

Marine Park 2

Nuyts Archipelago Marine Park

Park at a glance

Located on the west coast of South Australia, Nuyts Archipelago Marine Park is the largest single marine park in South Australia's marine parks network. It includes the Nuyts Reef complex, Fowlers Bay, islands of the Nuyts Archipelago, the St Francis Isles and adjacent coastal bays.

At 3,998 km², it represents 15% of South Australia's marine parks network.

Community and industry

- The Wirangu Aboriginal people have traditional associations with the region.
- The park features many shipwrecks, such as the *John and May* (1914) and *Corsair* (1950), and several geological monuments.
- Commercial fishers target western king prawn, abalone, southern rock lobster and scalefish species.
- Aquaculture is developing rapidly, chiefly producing high quality oysters.

Fauna and flora

- The world's smallest live-bearing starfish (known locally as "Little Patty").
- Wetland nursery habitats for fish and crustaceans, and critically important feeding and resting habitats for local and migratory shorebirds.
- Unusual plate corals of tropical origin, not known anywhere else in the State.

Habitat

- Nuyts Archipelago Marine Park includes parts of the Eucla and Murat Bioregions.
- The great variety of habitats typical of this region include:
 - high energy beaches, cliffs and rocky headlands, islands,
 - sand dune systems, estuaries, mangroves and saltmarshes,
 - sheltered embayments with seagrass meadows,
 - intertidal reefs, deep water rocky reefs and sandy plains.
- Fowlers Bay's seagrasses represent the last significant stand of this habitat type in the State's west. Other significant seagrass beds are not found further west for hundreds of kilometres.

- The habitats inside Nuyts Archipelago 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.
- Inside the outer boundary, land and sea are linked at sites adjacent to Fowlers Bay Conservation Park, Isle of St Francis Conservation Park, Nuyts Archipelago Conservation Park, Wittlebee Conservation Park, Laura Bay Conservation Park, Chadinga Conservation Reserve and Point Bell Conservation Park
- Nuyts Archipelago Marine Park connects to areas east of Eyre Peninsula thanks to south-easterly summer winds and the Flinders Current. It is in a transition area between South Australian and Western Australian species.

