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# Marine Parks

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## Environmental, Economic and Social Values of the Franklin Harbor Marine Park

### PART 1



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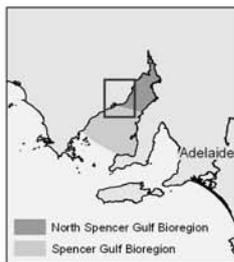
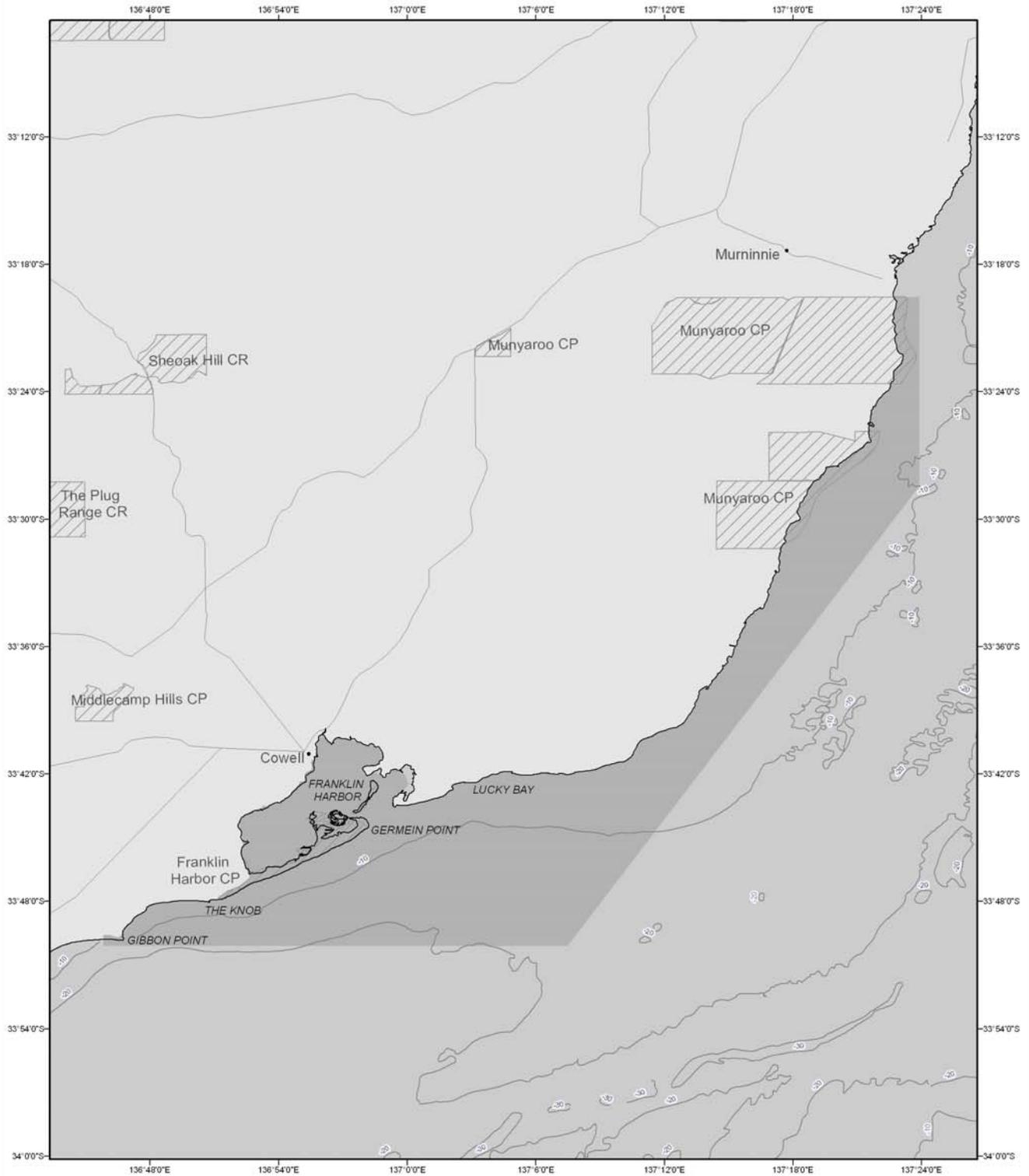
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### PART 2 AN ATLAS OF MAPS

An atlas of maps containing environmental, economic and social/cultural information for this marine park has been produced as Part 2 of the Values Statement. The maps provide details specific to this park in a user-friendly visual format and may be viewed and downloaded from <http://www.marineparks.sa.gov.au>.

