

Marine Park 15

Encounter Marine Park

Park at a glance

Encounter Marine Park includes the waters off southern metropolitan Adelaide and the Fleurieu Peninsula, extending past the Murray Mouth to the Coorong coast. At its western boundary, the marine park includes all waters of Backstairs Passage and the eastern shores of Kangaroo Island.

At 3,119 km², it represents 12% of South Australia's marine parks network.

Community and industry

- The Kurna and Ngarrindjeri Aboriginal people have traditional associations with the region.
- Commercial fishing targets western king prawn, abalone, shark, rock lobster, Goolwa cockle and a range of scalefish species.
- The beaches of southern Adelaide and the coastal and marine environment of the Fleurieu Peninsula, Victor Harbor and Kangaroo Island are tourism drawcards.

Fauna and flora

- The Pages Islands provide habitat for the world's largest breeding colony of Australian sea lions and for many species of seabirds.
- Southern right whales breed and calve along Encounter Bay.

Habitat

- Includes parts of the Gulf St Vincent and Coorong Bioregions.
- Habitats include:
 - sheltered and high-energy sandy beaches, and sand dune systems,
 - coastal cliffs and rocky headlands,
 - intertidal, shallow and deep-water limestone and granite reefs,
 - islands, sheltered bays, estuaries and saltmarshes,
 - seagrass meadows, sandy seafloor and deep-water trenches.
- The habitats inside Encounter Marine Park provide critical baselines to measure any changes to the State's marine ecosystems that may arise over time from, for example, pollution or climate change.

- Powerful tidal flows through Backstairs Passage distribute larvae.
- Land and sea are linked at important sites adjacent to Coorong National Park, Deep Creek, Baudin, Moana Sands and Newland Head Conservation Parks and Onkaparinga River Recreation Park.
- River systems such as the Murray, Onkaparinga, Cygnet and Chapman Rivers also create important linkages with the land.