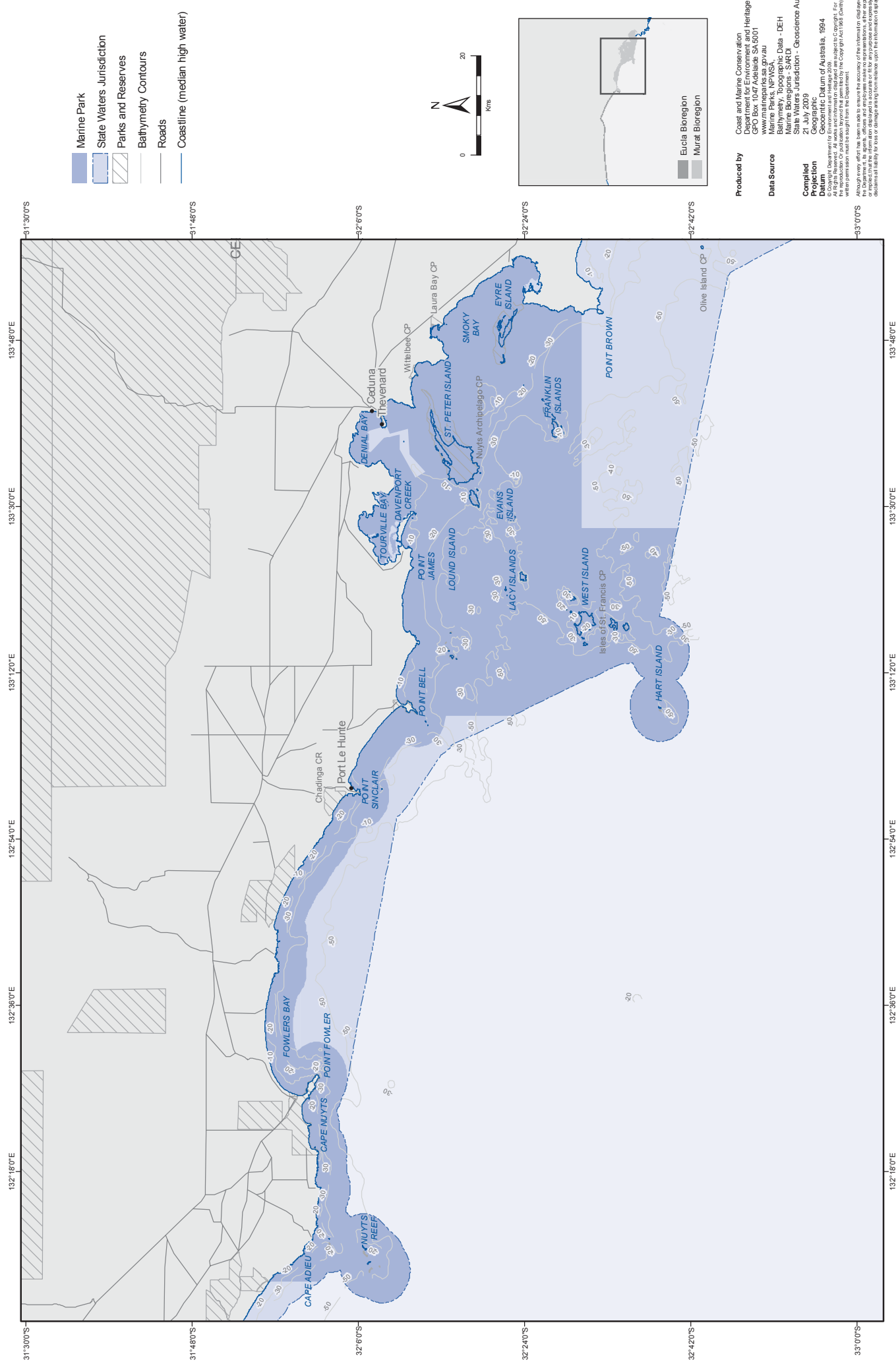
Boundary description

The Nuyts Archipelago Marine Park comprises the area bounded by a line commencing on the coastline at median high water at a point 133°50'50.91E'', 32°30'14.4S'' (at or about Point Dillon), then running progressively:

- westerly along the geodesic to a point 133°27'43.2E'', 32°30'14.4S'';
- southerly along the geodesic to the intersection with the seaward limit of the coastal waters of the State at a point 133°27'43.2E'', 32°40'36.35S'';
- generally north-westerly along the seaward limit of the coastal waters of the State to a point 133°7'20.89E'', 32°22'41.91S'';
- northerly along the geodesic to its intersection with the seaward limit of the coastal waters of the State at a point 133°7'20.89E'', 32°15'30.13S'';
- generally westerly along the seaward limit of coastal waters of the State to a point 132°6'4.36E'', 32°1'49.49S'';
- northerly along the geodesic to an intersection point 132°6'4.36E'', 31°56'23.95S'' with the mean high water mark;
- generally 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).

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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 significant and varied examples of the marine biodiversity typical of the Eucla and Murat Bioregion, Nuyts Archipelago Marine Park contributes to the marine parks network's goal of representing and protecting examples of the full diversity of South Australian marine life.

The marine life, habitats and natural processes typical of this region include the Nuyts Archipelago of islands as well as sheltered bays which provide important coastal habitats such as seagrasses, mangroves and saltmarshes.

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 were defined and adopted by the Government. The seven Biophysical Principles and seven Community 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.

In the Eucla Bioregion, 1,413 km² (76%) and in the Murat Bioregion, 5,088 km² (78%) of seabed habitats are yet to be surveyed.

As a precautionary measure 7% of unsurveyed area from the Eucla Bioregion and 59% from the Murat Bioregion is included within the Nuyts Archipelago Marine Park. Including unsurveyed habitats increases the likelihood that all habitats in a 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.

Nuyts Archipelago Marine Park covers 3,998 km² (15% of the whole 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.

The Murat section of the marine park features the offshore Nuyts Reef complex, exposed rocky shores and adjacent reefs, surf beach habitats and the more sheltered sandy beach habitats and dense seagrass beds in western Fowlers Bay.

Comprehensiveness and Representativeness Principles

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

Nuyts Archipelago Marine Park contains a complex, interconnected network of highly varied habitats, such as shallow bays, estuaries of varying type and orientation and the multitude of habitats associated with the island archipelago complex.

Also included are the most significant expanses of seagrasses and temperate mangroves outside South Australia's gulfs. Whether they are compared nationally or internationally, our seagrass meadows are large. In Australia, only Western Australia has more temperate water seagrass. Nuyts Archipelago Marine Park has dense seagrass beds in Fowlers Bay, shallow seagrasses on the margins of Smoky and Tourville Bays, deepwater seagrasses in offshore Denial Bay, and other seagrass beds near the Franklin Islands.