# Franklin Harbor Marine Park



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



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Marine Bioregions - SARDI  
State Waters Jurisdiction - Geoscience Australia  
1 February 2010

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DEH MapID: 2010-3315

## **Franklin Harbor Marine Park**

The Franklin Harbor Marine Park covers 636 km<sup>2</sup> and is located on the central western side of Spencer Gulf, between Gibbon Point and Munyaroo Conservation Park. It spans across the transition zone between the Spencer Gulf and North Spencer Gulf Bioregions.

The marine park encompasses Franklin Harbor Conservation Park and partially overlays Munyaroo Conservation Park and Munyaroo Conservation Reserve.

# 1 ENVIRONMENTAL VALUES

## 1.1 Ecosystem services

Ecosystems provide many critically important services that people benefit from, often at no direct cost to us. Examples of ecosystem services provided by coastal and marine habitats are shown in the following table. It is important to ensure that ecosystem health and integrity are maintained so that ecosystems continue to provide these services to us all.

Table adapted from McLeod, K and Leslie, H (2009).

	Life supporting services				Resources and products				Maintain earth's living space							Recreational and cultural services				
	Biogeochemical processes	Biophysical processes	Biodiversity	Nutrient cycling	Food	Fibre, fuel, shells etc	Non-biological materials (eg minerals)	Pharmaceuticals & nutraceuticals	Climate regulation	Waste processing	Flood/storm protection	Water flow/circulation	Erosion control	Water quality	Sediment quality	Cultural and amenity	Recreation and tourism	Aesthetics	Spiritual, religious, lifestyle	Education and research
Coastal, estuarine and marine habitat types																				
Bare sand	x	x	x	x	x	x	x			x		x		x	x	x	x	x	x	x
Seagrass	x	x	x	x	x	x		x	x	x		x	x	x	x	x	x	x	x	x
Reef (granite, limestone, calcarenite or low profile platform reef)	x	x	x	x	x	x	x	x	x	x		x	x	x		x	x	x	x	x
Water column	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x
Cliffs	x	x	x	x	x	x	x				x					x	x	x	x	x
Sandy beaches (dunes, coarse sand, fine sand)	x	x	x	x	x	x	x			x		x			x	x	x	x	x	x
Other beaches (boulder, pebble/cobble, mixed)	x	x	x	x	x	x	x			x		x	x		x	x	x	x	x	x
Saltmarsh	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Mangrove	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

The Franklin Harbor Marine Park will be designed to conserve examples of the variety of habitats and species found in the Spencer Gulf Bioregion. Habitats, species and natural processes found here are summarised below.

## 1.2 Physical influences

Physical influences shape the type of habitats and species found in an area. Physical influences typical of this marine park include:

- a highly saline, warm water ecosystem;
- sea surface temperatures in the Spencer Gulf ranging from 11°C in winter to 24°C in summer;
- salinity ranges between 42-48 ppt; and
- dodge tides, where there is minimal tidal movement for up to three days.

## 1.3 Habitat variety

**Table 1** Benthic (subtidal) habitats found in the Franklin Harbour Marine Park

Benthic Habitat**	Area (km <sup>2</sup> )*	% of park
Bare sand	277	44%
Dense seagrass	244	39%
Medium seagrass	23	4%
Heavy limestone reef	1	0%
Low profile platform reef	75	12%
Unmapped	3	1%

\* habitat areas have been rounded to the nearest whole number

\*\*habitats included are those found from mapping at a resolution of 1:100,000

**Table 2** Shoreline (intertidal) habitats found in the Franklin Harbour Marine Park

Shoreline Habitat	Length in park (km)*	% of park length
Cliffs	<1	0%
Coarse sandy beach	40	22%
Mixed beach	77	42%
Mangrove	53	29%
Sand dunes	1	0%
Saltmarsh	12	7%

