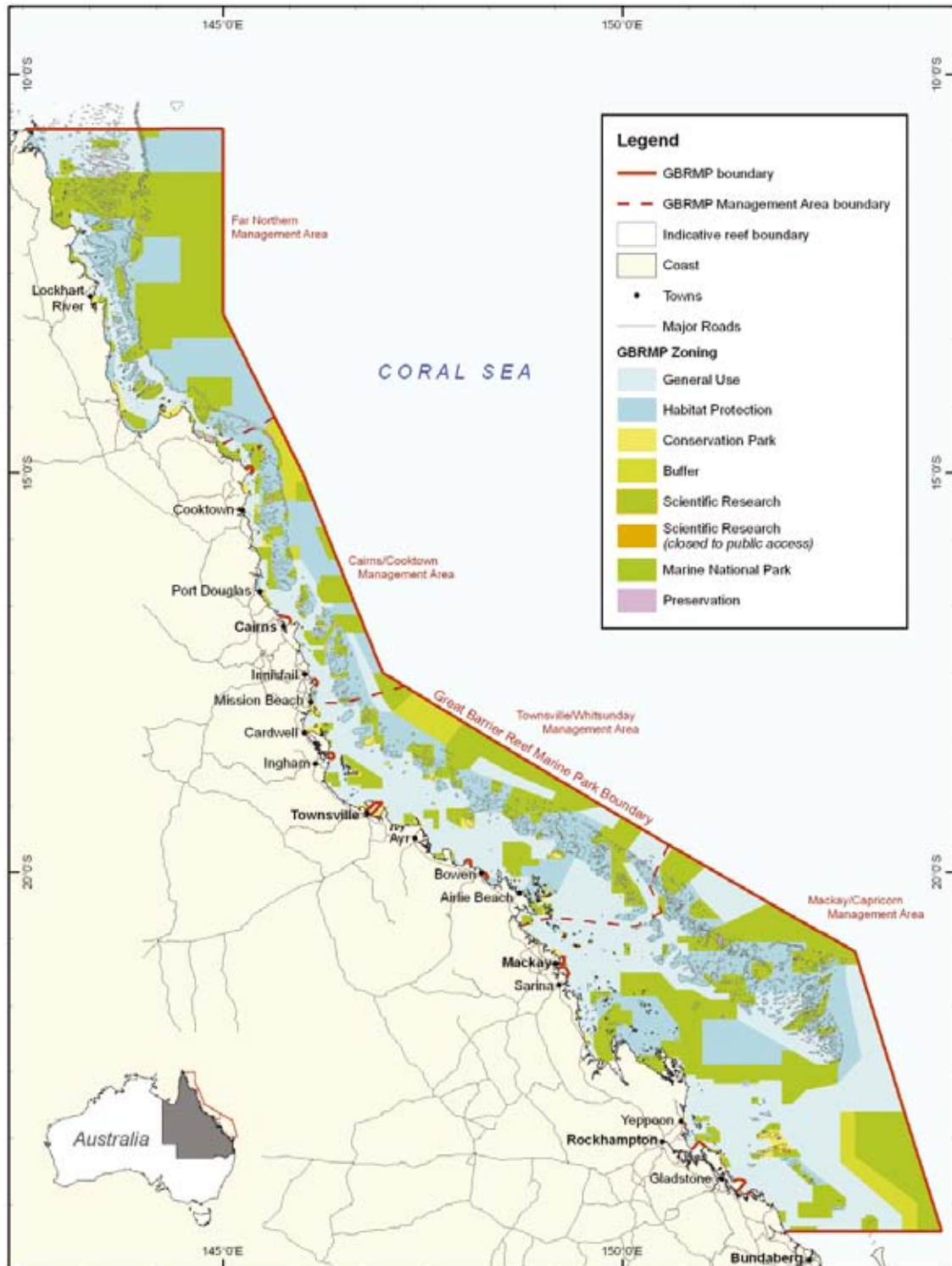
This map shows the zoning of the Great Barrier Reef Marine Park prior to the rezoning. The areas shown with hatching on this map were already closed to trawling under Queensland legislation, *Fisheries (East Coast Trawl) Management Plan 1999*.

Map 10: Great Barrier Reef Marine Park Draft Zoning Plan June 2003



The Draft Zoning Plan was developed after consideration of available natural resource, social, economic and cultural information, as well as management issues and public input. The Draft Zoning Plan built upon the framework established by previous zoning plans, and provided for the first time, zoning of 28 new coastal areas added to the Great Barrier Reef Marine Park between 2000 and 2001.

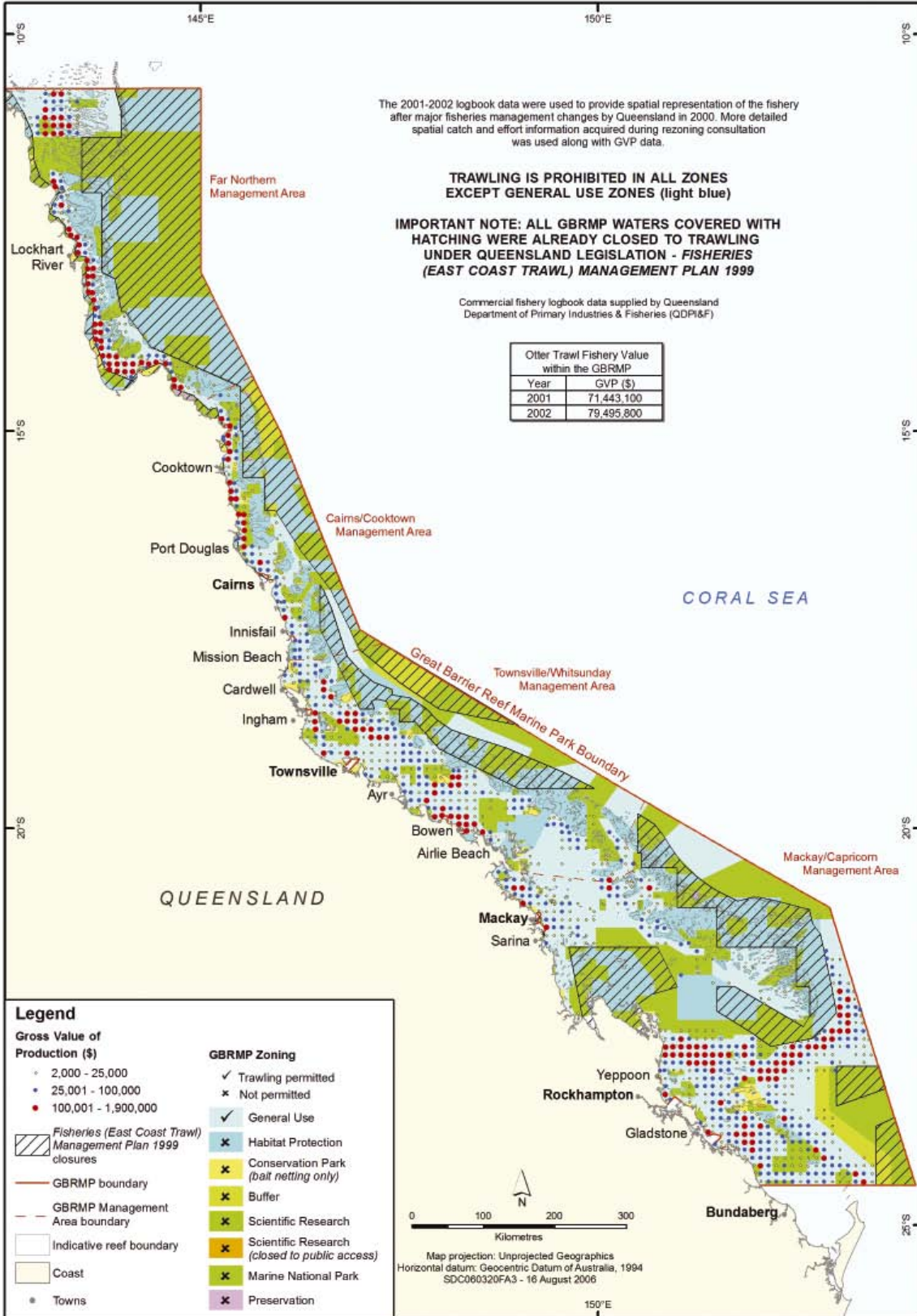
Map 11: Zoning introduced in July 2004 by the *Great Barrier Reef Marine Park Zoning Plan 2003*



