Marine Park 12
Southern Spencer Gulf Marine Park

Park at a glance

Southern Spencer Gulf Marine Park is located between the foot of Yorke Peninsula and the central north coast of Kangaroo Island.

At 2,972 km^2, it represents 11% of South Australia's marine parks network.

Community and industry

- The Narungga Aboriginal people have traditional associations with the region.
- Commercial fishers target abalone, rock lobster, shark, pilchards, prawns, snapper, King George whiting and other scalefish species.
- Fishing, boating, sailing, diving, snorkelling, swimming, camping and beach walking are popular.
- Also featured in this marine park are the Investigator Strait Maritime Heritage Trail and other historical sites listed on the Register of the National Estate.

Fauna and flora

- The park helps protect many species of conservation concern, including:
  - white-bellied sea eagles, peregrine falcons, osprey, fairy terns, hooded plover and rock parrots, and
  - marine mammals such as Australian sea lions, New Zealand fur seals and southern right whales.

Habitat

- This marine park includes parts of the Spencer Gulf, Eyre and Gulf St Vincent Bioregions and features a variety of habitats: shallow, low-energy north-facing coasts with sheltered seagrasses and reefs; and deeper, high-energy coasts.
- The habitats inside South Australia's marine parks network 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.
- Species within the marine park are influenced by the clockwise circulation of Spencer Gulf waters and by seasonal fluctuations in the salinity of outflows along the eastern side of the Gulf.
- Land and sea are linked at important sites adjacent to Innes National Park, Leven Beach Conservation Park and Western River Wilderness Area.