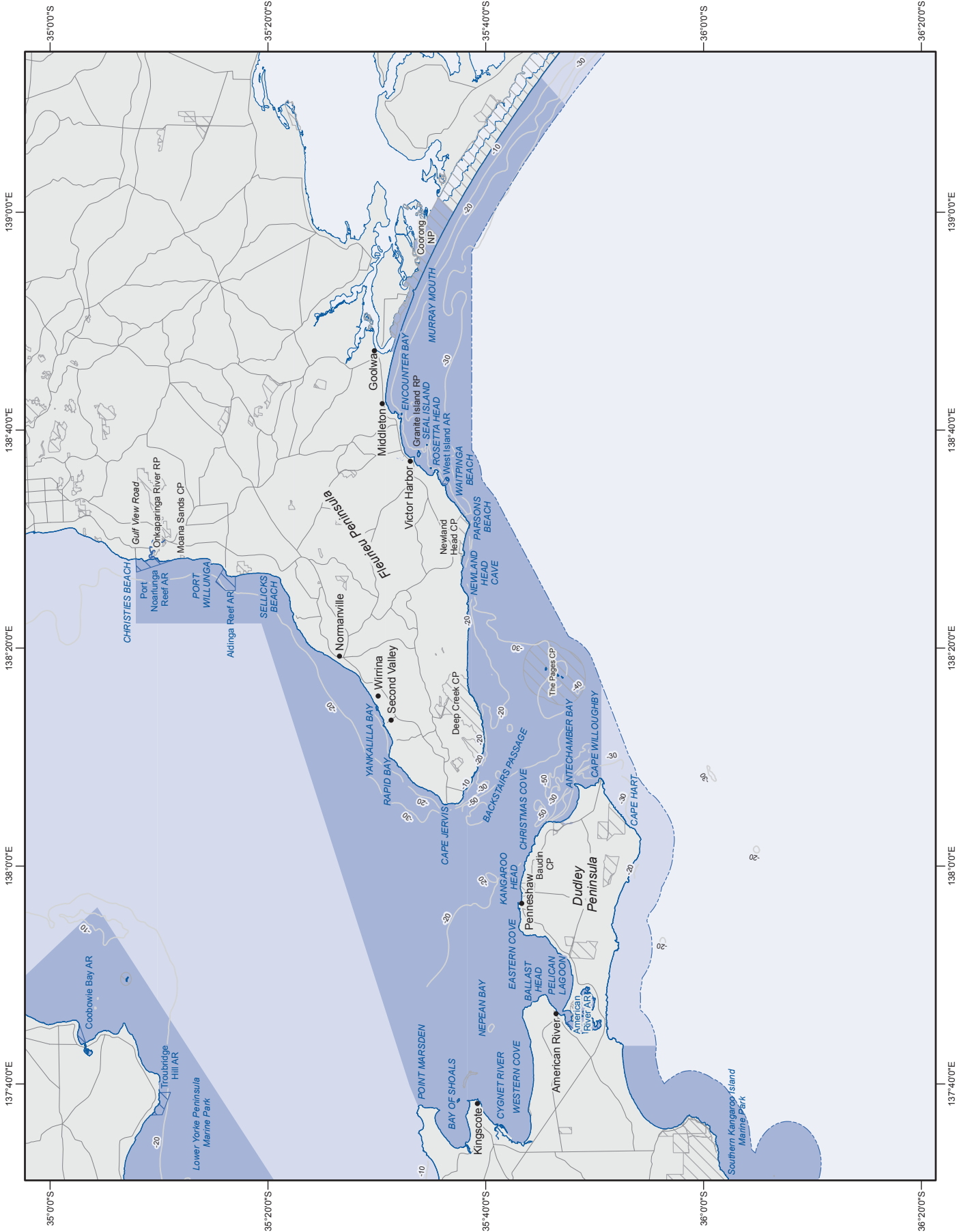
Boundary description

The Encounter Marine Park comprises the area bounded by a line commencing on the coastline at the median high water at a point 139°12'23.67"E, 35°45'3.86"S, then running progressively:

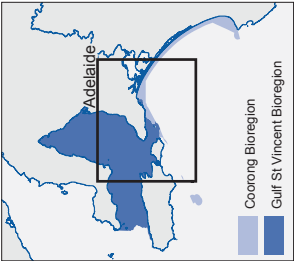
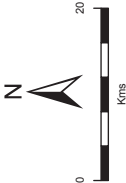
- south-westerly along the geodesic to its intersection with the seaward limit of the coastal waters of the State at a point 139°9'52.02"E, 35°47'17.77"S;
- generally westerly along the seaward limit of the coastal waters of the State to a point 138°16'47.12"E 35°50'37.31"S;
- westerly along the geodesic to its intersection with the coastline at median high water at a point 138°8'1.16"E, 35°50'37.31"S (at or about Cape Willoughby);
- generally north-westerly along the coastline of Kangaroo Island at median high water (inclusive of all bays, lagoons and headlands) to a point 137°37'55.27"E, 35°33'48.89"S (at or about Point Marsden);
- north-easterly along the geodesic to a point 138°22'15.6"E, 35°19'24.79"S;
- northerly along the geodesic to a point 138°22'15.6"E, 35°7'52.72"S;
- easterly along the geodesic to its intersection with the coastline at median high water at a point 138°28'1.11"E, 35°7'52.72"S (at or about Christies Beach);
- generally southerly, south-westerly and easterly along the coastline at median high water (inclusive of all bays, lagoons and headlands) to a point 138°47'9.53"E, 35°31'35.93"S;

(Continued)

Encounter Marine Park



- Marine Park
- State Waters Jurisdiction
- Parks and Reserves
- Aquatic Reserves
- Bathymetry Contours
- Roads
- Coastline (median high water)



