Blueprint for the South Australian Representative System of Marine Protected Areas







For further information please contact:

Department for Environment and Heritage Telephone: (08) 8124 4900, or see SA White Pages for your local Department for Environment and Heritage office.

Online information available at: http://www.environment.sa.gov.au

Foreword



The Hon. Mike Rann, MP Premier of South Australia



The Hon. John Hill, MP Minister for Environment and Conservation

South Australia's coastal, estuarine and marine environments are a valuable and fragile community resource. Our oceans sustain some of the most biologically diverse fauna and flora in the world, with an estimated ninety per cent of these species unique to southern Australia. Effective planning and management is crucial for the protection and conservation of our species and the waters they inhabit.

This protection starts with the Government of South Australia's commitment to the development of the South Australian Representative System of Marine Protected Areas (SARSMPA). These areas will protect and conserve the diversity of these environments, whilst providing for the continuation of many existing activities and the ecologically sustainable use of our precious marine resources. As a key commitment of the recently released Living Coast Strategy, the development of the SARSMPA is fundamental to ensuring that representative samples of these environments are protected for the benefit of current and future generations. The pursuit of this goal will also see the Government progress a number of national and international commitments as well as achieve a key target within the State Strategic Plan - Creating Opportunity through the establishment of 19 multiple-use Marine Protected Areas (MPAs) by 2010.

The Blueprint for the South Australian Representative System of Marine Protected Areas provides:

- a commitment to conserve and protect areas of high conservation value;
- a commitment to conserve and protect species that are rare, threatened or have special needs; and
- a framework for the integrated management of a range of human activities (including fishing, diving, research, tourism, cultural and indigenous use) whilst achieving the conservation objectives of MPAs.

A collaborative approach from all levels of Government, industry and the community is required in the planning and management of MPAs to ensure that South Australia achieves a world-class representative system. Local communities will be encouraged to assist shape MPAs in their local marine environment through participating on MPA Consultative Committees. Industry representatives and key marine stakeholders will be sought to advise the Government on the development of policy and management frameworks to guarantee that the broad range of interests and resource users are adequately consulted in any decisions.

The State Government is pleased to present to the community the Blueprint for the South Australian Representative System of Marine Protected Areas.

The Hon. Mike Rann, MP Premier of South Australia The Hon. John Hill, MP
Minister for Environment and
Conservation



Introduction

South Australia's mainland coastline extends over some 4,000 kilometres, and our territorial waters cover over 60,000 square kilometres – both are highly varied in their physical and biological natures.

Habitats represented include mangrove forests, reefs dominated by algae, kelp forests, estuaries, salt marshes, seagrass meadows, rocky shores, rocky reefs, mudflats and sandy beaches. These habitats support an extremely diverse range of fauna and flora and it is estimated that nearly ninety per cent of these plants and animals are not found anywhere else in the world.

In 1991, the Commonwealth Government announced the establishment of a marine conservation program called *Ocean Rescue 2000* to ensure the conservation and ecologically sustainable use of Australia's marine and coastal environments. A key component of this initiative was a commitment to establish a National Representative System of Marine Protected Areas (NRSMPA).

A Marine Protected Area can be defined as:

...any area of land and/or 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. (IUCN 1994)

An Intergovernmental Agreement on the Environment (1992) committed State, Territory and Commonwealth Governments to MPA establishment. This agreement recognised that a representative system of protected areas is a significant strategy in maintaining ecological processes and systems.

What does representative mean?

A representative area is an area that is typical of the surrounding habitats or communities.

A representative MPA encompasses typical examples of marine ecosystems.

Protecting representative areas in MPAs, therefore, aims to protect examples of an ecosystem. By protecting examples of all of our different ecosystems or habitats we are able to conserve the variety of life in our marine environment.

In South Australia, there are eight defined bioregions, or regions with distinctive patterns of biodiversity, that are distributed across State waters. To include all ecosystem types will require more than one MPA. A common approach is to have a network or system of MPAs, which collectively encompasses examples of all known types of habitats or communities. This is referred to as a Representative System of MPAs.