\* habitat lengths have been rounded to the nearest whole number

Franklin Harbor is a tide dominated, semi-enclosed embayment fringed by coastal wetlands and with dense seagrass beds widespread throughout the area. The coastal saltmarshes are backed by an expanse of mangroves leading to a shore of intertidal mudflats. Several channels link Franklin Harbor with the open ocean. Two small tidal creeks also connect with the bay. Entrance Island sits at the mouth of the bay and has a coarse sand shoreline on the southern end and mangroves to the north. Within the marine environment of Franklin Harbor are small calcareous reef patches, dominated by brown macroalgae. These are surrounded by sandy islands, sandy seafloor and dense seagrass meadows. The eelgrass *Heterzostera tasmanica* is sparsely interspersed in the subtidal and nearshore areas.

Franklin Harbor has been recognised as a Wetland of National Importance and is linked to the extensive network of other wetlands and tidal creeks in the upper Spencer Gulf region.

### 1.3.1 Lucky Bay to Murninnie Beach

Lucky Bay is an east facing, low energy shoreline, consisting of dense seagrass beds and low profile reef. From Shoalwater Point to Murninnie Beach, seagrasses lie adjacent to the sheltered to moderately exposed sandy and shellgrit beaches, which are backed by sand dunes, saltmarsh and coastal mallee.

### 1.3.2 Germein Point to Point Gibbon

Germein Point to Point Gibbon is a relatively high energy, south facing coastline with cliffs and more exposed beaches. Offshore habitats include low platform reef, particularly near Point Gibbon, and sandy seafloor habitat, with some strips of seagrass.

## 1.4 Marine species

The many habitats located within the Franklin Harbor Marine Park support a variety of marine and coastal species, some of which have been identified as ecologically important. Refer to Appendix 1 for a more detailed list of species. The Franklin Harbor Marine Park features:

- a nursery area for many juvenile recreational and commercial fish species, as well as blue crabs and western king prawns;
- important habitat for many internationally protected bird species;
- unusually large colonies of the stony coral.

### 1.4.1 Plants and algae

Franklin Harbor contains the seagrass *Zostera mucronata* which is listed as *rare* in the state. Outside Franklin Harbour shallow water seagrass beds consist mainly of *Posidonia* species, although *Amphibolis* and *Heterozostera* are also present. Reef areas are dominated by *Ecklonia*, *Sargassum* species and *Cystophora* species, with turfing brown algae, red algae and coralline algae dominating the understory. Intertidal areas of Franklin Harbour are dominated by *Heterozostera* and *Hormisira* (neptunes necklace). Some of the reefs in the Shoalwater Point have abundant large red algae forming up to 60% of the benthic cover. Reefs dominated by large red algae are uncommon in the mid to upper Spencer Gulf.

### 1.4.2 Bony fish, sharks and rays

The wetlands of Franklin Harbor provide valuable habitat and are a nursery for many commercially and recreationally important species such as southern garfish, whiting and mullet. These species use the shallow tidal flats during their vulnerable juvenile life stages, before dispersing into deeper and more distant waters as adults.

Bronze whaler, Australian salmon, Australian herring (tommy ruff), flounder and yellow-eye mullet are found within the region. The nationally *vulnerable* white shark is a regular visitor to the area, following snapper, one of their prey species as they move up the gulf. Other shark or ray species of conservation concern that may be found in the area include coastal stingaree, whitespotted spurdog, spotted wobblygong, smooth hammerhead, school shark and dusky whaler, which has been nominated for protection under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act).

The protected leafy and weedy seadragons, as well as other species of seahorses and pipefishes are found within the seagrass and fringing macro-algal beds and have been reported in coastal waters outside of Franklin Harbor.

### 1.4.3 Marine mammals

Point Gibbon is an important haul-out site for the nationally and state listed *vulnerable* Australian sea lion.

Pods of bottlenose dolphins have been recorded in the bay and southern right whales are occasionally seen in the region.

### 1.4.4 Seabirds and local and migratory shorebirds

The wetlands of Franklin Harbor provide valuable habitat for many birds including at least four migratory species that are listed under international treaties, such as the grey plover, sharp-tailed sandpiper and the bar-tailed godwit. The area also provides important habitat for the state *rare* musk duck and the state *endangered* white-bellied sea eagle. Mangroves provide important rookeries for other seabirds such as cormorants (pied and black-faced) and white-faced herons.

