

# PROTECTING BIODIVERSI

# an overview of the Great Barrier Reef Marine Park Authority Representative Areas Program

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### Introduction



The Great Barrier Reef World Heritage Area (GBRWHA) is famous for its 2900 coral reefs. However the Area also has an incredible variety of other habitats ranging from sandy cays, continental islands, algal and sponge gardens, mangrove estuaries, seagrass beds, sandy or muddy bottom communities, and deep ocean troughs. These habitats and their interconnectedness make it one of the richest and most complex natural systems on earth—an area famous the world over for its biodiversity.

The Great Barrier Reef Marine Park Authority (GBRMPA) is working on a Representative Areas Program to enhance protection of the biodiversity of the GBRWHA. This Program is part of Australia's national Representative Areas Program and builds on previous work conducted at the Authority and with stakeholders from 1996 to 1998.

If planning in an area the size of the GBRWHA is to be successful, information and advice from individuals and organisations with knowledge or an interest in the region needs to be fed into the process. This document outlines the significant and unique qualities of the GBRWHA and the importance of maintaining the biological diversity it contains. The steps involved with the Representative Areas Program are described and a timetable of completion dates provided. Answers to some commonly asked questions are also included.

Most importantly this document outlines an approach to ensuring that your views are heard in regard to the planning of representative areas—areas important for all our futures.

# The Great Barrier Reef World Heritage Area



The Great Barrier Reef World Heritage Area stretches 2300 kilometres along Australia's eastern seaboard from Lady Elliott Island in the south to Australia's northern tip at Cape York, spanning 14 degrees of latitude. It is by far the largest World Heritage Area in the world (347 800 km²). The sheer size of this Area and its importance as the world's largest coral reef ecosystem mean it is a critical global resource. The GBRWHA's size, its economic importance and close proximity to rural and urban populations also means that management must allow for reasonable human use as well as maintenance of its ecological integrity.

The Australian Government coordinates management of the Great Barrier Reef World Heritage Area. While coral reef, mangrove and seagrass habitats occur elsewhere on the planet, no other World Heritage Area contains such a diversity of species and habitats. This makes the Great Barrier Reef one of the world's most extensive and important marine ecosystems (see our brochure: The Great Barrier Reef, Marine Park and World Heritage Areas). For more on World Heritage Areas see: http://www.environment.gov.au/heritage/wha/auswha.html

### Why is the GBRWHA special?

### Because it contains:

- six of the world's seven species of marine turtle
- the largest green turtle breeding area in the world
- one of the world's most important dugong populations
- a breeding area for humpback and other whale species
- over 3000 km<sup>2</sup> of seagrass meadows
- 2000 km² of mangroves including 54% of the world's mangrove diversity
- 2904 coral reefs built from 359 species of hard coral
- 2200 species of native plants which is 25% of Queensland's total native plant species.
- more than 1500 species of fish
- 1500 species of sponges equalling 30% of Australia's diversity in sponges
- 800 species of echinoderms (e.g. sea stars) which is 13% of the world's total species
- over 5000 species of molluscs (e.g. shells)
- over one third of all the world's soft coral and sea pen species (80 species)
- spectacular landscapes (e.g. Hinchinbrook Island, the Whitsundays)

# The role of representative areas in marine park management



The whole of the Great Barrier Reef Marine Park (GBRMP) offers different degrees of protection for different habitats within its boundaries. Furthermore, a multitude of management tools (e.g. zoning, education, permits, management plans) are being used to help achieve ecological and other management objectives.

In recent years there has been a growing realisation that marine park managers should be identifying and protecting representative examples of the diversity of habitats and processes upon which all species depend, rather than focusing on individual species or specific habitats.

A broadscale habitat protection approach can help:

- maintain biological diversity at the ecosystem, habitat, species, population and genetic levels
- allow species to evolve and function undisturbed
- provide an ecological safety margin against human-induced and natural disasters
- provide a solid ecological base from which threatened species or habitats can recover or repair themselves
- maintain ecological processes and systems.