The Australian and New Zealand **Environment and Conservation** Council (ANZECC) released a Strategic Plan of Action for the NRSMPA in 1999. This document guides the way for Australia to fulfil its international responsibilities and obligations as a signatory to the Convention on Biological Diversity and the Convention on Migratory Species (Bonn Convention), as well as responsibilities under bilateral agreements for migratory birds with Japan and China (JAMBA and CAMBA). It also contributes to the establishment and management of a global representative system of MPAs.

South Australia has a number of marine and estuarine areas currently protected by aquatic reserves, rock lobster sanctuaries, the Great Australian Bight Marine Park and areas incorporating islands and estuaries in conservation parks. While these areas have some conservation benefits, they do not in themselves deliver a robust network of protected areas that comply with international best practice or national commitments to develop a comprehensive, adequate and representative system. Many significant areas for conservation are under-represented or not represented at all.

In recognition of the unique nature of our marine environment and mounting evidence of change caused through our actions, the Government of South Australia is committed to conserving our marine and estuarine biodiversity, while providing for the ecologically sustainable use our marine resources.

What is biodiversity?

The variability among living organisms from all sources, including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes the diversity within species, between species and of ecosystems. (UNEP 1994)

In 1998, Our Seas and Coasts – A Marine and Estuarine Strategy for South Australia was released as a framework for integrated management with five major commitments: Clean Healthy Seas, Sustainable Use, Conserving Biodiversity and Heritage, Working Together and Better Understanding.

The South Australian Government's election policies of 2002, and its subsequent *Living Coast Strategy*, provides for the protection of areas of outstanding ecological significance through the establishment of a system of multiple-use MPAs and marine parks.

This commitment has recently been recognised in the South Australia Strategic Plan – *Creating Opportunity* (March 2004) as Target 3.5 to have 19 MPAs in place by 2010. A map detailing the proposed focus areas for the 19 MPAs is enclosed as Appendix II.

This *Blueprint* puts forth future directions for the planning and management of the SARSMPA. It outlines the goal, principles, and objectives and recognises the critical role of the community through a comprehensive program for public participation.





Goals and Objectives

The Goal and Objectives of the SARSMPA is to maintain the long-term ecological viability and processes of marine and estuarine systems, to conserve and protect biodiversity, acknowledging ecologically sustainable use.

Why do we need MPAs?

Humans are having an everincreasing impact on natural resources, and the marine environment is no different. Extractive resource industries have grown and harvesting methods have become more efficient. Pollution from the land is affecting marine ecosystems and coastal development and population growth has risen dramatically, and will continue to increase competition for space and resources.

MPAs are now regarded internationally as a critical tool to conserve examples of our marine realms in an undisturbed state, much like National Parks do on land.

Simply, MPAs are needed as an insurance policy to guarantee that future generations can continue to enjoy and draw profit from the marine environment.

Objectives of the SARSMPA

The SARSMPA will:

- conserve and protect comprehensive, adequate and representative examples of ecosystems, habitats, species and populations;
- conserve and protect areas of high conservation value, including those containing high wilderness value, high species diversity, natural refuges for flora and fauna, habitats unique to southern Australia, and habitats containing endemic species;
- conserve and protect species that are rare, threatened, depleted or have special requirements, and their associated habitats;
- provide a monitoring framework that will contribute to the understanding of South Australia's marine environment and enhance MPA management; and
- provide a framework for the integrated management of a range of human activities compatible with the goal, including economic, cultural, indigenous and social resource use.

Benefits of the SARSMPA

There are many benefits to both the community and the environment from the dedication and management of MPAs. These benefits depend on the location and nature of individual areas, but may include:

- protecting marine life and habitats;
- providing opportunities for nature-based tourism and recreational activities, such as snorkelling and SCUBA diving;
- enhancing local fisheries through protecting depleted stocks and increasing populations;
- supporting research and education; and
- protecting cultural sites and aesthetic values.