Produced by Coast and Marine Conservation
Department for Environment and Heritage
GPO Box 1047 Adelaide SA 5001
www.environment.sa.gov.au/coasts
Data Source Topographic Data, Marine Bioregions
NPWSA Reserves, Bathymetry
Marine Park Locations - DEH
Compiled 13 January 2009
Projection Geographic
Datum Geocentric Datum of Australia, 1994

© Copyright Department for Environment and Heritage 2008.
This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. For the reproduction or publication beyond that permitted by the Copyright Act 1968 (Cwth) written permission must be sought from the Department.
Although every effort has been made to ensure the accuracy of the information displayed, the Department does not accept any liability for loss or damage arising from reliance upon the information displayed.

(Boundaries description continued)

- northerly along the geodesic to its intersection with the inland coastline of the Sir Richard Peninsula at median high water at a point 138°47'12.6"E, 35°31'19.93"S;
- easterly along the inland coastline of the Sir Richard Peninsula at median high water to the barrage at a point 138°48'28.80"E, 35°31'43.42"S;
- northerly along the barrage to its intersection with the coastline of Hindmarsh Island at the median high water at a point 138°48'33.9"E, 35°31'22.6"S;
- generally easterly along the coastline of Hindmarsh Island at the median high water to a point 138°53'8.78"E, 35°32'51.32"S;
- northerly along the geodesic to its intersection with the coastline of Mundoo Island at the median high water at a point 138°53'9.98"E, 35°32'31.78"S;
- generally easterly along the coastline of Mundoo Island at median high water to a barrage at a point 138°56'44.95"E, 35°33'12.90"S;
- south-easterly along the barrage to its intersection with the coastline of Ewe Island at median high water at a point 138°56'48.27"E, 35°33'15.54"S;
- generally south-easterly along the coastline of Ewe Island at median high water to a barrage at a point 138°57'18.86"E, 35°33'29.80"S;
- south-easterly along the barrage to a point 139°1'25.07"E, 35°35'37.5"S;
- south-westerly along the geodesic at the intersection of the coastline at median high water at a point 139°0'0.09"E, 35°37'4.39"S; and
- generally south-easterly along the coastline at median high water to the point of commencement.

NOTE: This boundary description is indicative only. It does not describe inclusions and exclusions of specific land parcels. For this detailed information, please refer to the DEH website: www.marineparks.sa.gov.au or Surveyor-General's office for the relevant marine park plan (known as a Rack Plan).

Bioregions and South Australia's marine parks network

Eight biologically distinct regions have been identified off South Australia's coastline. The State's marine parks have been carefully designed to include parts of each bioregion and the various habitats within them.

By including some examples of the marine biodiversity typical of the Gulf St Vincent and Coorong Bioregions, Encounter Marine Park contributes to the marine parks network's goal of representing and protecting examples of the full diversity of South Australia's marine life.

The marine life, habitats and natural processes typical of this region vary greatly in character from the exposed, high energy coast of the Coorong and the powerful currents dominating Backstairs Passage, to the more sheltered waters of Nepean Bay and the southern metropolitan Adelaide coast.

The 14 marine park Design Principles

To guide the initial identification and final selection of South Australia's multiple-use marine parks, 14 Design Principles – including seven Biophysical Principles and seven Community Principles – were defined and adopted by the Government. These Principles help ensure the marine parks network meets the objects of the *Marine Parks Act 2007* as well as South Australia's national and international obligations for marine protection.

The Biophysical Design Principles guided the identification of proposed marine park sites. The Community Design Principles were then applied to fine-tune site selection of the 19 multiple-use parks in the network.

Biophysical Design Principles

The seven Biophysical Principles address environmental conservation.

In the first instance, all parks were designed to meet the Precautionary Principle. Rigorous application of the Adequacy, Comprehensiveness and Representativeness Principles ensure the marine parks network meets South Australia's national and international marine protection obligations.