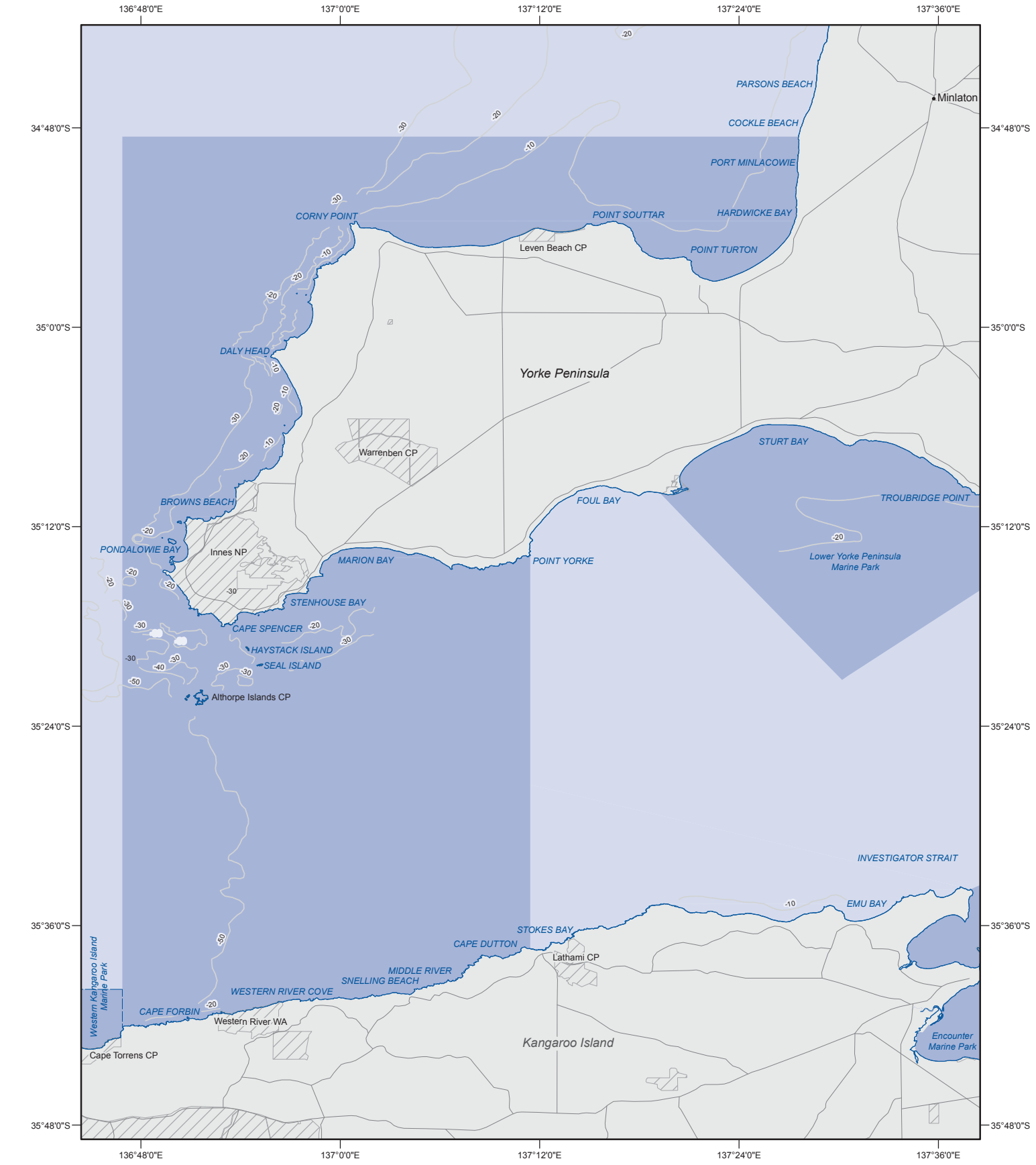
Boundary description

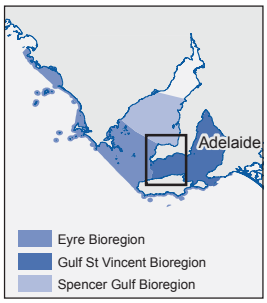
The Southern Spencer Gulf Marine Park comprises the area bounded by a line commencing on the coastline at median high water at a point 137°11′25.4″E, 35°13′44.65″S (at or about Point Yorke), then running progressively:

- southerly along the geodesic to its intersection with the coastline of Kangaroo Island at median high water at a point 137°11′25.4″E, 35°37′23.25″S;
- westerly along the coastline of Kangaroo Island at median high water (inclusive of all bays, lagoons and headlands) to a point 136°46′52.75″E, 35°42′6.8″S (in the vicinity of Cape Forbin);
- northerly along the geodesic to a point 136°46′52.75″E, 34°48′31.99″S;
- easterly along the geodesic to its intersection with the coastline at median high water at a point 137°27′34.71″E, 34°48′31.99″S; and
- generally southerly, westerly, southerly and easterly along the coastline at median high water (inclusive of all bays, lagoons and headlands) 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).*

Southern Spencer Gulf Marine Park





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

N
0
10
Kms

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	9 January 2009
Projection	Geographic
Datum	Geocentric Datum of Australia, 1994

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 examples of the marine biodiversity typical of the Eyre, Spencer Gulf and Gulf St Vincent Bioregions, the Southern Spencer Gulf 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 great variety of marine life, habitats and natural processes typical of this region include the low energy north-facing coast of the foot of Yorke Peninsula, contrasting with the open, high energy coasts exposed to southerly winds and oceanic swells along the toe of Yorke Peninsula. Also featured are the habitats of Investigator Strait, with its deep waters and strong currents, and the distinctive sheltered northern coast of Kangaroo Island, backed by high cliffs and interspersed by small, sandy beaches.

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, Eyre and Spencer Gulf Bioregions all contain seabed habitats that are yet to be surveyed. The areas of unsurveyed seafloor are 9,363 km^2 (71%), 14,972 km^2 (80%) and 7,669 km^2 (66%), respectively.

As a precautionary measure, 2106 km^2 (5% of Eyre, 14% of Gulf St Vincent and 1% of Spencer Gulf Bioregions) of unsurveyed seabed is included within the Southern Spencer Gulf Marine Park. Including unsurveyed areas 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.

Southern Spencer Gulf Marine Park covers 2,972 km^2 (11% of the whole marine parks network). It has been designed to include multiple examples of each habitat type where possible, at sizes sufficient to contain viable populations of marine species.

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 north facing coast of the foot of Yorke Peninsula is sheltered from strong southerly winds and is generally a shallow, low energy coastline. The Hardwicke Bay area contains broad, low energy beaches backed by extensive, densely vegetated sand dune systems. Low energy pebble beaches and rocky shores are found in the Point Souttar area, backed by low cliffs. Sandy beaches backed by low dunes continue to Corny Point, with shallow seagrass meadows and low profile reefs adjacent to the coast.