This marine park includes the offshore Nuyts Reef complex and also contains a large area of reef leading out to Sinclair Island and off Point Bell, high energy coastal cliffs in Smoky Bay and long stretches of high energy sandy beach habitats.

High energy wave and swell conditions and deep waters are found around the exposed coasts of the offshore islands, while the more sheltered lee side provides further habitat variety and complexity.

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 in part on the way currents, tides and waves move water and on the abilities of marine life to move between different areas.

Nuyts Archipelago Marine Park creates continuous Connectivity and Linkages from the Nuyts Reef complex in the west to Point Dillon in the east.

The Nuyts Archipelago area is unique in South Australia because of the strong influence of the Leeuwin Current, which flows east across the Great Australian Bight and brings biological features more typical of Western Australia than the rest of South Australia.

Furthermore, the Leeuwin Current mixes with the Flinders Current in the region, creating a biodiversity hotspot. For example, the Leeuwin Current's subtropical warm water brings migrating tuna. Similarly, the western footballer is a fish species more common in Western Australia than South Australia.

In addition, the presence of plate corals, usually associated with tropical waters, can also be explained by the influence of the Leeuwin Current.

Many species need different habitats at different stages of their life cycles. For example, as juveniles, King George whiting feed and shelter in the shallow seagrass, mangrove and saltmarsh nursery habitats of Tourville Bay (which is also home to the largest stand of mangroves found on the Eyre Peninsula). When spawning, however, the whiting move into the deeper waters such as the Archipelago's offshore reefs.

Research on Australian sea lions in the region shows that colonies feed either inshore, offshore around the archipelago, or further out to sea. Also, both the Australian sea lion and New Zealand fur seal have very specific habitat requirements which are provided for at the Nuyts Rocks. Additionally, many islands in this region provide haul-out and breeding habitats for these animals.

Seagrasses can be highly vulnerable to physical disturbance and/or declining water quality. The seagrasses of Fowlers Bay are particularly important as they represent the last significant stand of this habitat type in the west of the State. Protecting habitats and species at the edge of their geographical ranges is an important attribute for marine parks.

Protecting all the waters from land to the limits of State waters allows us to protect species whose life cycles depend on access to 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.

Resilience and Vulnerability Principle

The combined Principle of Resilience and Vulnerability encourages the inclusion within marine parks 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 disturbances or pressures. For example, kelp reefs found in Nuyts Archipelago Marine Park are less resistant to change and, if subject to extreme pressure, the kelp could be replaced by large mussel beds or be reduced to bare rock.

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.

Nuyts Archipelago Marine Park includes several estuaries, which are vulnerable sites at the heart of the interaction between land, sea and human impacts. Estuaries, mangroves and saltmarshes are particularly vulnerable to sea level rise, which is expected to be an impact of climate change.

Ecological Importance Principle

Nuyts Archipelago Marine Park includes a number of significant breeding and haul-out sites for the vulnerable Australian sea lion.

Haul-out sites for the New Zealand fur seal are also located at several sites within the marine park.

Seven out of 10 populations of Australian sea lions thought to be at most risk in South Australia are located in this marine park. In addition, Purdie Island is one of six identified locations in South Australian waters where more than 100 pups are produced each breeding cycle.

Southern right whales migrate along this coastline from May to October, calving and resting in several areas along the far west coast, including the Great Australian Bight.

Tourville Bay, Ceduna Bays and the Nuyts Islands are recognised internationally and nationally for their importance to a range of local and migratory shorebirds. Crested terns breed on Sinclair Island and the Nuyts Islands are also important habitats for seabirds, including those protected under international treaties such as the Caspian tern and the short tailed shearwater. Point Le Hunte is a whale resting site.

Plate corals found in the region are of tropical origin, transported to the area by the Leeuwin Current. They are not found elsewhere in South Australia.

Tourville, Denial and Smoky Bays as well as Davenport Creek have all been identified as Wetlands of National Importance and provide critical nursery areas for a range of fish, crustaceans and other marine species.

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. Nuyts Archipelago Marine Park was designed to link the separated parks of the island groups into one single functioning unit.

The marine park borders with Fowlers Bay Conservation Park, Chadinga Conservation Reserve, Laura Bay Conservation Park and Point Bell Conservation Park, while the island conservation parks are inside the 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 western end of the Nuyts Archipelago Marine Parks is located in the Outback Areas Community Development Trust region. The remainder of the Marine Park is located within the District Council of Ceduna Local Government boundary.