The remaining three Biophysical Principles helped prioritise important local sites, to ensure the marine parks network maximises ecological outcomes (South Australia's Strategic Plan Target 3.4)

The Precautionary Principle

The Precautionary Principle is a risk-management tool which requires action to be taken now in areas where scientific knowledge is not yet complete. One of the ways the Precautionary Principle has been applied in developing marine parks is to include areas of unsurveyed seabed habitats.

The Gulf St Vincent and Coorong Bioregions contain 9,363 km² (71%) and 869 km² (42%) respectively of unsurveyed habitat.

As a precautionary measure, 2114 km² (21%) of unsurveyed habitats in the Gulf St Vincent and Coorong Bioregions are included within the Encounter Marine Park. Including unsurveyed habitats increases the likelihood that all of the habitats that actually exist in the region are included within a marine park.

The Adequacy Principle

Adequacy is achieved if the marine park provides for both ecosystem integrity and the viability of whole populations of species.

A marine park is considered to have achieved Adequacy if both it and the network it contributes to are large enough to protect the species and habitats found there, and close enough to connect populations.

Encounter Marine Park covers 3,119 km² (12% of the marine parks network) and straddles the transition between the Gulf St Vincent and Coorong Bioregions. It has been designed to include multiple examples of each habitat type where possible, at sizes sufficient to contain viable populations of marine species.

Taking into account other marine parks in the Gulf St Vincent and Coorong Bioregions, the original outer boundary proposed in the Encounter Marine Park Draft Zoning Plan (2005) has been extended to ensure full representation of all

habitat types by including examples of limestone reefs and the distinctive beach/shoreline types of the Coorong coast.

The Principles of Connectivity and Linkages, Resilience and Vulnerability and Ecological Importance also contribute to the Adequacy of a marine park. Ultimately, Adequacy is closely linked to the success of marine park management plans with zoning.

Comprehensiveness and Representativeness Principles

To meet the Principle of Comprehensiveness, examples of all habitats that occur in a bioregion need to be included within each marine park in that bioregion.

To be Representative, all habitats in a region (e.g. reefs, beaches, seagrass, mangroves) need to be included across the full variety of physical situations in which they occur (e.g. shallow and deep water reefs, low and high energy beaches). This variety must be represented within the combination of parks created in a bioregion.

The gulf-facing coast of the southern Fleurieu Peninsula is characterised by sheltered, generally shallow waters, with many small estuaries formed by rivers and creeks running off the Mt Lofty Ranges. The Onkaparinga River creates the largest estuary on this stretch of coast. Habitats of the lower Fleurieu Peninsula include cliffs and rocky headlands interspersed by pocket beaches, intertidal and shallow near-shore reefs, seagrass meadows and sandy plains. Larger, more open beach systems extend north from Sellicks Beach, backed either by soft sediment cliffs such as at Maslin Beach or dunes as at Moana, Aldinga and Port Noarlunga. Limestone reefs such as those found at Aldinga and Port Noarlunga support different communities of plants and animals from the granite reefs of Victor Harbor.

The Coorong coast contains the largest high energy dissipative beaches in the southern hemisphere, backed by vast sand dunes and the Coorong Lakes. The high energy coastline continues west from Port Elliot, and is characterised by rocky headlands, sandy beaches and several estuaries. Further west are the impressive cliffs of the Newland Head coast, surf beaches such as Waitpinga Beach, and small pocket beaches interspersed between steep rocky coast continuing to Cape Jarvis.

Backstairs Passage includes a range of habitats. The cliffs and headlands of Dudley Peninsula are cut by wave action to form shore platforms and fringing reefs at their bases, which continue to drop steeply into a deep subterranean trench up to 80 metres deep. In shallower areas, other unusual habitats include "sand waves" created by the strong currents in the

area. Backstairs Passage also contains the Pages Islands while Antechamber Bay contains extensive dense seagrass meadows.