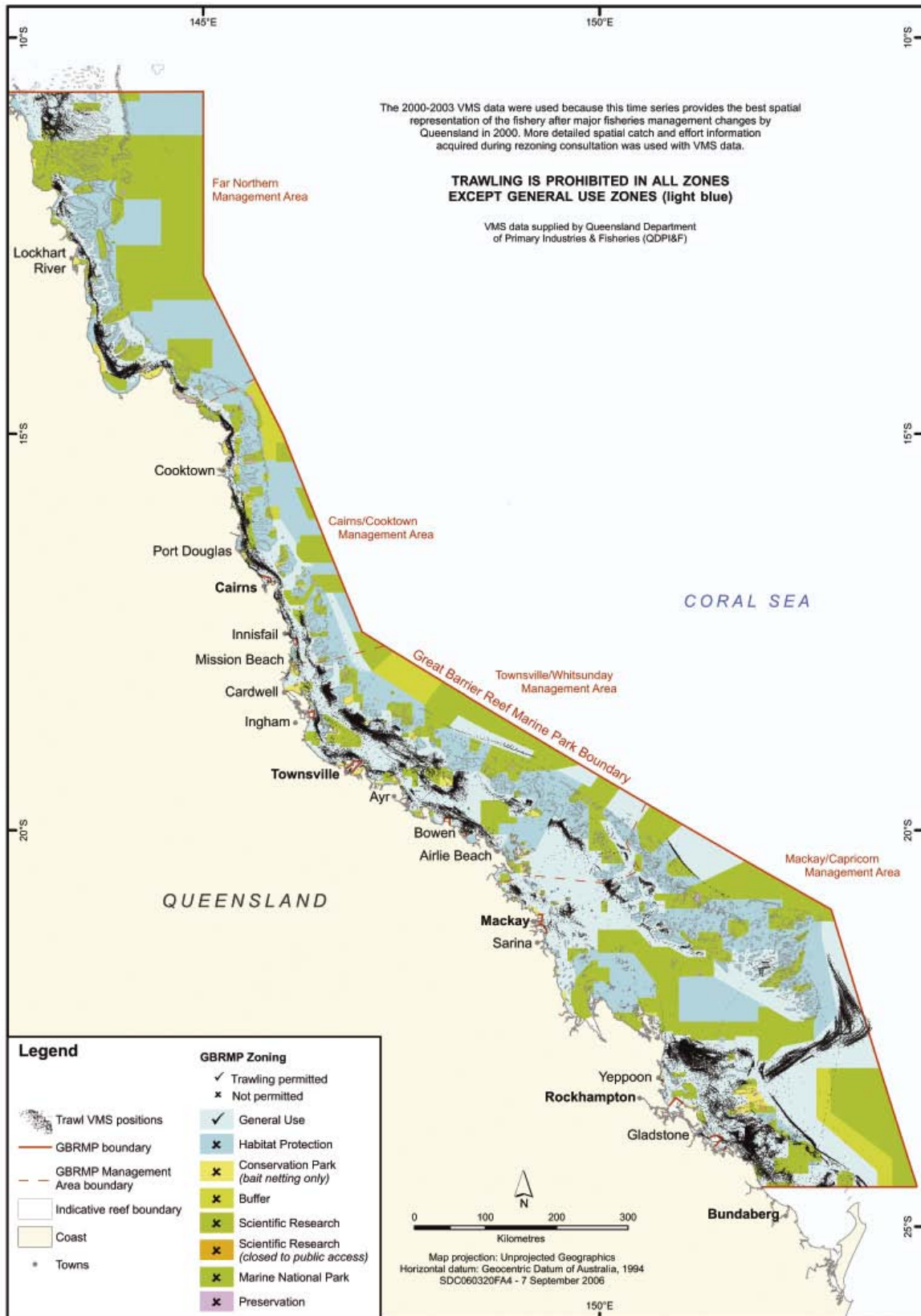
0 100 200 300
Kilometres
Map Projection: Unprojected Geographics
Horizontal Datum: Geocentric Datum of Australia, 1994
SDC060320ZC - 16 August 2006

The final zoning for the Great Barrier Reef Marine Park involved consideration of all submissions received during both phases of Community Participation, together with all other available information about the known uses and values for the Marine Park, including ecological, social, cultural and economic information (e.g. commercial and recreational datasets). The final zoning was the result of a weighing up of all uses (often conflicting) and values of the area, whilst maintaining the planning principles. In some areas, the final zoning was a compromise, and no one sector or individual's requests could be totally met in the planning process.

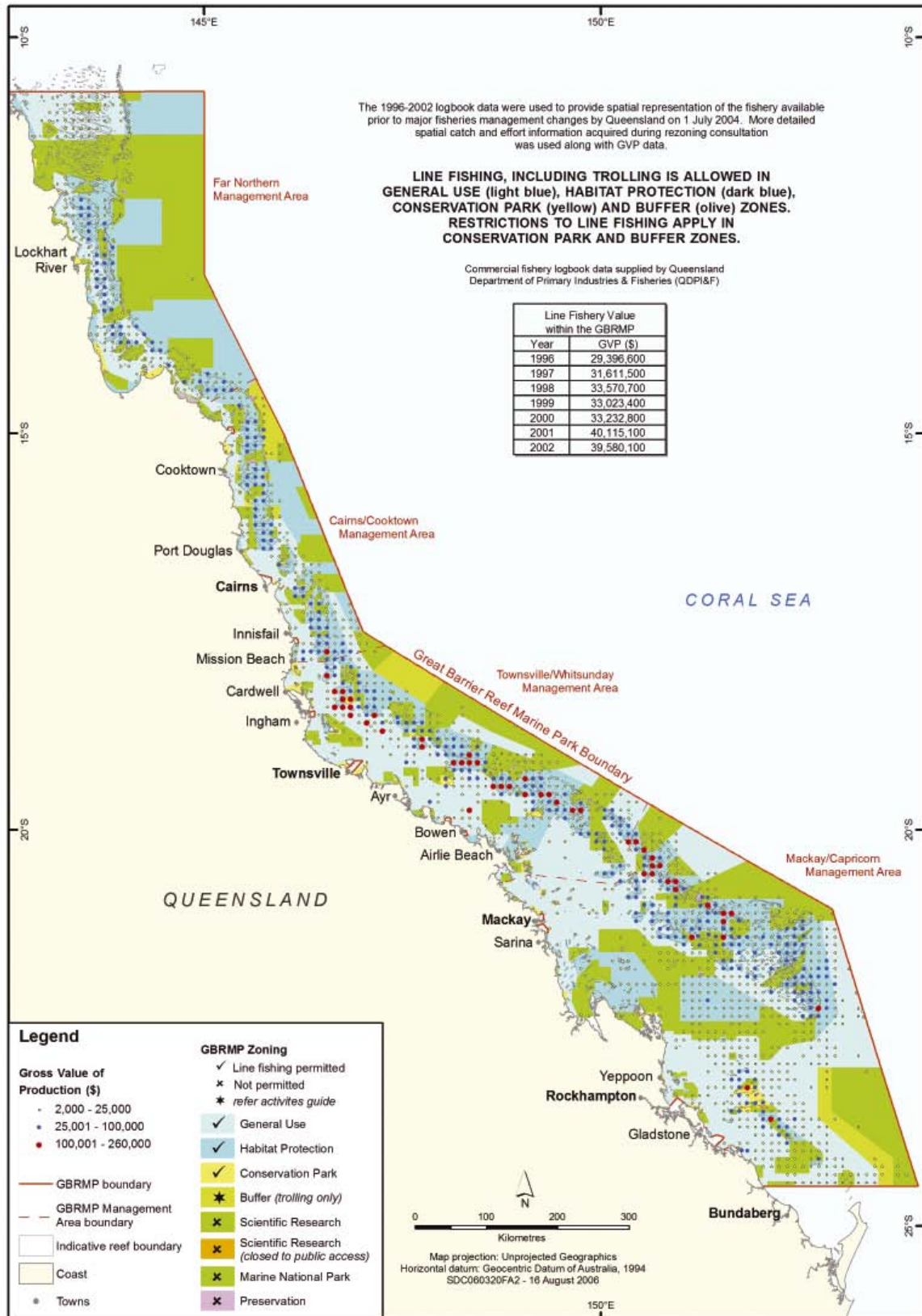
Map 12: East Coast Otter Trawl Fishery Gross Value of Production and the 2003 Zoning Plan