These benefits have the potential to enhance social and economic values for local and regional communities.



Principles for development of the SARSMPA

The following principles will guide the development of the SARSMPA:

Bioregional Framework

The SARSMPA will be developed within a marine bioregional framework. Eight marine bioregions have been identified in South Australian waters by the ANZECC Interim Marine and Coastal Regionalisation for Australia (IMCRA) classification system. This provides the framework for developing the SARSMPA, using ecosystems as the basis for determining representativeness. The SARSMPA should represent the variability of major ecosystems and habitat types within and between each bioregion. All bioregions will be represented in the SARSMPA.

MPA selection will consider the best ecosystem representation available having regard to overlaps that may exist across Victorian, Western Australian and Commonwealth boundaries.

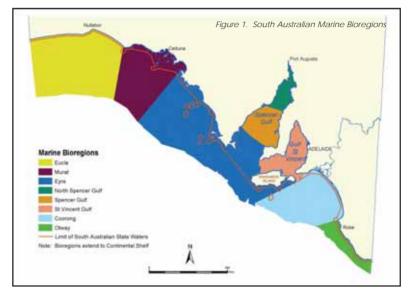
Comprehensiveness

The SARSMPA will include the full range of ecosystems recognised at an appropriate scale, within and across each biogeographic region.

Adequacy

The SARSMPA will have the required level of reservation to ensure the ecological viability and integrity of populations, species, communities and ecological processes.

This principle recognises that replication of reserved ecosystems should be considered, and acknowledges that marine ecosystems have a high degree of interconnectivity and



interdependence between each other and with the land.

Representativeness

Marine areas selected as MPAs will reflect the biotic diversity of the marine ecosystems from which they derive.

Ecologically Sustainable Development

Ecologically Sustainable Development (ESD) can be defined as:

Using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and for the future, can be increased.

The core objectives of ESD are to:

 enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations;

- provide for equity within and between generations; and
- protect biological diversity and maintain essential ecological processes and life support systems.

Related to this is the 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.

Application of the Precautionary Principle, to both public and private decisions, should be guided by:

- careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
- an assessment of the riskweighted consequences of various options.



Developing a Representative System of Marine Protected Areas

The Government of South Australia has established a target within the State Strategic Plan of developing 19 multiple-use MPAs by 2010.

MPAs will be progressively dedicated during this period, commencing with the Encounter MPA, followed by other locations in central and western South Australia and finally along the southern coast.

The following key concepts provide a framework for the development of the SARSMPA.

Selection of MPA locations

The selection of locations of MPAs to form part of the representative system will use a range of criteria and methodologies.

Primary Biogeographic, Biophysical and Ecological Criteria

Within the bioregional framework, MPAs will be identified primarily according to nationally and internationally recognised biogeographic, biophysical, ecological and biological criteria.

Socio-economic and Cultural Selection Criteria

State, regional and local socioeconomic values, together with scientific, cultural, indigenous and other values and interests will be identified to assist in the selection and management planning of the SARSMPA.

Ongoing Selection of MPAs

The development of MPAs will use existing data, knowledge and resources. Future nominations of additional areas and/or proposals for modifications to existing MPAs may occur, as better information regarding marine habitat types and distribution, ecosystem functioning and environmental impacts, becomes available in the ensuing decades.

Nominations outside of the SARSMPA

There are a number of MPAs currently in South Australia, serving a variety of purposes. A process will be established to facilitate the nomination of areas with objectives that fall outside those of the SARSMPA.

MPA Design – A Multiple-use Approach

A basic principle in the development of the SARSMPA is the recognition of multiple-use within MPAs. This approach provides for the specific conservation and protection of marine and estuarine ecosystems while also providing for the ecologically sustainable use of the area.