Adequate protection of representative areas is widely accepted, in Australia and around the world, as the best way to achieve the objectives listed above. A representative area is an area that is typical of the surrounding habitats or ecosystem at a chosen scale. The physical features, oceanographic processes and ecological patterns within a representative area reflect those of the surrounding habitat.

With the turn of the century, the Authority will be entering a new era in marine conservation planning through the introduction of a network of protected representative areas. This representative area network will include some **highly protected areas** (see glossary) which are 'no-take' areas in which many activities are still permitted.

Although habitats in the World Heritage Area are interconnected and dependent on each other, not all the connections are well understood.

Only ten years ago it was found that corals have a mass spawning event each year and their larvae then disperse via currents.

Just recently scientists have begun to appreciate the extent to which many fish species rely on gathering together at a particular sites to spawn.

Given such limits to knowledge, it is important that managers of the Great Barrier Reef World Heritage Area apply the precautionary principle and ensure that representative examples of all habitats are highly protected.

### How much of the Marine Park is likely to be in 'no-take' zones?

Currently, about 4.5% of the Great Barrier Reef Marine Park is in highly protected or 'no-take' zones. There is no right answer to the question of what proportion of 'no-take' zones is necessary or appropriate. For rare habitats, like some seagrass beds, it may be important to protect a significant portion of the remaining habitat within the Marine Park. Or it may be that a habitat is well represented outside the Marine Park and protected by virtue of its remoteness. In such a case, it may not be essential to ensure that a high proportion of what occurs within the Marine Park is represented. Consequently, the Authority does not have a specific percentage target it is seeking to achieve.

Our understanding of the marine environment will increase over time. As more information comes to light, managers will be able to review the adequacy and appropriateness of the system being put in place now. No successful management regime can be inflexible to new information.

### Our commitment

GBRMPA is preparing a representative areas network to meet commitments in the:

- Australian and New Zealand Environment and Conservation Council's 'Strategic plan of action for establishing the national representative system of marine protected areas' (1999)
- Australia's Oceans Policy (1998) which advocated implementation of a representative areas network
- The National Strategy for Conservation of Australia's Biological Diversity (1996)
- 'The 25 year Strategic Plan for the Great Barrier Reef World Heritage Area' (1993) which was signed off by over 60 stakeholder groups
- Intergovernmental Agreement on the Environment (1992)
- The National Strategy for Ecologically Sustainable Development (1992).

The Representative Areas Program is also being developed against a background of international commitments<sup>1</sup>, strategies and agreements.

Other states in Australia are also contributing to this nation-wide initiative.

• World Heritage Convention (1975)

<sup>• &</sup>lt;sup>1</sup> Convention on Biological Diversity (1992)

<sup>•</sup> Convention on Wetlands of International Importance (Ramsar Convention) (1971)

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (1973)

Convention on the Conservation of Migratory Species of Wild Animals (1979)

<sup>•</sup> Bilateral Agreements on the protection of Migratory Birds (Japan 1974; China 1986)

Torres Strait Treaty (1978)

<sup>•</sup> UN Convention on the Law of the Sea (1982)

<sup>•</sup> International Convention for the Protection of Pollution from Ships (1973) and Protocol (1978) (MARPOL)

# Guiding principles for representative areas



Development of GBRMPA's representative areas network is guided by the following principles (adapted from ANZECC, 1998, 'Guidelines for establishing the National Representative System of Marine Protected Areas.' Canberra, Environment Australia).

### Regional framework

Representative areas must be chosen in relation to marine regions and habitats and not in relation to themes or species that are high in public profile at any given time, nor in relation to ecosystem features that can change rapidly.

### **Precautionary Principle**

Lack of scientific certainty about issues such as exactly where marine protected areas should be located, how large they should be, or how many are needed should not be used as a reason for not establishing a marine representative areas network.

### Comprehensiveness

This means including the full range of habitats, recognised at an appropriate scale, encompassing cross-shelf and latitudinal diversity within the GBRWHA. Information about special or unique biological communities, habitats or species (where available), should be used to capture this diversity where possible

### Adequacy

The size and level of protection offered within the representative areas network must safeguard ecological integrity of, and allow sufficient levels of connectivity between populations, species and habitats

To ensure ecological integrity, the representative areas network will include 'no-take' zones within each habitat of each region of the Great Barrier Reef World Heritage.