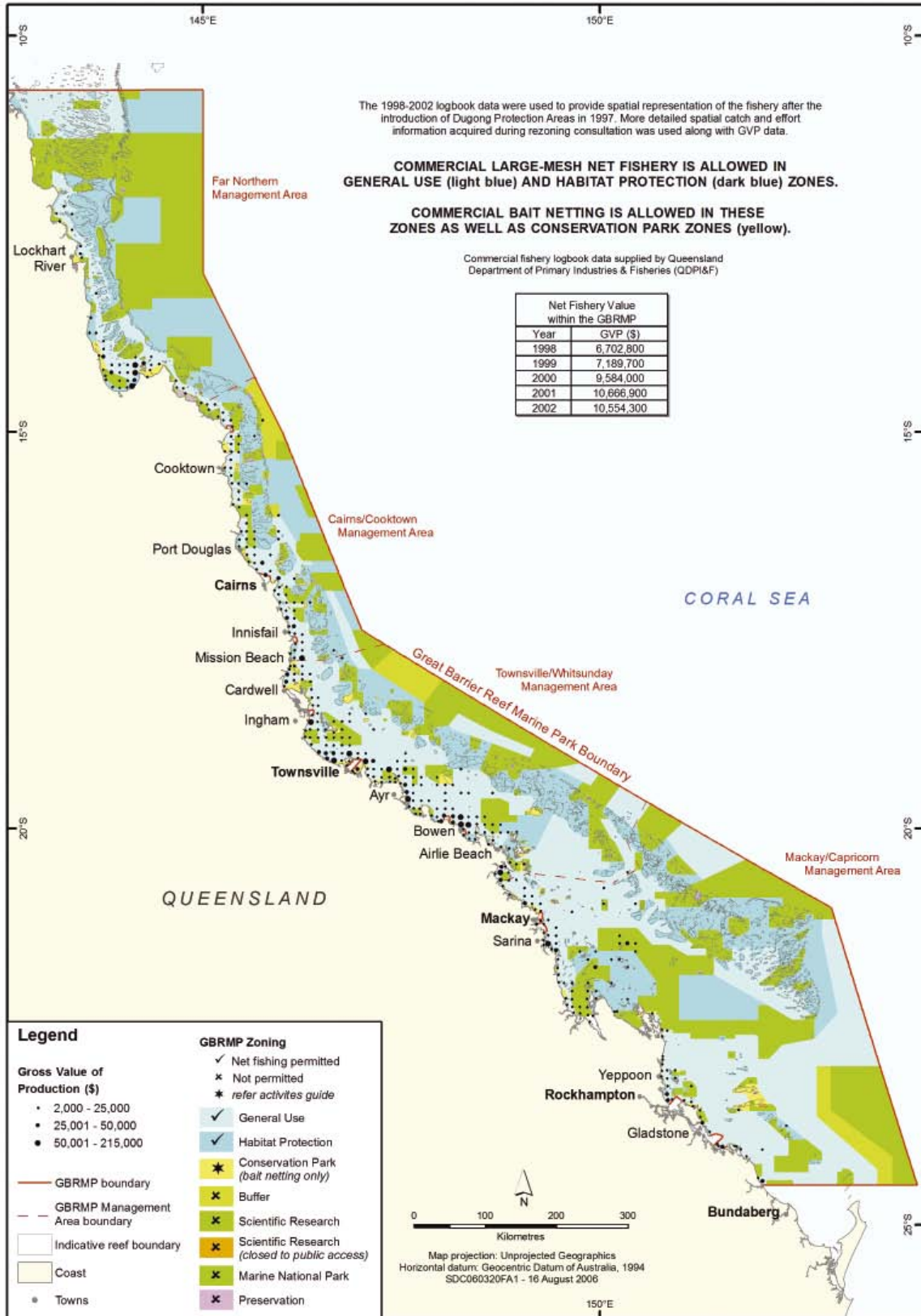
Map 13: East Coast Otter Trawl Fishery Vessel Monitoring System data and the 2003 Zoning Plan



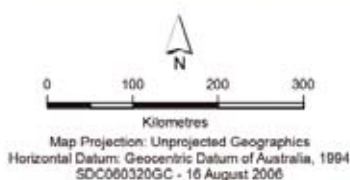
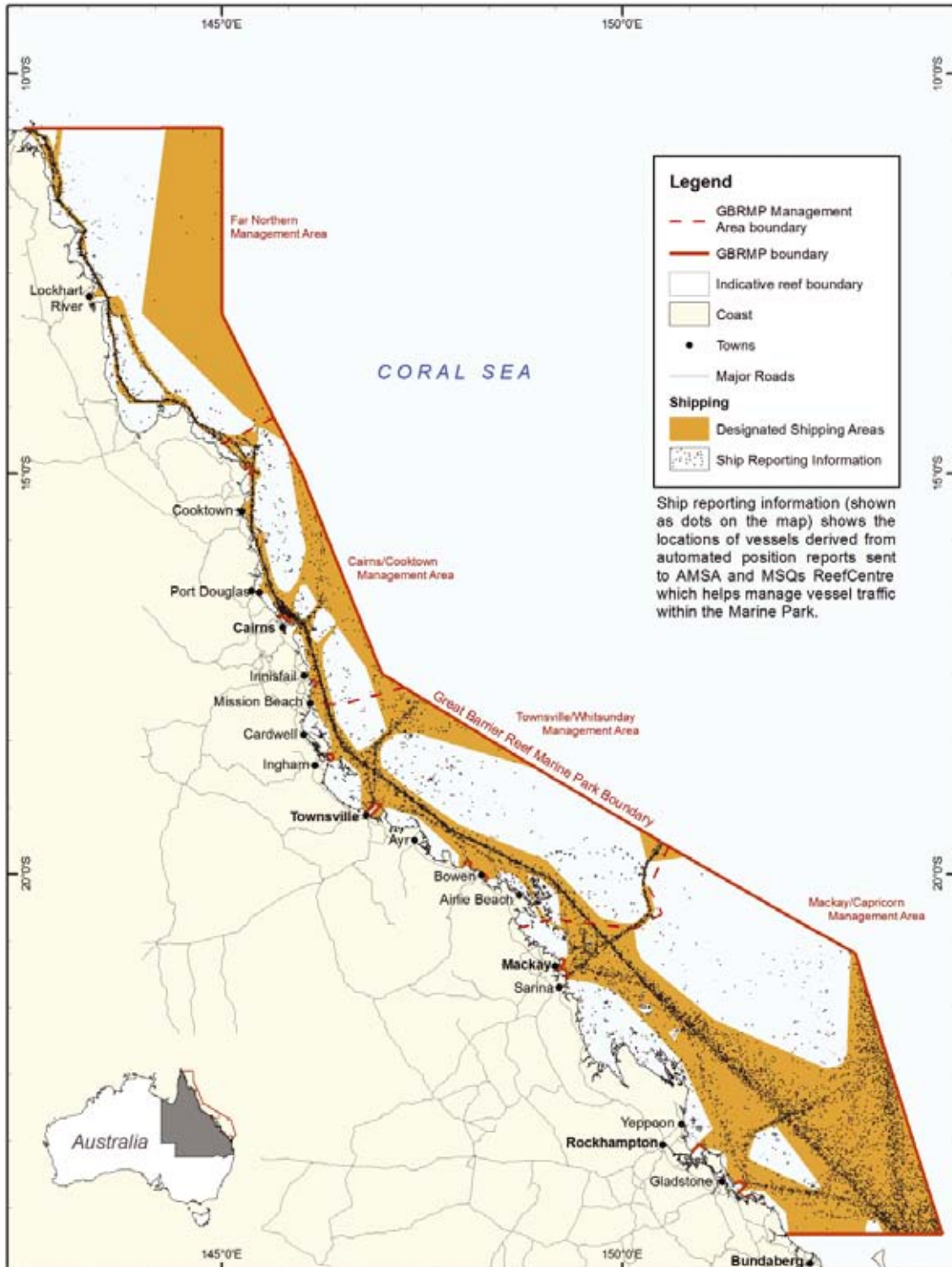
Map 14: East Coast Line Fishery Gross Value of Production and the 2003 Zoning Plan



Map 15: East Coast Net Fishery Gross Value of Production and the 2003 Zoning Plan