Entrance Island at the mouth of the harbor provides habitat for a small breeding colony of Caspian terns. Australian pelicans and other coastal species also breed on this island.

#### 1.4.5 Marine invertebrates

Franklin Harbor is an important nursery site for western king prawn and blue crab, which use the shallow tidal flats during their vulnerable juvenile life stages, before dispersing into deeper and more distant waters as adults. Razorfish and scallops can be found in the sand and seagrass areas of the harbor and the entrance channel supports sponges and hydroids.

Blood worms occur in the area, providing an important source of food for some birds and fish. They also play an important role in nutrient recycling. After a full moon, large numbers can be found near the surface of the water.

Large colonies (up to 1.5 metres high) of the stony coral *Plesiastrea versipora* have been recorded on reefs in waters less than 10 metres, such as at Shoalwater Point. Large colonies (approximately 1m high) of the stony coral have also recently been mapped in Lucky Bay using remote video photography. Extensive sponge gardens are located in areas of moderate to high current flow at the entrance to Franklin Harbor.

Patch reefs at Point Gibbon support giant Australian cuttlefish, southern calamari and the purple sea urchin. The giant Australian cuttlefish is currently nominated for protection under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act).

At the entrance to Franklin Harbor along the Point Germein Peninsula, mudflats are covered by blue-green algae, forming stromatolite mounds of sediment. Although smaller in extent than the renowned stromatolites at Shark Bay in Western Australia, these structures are uncommon in Australia. Shark Bay is popular for nature-based recreation and attracts 150,000 visitors a year, many of these visitors make their way to Hamelin Bay which is one of only two places in the world where living marine stromatolites are known to occur. It can take a stromatolite 100 years to grow 5cm, thus a 1m high stromatolite might be 2,000 years old.

For further environmental and social information refer to <http://www.marineparks.sa.gov.au>

## 2 ECONOMIC VALUES

The marine environment is an important source of wealth for South Australia and its coastal communities. Marine parks will be designed to accommodate existing economic activities wherever possible. The main economic activities in the Franklin Harbor Marine Park are summarised below. Information in the Aquaculture, Commercial fishing, and Mineral and energy resources sections have been provided by PIRSA.

### 2.1 Aquaculture

The South Australian aquaculture industry had a direct output value of \$324 million in 2008/2009 (EconSearch, 2010a). Marine species grown and harvested in South Australia include (but are not limited to) Pacific oysters and mussels (bivalve molluscs), southern bluefin tuna (prescribed wild caught tuna), abalone, yellow-tail kingfish and other species of finfish (aquatic animals – other than prescribed wild caught tuna – which require regular feeding).

**Table 3** The statewide economic value of aquaculture industries in South Australia, 2008/09 (excludes freshwater aquaculture)

	Gross value of on-farm production (\$m)	Value to downstream* sectors (\$m)	On-farm number of employees (FTE)	Number of employees in downstream* sectors (FTE)
Southern bluefin tuna (prescribed wild caught tuna)	\$157.8	\$16.0	348	58

Bivalve molluscs (oysters)	\$32.6	\$42.6	529	252
Finfish (other than prescribed wild caught tuna)	\$29.2	\$15.4	108	84
Bivalve molluscs (mussels)	\$2.5	\$2.8	114	16
Abalone	\$8.1	\$0	64	0
Other	\$10.9	\$0	44	0

EconSearch, 2010a

\* Downstream activities include processing, transport, retail and food service.

Franklin Harbor supports an aquaculture industry primarily based on Pacific oysters and is the third largest oyster growing area in South Australia. A map showing current active sites, applications and aquaculture zone policies can be accessed online through the Aquaculture Public Register at: [http://www.pir.sa.gov.au/aquaculture/public\\_register](http://www.pir.sa.gov.au/aquaculture/public_register)

## 2.2 Commercial fishing

The commercial fisheries that operate in the Franklin Harbor Marine Park are:

- Spencer Gulf Prawn Fishery;
- Blue Crab Fishery (Spencer Gulf zone);
- Marine Scalefish Fishery;
- Sardine; and
- Abalone (Central zone).