Multiple-use can be defined as:

An approach that aims to achieve integration of an acceptable balance of outcomes across the full range of marine uses.
(ANZECC 1999)

This means that most activities, such as recreational and commercial fishing, will still be allowed within an MPA boundary. There will, however, be particular zones, or periods of time, where some activities will not be permitted. This is primarily to protect significant habitats, species, ecological or cultural features.

There are five zones that may be used within a South Australian MPA offering various levels of protection or use. These are:

Restricted access zones are generally the smallest component of MPAs designed to protect and conserve biologically significant habitats in a pristine condition and for scientific research.





Sanctuary zones – also known as 'no-take' areas – provide a high level of protection where the removal or harm of plants or animals is prohibited. Sanctuary zones result in many benefits, including:

- refuges for vulnerable species;
- habitat protection and habitat recovery;
- development of natural biological communities;
- spill over of adults and juveniles into fishing grounds; and
- enhanced protection of offspring which can restock fishing grounds.

Habitat protection zones offer a level of protection and allow for a range of recreational and commercial fishing activities that do not harm habitat, interfere with the services that habitats provide to populations that use them, impact significantly on fish populations or ecological processes.

General managed use zones allow ongoing use of most recreational and commercial activities, provided that they are ecologically sustainable and consistent with the overall objectives of the SARSMPA.

Special purpose zones are placed in areas that require specific zoning controls and management; for example, port facilities. The activities permitted in these zones are dependent upon the specific nature of the activities and management needs.

The SARSMPA will therefore accommodate multiple levels of protection and use within the total area of any particular MPA. Levels of protection and use will be varied through the use of zoning and specifying permissible activities for each area.

Legislation

A legislative framework for MPAs will be developed for the establishment of the SARSMPA. This framework will include provisions for dedication and management of MPAs and displaced effort. It will complement existing legislation including National Parks and Wildlife Act 1972, Wilderness Protection Act 1992, Historic Shipwrecks Act 1981 and Fisheries Act 1982.

Social and Economic Considerations

The Government of South Australia recognises that the development of the SARSMPA may displace existing uses in some areas, and/or require changes to current resource sharing arrangements. Accordingly, careful consideration and cooperative decisions with local communities, relevant industries and other stakeholders will be required to address economic and social impacts.

Indigenous issues

The Aboriginal community has close ties with both the land and sea in South Australia. Appropriate consultation with Aboriginal representatives will be undertaken prior to establishing an MPA. Aboriginal heritage issues and activities, such as traditional fishing rights, will be taken into consideration during the process of identifying MPAs and development of zoning. Importantly, the establishment of an MPA will not extinguish native title and will be consistent with native title legislation.

Displaced commercial fishing effort

The primary aim of MPA development is biodiversity conservation and not fisheries management. Thorough planning and pragmatic zoning of MPAs, incorporating local community and industry input, should ensure that South Australia's MPAs have the least possible impact on marine users. Wherever possible, areas for higher levels of protection will be chosen that achieve the conservation goal while minimising impacts on recreational and commercial fishers.

A means to address displaced commercial fishing effort will be developed as part of purpose-specific legislation for the dedication and management of MPAs for those instances where unavoidable conflict occurs.



Recreational fishing

Recreational fishing is a significant leisure activity undertaken by many South Australians of all ages. Advice from local recreational fishers and key stakeholder bodies will actively be sought during the development and consultation activities associated with the zoning of MPAs. These views will help shape MPAs and minimise impacts on recreational fishers while still achieving the desired conservation outcomes.

Management and Review

Planning, management, monitoring and review arrangements for the SARSMPA will be based on the principles of integrated ecosystem management, and consider multiple-use activities and impacts both within and adjacent to MPAs. The implications of declarations on land use planning, and any needs for regulation or compliance by land-based authorities, will also be considered.

The management of specific activities within an MPA will be integrated through a management plan. A range of complementary management techniques including monitoring (based on performance indicators), compliance, staff training and education will be employed by the management authority as directed by legislation and the management plan. Management plans will be reviewed periodically to ensure that the objectives are met.