Nepean Bay contains the protected waters of Eastern Cove, Western Cove and Bay of Shoals, with large areas of seagrass, sandy seafloor habitat and shallow reefs. A distinguishing feature of Western Cove is the Cygnet River estuary and associated saltmarsh – the most significant in the area. Pelican Lagoon is the only semi-enclosed lagoon on the eastern coast of Kangaroo Island.

Connectivity and Linkages Principle

Connectivity describes how plants and animals move between different places. Linkages refers to the transfer of materials (e.g. organic matter) and energy flows. Connectivity and Linkages both depend on the way currents, tides and waves move water and on the abilities of marine life to move between different areas.

Encounter Marine Park creates continuous Connectivity and Linkages along shore from Christies Beach in the north to the Coorong coast in the south and from Point Marsden to Cape Willoughby on Kangaroo Island.

Offshore, the marine park provides the opportunity to protect connected and linked habitats from the sheltered waters of Nepean Bay to southern metropolitan Adelaide and the gulf facing Fleurieu Peninsula coast. This continues through Backstairs Passage to the limit of State waters south of the Fleurieu Peninsula and off the Coorong coast.

The design of the marine park will help protect species whose life cycles depend on access to different feeding, spawning, breeding and nursery habitats in small areas, as well as species dependent on areas separated by anything from tens of kilometres to hundreds of kilometres. For example, Australian sea lions rest and breed on the Pages Islands while using Backstairs Passage as an important pathway into foraging areas as distant as the Southern Spencer Gulf Marine Park.

The region is connected and linked by the very strong tidal currents which pass through Backstairs Passage and connect Gulf St Vincent to the open ocean. Adjacent to Rapid Bay, the strong currents form eddies which play an important role in the dispersal of larvae for species such as abalone and rock lobster along the Fleurieu Peninsula coast. Estuaries (such as the Cygnet River on Kangaroo Island, Onkaparinga estuary and the Murray Mouth) provide for known connections between land and sea, particularly for species including mullet which rely on freshwater outflows for breeding. Including these areas within the marine park creates the opportunity to protect places important to the life cycles of these species.

Resilience and Vulnerability Principle

The combined Principle of Resilience and Vulnerability encourages the inclusion of places, plants and animals that are more susceptible to degradation or decline and/or less able to recover from damaging impacts.

Less resilient habitats, plants and animals are less able to resist the pressure to change in response to disturbances or pressures. More vulnerable habitats, plants and animals have less capacity to recover once pressures are removed. For example, some seagrasses may take decades or more to recover from disturbance.

Examples of less resilient and more vulnerable habitats, plants and animals in Encounter Marine Park include seagrass meadows, the fragile sponge gardens found in the deep water trenches of Backstairs Passage and in tidal races in Pelican Lagoon and Bay of Shoals, and sand dune systems. In addition, low-lying coasts such as Western Cove are very vulnerable to sea-level rise associated with climate change.

Seabirds and shorebirds and raptors such as white-bellied sea eagles have specific habitat requirements, as do marine mammals such as Australian sea lions and New Zealand fur seals, and are therefore vulnerable to disturbance and habitat modification.

Ecological Importance Principle

Biodiversity in the Encounter Bay area is influenced by the cold, nutrient rich Bonney Upwelling, which occurs off the coast near Robe during the summer months.

The Coorong coast contains the largest high energy dissipative beaches in the southern hemisphere, backed by vast sand dunes and the Coorong Lakes. It is a Ramsar listed wetland of international importance for many species of both local and migratory shorebirds which are protected under international treaties.

The Pages Islands host the world's largest breeding colony of the vulnerable Australian sea lion. An important breeding and calving aggregation area for southern right whales is located off the Encounter Bay coast.

Backstairs Passage contains two unusual and large trenches reaching depths of 80 metres or more. The trench floors and walls are lined with large sponges (up to one metre in diameter) and gorgonian corals.

Community Design Principles

Synergies With Existing Protected Areas Principle

By aligning with existing protected areas, marine parks can contribute to the establishment of protected corridors across the land and sea interface.