South of Corny Point to the toe of Yorke Peninsula, the coast is exposed to wind, wave and swell energies. Along the toe of Yorke Peninsula, the coast features exposed cliffs and high headlands, fronted by high energy intertidal reefs and shore platforms. Rocky reef habitats include caves, crevasses and overhangs, leading to sandy seafloor habitats in deeper waters. Between the cliffs and headlands lie both sheltered and high energy sandy beaches, backed by sand dune systems. The distinctive high energy Dust Hole Beach, south of Daly Head, is backed by huge mobile sand dunes. Stenhouse Bay and Marion Bay provide more sheltered habitats such as seagrasses, while the coast east towards Point Yorke is moderately exposed to wave and wind energy.

Other habitat types represented include the deep water seagrass meadows and sandy seafloor habitats of Investigator Strait. The marine park represents the full transition of Investigator Strait habitats, from the coast through to waters up to 50 metres deep. The north coast of Kangaroo Island is a moderate energy coastline containing the highest cliffs in South Australia with platform bedrock reefs at their base. Small sandy beaches are found in various locations.

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.

Southern Spencer Gulf Marine Park creates continuous Connectivity and Linkages along-shore from Port Minlacowie to Point Yorke on Yorke Peninsula and from Cape Forbin to Stokes Bay on Kangaroo Island. Offshore, the marine park creates continuous Connectivity and Linkages from the waters of lower Spencer Gulf to the north coast of Kangaroo Island.

The size and 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, King George whiting are known to breed in the deep water patchy reef and seagrass habitats in Investigator Strait off the north coast of Kangaroo Island, before moving into the coastal wetlands of Gulf St Vincent as juveniles.

Multi-dimensional, large-scale natural processes also connect and link ecosystems within the region. The Yorke Peninsula section of the marine park is influenced by both the clockwise circulation of currents in Spencer Gulf and by the outflow of saline waters along the seafloor down the eastern side of Spencer Gulf during winter.

Strong currents in the southern section of the park pass through the deeper waters of Investigator Strait and into Gulf St Vincent, carrying nutrients from cold water upwellings which originate beyond the continental shelf and rise to the surface near the western entrance to Investigator Strait.

The Southern Spencer Gulf Marine Park also adjoins the Western Kangaroo Island Marine Park, creating further Connectivity and Linkages with the deep waters to the west of Kangaroo Island and around to the southern Kangaroo Island coast.

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 the Southern Spencer Gulf Marine Park include seagrass meadows and some coastal dune system, which are vulnerable to human impacts, birds such as hooded plovers which nest in high use areas along the top of beaches, and white-bellied sea eagles which have very specific nesting site preferences. Similarly, Australian sea lions and New Zealand fur seals have very specific habitat requirements which are provided for at the Althorpe Islands.

Ecological Importance Principle

Areas of particular ecological importance include coastal reefs known to be important nursery areas for western blue groper and blue wrasse, both species of conservation concern, and deeper patchy reef/seagrass habitats of northern Kangaroo Island, which are known King George whiting spawning grounds.

The inshore beach habitats and seagrass beds of lower Yorke Peninsula and Kangaroo Island provide spawning and nursery areas for a variety of commercially and recreationally significant species. Browns Beach is an important nursery site for blue groper, with the bays on the south western toe area of Yorke Peninsula providing breeding and nursery areas for the Port Jackson shark.

There are important breeding sites in the area for peregrine falcons, ospreys, white-bellied sea eagles and little penguins on the north coast of Kangaroo Island.

Each summer, near the western entrance to Investigator Strait, upwellings of cool, nutrient-rich waters originating in the depths beyond the continental shelf rise to the surface. The additional nutrients support higher abundances of zooplankton, which stimulate the whole food web from pilchards to predators including tuna and sharks.

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-sea interface. Southern Spencer Gulf Marine Park includes the waters adjacent to Innes National Park, Leven Beach Conservation Park and Western River Wilderness Area and includes the Althorpe Islands Conservation Park.

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.

The District Council of Yorke Peninsula and 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. Southern Spencer Gulf Marine Park management will seek to integrate with existing local government management practices for the continued care of coastal Crown land community assets.