These highly protected zones:

- serve as ecological benchmarks where evolutionary processes proceed undisturbed and natural disturbances continue to function.
- provide secure places for marine populations by maintaining genetic, habitat and ecological diversity, and species and population interactions.

### Representativeness

The areas included within a representative areas network should reflect the diversity of the habitats from which they are derived.

### Consultation

The selection of sites for inclusion in a representative areas network will include effective and high-quality public consultation to address current and future cultural, economic, social and other issues.

### Indigenous involvement

The interests of Australia's Indigenous peoples will be recognised and incorporated in decision-making.

### **Decision making**

Decision-making processes will integrate long- and short-term cultural, economic, environmental, social and equity considerations in a transparent, comprehensive and consistent manner.

# The representative areas process



The Great Barrier Reef Marine Park Authority recognises that the Marine Park is of value to an array of stakeholders, including the public, and input will be sought from all those with an interest in the equitable and ecologically sustainable use and management of the Region.

The representative areas process involves a number of phases as outlined below. Communication will occur with stakeholders throughout most of these phases.

In the column titled 'stakeholder involvement', one tick ( $\sqrt{}$ ) means sharing of information, two ticks ( $\sqrt{}$ ) means input from all stakeholders is essential to the decision-making process.

Phases of the Representative Areas Process		Stakeholder involvement and communication	
1. Classification	i, e jakoggan wonen e. jakog	<b>√</b>	
2. Review		$\sqrt{}$	
3. Identification		$\sqrt{}$	
4. Selection			
5. Formal Public Input Phase 1			
6. A draft zoning plan			
7. Formal Public participation Phase 2		$\sqrt{}$	
8. Ministerial and Parliamentary approval		Selections prosu-	

### Classification phase

Classification of the biological diversity within the GBRWHA involves mapping and categorising physical data (e.g. depth, sediment size) and biological data (where available) and combining this with expert opinions. The maps will ultimately indicate the locations and diversity of different habitats and communities within the Area.

### Review phase

GBRMPA determines the threats to these areas and the existing and required levels of protection offered to different habitats within different regions.

### Threats to the Great Barrier Reef World Heritage Area include:

- Increased nutrient levels
- · Catchment alteration through clearing vegetation or building dams
- Industrial and urban development
- Over-fishing
- · Shipping accidents and oil spills
- Industrial discharge
- Port development
- Uncontrolled tourist pressure
- Accidental take of threatened/endangered species.

### Identification phase

If the classified habitats are not adequately protected then GBRMPA identifies other sites for potential inclusion in the representative areas network.

Beyond the guiding principles, the representative areas process must address practical considerations regarding the identification of biologically feasible candidate sites.

Practical considerations include assessments regarding:

- Size
- Shape
- Level of protection
- Number
- Buffer zones
- · Existing highly protected zones
- · Location of boundaries
- Anthropogenic threats.

### Selection phase

Cultural, ecological, economic, social, legal and practical criteria will be used to select candidate areas needing greater protection in the representative areas network. These criteria will be developed in conjunction with stakeholders. The positive and negative aspects of alternative sites will be weighed up against all these criteria using existing information and expert and stakeholder opinions.

### Economic and social considerations

If the Representative Areas Program determines that highly protected 'no-take' areas need to be extended, there are likely to be positive and negative social and economic implications. This will be an important issue throughout the process, but especially during the selection phase. There will be an emphasis on negotiation with interested parties and all available information on use patterns, economic and social values as well as Indigenous and non-Indigenous cultural values will be taken on board.

The negotiation and information will be used to apply the 'least cost' principle where 'cost' does not refer just to monetary value. If different configurations of areas satisfy similar biological criteria, the option which imposes the least short and long term cost to the community should be adopted. Some habitat types may be sampled equally well at a number of locations. In these cases there should be considerable scope for resolving potential conflicts with traditional owners, users and other interested parties.