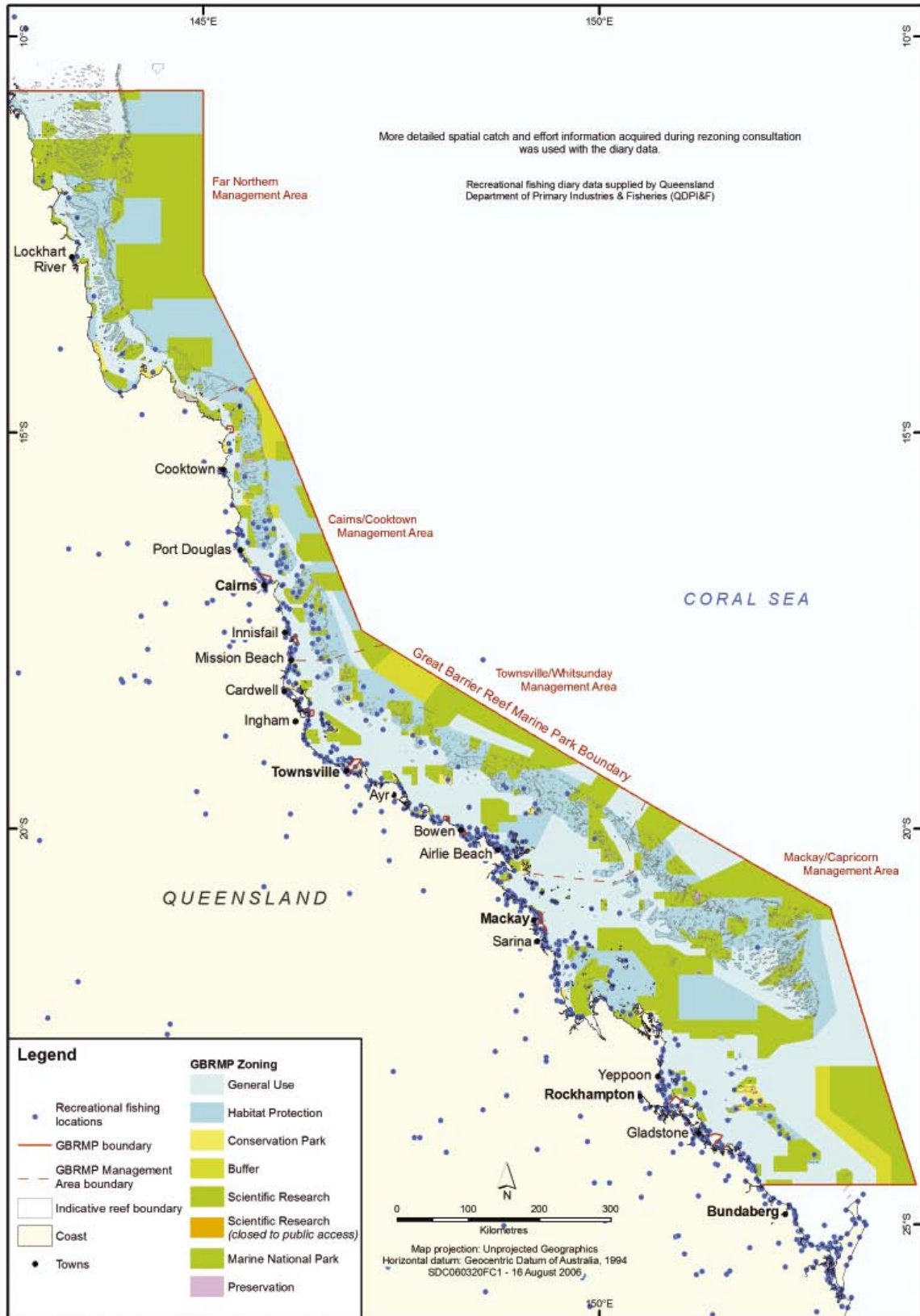


Map 16: Ship reporting information and Designated Shipping Areas in the 2003 Zoning Plan



Shipping is an important user of the Great Barrier Reef Marine Park. Approximately 6,000 ship movements of large vessels in excess of 50 metres in length occur within the Great Barrier Reef and Torres Strait region every year. This map shows the designated shipping areas developed for the final Zoning Plan, and the ship reporting data that helped develop them. The designated shipping areas take into account past and forecast vessel usage patterns in the inner and outer shipping routes, existing recommended tracks and proposed new routes.

Map 17: Recreational fishing diary data and the 2003 Zoning Plan



6.8 Case study of zoning plan development in the Capricorn Bunker Region of the Great Barrier Reef

This section presents a case study that shows at a local level how zoning proposals were developed for one area of the Marine Park. The Review Panel considered five case studies that examined the development of zoning proposals in areas where stakeholders had raised concerns about the process and its outcomes at a local level. The case study presented, of the Capricorn Bunker Region, was chosen as a representative illustration of the way in which the Authority applied the zoning process. The case study looks at the key information sets that were used, such as bioregion location, fishing effort and special sites, and how competing socio-economic and conservation objectives were considered in the development of the draft and final Zoning Plans.

The Capricorn Bunker Region is located off the Queensland coast between Rockhampton and Gladstone (Map 18). The area includes six bioregions, three of which are unique to the area and found in no other part of the Marine Park (Map 19). The Capricorn and Bunker Group of islands and reefs are an important habitat for threatened turtle species such as the loggerhead, green, and hawksbill turtles. The area is part of the Capricornia Cays National Park and includes significant seabird nesting sites.

There are important commercial fisheries operating in the Capricorn Bunker Region. These include otter trawl and line fisheries, a commercial aquarium fishery, and a large proportion of the Queensland Spanner Crab Fishery. The area is also popular with recreational fishers. Many of the islands are popular holiday spots and tourism is an emerging market in the area. In recent years, visitor numbers have increased significantly.

Over 1 150 submissions on the Draft Zoning Plan commented specifically about the Capricorn Bunker Region or the surrounding related areas. Significant changes were made from the Draft Zoning Plan to the final 2003 Zoning Plan in this area as a result of the information provided by stakeholders in submissions and further consultations with the users of the area. In summary, the major changes to accommodate competing user interests were:

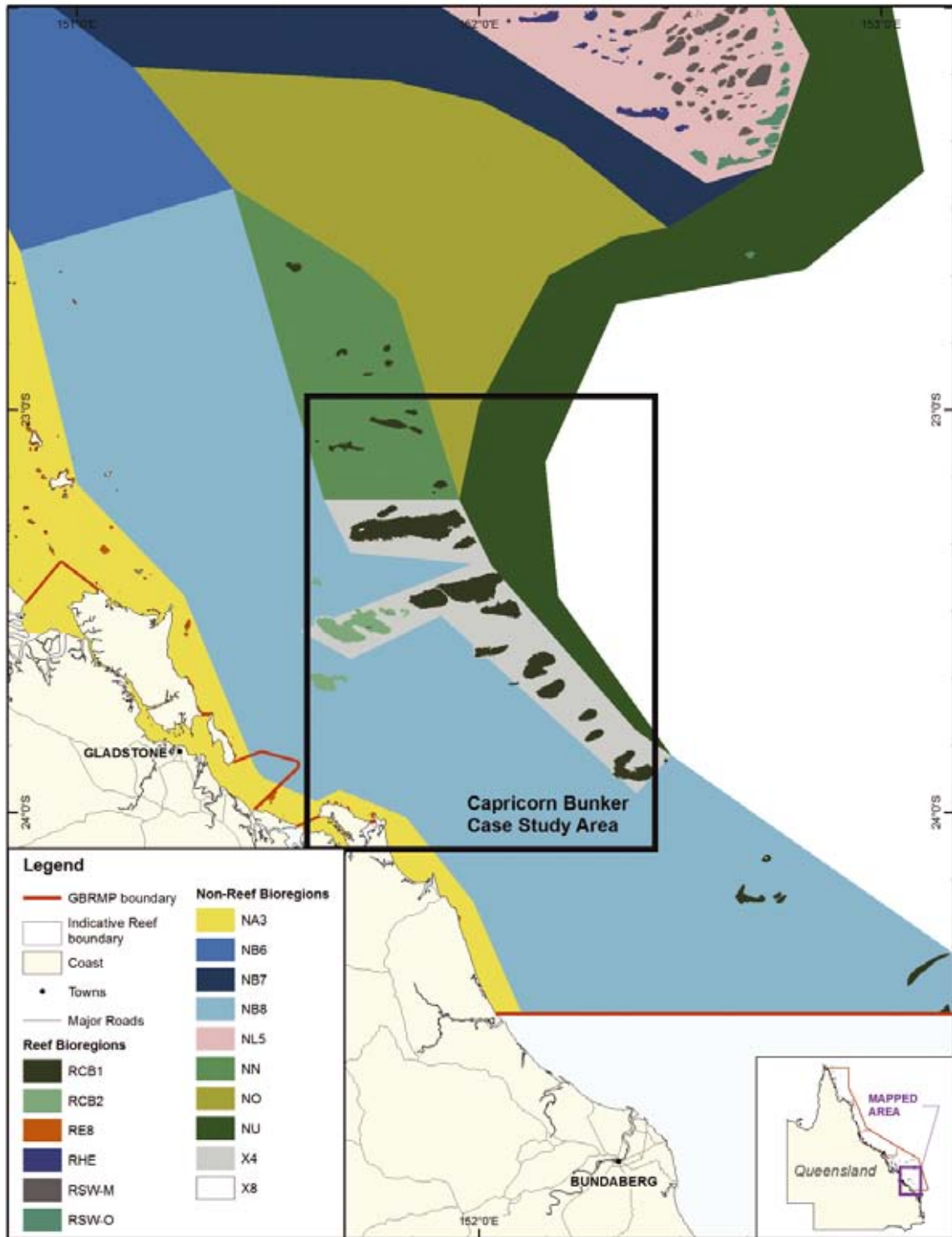
- All boundaries of Green, Yellow and Dark Blue Zones¹⁸ were reduced to avoid impact on trawl and line fishing.
- The Green Zone in the southern Capricorn Bunker Group was moved further south to avoid important spanner crab and trawl fishing grounds.
- The North West Island Green Zone was modified to help improve public understanding of its location and to reduce the impact on the commercial aquarium fishery.
- The Green Zone surrounding Wilson Island, which complements tourism use of this area and protects a bioregion, was not extended, as proposed in some submissions, to reduce the impact on the line fishery.
- Mast Head Island was excluded from the Green Zone to reduce impacts on commercial line and aquarium fisheries, and recreational fishing.
- The Green Zone surrounding the One Tree Island Orange Zone was substantially reduced to allow for recreational drift fishing and commercial line fishing.
- The Orange Zone around Heron Island was reconfigured to reduce impacts on tourism use.