Encounter Marine Park borders many coastal protected areas, including the Coorong National Park; Deep Creek, Baudin and Newland Head Conservation Parks; and the Onkaparinga River Recreation Park. Several conservation parks and aquatic reserves are included within the marine park, such as the Pages Islands Conservation Park, Aldinga Reef and the Port Noarlunga Aquatic Reserves.

Complementing Existing Management Principle

Management of South Australia's marine parks will complement, but not replace, current management arrangements. By providing a more inclusive management framework, South Australia's marine parks network is designed to help existing environmental management practices.

Councils including the City of Onkaparinga, District Council of Yankalilla, City of Victor Harbor, Alexandrina Council, Coorong District Council and the District Council of Kangaroo Island play important roles in managing coastal Crown lands which abut and in some cases are included within the marine park. Encounter Marine Park management will seek to integrate with existing local government management practices for the continued care of coastal Crown land community assets.

The Kangaroo Island Natural Resources Management (NRM) Board, the Adelaide and Mount Lofty Ranges NRM Board and the SA Murray Darling Basin NRM Board are responsible for mitigating impacts on the marine environment from land based activities. Ongoing monitoring of ecosystem health in Encounter Marine Park will help the NRM Boards prevent land-based pollution from reaching the sea.

No aquaculture policy zones exist in the area although there are some individual licences. Encounter Marine Park management will seek to integrate with existing management by the Department of Primary Industries and Resources SA's (PIRSA) Aquaculture Division to ensure that the established aquaculture industry can continue to benefit from healthy seas in the region.

There are established aquatic reserves at American River (Pelican Lagoon), Port Noarlunga Reef, Aldinga Reef and King Head/West Island. Netting closures are located at Bay of Shoals, Eastern Cove, Onkaparinga Head to Port Willunga,

Victor Harbor, Murray Mouth, Parsons Beach and Waitpinga Beach. Management of the Encounter Marine Park will respect and complement existing fisheries management arrangements, and will not change bag, boat and size limits or other area-based fisheries management arrangements.

There is a petroleum exploration licence overlapping part of this marine park and this will be accommodated with no change to existing conditions. Encounter Marine Park management will seek to integrate with existing management to ensure that industry can continue to benefit from the area.

Major port facilities are located at Kingscote, Penneshaw, Wirrina and Cape Jervis. Ballast Head has been identified as a site for the future development of a woodchip export loading facility. Additional major boat ramps in the region include Victor Harbor, Kingscote, American River and Christmas Cove. All shipping and harbour activities will be accommodated within the Encounter Marine Park, as will the management and maintenance needs of shipping and boating facilities.

Wherever possible, provision will be made in the Encounter Marine Park management plan with zoning to accommodate current and future economic, social and infrastructure requirements. Administrative agreements between agencies will support streamlined assessment so that marine parks do not create an extra approval process.

Give Consideration to the Full Diversity of Marine Uses Principle

The Government is committed to designing marine parks for conservation and for sustainable use, in close consultation with local communities and with minimal impact on existing activities.

The proclamation of the Encounter Marine Park outer boundary does not change the way people use the marine environment, or change any existing land or sea-bed tenure.

Wildcatch fisheries in the region target western king prawn, abalone, shark, Goolwa cockle, rock lobster and scalefish. Proclamation of the Encounter Marine Park does not displace any existing commercial fishing activity. The Government recognises that high-value catch areas occur within the park and will work with stakeholders during the development of the management plan with zoning to avoid effort displacement wherever possible.

Aquaculture licences are located at American River and Western Cove. No existing aquaculture activities will be displaced as a result of the proclamation or future marine park zoning arrangements of Encounter Marine Park. In

addition, no further approvals or permits will be required to conduct these existing activities. The habitats of the region are also important for biodiversity conservation and the marine parks program will seek to integrate with existing management strategies developed and delivered by PIRSA Aquaculture to ensure that the needs of both marine parks and aquaculture can be met.