### Legal and practical considerations

Practical considerations in the selection process for the Representative Areas Program include legal and institutional issues, such as:

- **jurisdictional responsibility**. This is particularly important in coastal, intertidal and nearshore areas where the jurisdictions are not always clear.
- **legislative definition**. For an area to be declared, it has to be described in legislation with detailed boundary descriptions.
- **ease of recognition** in the field by users and managers alike whether for compliance or enforcement.

Other institutional considerations may include the availability of sufficient resources to implement one representative area option versus another, co-ordination with other agencies and interest groups, efficiency and effectiveness. In particular, this Program complements a similar state-wide program being conducted by Queensland's Environment Protection Authority and links with efforts to incorporate additional marine areas of the Great Barrier Reef World Heritage Area into the Great Barrier Reef Marine Park.

These are merely examples of the multiple criteria which must be addressed within the selection phase of the Representative Areas Program.

### **Decision making**

Cultural, economic, ecological and social values, and legal and institutional feasibility are considered filters in the decision-making process for the Representative Areas Program. The development of computer-based map overlays, with input from the community, will assist at this stage. These map overlays (a geographic information system) help identify conflicts, compatibilities and solutions for different users, different values and important sites. A structured, transparent and comprehensive approach will be adopted to assess the impacts and trade-offs associated with various representative area options.

### Formal Public Input Phase 1

Comments will be formally invited from the public on GBRMPA's proposed candidate sites for inclusion in the representative areas network.

### Input from interested parties

Public participation will be a crucial element of the process and will comprise two formal public participation phases and continual informal input. Input will come from a broad base of stakeholders including commercial and recreational fishers, conservation groups, Indigenous groups, the tourism industry, scientists, and Queensland environment and fisheries management agencies. Communication will occur through booklets and pamphlets with feedback forms, meetings, presentations and consultative groups (e.g. Local Marine Advisory Committees and Reef Advisory Committees).

The Interim Marine and Coastal Regionalisation for Australia (IMCRA) provided the starting point for a planning framework specific to the Great Barrier Reef Region. Consultation with scientific advisers and key stakeholders is supplementing this framework.

### Indigenous peoples

Coastal Indigenous peoples, including traditional owners, who live adjacent to the GBRWHA have a strong connection, with and dependence upon, their sea country. They also have traditional responsibilities for managing such areas.

'The 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area' aims to ensure that the interests of Aboriginal and Torres Strait Islander peoples are reflected in the management of the World Heritage Area. GBRMPA also proposes greater community recognition of Indigenous values and maintenance of traditional subsistence activities.

The Representative Areas Program aims to address the interests and needs of Indigenous and other peoples throughout the process.

### Draft zoning phase

A draft zoning plan or zoning amendment will be prepared taking into account all comments from stakeholders.

### Formal public input phase 2

The draft plan will be made available for final public comment.

### Ministerial and Parliamentary approval phase

Once GBRMPA has taken the public comments into account, the plan will be finalised and submitted to Parliament for legislative approval.

# Timetable and milestones



Timing	Milestones		
1996 to 1997	Discussion paper produced. Representative areas principles decided upon via Stakeholder and Technical Workshops		
Dec 1998	Reviewed IMCRA regionalisation and clarified more comprehensive approach to classifying regions within the GBRMP		
Jan 1999	Collated primary physical and oceanographic data sets (N.B. data gathering will be ongoing throughout the process)		
Feb 1999	Finalized 'Communications Strategy' for stakeholder involvement		
	Commenced survey of scientists for expert opinion on environmental 'driving factors'		
March 1999	Scientific Steering Group met		
	Finalized project overview document for public release		
May 1999	Survey of scientists completed		
	Commence public participation with stakeholders including community local martine advisory committees (LMACs) and reef advisory committees (RACs)		
June 1999	Complete first approximation of 'representative habitats' using physical and oceanographic parameters supplemented with biological data where available (classification phase)		
	Major phase of public participation underway		
September 1999	Review degree to which current zoning protects regional and habitat diversity (review phase)		
December 1999	Identify options for 'candidate representative areas' based on findings of review phase (identification phase)		
	Public participation in reviewing 'candidate representative areas' begins		
June 2000	Assessment of cultural, social, economic, practical and legal implications of alternative 'candidate' area options (selection phase)		
June 2000	Formal start to public input phase 1		
December 2000	Complete evaluation of existing zoning and management plans to ensure adequate and comprehensive representation		
	Finalize recommendations for new protected areas		
January 2001	Commence statutory zoning review process to enable recommendations to be implemented.		
March 2001	Draft zoning plan or amendment prepared		
April 2001	Formal start to public input phase 2		
Late 2001	Submission of plan or amendment for Ministerial and Parliamentary approval		