¹⁸ See Figure 7 for explanation of zoning.

Table 9: Case study maps

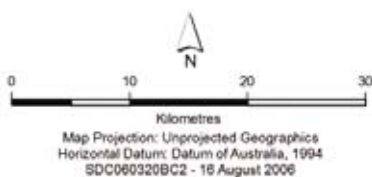
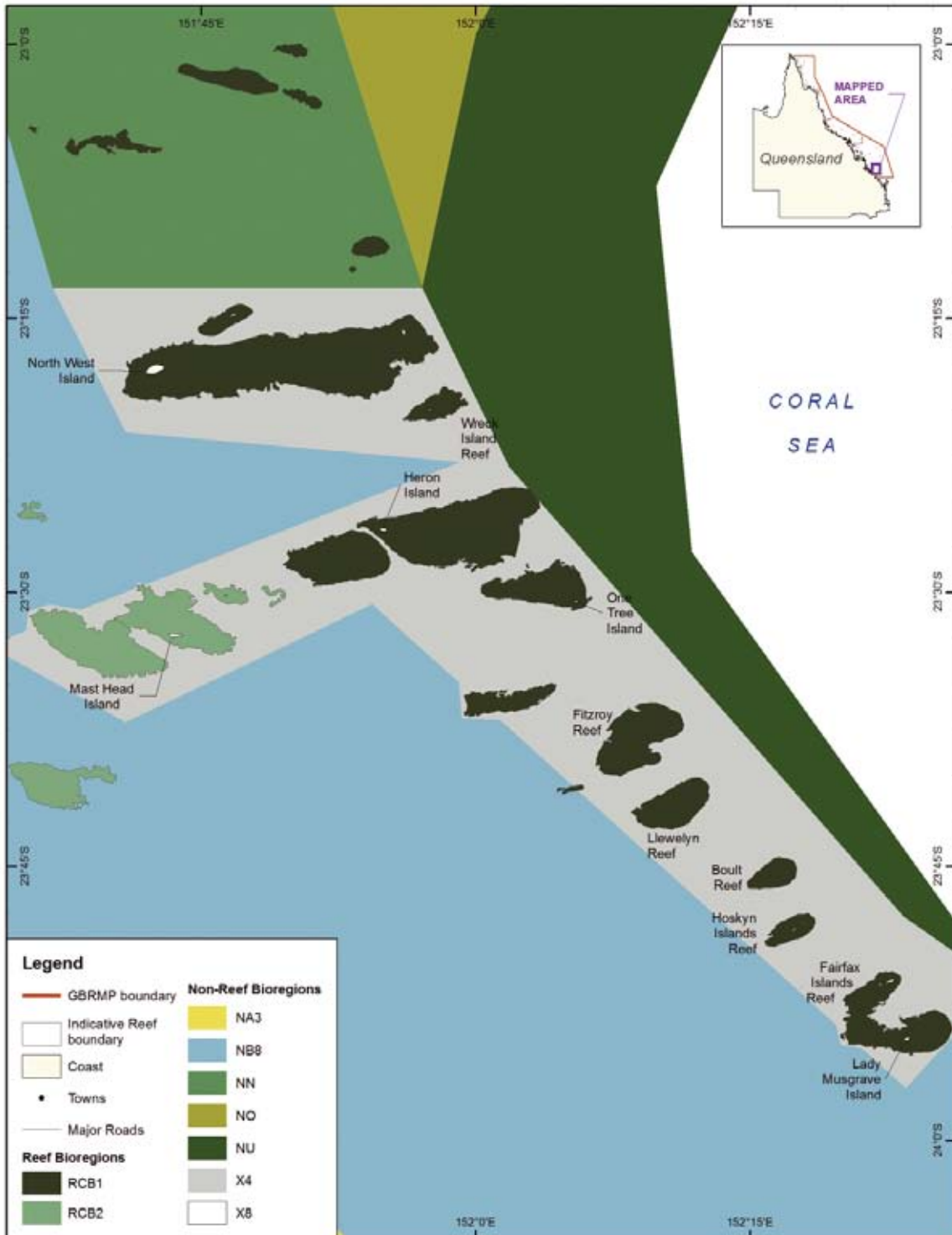
Maps 18–19	Reef and non-reef bioregions in the case study area
Maps 20–22	Data on fishing Gross Value of Production considered in developing the zoning
Map 23	Areas identified by stakeholders as important in the first round of public consultation
Map 24	Draft Zoning Plan for Capricorn Bunker case study area
Map 25	Areas of key concern raised by stakeholders in the second round of public consultation
Map 26	Key stakeholder issues reflected in final changes to 2003 Zoning Plan
Map 27	2003 Zoning Plan for the case study area

Map 18: Capricorn Bunker Region – bioregions on broad scale



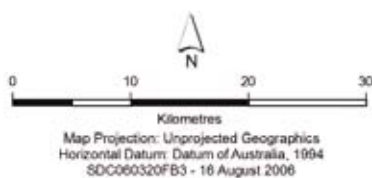
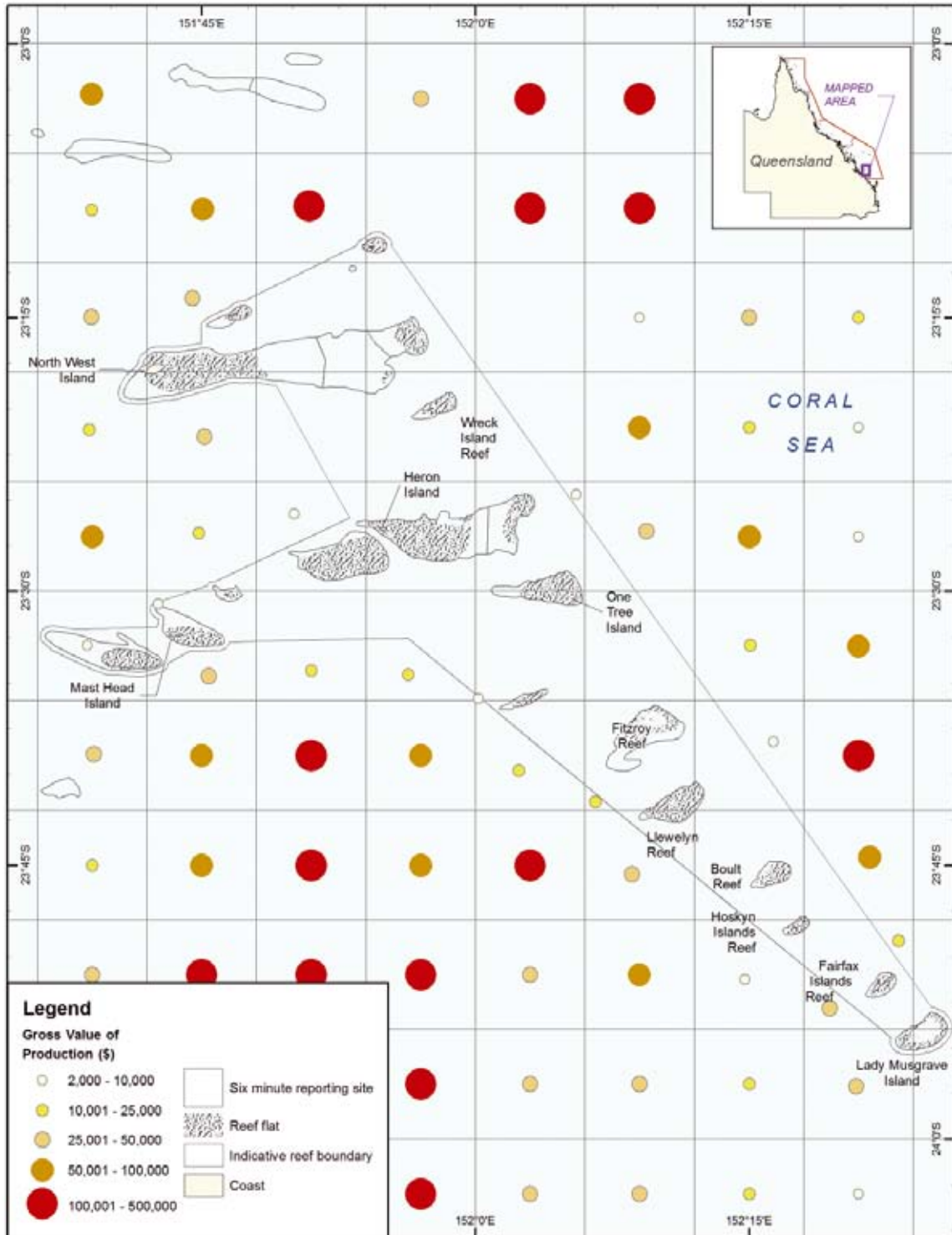
This map shows the reef and non-reef bioregions within the case study area. These regional-scale maps show that most bioregions extend well past the case study area, and consideration of bioregions and meeting the principles Great Barrier Reef wide were both fundamental aspects of the planning considerations.