The management of MPAs will be compatible with State Acts and policies; National legislation and Agreements; and International Treaties and Conventions. It will also have regard to management plans established by Commonwealth, State or Local Governments. Cooperative management agreements between Victoria, Western Australia and Commonwealth Governments will also be developed.

Management Resources

The Government recognises that significant resources will be required to establish, manage and monitor the SARSMPA. An assessment of management and displaced commercial fishing effort requirements will be conducted during each draft MPA proposal process. Partnerships between the community and all three levels of Government will be negotiated to facilitate appropriate management.



The Community's Role in Developing the SARSMPA

Establishing a comprehensive, adequate and representative system of MPAs requires a long-term commitment to public understanding, communication and participation.

Involving the local community in the decision-making processes makes for a successful MPA for a number of reasons:

- local communities have a vested interest in the health and productivity of their local marine environment;
- local communities can contribute local knowledge about the marine environment, sometimes learnt from many generations working and living in the area: and
- if local communities have ownership over the outcome, they are more likely to support the management systems that ensue.

Throughout this process, public participation will primarily be concerned with the:

- development of MPA zoning proposals;
- preparation of a management plan to establish formal management arrangements;
- broad community understanding of the process and outcomes; and
- ongoing role in the management of the MPA.

Committees

There are two types of committees and one working group proposed for facilitating formal community involvement in the development of the SARSMPA:

- Marine Advisory Committee;
- short-term MPA Consultative Committees (for individual or grouped MPA proposals); and
- · Scientific Working Group.

Existing groups such as industry bodies, Regional Development Boards, community reference groups, existing National Parks and Wildlife Consultative Committees, Natural Resource Management Boards, Fisheries Management Committees, Recreational Fishing Committees and Friends of Parks provide additional opportunities to undertake both formal and informal consultation during the MPA planning process.

Marine Advisory Committee

The Marine Advisory Committee will advise on the development of policy and management frameworks for MPAs with an emphasis on integrating environmental, social and economic issues. The committee will report to the Minister for Environment and Conservation and members will be appointed on a skills and expertise basis. Members must possess knowledge and experience of a particular function or vocational interest relevant to the MPA program.

MPA Consultative Committees

Short-term MPA Consultative Committees will assist with the development of MPA zoning schemes and management plans. Membership of these committees will be expertise based drawn from the local community, including industry and Local Government. Communities will be asked to nominate suitable persons to be considered for MPA Consultative Committees. The Minister for **Environment and Conservation** will appoint final membership and the committees will have a close working relationship with the Department for Environment and Heritage, as well as the other established committees.

Scientific Working Group

The Scientific Working Group will be drawn from people with the necessary scientific expertise and experience in marine conservation and/or related disciplines and will also report to the Minister for Environment and Conservation. The objective of the working group will be to meet on an ad-hoc basis to provide technical and scientific support to the development of the SARSMPA.



Public Participation

A collaborative approach, with increased public participation in MPA planning and management is critical for successful MPA establishment.

Development of MPA Proposals

The purpose of public participation is to involve the community in the development of MPAs via a formal consultative committee and community consultation program. MPA Consultative Committees will assist to:

- document the ecological values and potential threats;
- document the socio-economic benefits and potential impacts;
- determine the purpose, principles and management objectives for the proposed MPA; and
- consult widely on the merits of the proposal.

Development of MPA Management Arrangements

This stage is primarily concerned with establishing a formal management framework to ensure the MPA is managed in accordance with the *Blueprint* and to involve the community in the development of a management plan.

Outcomes will be facilitated through the existing consultative committees, public workshops, public meetings, release of a draft management plan, the implementation of community education programs and monitoring activities.

Management and monitoring of the SARSMPA will involve on-going consultation and collaboration between all spheres of government, industry and community groups with an interest in the marine environment. The objectives of public participation are:

- to engage all interested parties in zoning and management plan development;
- to inform and encourage the community on how to have input into the planning process;
- to encourage the community in ongoing management of the MPA: and
- to determine resource partnership agreements between the three spheres of government, industry and community for the management and monitoring of the MPA.