The District Council of Ceduna plays an important role in managing coastal Crown lands which abut and, in some cases, are included within Nuyts Archipelago Marine Park. Marine park management will seek to integrate with existing local government management practices for the continued care of coastal Crown land.

The Eyre Peninsula Natural Resources Management (NRM) Board is responsible for mitigating impacts on the marine environment from land-based activities. Ongoing monitoring of ecosystem health in Nuyts Archipelago Marine Park will help the NRM Board prevent land-based pollution from reaching the sea.

There are established aquaculture policy zones in Smoky Bay, Laura Bay, Cape d'Estrees and around Eyre Island. All existing aquaculture leases and zones within Nuyts Archipelago Marine Park will be accommodated. Marine park management will seek to integrate with existing management by PIRSA Aquaculture in this area, to help the aquaculture industry keep benefiting from the region's healthy seas.

There are established fisheries netting closures in Fowlers Bay, Denial Bay and Smoky Bay. Management of Nuyts Archipelago 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.

Wherever possible, provision will be made in the Nuyts Archipelago 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 Nuyts Archipelago Marine Park does 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 Nuyts Archipelago Marine Park 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, southern rock lobster, southern bluefin tuna and a wide range of scalefish species. Proclamation of the Nuyts Archipelago Marine Park does not displace any existing commercial fishing activity. 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 from those areas wherever possible.

The aquaculture industry is well established in this region, which is renowned for producing high quality farmed oysters. There are a number of licences around the Nuyts Archipelago islands and within the shallow coastal waters of the marine park. There is also an abalone licence within Fowlers Bay. No existing aquaculture activities will be displaced as a result of the proclamation of Nuyts Archipelago Marine Park or future marine park zoning arrangements. 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's Aquaculture Division to ensure that the needs of both marine parks and aquaculture can be met.

Tourism is a major economic contributor to the region and includes many activities such as fishing and boating, surfing, diving, swimming, and whale and seal watching. Recreational fishing from boats and the jetty is popular

at Fowlers Bay, while access to the coast for surf fishing is provided by a multitude of four wheel drive tracks through the dune systems. Charter vessels provide for offshore recreational fishing around the Nuyts Reef area. Charter vessels enable recreational fishing around the Nuyts Reef Area and diving experiences in more remote offshore areas.

The outer boundary of Nuyts Archipelago 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 Nuyts Archipelago Marine Park, except in small areas designated as “sanctuary” or “restricted access” zones in the park management plan with zoning. This will be developed over the next couple of years with extensive community input.

With input from a Marine Park Local Advisory Group, industry and the community, a management plan with zoning will be developed for Nuyts Archipelago Marine Park to support ongoing community use of the area. The management plan will be subject to community consultation and every effort will be made to minimise impacts on people and businesses.

Abalone aquaculture licences are located in Fowlers Bay. No existing aquaculture activities will be displaced as a result of the proclamation or future marine park zoning arrangements of Far West Coast Marine Park. In addition, no further approvals or permits will be required to conduct these 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's Aquaculture Division to ensure that the needs of both marine parks and aquaculture can be met.

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 Wirangu Aboriginal people have traditional associations with the region, including the marine environment and associated marine life, with many known heritage sites. Other Aboriginal groups such as Yalata, Maralinga, Mirning and some inland people may have periodically used the coastal lands of the marine park.

Aboriginal people have expressed the aspiration to negotiate traditional Aboriginal fishing rights through an Indigenous Land Use Agreement (ILUA). Nuyts Archipelago Marine Park will provide for continued traditional fishing in accordance with any fishing ILUAs.

Give Consideration to Cultural Heritage Principle

Some conservation parks in the region are listed on the Register of the National Estate, e.g. Nuyts Archipelago Conservation Park and Laura Bay Conservation Park. A fore-dune ridge system located on Eyre Island has been identified as a geological monument.

Many shipwrecks are scattered throughout the Nuyts Archipelago Marine Park, such as the historic wrecks of the *John and May* (1914) and *Corsair* (1950). Historic whaling stations add to the tourist appeal of St Peters Island.

Ensure Ease of Identification, Compliance and Enforcement Principle

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

Start and end points were chosen to coincide with the eastern coastal boundary of the Wahgunyah Conservation Park in the west and the Point Dillon headland in the east. The park uses straight lines from those points and along the coastline, the marine park boundary lies at the median high water mark unless otherwise specified.

Provide for Education, Appreciation and Recreation Principle

Nuyts Archipelago 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.