Map 19: Case study area – reef and non-reef bioregions



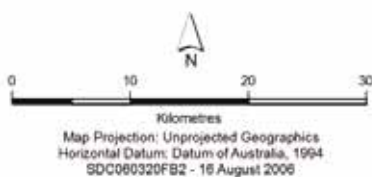
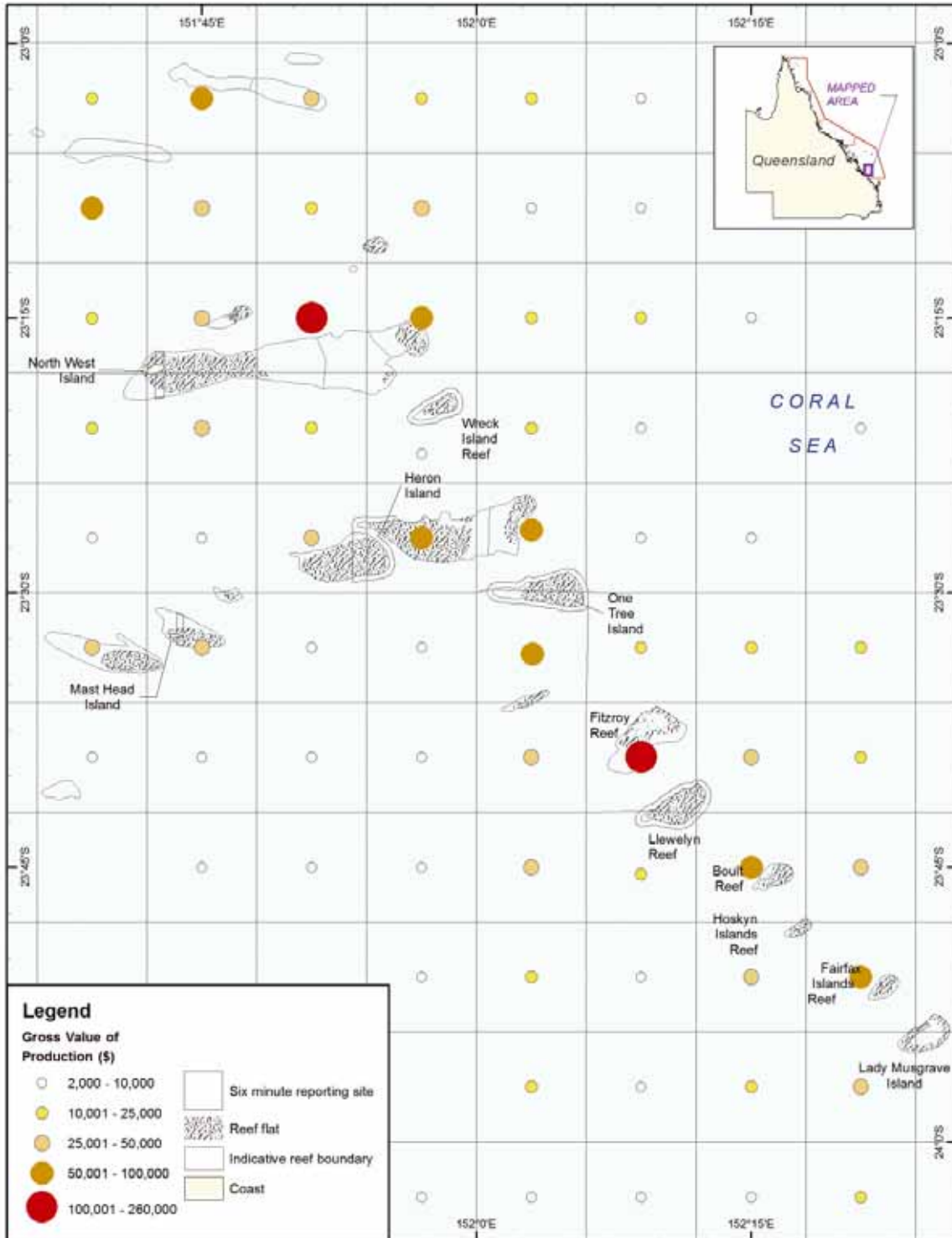
Many of the bioregions depicted above are part of larger bioregions that extend past the area of this map. Consideration of the entire bioregion as well as biophysical operational principles (e.g. protecting a minimum of 20% of each bioregion) were necessary when developing and refining the draft and final Zoning Plan.

Map 20: Case study area – East Coast Commercial Otter Trawl Fishery average Gross Value of Production (GVP) 2001–2002



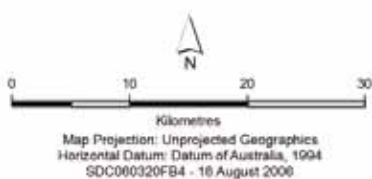
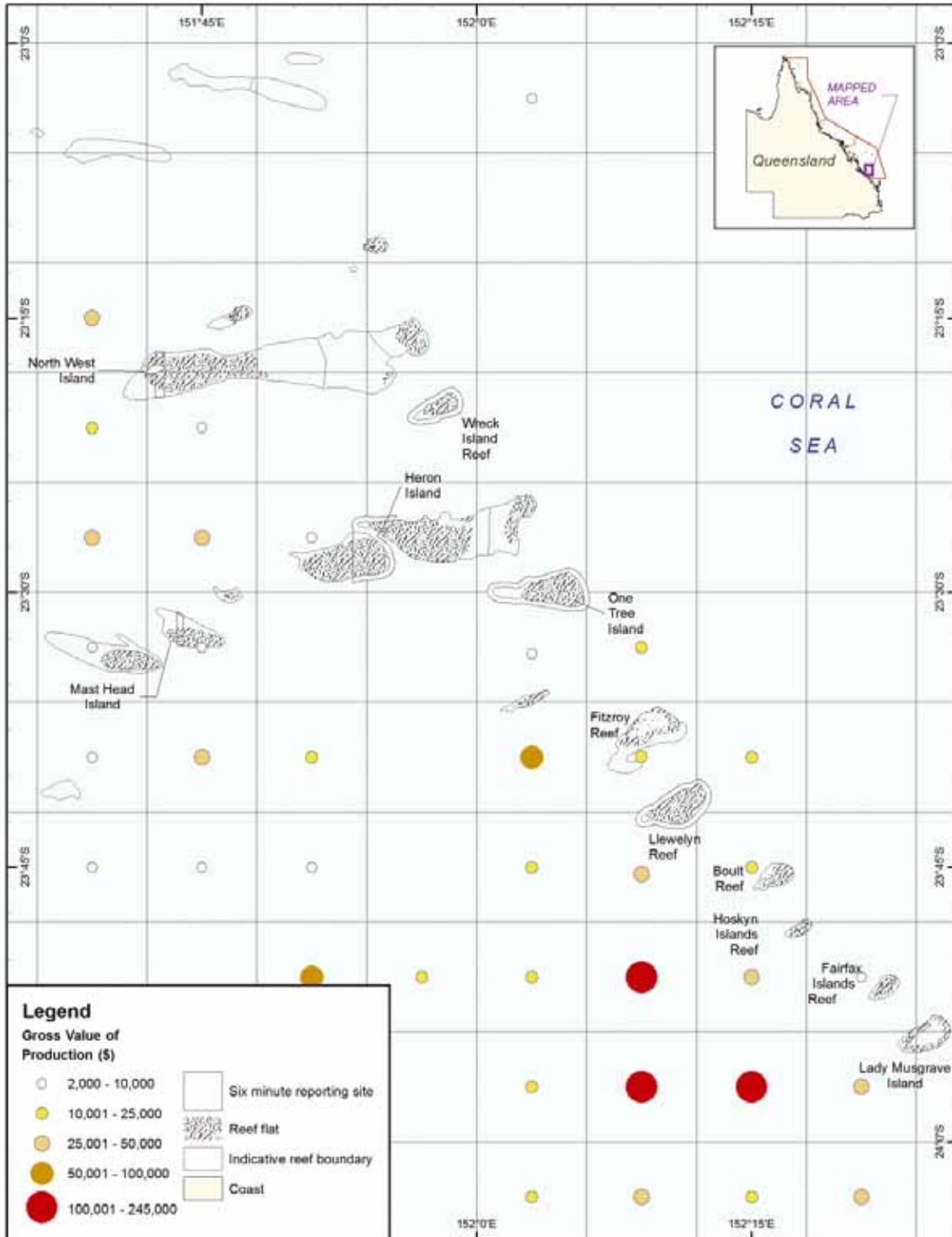
This map indicates the average gross value of production (GVP) for the East Coast Commercial Otter Trawl Fishery (2001 - 2002) for the case study area. 2001 - 2002 logbook data were used to provide spatial representation of the fishery after major fisheries management changes by Queensland in 2000. On the map, catch and effort information is shown in the six minute reporting sites not previously closed to trawling under those management arrangements. More detailed spatial catch and effort information acquired during rezoning consultation was used along with GVP and VMS data.