The Northern and Yorke Natural Resources Management (NRM) Board and Kangaroo Island NRM Board are responsible for mitigating impacts on the marine environment from land-based activities. Ongoing monitoring of ecosystem health in the Southern Spencer Gulf Marine Park will help the NRM Boards prevent land-based pollution from reaching the sea.

The Department of Primary Industries and Resources SA's (PIRSA) Aquaculture Division has developed aquaculture policy zones at Hardwicke Bay. All existing aquaculture leases and zones within the Southern Spencer Gulf Marine Park will be accommodated. Marine park management will integrate with existing management by PIRSA Aquaculture in the area to ensure that established aquaculture continues to benefit from healthy seas.

There is a fisheries netting closure around the foot of Yorke Peninsula from the northern end of the park at Cockle Beach to Point Yorke, extending southward to include the Althorpe Islands. Management of the Southern Spencer Gulf 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.

Boat ramps are located at Port Minlacowie, Hardwicke Bay, Point Turton, and Marion Bay. Jetties and other infrastructure also exist within the marine park. All shipping and harbour activities will be accommodated within the park, as will the management and maintenance needs of shipping and boating facilities.

Wherever possible, provision will be made in the future Southern Spencer Gulf 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 Southern Spencer Gulf 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 abalone, rock lobster, shark, pilchards, western king prawns, snapper, King George whiting and other scalefish species. Proclamation of the marine park's outer boundary does not displace any existing commercial fishing. The Government recognises that high-value catch areas occur within the marine park and will work with stakeholders during the development of the park management plan with zoning to avoid effort displacement wherever possible.

Aquaculture licences and application licences are located in Hardwicke Bay. No existing aquaculture activities will be displaced as a result of the proclamation or future marine park zoning arrangements of the Southern Spencer Gulf 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.

The declaration of a marine park in this area also recognises the high value of tourism in the region, which is a major

contributor to the economies of both Yorke Peninsula and Kangaroo Island, with the coastal environment, fishing, diving and surfing being important visitor drawcards. Charter boat operations are based in a number of locations, catering for fishing, diving, scenic tours and whale watching.

The area is also recognised for its recreational fishing opportunities, which will be maintained at Browns Beach. Recreational fishing is also popular in many other locations throughout this marine park, such as the more sheltered waters from Hardwicke Bay to Corny Point, in the Marion Bay and Althorpe Islands area and off the north coast of Kangaroo Island, near access points such as Snellings Beach.

Beach fishing is also popular at a number of locations. The outer boundary of the Southern Spencer Gulf 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 the park, except in small areas designated as "sanctuary" or "restricted access" zones in the marine park management plan with zoning. This will be developed over the next couple of years with extensive community input.

Popular diving locations include the jetties at Point Turton, Stenhouse Bay and Marion Bay, as well as the Althorpe Islands. Kangaroo Island is also highly rated as a diving location, famous for its clear waters, beautiful reefs and abundant marine life.

With input from a Marine Park Local Advisory Group, industry and the community, a management plan with zoning will be developed to cater for ongoing community use of Southern Spencer Gulf Marine Park. The management plans 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 Narungga Aboriginal people have traditional associations with the Yorke Peninsula region. Aboriginal people have expressed the aspiration to negotiate traditional fishing rights through an Indigenous Land Use Agreement (ILUA).

The Southern Spencer Gulf Marine Park will allow for traditional fishing in accordance with any fishing ILUAs.

Give Consideration to Cultural Heritage Principle

Cultural heritage features of this marine park include the lighthouse and associated cottages, buildings and jetty located on Althorpe Island, as well as the lighthouse at Corny Point, which are all listed on the Register of the National Estate.

At least 40 known shipwrecks lie in the marine park, 26 of which are included in the Investigator Strait Maritime Heritage Trail.

Ensure Ease of Identification, Compliance and Enforcement Principle

Southern Spencer Gulf Marine Park was designed to ensure ease of identification, compliance and enforcement where possible. The design uses a simple north-south and east-west arrangement to provide for ease of interpretation and to facilitate location on the water using GPS. The points at which the marine park meets the coast align with landmarks at Point Yorke and Cape Forbin. Along the coastline, the marine park boundary lies at the median high water mark unless otherwise specified.

Provide for Education, Appreciation and Recreation Principle

Southern Spencer Gulf 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.