# Your questions answered



### What is a representative area?

A representative area is an area that is typical of its surroundings at some chosen scale. In other words, the physical features, oceanographic processes and ecological patterns of the representative area reflect those of the surrounding habitat.

### Why is biological diversity (or biodiversity) important?

Humans depend on healthy ecosystems which are biologically diverse for food, water and air. They support our economic and social activities and can have cultural or scientific value.

Untapped benefits to humans may exist in the diverse biological resources. These benefits may be medicinal or economic.

Ecosystems that lose some of their biological diversity are weakened and more susceptible to damage from natural and human impacts.

### Why is it important to identify and protect representative areas?

In recent years there has been a growing realisation that we should be identifying and protecting representative examples of habitats and ecological processes upon which species depend, rather than putting all our efforts into trying to preserve individual species or specific habitats.

If we can identify representative areas of ecosystems and sufficiently protect adequate examples, then these areas should conserve examples of most, if not all, the species, habitats and ecological processes within the Marine Park.

### What is the representative areas approach?

Areas which are representative of all the defined habitats will be included within a network of protected areas including 'no-take' areas. By protecting adequate examples of habitats we are insuring ourselves against the uncertainty which exists due to imperfect knowledge about the marine environment.

# Isn't the whole Great Barrier Reef Marine Park a marine protected area already?

Yes, the entire GBR Marine Park is already a marine protected area. However different levels of protection are provided and different uses are permitted in the different zones.

### What is a highly protected zone?

Highly protected zones in the GBR Marine Park (sometimes referred to as 'no-take' zones) are those areas that prohibit extractive uses, and are protected as much as possible from structures and from activities that pollute or damage habitats. Currently about 4.5% of the GBR Marine Park is highly protected (IUCN Protected Area Categories I and II - see glossary).

# Why aren't the existing highly protected areas in the Great Barrier Reef Marine Park sufficient?

The current distribution of highly protected areas reflects an early focus on:

- coral reef habitats as a priority
- pristine reefs which are located in the remote north versus the more heavily used southern parts of the GBRMP.

A more comprehensive network of representative natural areas can help ensure protection of the north/south (latitudinal) and east/west (cross-shelf) diversity of all marine habitats.

# Who decided that there should be a review of representative protected areas in the Marine Park?

'The 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area' made specific recommendations regarding the 'representative areas' approach. The Strategic Plan was developed after consultation with over 60 organisations and stakeholders. Representatives from all but two of these groups were signatories to the final plan. A review of the representativeness of protected areas within the GBRMP was also recommended in the report titled 'Outstanding Universal Value of the Great Barrier Reef World Heritage Area' (Lucas et al, 1997).

### Why not just choose distinctive or special areas for highly protected areas?

This approach assumes we know about all the species and areas which are distinctive or special and assumes that these areas are the most important.

In reality, we know relatively little about marine biodiversity although we do know that commonly occurring but poorly known habitats, such as soft seabed areas, are integral to the functioning of the whole Great Barrier Reef region.

# At what scale do we need to classify representative areas in the Great Barrier Reef Region?

The choice of scale is driven by the defined communities and habitats, the kinds of patterns which are important for maintaining connections between these habitats (e.g. migration of fish and prawns) and the appropriateness for management. Given these parameters, representative areas within the GBRMP will probably be defined at a scale of 'tens' of kilometres, particularly in the near-shore and reefal areas. Larger scales may be more appropriate in lagoonal and inter-reefal areas.