The value of each of these fisheries, including the direct and flow-on values, as well as the number of employees and export values, where available, are listed below. Note that the values provided below are for the entire area of the fishery and may not be specific to the Franklin Harbor Marine Park.

**Table 4** The 2008/09 economic value of fisheries operating in the marine park for relevant fishery areas (figures are not specific to the park area and include catches from outside the marine park boundary).

	Catch value(\$m)	Value of flow-on to other sectors (\$m)	Fishing (FTE) employment	Flow-on (FTE) employment
<b>Prawn (Spencer Gulf &amp; West Coast)</b>	30.8	71.2	185	342
<b>Blue Crab (State)</b>	5.1	9.9	28	48
<b>Marine Scalefish (Spencer Gulf/Coffin Bay)</b>	10.9	10.0	249	51
<b>Sardine(State)</b>	17.5	22.7	48	110
<b>Abalone (State)</b>	30	45.2	90	225
<b>Abalone (Central Zone)</b>	5.7			

EconSearch 2010 b, c, d, e and f.

These fisheries are important to regional economies of the area both directly, through employment in each fishery, and indirectly, through a range of additional services such as processing, local transport, marketing, local retail and food services. Each of these activities generates flow-on effects to other sectors, through purchases of inputs and employment of labour.

The Spencer Gulf Prawn Fishery is the largest of the three prawn fisheries in South Australia. Over 80% of South Australia's king prawn harvest comes from Spencer Gulf, with 1,800 tonnes taken from that region in 2008/09.

Blue swimmer crabs are fished commercially from Cowell to Whyalla.

The Marine Scalefish Fishery is a diverse multi-species, multi-gear fishery that operates across State waters, targeting four key species: snapper, King George whiting, southern garfish and southern calamari.

Fishing charters also operate in this region.

For further information or to view maps of the fishing regions visit:

[http://www.sardi.sa.gov.au/\\_data/assets/pdf\\_file/0010/99739/No\\_305\\_South\\_Australian\\_Wild\\_Fishes\\_Information\\_and\\_Stats\\_report\\_200708\\_published.pdf](http://www.sardi.sa.gov.au/_data/assets/pdf_file/0010/99739/No_305_South_Australian_Wild_Fishes_Information_and_Stats_report_200708_published.pdf)

### ***2.3 Mineral and energy resources***

The Spencer Gulf region is regarded as having low petroleum potential, with only thin, unprospective sedimentary cover on crystalline basement. The potential for offshore geothermal energy resources is most probably also low for high temperature geothermal energy for the same reason (thin sedimentary (insufficient sedimentary cover to serve as an insulator). However potential exists to utilise low temperature geothermal energy in adjacent coastal or inland water settings for a variety of purposes, including power for desalination plants.

Regional magnetic and gravity data show that prospective rock units, particularly of the Gawler Craton, continue offshore in large areas of some parks. Prospectivity for minerals that could be dredged or remotely mined from the seabed is unknown. Exploration for basement rock targets, below the seabed, is likely to be limited to shallower water areas.

No mineral, petroleum or geothermal licences or leases are currently located within this marine park. A Geothermal Exploration Licence is located adjacent to the park at the northern end. A Petroleum Exploration Licence Application covers much of the northern part of the park. Two mineral Exploration Licence Applications are located offshore covering part of the north of the park. Another is located inshore from the coast adjacent to the park northeast of Cowell.

### ***2.4 Transport and infrastructure***

Transport and infrastructure provide an important economic contribution to the region, providing for maritime activities such as: shipping ports for import and export of goods; boat ramps for launching of recreational or commercial vessels; jetties for fishing; and breakwaters and groynes for coastal management.

### ***2.5 Local tourism***

The coastal and marine environment is integral to the tourism experience throughout this region. Visitors are drawn to the sandy beaches, sheltered bays and recreational fishing and boating opportunities. Charter boat fishing is also popular in this region.

Activities enjoyed by tourists in this region include fishing, boating, beach walking, bird watching, water sports, exploring the Seafood and Aquaculture Trail and sampling the produce of the region. In 2007 the Franklin Harbor District Council area attracted an estimated 20,000 overnight visitors who stayed around 68,000 nights in the area. The average stay was 3.4 nights.