The community will be advised of the Government's intent to develop a MPA in a given area. This will precede the call for members of the local community to nominate for membership of that MPA's Consultative Committee to assist in the development of a draft zoning scheme and management plan.



Appendix I

Summary of IUCN Guidelines for Protected Area Management Categories

Category 1A Strict Nature Reserve: Protected Area managed mainly for science

Area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Category 1B Wilderness Area: Protected Area managed mainly for wilderness protection

Large area of unmodified or slightly modified land and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Category 2 National Park: Protected Area managed mainly for ecosystem conservation and recreation

Natural area of land and/or sea, designated to:

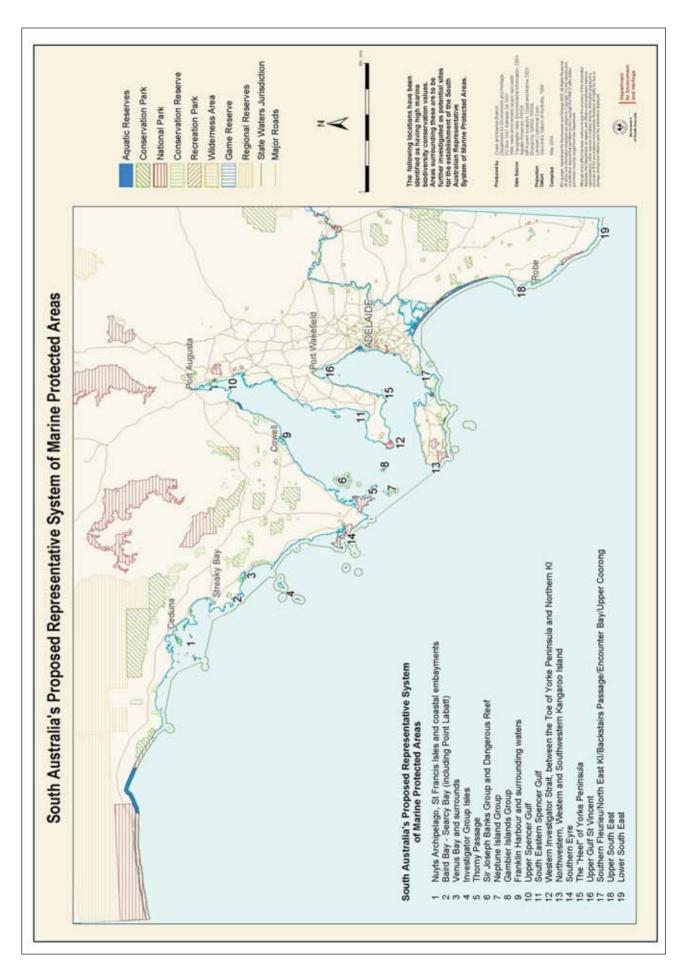
- protect the ecological integrity of one or more ecosystems for this and future generations;
- exclude exploitation or occupation inimical to the purposes of designation of the area; and
- provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

Category 3 Natural Monument: Protected Area managed for conservation of specific natural features

Area containing one or more specific natural or natural/cultural feature which is of outstanding value because of its inherent rarity, representative of aesthetic qualities or cultural significance.



Appendix II





Glossary

Adequacy The maintenance of the ecological viability and integrity of populations, species

and communities.

ANZECC Australian and New Zealand Environment and Conservation Council, a Ministerial Council

representing all jurisdictions, that operated until 2001.

Baseline The territorial sea baseline is the line from which the seaward limits of Australia's maritime

zones are measured.

Biodiversity The variability among living organisms from all sources, including, terrestrial, marine and other

aquatic ecosystems and the ecological complexes of which they are a part; this includes the

diversity within species, between species and of ecosystems.

Bioregion An area defined by a combination of biological, social and geographic criteria, rather than

by geopolitical considerations. Generally, a system of related, interconnected ecosystems.

