Marine Park 14
Upper Gulf St Vincent Marine Park

Park at a glance

The marine park is in the upper reaches of Gulf St Vincent, north of a line from Parara Point to the northern end of Port Gawler Beach.

At 966 km^2, it represents 4% of South Australia's marine parks network.

Community and industry

- The Narungga and Kaurna Aboriginal people have traditional associations with the region.
- A range of popular recreational activities such as crab raking, fishing, boating, bird watching and beach walking help attract tourism to the area.
- Commercial fishers mainly target blue swimmer crab and scalefish species.

Fauna and flora

- Protected bird species including slender billed thornbills, eastern curlews, fairy terns, freckled ducks, banded stilts and red capped plovers.
- Vulnerable seagrasses.

Habitat

- Upper Gulf St Vincent Marine Park is within the Gulf St Vincent Bioregion.
- Habitats typical of this region include:
  - saltmarshes, mangroves and tidal flats,
  - dense seagrass meadows and sandy seafloor,
  - sand and shellgrit beaches, tidal creeks and river deltas.
- The habitats inside Upper Gulf St Vincent 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.
- The coastal wetlands of Gulf St Vincent provide nursery habitats for King George whiting, garfish, mullet, western king prawn and blue swimmer crab.
- Exposed tidal flats provide important food and resting places for thousands of migratory shorebirds during summer.
- Species within the marine park are influenced by the distinctive clockwise circulation of currents within Gulf St Vincent.
- Sites adjacent to Wills Creek and Clinton Conservation Parks and parcels of Crown land link land and sea to provide, where possible, for habitats to adapt to climate change conditions such as sea-level rise.