Map 21: Case study area – Line Fishery Gross Value of Production data



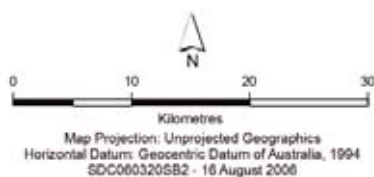
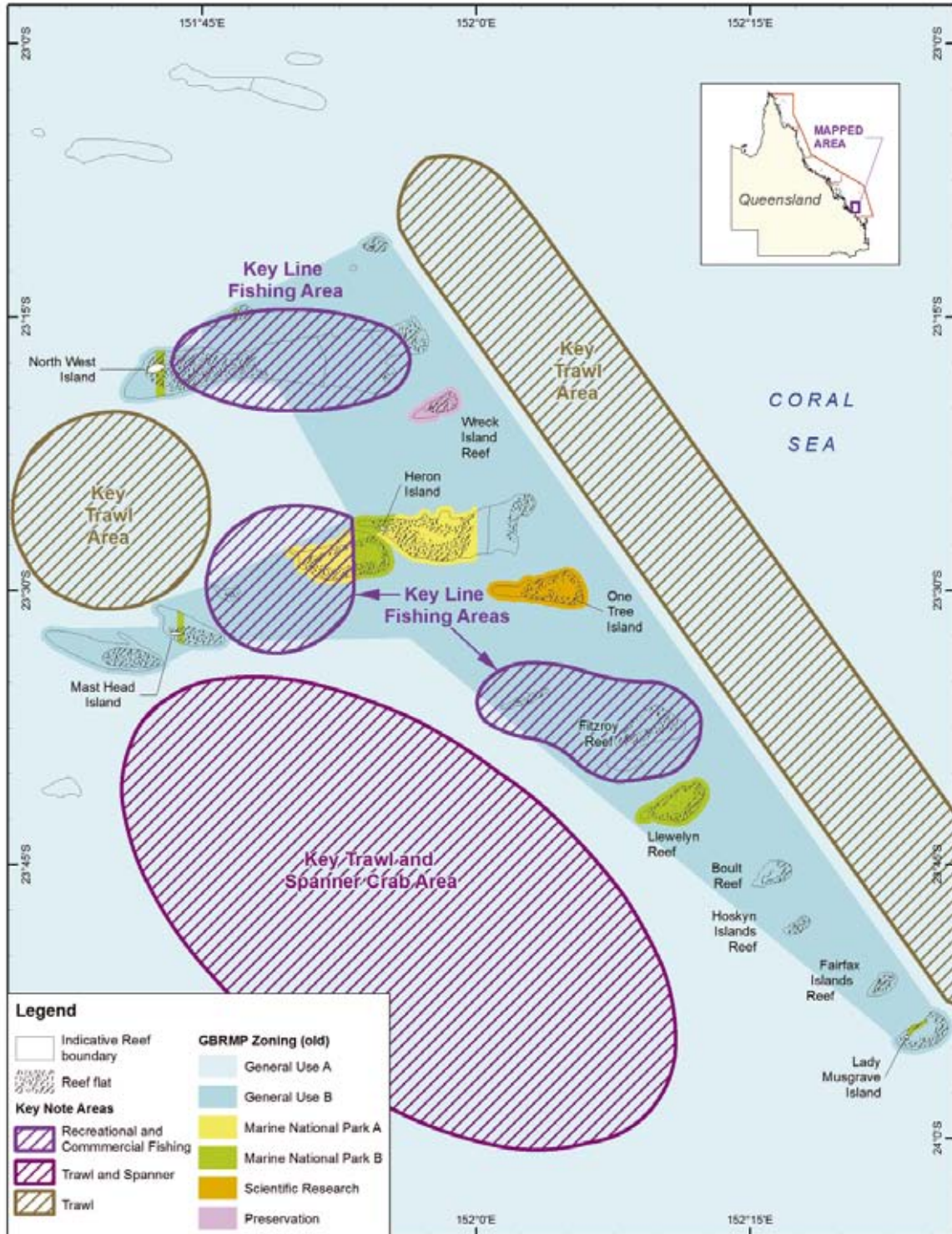
This map indicates the average gross value of production (GVP) for the East Coast Commercial Line Fishery (1996 - 2002) for the case study area. 1996 - 2002 logbook data were used to provide spatial representation of the fishery available prior to major fisheries management changes by Queensland on 1 July 2004. More detailed spatial catch and effort information acquired during rezoning consultation was used along with GVP data.

Map 22: Case study area – Spanner Crab Fishery Gross Value of Production data



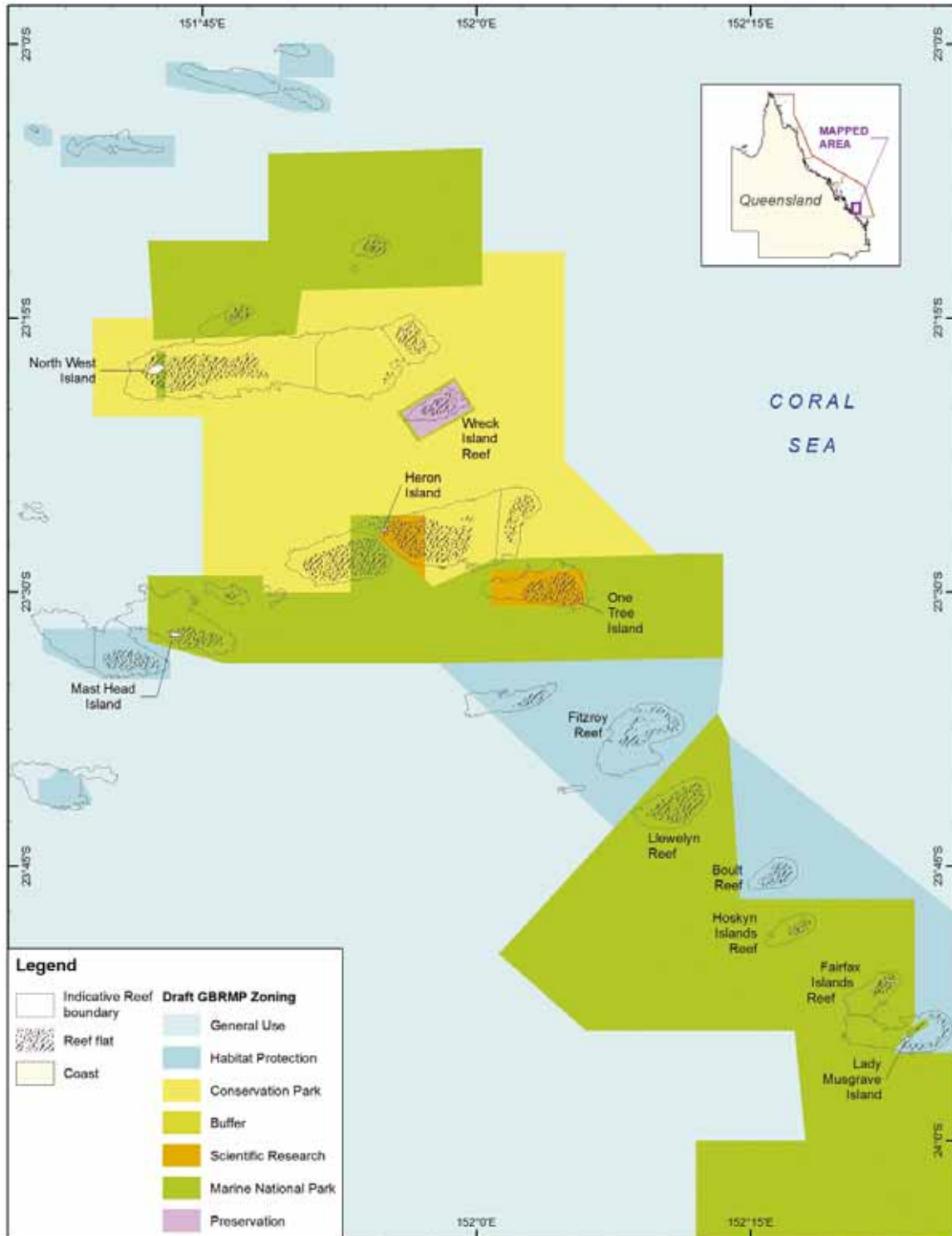
This map indicates the average gross value of production (GVP) for the East Coast Commercial Spanner Crab Fishery (1996 - 2002) for the case study area. 1996 - 2002 logbook data were used to provide spatial representation of the fishery. More detailed spatial catch and effort information acquired during rezoning consultation was used along with GVP data.