Comprehensiveness Includes the full range of ecosystems recognised at an appropriate scale within and across

each bioregion.

Conservation The protection, maintenance, management, sustainable use, restoration and enhancement

of the natural environment.

Ecologically Sustainable Development Using, conserving and enhancing the community's resources so that ecological processes,

on which life depends, are maintained and the total quality of life, now and for the

future, can be increased.

Ecosystem A dynamic complex of plant, animal and micro-organism communities and their non-living

environment interacting as a functional unit.

Endemic Restricted to a specified region or site.

Habitat The physical place or type of site where an organism, species or population naturally occurs

together with the characteristics and conditions which render it suitable to meet the lifecycle

needs of that organism, species or population.

IMCRA The Interim Marine and Coastal Regionalisation for Australia is an ecosystem based

classification for marine and coastal environments. It provides ecologically based

regionalisations at the meso-scale (100-1000 km) and at a provincial scale

(greater than 1000s km).



IUCN The World Conservation Union (formerly known as the International Union for the Conservation

of Nature).

Multiple-use An approach that aims to achieve integration of an acceptable balance of outcomes across

the full range of marine uses.

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 /
Marine Protected
Area

An area of land and/or 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.

ReplicationThe principle that if more than one sample of an ecosystem is reserved across its geographic

range this will decrease the likelihood that chance events will cause the ecosystem decline.

Representativeness Those marine areas that are selected for inclusion in reserves should reasonably reflect the biotic diversity of the marine ecosystems from which they derive.

State Waters Australia's Offshore Constitutional Settlement established Commonwealth, State and Territory

jurisdictions over marine areas. States generally have primary jurisdiction over marine areas to

three (3) nautical miles from the baseline.

Threatened
Species and /or
ecological
communities

A species or ecological community that is vulnerable or endangered.

Threatening processes

The dominant limiting factors and constraints to the ongoing conservation of biodiversity.

Viability The likelihood of long-term survival of the example/population of the particular ecosystem or

species under consideration.

Vulnerability The predisposition of an area to a threatening process.



Photo Credits

Front Cover	(clockwise): Leafy Seadragon (Syngnathidae Phycodurus eques) (Marine Life Society of SA); Zoanthids (Zoanthus robustus), Baudin Rocks Conservation Park (David Murihead, Marine Life Society of SA); Sea Lion (David Murihead)
Page 2	Nudibranch (Polyceridae Tambja verconis) (David Muirhead)
Page 3	Nullabor Cliffs (DEH); Southern Right Whales (Picture courtesy of The Advertiser. Photo by C Richardson); Lighthouse at Cape du Couedic, Flinders Chase National Park (S Baker)
Page 4	Australian Sea Lion (David Muirhead); Children swimming (Sue Gibbs)
Page 5	Southern Rock Lobster (Jasus Edwardsii)(David Muirhead); Sponge garden (Sean Connell)
Page 6	Jetty Fishing, Coffin Bay, Eyre Peninsula (SATC); Diminutive Ascidians (Clavellina moluccencis) (Marine Life Society of SA)
Page 7	Shortsnout Seahorse (Syngnathidae Hippocampus breviceps) (David Muirhead); Western Blue Groper (Labridae Achoerodus gouldii) (Sean Connell)
Page 8	Moonta Bay Jetty (Val Boxall); Reefwatch (Picture courtesy of The Advertiser. Photo by G Adams)
Page 9	Old Wives (Enoplosus armatus) in Brown algae (Scaberia agardhii), Normanville (David Muirhead); Beach fishing, Western Cove, Kangaroo Island (SATC)
Page 10	Kelp (Marine Life Society of SA)
Page 11	Pink Aplysilla (Aplysillidae Aplysilla rosea) (David Muirhead); Diver (David Boyle)
Page 12	Seagrass (Sean Connell); Trevally (David Muirhead, Marine Life Society of SA)
Page 14	Gogonia (David Boyle)
Page 15	Sponge (Sean Connell)