Tourism is a major economic activity and the coastal and marine environment is integral to the tourism experience throughout this region. Visitors are drawn to the beautiful, open beaches of southern Adelaide, while the Fleurieu Peninsula and Victor Harbor are major destinations for both Adelaide residents and interstate visitors. Tourism is one of Kangaroo Island's most important industries, with the natural environment being one of the major tourism drawcards. Charter boat operations are based at a number of coastal locations around the park, providing for fishing, diving and eco-tours, such as whale and seal watching.

Recreational fishing opportunities will be maintained at locations such as the Murray Mouth, Waitpinga and Parsons Beaches and at important sites near Wirrina, Rapid Bay, Cape Jervis and American River. Cockle fishing opportunities in the Goolwa Beach area will be maintained. Recreational fishing is also popular in many other locations, such as Yankalilla Bay, around Victor Harbor, Nepean Bay and Antechamber Bay.

The outer boundary of the Encounter Marine Park does not change existing recreational fishing and boating activities and does not affect access to, or use of, jetties, break-walls or boat ramps. Existing access for recreational beach fishing will be maintained throughout Encounter Marine Park, except in small areas designated as "sanctuary" or "restricted access" zones in the marine park management plan with zoning. These will be developed over the next couple of years with extensive community input.

Many iconic diving locations exist within the marine park including Port Noarlunga Reef, Aldinga Reef, Second Valley, Rapid Bay, the Bluff, Seal Island, Kangaroo Head, Hog Point and Snapper Point.

With input from a Marine Park Local Advisory Group, industry and the community, a management plan with zoning will be developed for Encounter Marine Park to provide for ongoing community use of the area. Community feedback in response to the Encounter Marine Park Draft Zoning Plan (2005) will also inform this process. The management plan will be subject to community consultation and every effort will be made to minimise impacts on people and businesses.

Respect Indigenous Interests and Culture Principle

The Government is aware that there may be confidential Aboriginal heritage sites in South Australia's coastal areas. Where possible, these sites have been considered in the planning process. Future management plans will ensure these heritage sites are appropriately respected.

The Kurna and Ngarrindjeri Aboriginal people have traditional associations with areas of the marine park. Aboriginal people have expressed the aspiration to negotiate traditional Aboriginal fishing rights through an Indigenous Land Use Agreement (ILUA). Encounter Marine Park will provide for continued traditional fishing in accordance with any fishing ILUAs.

Give Consideration to Cultural Heritage Principle

Encounter Bay was named after the meeting between Matthew Flinders and Nicholas Baudin in 1802. The whaling industry was very active between 1837 and 1855, based at the jetty at The Bluff (Rosetta Head). The Bluff is listed on the South Australian Heritage Register and on the Register of the National Estate. Numerous shipwrecks lie within the marine park, including *HMAS Hobart*, the *Star of Greece*, the *Solway* and the *Kona*.

Ensure Ease of Identification, Compliance and Enforcement Principle

Encounter Marine Park was designed to ensure ease of identification, compliance and enforcement where possible.

The marine park boundary aligns with the end of Gulf View Road at Christies Beach and the prominent headlands of Point Marsden and Cape Willoughby. The offshore boundary follows straight lines except where the park aligns with the State waters boundary. Along the coastline, the marine park boundary lies at the median high water mark unless otherwise specified.

Provide for Education, Appreciation and Recreation

Encounter Marine Park was designed to ensure the things we enjoy in this environment continue, by helping to maintain a healthy marine environment and our uses of it.

Further opportunities for education, appreciation and recreation will be achieved through the zoning and management planning process.

Need more information?

For further information, please see: *Design Principles Guiding the Development of South Australia's Marine Park Boundaries* and *Technical Report on the Outer Boundaries of South Australia's Marine Parks Network*. Both are available on the marine parks website: www.marineparks.sa.gov.au or by calling 1800 006 120.