# What will be achieved by the protection of representative areas which are not adequately protected already?

Highly protected areas serve three primary functions.

- 1. They provide secure places for marine populations by maintaining ecosystem, habitat, species, population and genetic diversity; and interactions between ecosystems, habitats, species, populations and genetic pools.
- 2. They offer relatively 'untouched' areas where organisms can function and evolve in a natural manner and natural disturbance can continue to play its role.
- 3. They provide natural insurance or a safety net against human-induced disasters and impacts, and imperfect decisions made due to incomplete knowledge.

### Who determines what should be protected?

The Representative Areas Program has been, and is being, developed jointly with stakeholders, scientists and managers. The statutory zoning process ensures that appropriate levels of public participation occur before any new zone decisions are introduced. No decisions about particular areas will be made without opportunities for involvement and discussions with potentially affected parties.

### What will the process involve?

The representative areas process will involve:

- the systematic classification of the distribution of physical and biological marine diversity
- a review of the adequacy of existing highly protected areas considering the diversity of habitats and threats to the Great Barrier Reef region
- the identification of a number of candidate representative areas based initially on their capacity to represent the biodiversity of the marine park
- selection of candidate areas after consideration of cultural, ecological, social, economic, legal and practical implications
- drafting of a rezoning proposal or amendment to accommodate the recommended selected areas.

### Will biological information be used to determine representative areas?

Yes, although there is a lack of biological data over broad areas and it would take a huge amount of time and money to complete a comprehensive biological survey of the entire marine park. This means that it is necessary to use mainly a physical approach to determining the extent of habitats. The physical data will, however, be supplemented with biological data (where they exist) and the expert opinion of marine biologists.

# How can the Representative Areas Program be completed without total biological knowledge?

If we wait for perfect biological knowledge, we will never make a start. GBRMPA is working with the current level of information and such additional information as can be acquired during the next 12 to 18 months. This means GBRMPA is not waiting for the creation of perfect maps that depict all the details of the ocean environment before acting. However, we are using tools and techniques to help understand the link between biological communities and their physical and chemical environments.

### Are representative areas the same as unique areas?

No, a representative area is typical of its surroundings at a chosen scale, while a unique (or distinct) area is 'atypical' of its surroundings at that scale. Unique areas, such as spawning grounds or nursery sites will, however, be considered in the selection phase of the program.

# Will there still be green zones or other 'no-take' zones for reasons other than the representative areas network?

Yes, but they are likely to be small and aimed at protecting local or site-specific values which may be biological, social or cultural.

### If more areas are closed to fishing, how will the Authority prevent overexploitation of remaining open areas?

Through its zoning provisions, GBRMPA controls whether or not fishing and other activities can take place in the various zones of the Marine Park. Management of fishing within permitted areas is primarily the role of the Queensland Fisheries Management Authority(QFMA) subject to the policies and legislation of the Commonwealth Government. GBRMPA works closely with the QFMA to ensure that fishing is sustainable in the Marine Park.

### Will existing green zones be opened up in exchange for new green zones?

It is not the aim of the Representative Areas Program to 'swap' green zones around, however such an exchange could be deemed appropriate following an analysis of the degree of representation. Until this analysis is complete, we don't know if it will be desirable or necessary.

### What scientific research has been useful so far in the review?

A number of researchers have helped determine what biological, physical and oceanographic factors should be considered in the representative areas review.

Research has also told us about biological patterns of diversity in the Marine Park. For example:

- many species use different habitats at different stages of their lives
- inshore and offshore areas are important and valuable in terms of biodiversity
- the density of species is lower offshore
- there is significant east/west cross-shelf diversity of physical environments and biological communities
- latitudinal differences in species distribution along the length of the entire Great Barrier Reef Region are also important.

A Scientific Steering Committee meets periodically to assist with the natural science aspects of the Representative Areas Program.

# Will the selection of representative areas be based solely on scientific information?

No. Socio-economic, cultural, legal, biological and practical factors will be considered before choosing which candidate areas should be included in the representative areas network.