A Sea SA Passenger and Vehicle Ferry has previously serviced Lucky Bay via Wallaroo providing easier access for tourists to and from the area. The service is currently suspended.

Tourism provides an important employment opportunity for residents in the Franklin Harbor district area with 27 businesses reliant on tourism.

## **3 SOCIAL VALUES**

The marine environment is an important recreational and cultural assets for coastal communities. Marine parks will be designed to accommodate existing activities wherever possible. This section highlights the social values of Franklin Harbor Marine Park and is separated into four parts:

- Aboriginal and European cultural heritage;
- scenic values;
- recreational activities and popular locations; and
- interpretive and educational opportunities.

### 3.1 *Aboriginal heritage*

Aboriginal people have interacted with the marine environment for thousands of years and their relationships with the sea remain strong through customs, laws and traditions. Traditional usage, Aboriginal cultural heritage, Indigenous Protected Areas (IPAs), Indigenous Land Use Agreements (ILUAs) and Native Title considerations will be taken into account in developing the management plan for the Franklin Harbor Marine Park.

#### 3.1.1 *Language Groups*

The Barngarla Aboriginal people have traditional associations with areas of the marine park including estuarine and coastal environments which provide food and resources for local Aboriginal people and still hold strong cultural significance today.

#### 3.1.2 *Agreements and Claims*

A Barngala Native Title Claim (lodged in 1996) covers the whole of the Franklin Harbor Marine Park.

#### 3.1.3 *Protected Areas*

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

### 3.2 *European heritage*

Where possible, Franklin Harbor Marine Park has been designed to complement or seek to include sites of cultural and maritime heritage.

Two protected shipwrecks lie within this marine park. The *Lillie Hawkins*, which has been located, went ashore north of Port Gibbon during a storm in 1917. The *Britannia* (1905) which has not been found, sank off Shoalwater Point. In 1976 the fishing vessel *Aquarius* burnt and sank east of Franklin Harbor. It is not protected.

Munyaroo and Franklin Harbor Conservation Parks are recognised on the Register of the National Estate.

### 3.3 *Scenic values*

The scenic quality of South Australia's coast is a significant social, economic and environmental resource. The coastline has high amenity value and includes high quality landscapes, also known as viewsapes. The significance or quality of viewsapes is derived from a combination of landform (relative relief, variety and complexity of landscapes), land cover (nature, scale and variety of vegetation), land use (impact of human activity), water, diversity, naturalism and colour.

The coastline of the Franklin Harbor Marine Park has moderate-low scenic values (Lothian 2005). To the north and south of Franklin Harbor are beaches and low coastal dunes and some small patches of mangrove or samphire. This coastline is unrelieved by any dominant or scenically striking landforms. Surrounding the large enclosed bay of Franklin Harbor are extensive areas of mangrove and samphire, with some sandy beaches, which contribute little scenic value to this area.

Scenic values of coastline in the Franklin Harbor Marine Park (Lothian 2005).

Rating	Coastal landform type	Ranking
6.0 – 7.0	Dunes and beaches (south of Franklin Harbor)	Moderate
5.75 – 6.25	Low cliffs	Moderate
4.0 – 5.0	Samphire and mangroves	Low
4.5 – 5.0	Dunes and beaches (north of Franklin Harbor)	Low

For further information on coastal scenic values and viewscales refer to <http://www.environment.sa.gov.au/coasts/management/coastal-viewscales.html>

### **3.4 Recreational activities in the marine park**

The coastal and marine environments of the Franklin Harbor Marine Park are very popular with recreational fishers, boat users, snorkellers, swimmers and sightseers. Examples of these activities are provided below.

#### *3.4.1 Recreational beach and boat fishing locations*

Recreational fishing is a popular past time in South Australia. Recreational fishers collectively harvest significant proportions of the total catch for a number of key species. The total number of recreational fishers for the Franklin Harbor/Cowell region (region 8) during 07/08 was 4,763 which amounted to 13,872 days of fishing. (Note figures relate to regions used for reporting fishing activities and include catches from outside the marine park boundary). King George whiting, snapper, southern garfish, southern calamari and blue swimmer crab were the most frequently caught species for the Spencer Gulf region.