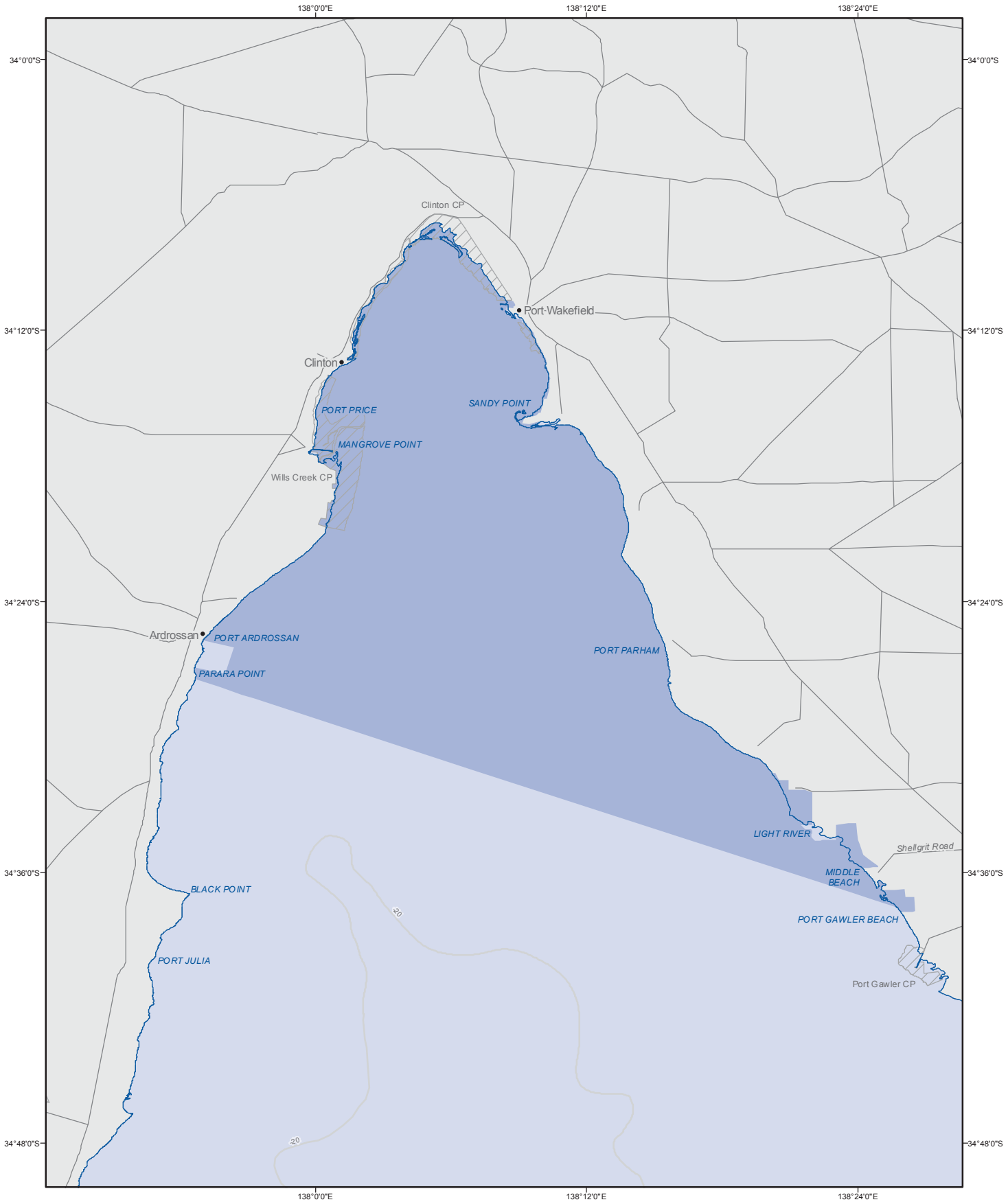
Boundary description

The Upper Gulf St Vincent Marine Park comprises the area bounded by a line commencing on the coastline at median high water at a point 138°25′54.41″E, 34°37′45.59″S (in the vicinity of Port Gawler Beach), then running progressively:

- north-westerly along the geodesic to its intersection with the coastline at median high water at a point 137°54′40.15″E, 34°27′26.61″S (in the vicinity of Parara Point); and
- generally northerly and south-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).*

Upper Gulf St Vincent Marine Park



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

N

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Kms

Produced by	Coast and Marine Conservation Department for Environment and Heritage GPO Box 1047 Adelaide SA 5001 www.marineparks.sa.gov.au
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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 some examples of the marine biodiversity of the Gulf St Vincent Bioregion, Upper Gulf St Vincent 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 the upper Gulf St Vincent include some of the largest continuous seagrass/mudflats/mangrove and saltmarsh systems in South Australia. Habitats such as these typically provide highly productive nursery areas for a wide range of species which, as adults, may disperse to other areas of the State.

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 to 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 Gulf St Vincent Bioregion, 9,362 km^2 (71%) of seabed habitats are yet to be surveyed.

As a precautionary measure, 284 km^2 (3%) of unsurveyed habitats from the Gulf St Vincent Biogregion are included within Upper Gulf St Vincent Marine Park. Including unsurveyed habitats increases the likelihood that all of the habitats that actually exist 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.

Upper Gulf St Vincent Marine Park covers 966 km^2 (4% 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.

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.

Upper Gulf St Vincent Marine Park contributes large areas of dense seagrass meadows in shallow, warm waters, which is characteristic of the northern section of the Gulf St Vincent Bioregion. The largest seagrass meadows are found on the eastern side of the Gulf between Port Wakefield and Port Gawler where there are also stretches of sandy seafloor habitat close to the shore.

The sheltered shoreline of the marine park is characterised by sand and shellgrit beaches and low dunes, as well as tidal mudflats on both sides of the Gulf. Large areas of saltmarshes and mangroves are prominent, with other habitat types including tidal creeks, river deltas and low dune ridges.

Connectivity and Linkages Principles

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.

Upper Gulf St Vincent Marine Park creates continuous Connectivity and Linkages along-shore from Parara Point in the west to the northern tip of the Gulf and to the northern end of Port Gawler Beach in the east. Offshore, habitats and marine life in the region are connected by the clockwise water circulation patterns and generally weak current flows.

The marine park provides the opportunity to protect habitat connections from the landward limit of the tidal saltmarshes, through the adjacent mangroves, mudflats and shallow seagrasses to the dense, deeper offshore seagrass beds. This marine park design feature helps 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.

Resilience and Vulnerability Principles

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 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 Upper Gulf St Vincent Marine Park include seagrasses, which are vulnerable to physical disturbance and declining water quality. The extensive, low-lying saltmarshes, mangroves and tidal flats and the fauna they support are very vulnerable to sea-level rise associated with climate change.