### When will the representative areas review be completed?

By late 2000 it is expected that the review of existing protected areas will have been completed (see timetable in this document).

### What other benefits might arise from a representative areas network?

A comprehensive, adequate and representative protected area network within the GBRWHA will help:

- maintain options for future users
- ensure future economic benefits derived from commercial and recreational fishing and tourism by protecting the resource and offering refuge to some fish populations
- increase the guarantee that we pass a healthy marine environment on to future generations
- enhance Australia's international status implementing a broadscale, biophysically-based network of comprehensive, representative marine protected areas.

### Is the outcome of the representative areas process final and fixed?

No. The representative areas network which is finally proposed in this Program will be reviewed in future years as new data become available. Any review will be tempered with the knowledge that highly protected areas must be in place for a reasonable period of time to be effective.

# How can you have your say?



We are beginning a major public participation effort in the Representative Areas Program. Information will be available for all interested parties over the next few months, including:

- this 'overview' booklet
- a discussion paper outlining the methods
- detailed methods papers on the tools and concepts being applied in each phase of the work.

If you are interested in receiving further information regarding the Representative Areas Program, please contact us and you will be put on a mailing list.

To ensure your views are considered please provide GBRMPA with a written statement giving your comments, information, suggestions, or recommendations. All written statements will be considered.

- Your comments must be in writing. You can write them yourself or call us and
  we will make a written copy of your comments. Clearly state your ideas and
  recommendations. It is often easier to list a number of points, rather than to use
  long sentences.
- Your comments will be more constructive if you explain why you think something should be considered.
- If you mention particular localities, please be specific, and mark them on a map(s).
- Your statement should indicate if you wish part or all of it to be treated as confidential.

To be put on a mailing list, to send in your comments or for more information contact:

Great Barrier Reef Marine Park Authority Attention: The Representative Areas Program P.O. Box 1379 Townsville, Qld. 4810 Ph: 07 4750 0700

Or email:

registry@gbrmpa.gov.au

Or visit our webpage:

http://www.gbrmpa.gov.au/rep areas/



ANZECC - Australian and New Zealand Environment and Conservation Council

Authority - the Great Barrier Reef Marine Park Authority

**Biodiversity (Biological diversity)** – the variety of life forms at the level of ecosystems, species, and gene pools

**Bioregion** – an area of land and/or water whose limits are defined by the geographical distribution of biophysical attributes and ecological systems

GBR - Great Barrier Reef

**GBRMP** – Great Barrier Reef Marine Park

GBRMPA - Great Barrier Reef Marine Park Authority

**Habitat** – the place or type of site in which an organism (or group of organisms) naturally occurs

**Highly protected area** - an area of land and/or sea that prohibits extractive uses, and is protected as far as possible from structures and from activities that pollute or damage habitats (akin to IUCN categories Ia, Ib and II)

**IUCN** – The World Conservation Union (formerly the International Union for the Conservation of Nature)

**IUCN Protected Area Category Ia** – Strict Nature Reserve: protected area managed mainly for scientific research or monitoring

**IUCN Protected Area Category Ib** – Wilderness Area: large area in an unmodified or slightly modified state which is protected and managed so as to preserve its natural condition

**IUCN Protected Area Category II** – National Park: protected area managed mainly for ecosystem conservation and recreation. These areas provide a foundation for scientific, educational, spiritual, recreational and visitor opportunities all of which must be environmentally and culturally compatible

Marine protected area – an area of sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources, and managed through legal or other effective means

**Precautionary principle** – where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation

**Protected area** – an area of land and/or sea which is managed in some way to maintain natural, social and/or cultural values (akin to any of the IUCN categories)

**Region** – an area of land and/or water whose limits are defined by the geographical distribution of physical attributes

**Representative area** – an area which is typical of its surroundings at some chosen spatial scale. That is, it has similar physical features, oceanographic processes and ecological patterns, and therefore likely to have similar biological communities and/or species.

Representative protected area – an area of land and/or sea specifically designed to maximise ecological representation which, when given appropriate protection, will help to maintain biodiversity and sustain ecological processes over the long term





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