Map 23: Areas of importance to stakeholders raised in the first round of public consultation



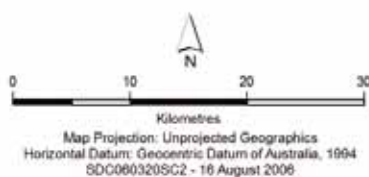
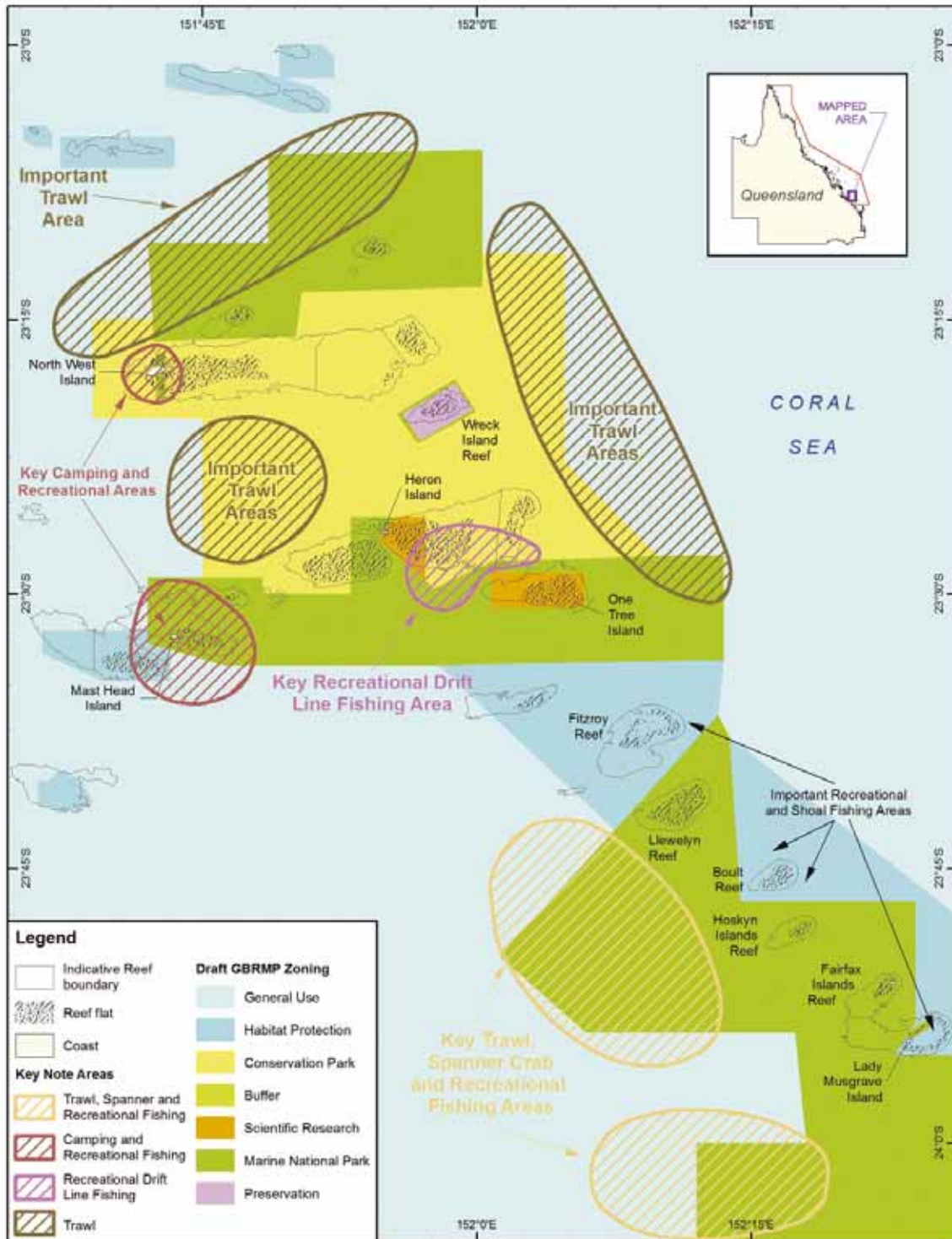
This map indicates key areas of importance identified in submissions received during the first formal Community Participation phase of the rezoning of the Great Barrier Reef Marine Park. The submissions, and the valuable and detailed local information they presented were used to develop the Draft Zoning Plan.

Map 24: Case study area – Draft Zoning Plan



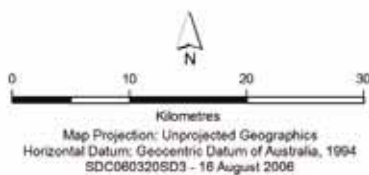
The Draft Zoning Plan was developed after consideration of available natural resource, social, economic and cultural information, as well as management issues and public input. The Draft Zoning Plan built upon the framework established by previous zoning plans, and provided for the first time, zoning of 28 new coastal areas added to the Great Barrier Reef Marine Park between 2000 and 2001.

Map 25: Areas of importance to stakeholders raised in the second round of public consultation



This map indicates key areas of importance raised in submissions commenting upon the Draft Zoning Plan during the second formal Community Participation phase of the rezoning of the Great Barrier Reef Marine Park. The submissions, and the valuable and detailed local information they presented, were used to refine and develop the final zoning of the area.

Map 26: Case study area showing final zoning changes to address key stakeholder issues



The final zoning for the Great Barrier Reef Marine Park involved consideration of all submissions received during both phases of Community Participation, together with all other available information about the known uses and values for the Marine Park, including ecological, social, cultural and economic information (e.g. commercial and recreational datasets).

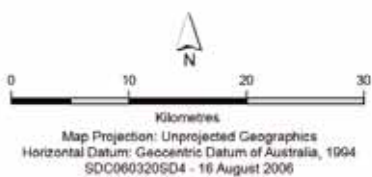
Notes for Map 26

Numbers on map correspond to numbered notes below.

See Figure 7 for guide to zoning.

1	Pink Zone or 'no access area' at Wreck Island recognises its National Park Scientific status and that it is one of the largest loggerhead turtle rookeries in the Marine Park
2	One Tree Island and Heron Island Research Stations. Adjacent reef zoned Orange to allow for continued use for scientific research. Zone boundaries have been contained to reduce impacts on the line fishery that operates in the area
3	The Green Zone covering Tryon Island and North Reef protects important conservation values. Green Zone considerably reduced from Draft to final Zoning Plan, particularly in the north, east and west, to reduce impacts on the trawl fishery
4	Yellow Zone complements the mainly tourism and recreational use of the area, while protecting conservation values (seabirds and turtles). Changed considerably from the Draft Zoning Plan, particularly on the east side to avoid important trawl areas, and on the west side to avoid line fishing areas of Mast Head, North West Islands, and the 'Cabbage Patch'. Boundaries were also not extended to the north and south in the final Zoning Plan to avoid impacts on the line, aquarium fish and spanner crab fisheries
5	Green Zone surrounding Wilson Island Reef complements tourism use of the area but was not extended further as proposed in some submissions, to reduce the impact on the line fishery
6	Green Zone restricted to southern side of North West Island Reef allows important recreational line fishing to continue
7	Green Zones around Erskine Island, Polmaise and Irving Reefs amended from Draft to final Zoning Plan to reduce impacts on line and aquarium fish fisheries on nearby reefs while protecting a bioregion
8	Green Zone recognises importance of deep channels between Wistari and Heron Reefs containing species of special interest. Builds on a previous Green Zone, complements tourism use, but was amended from Draft to final Zoning Plan, particularly on the eastern side, to reduce impacts on the trawl fishery. Sykes and Lamont Reefs omitted from Green Zone to reduce impact on line fishery
9	Green Zone surrounding Llewellyn, Hoskyn, and Fairfax Island Reefs and the northern side of Lady Musgrave Island Reef builds on a previous Green Zone. Fitzroy and Boulton Reefs, shoal grounds to the north of Fairfax Island Reef and the Lady Musgrave lagoon reef area, were omitted from the Green Zone to reduce impacts on line fishery and key recreational areas. Considerable changes from Draft to final Zoning Plan, particularly on the western and eastern sides, and to the north of Fairfax Islands, to reduce impacts on the trawl and spanner crab fisheries
10	Lady Elliot Island Reef is included in a Green Zone. This Green Zone was amended from the Draft Zoning Plan to exclude shoal areas, including the 'Banana Gutter' and the 'West Warregoes', to minimise the impact on line fishing by local communities, identified in submissions as important. Zone boundaries contained to west and north to reduce impact on the trawl and spanner crab fisheries

Map 27: Case study area – final 2003 Zoning Plan



The final zoning for the Great Barrier Reef Marine Park involved consideration of all submissions received during both phases of Community Participation, together with all other available information about the known uses and values for the Marine Park, including ecological, social, cultural and economic information (e.g. commercial and recreational datasets).