Upper Gulf St Vincent Marine Park is designed to help protect less resilient and more vulnerable habitats, plants and animals from the impacts of climate change by including coastal parcels of land, which may allow habitats such as mangroves and saltmarshes to move inland if sea levels rise.

Ecological Importance Principle

Gulf St Vincent, like Spencer Gulf, is an example of an inverse estuary, where salinities are higher at its headwaters than at its mouth. Estuaries are extremely important ecosystems and perform a range of vital ecological functions.

One of these functions is to provide important breeding and/or nursery areas for a multitude of marine species of environmental, recreational and commercial importance, including King George whiting, western king prawns, blue swimmer crabs and many others. Many of these species disperse throughout the Gulf and beyond as they mature.

The tidal mudflats and saltmarshes of this region provide important feeding and resting habitats for thousands of migratory shorebirds, which are resident in the summer months before returning to the northern hemisphere.

Examples of protected bird species found in the region include the slender billed thornbill, vulnerable eastern curlew, endangered fairy tern and vulnerable freckled duck. Middle Beach to Port Parham has been identified as an area of international significance for many species of shorebirds including the vulnerable banded stilt and the red capped plover.

Mangroves throughout the region provide habitat for a variety of important bird species such as the rare glossy ibis and the rare musk duck as well as for breeding rookeries of species such as pied cormorants.

The mangroves of the Light River Delta have been described as the largest area of near pristine mangroves in South Australia.

The area also provides habitat for the uncommon and endemic magpie fiddler ray, which to date has only been recorded in Gulf St Vincent.

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. Wills Creek Conservation Park and Clinton Conservation Park are included within the marine 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 Mallala, Wakefield Regional Council and the District Council of Yorke Peninsula play important roles in managing coastal Crown lands which abut and, in some cases, are included within the marine park. Upper Gulf St Vincent 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 the Adelaide and Mount Lofty Ranges NRM Board are responsible for mitigating impacts on the marine environment from land-based activities. Ongoing monitoring of ecosystem health in the Upper Gulf St Vincent Marine Park will help the NRM Boards prevent land-based pollution from reaching the sea.

There is a small fisheries netting closure around Wills Creek Conservation Park. Management of the Upper Gulf St Vincent 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 application overlapping part of this marine park. All existing resources activities within the Upper Gulf St Vincent Marine Park will be accommodated, with no change to existing conditions. The park management will seek to integrate with existing management to ensure that industry can continue to benefit from the area.

Port facilities are located at Port Wakefield and Ardrossan and several boat ramps and jetties are also located 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 Upper Gulf St Vincent 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 marine park outer boundaries does not change the way people use the marine environment, or change any existing land or sea-bed tenure.

Wildcatch fisheries in the area target blue swimmer crab and scalefish. Proclamation of the Upper Gulf St Vincent Marine Park does not displace any existing commercial fishing activity. The Government recognises that high-value fishing 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.

Tourism is a major economic contributor to the region, with the coastal environment and fishing the key drawcards. Recreational opportunities within the marine park include fishing and boating from a number of coastal towns such as Port Parham, Port Wakefield and Ardrossan, crab raking at numerous locations, bird watching and kayaking, and diving under the Ardrossan jetty.

The outer boundary of the Upper Gulf St Vincent 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 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 Upper Gulf St Vincent Marine Park to provide for ongoing community use of the area. 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 and Kaurna Aboriginal people have traditional associations with the region. Aboriginal people have expressed the aspiration to negotiate traditional Aboriginal fishing rights through an Indigenous Land Use Agreement (ILUA). The Upper Gulf St Vincent Marine Park will provide for continued traditional fishing in accordance with any fishing ILUAs.

Give Consideration to Cultural Heritage Principle

The ports of Ardrossan and Port Wakefield are of historic significance to the region's grain industries.

Ensure Ease of Identification, Compliance and Enforcement Principle

Upper Gulf St Vincent Marine Park was designed to ensure ease of identification, compliance and enforcement where possible.

Start and end points were chosen to coincide with Parara Point (south of Ardrossan) and the northern end of Port Gawler Beach, adjacent to Shellgrit Road. Between these two points, the offshore boundary follows a straight line. Along the coastline, the marine park boundary lies at the median high water mark unless otherwise specified.

Provide for Education, Appreciation and Recreation Principle

Upper Gulf St Vincent 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.