Recreational shore fishing is popular within Franklin Harbor, at Lucky Bay and The Knob. The Cowell jetty is popular for recreational fishing.

Boat ramps are available at Cowell, Port Gibbon and Lucky Bay, with boat fishing popular within the sheltered waters of Franklin Harbor and at other sites throughout the region.

#### *3.4.2 Popular surfing and swimming beaches*

Swimming is popular at the Cowell foreshore, Lucky Bay and Flat Rock Beach. There are no surf beaches within the park.

#### *3.4.3 Popular diving locations*

Diving sites within the Franklin Harbor District are not known.

#### *3.4.4 Other recreational activities in the park*

Birdwatching is a popular activity in Franklin Harbor.

### **3.5 Interpretive and educational facilities within the marine park**

There is a mangrove walk along the Cowell foreshore in Franklin Harbor.

Cowell Area School has designed its own aquaculture and marine program and offers an accreditation course in aquaculture. This has seen the school develop and manage an oyster farm.

## APPENDIX 1 SPECIES LIST

This list of some of the species identified in the Franklin Harbor Marine Park indicates the diversity of species found there.

### ***Plants and algae***

coralline algae	Corallinaceae
eelgrass	<i>Zostera muelleri</i>
neptunes necklace	<i>Hormosira banksii</i>

### ***Bony fish, sharks and rays***

Australian herring	<i>Arripis georgianus</i>
Australian salmon	<i>Arripis truttaceus</i>
black ray	<i>Dasyatis thetidis</i>
bronze whaler	<i>Carcharhinus brachyurus</i>
coastal stingaree	<i>Urolophus orarius</i>
dusky whaler	<i>Carcharhinus obscurus</i>
flounder	<i>Ammootretis lituratus</i>
King George whiting	<i>Sillaginodes punctata</i>
leafy seadragon	<i>Phycodurus equus</i>
mullet	<i>Aldrichetta forsteri</i>
school shark	<i>Galeorhinus galeus</i>
smooth hammerhead	<i>Sphyrna zygaena</i>
snapper	<i>Pagrus auratus</i>
southern bluefin tuna	<i>Thunnus maccoyi</i>
southern garfish	<i>Hyporhamphus melanochir</i>
spotted wobblygong	<i>Orectolobus maculatus</i>
weedy seadragon	<i>Phyllopteryx taeniolatus</i>
white shark	<i>Carcharodon carcharias</i>
whitespotted spurdog	<i>Squalus acanthias</i>
yellow-eye mullet	<i>Aldrichetta forsteri</i>
yellow-tail kingfish	<i>Seriola lalandi</i>

### ***Marine mammals***

Australian sea lion	<i>Neophoca cinerea</i>
bottlenose dolphin	<i>Tursiops truncatus</i>
southern right whale	<i>Eubalaena australis</i>

### ***Seabirds and local and migratory shorebirds***

Australian pelican	<i>Pelicanus conspicillatus</i>
bar-tailed godwit	<i>Limosa lapponica</i>
Caspian tern	<i>Sterna caspia</i>
cormorant	<i>Phalacrocorax</i> spp.
grey plover	<i>Pluvialis squatarola</i>
musk duck	<i>Biziura lobata</i>
sharp-tailed sandpiper	<i>Calidris acuminata</i>
white-bellied sea eagle	<i>Fregetta grallaria grallaria</i>
white-faced heron	<i>Egretta novaehollandiae</i>

### ***Marine invertebrates***

blood worm	Chironomidae
blue swimmer crab	<i>Portunus pelagicus</i>
giant Australian cuttlefish	<i>Sepia apama</i>
king prawn	<i>Melicertus latisulcatus</i>
King scallop	<i>Pecten fumatus</i>
mussel	Mytilidae
oyster	<i>Crassostrea gigas</i>

Pacific oysters  
purple sea urchin  
razorfish  
scallop  
southern calamari  
sponge  
stony coral  
western king prawn

*Crassostrea gigas*  
*Heliocidaris erythrogramma*  
*Pinna bicolour*  
Pectinidae  
*Sepioteuthis australis*  
Porifera  
*Plesiastrea versipora*  
*Melicertus latisulcatus*

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