

Encounter Marine Park

Preliminary sanctuary zone scenario

Starting point for Marine Park Local Advisory Group discussion

South Australians enjoy the benefits of a healthy marine environment. However, the marine environment is under increasing pressure from a range of sources, including climate change, run-off and competition for resources, which could affect how we use and enjoy it in the future.

Marine parks are currently being set up around Australia as part of a national and international response to these increasing pressures.

In 2009, the South Australian Government declared a network of 19 marine parks to help protect and conserve areas of natural value within our State's waters for generations to come.

Your assistance is now needed to help develop the zoning and management plans for these marine parks.

At this meeting, you will begin the process of developing a proposed zoning scenario for your local marine park(s). You will be provided a range of information about zoning, including a preliminary sanctuary zone scenario developed by DENR, and other government agencies to provide a starting point for discussions by your MPLAG about how marine parks might be zoned for conservation, commerce and community use.

The preliminary sanctuary zone scenario is only a starting point and does not represent a Government proposal or preference. There may be better ways to design a marine park zoning scheme to achieve the desired outcomes. Your MPLAG's advice on its preferred zoning scenario(s) is sought.

The preliminary sanctuary zone scenarios have been developed using the environmental, social and economic information currently available to Government, including the information provided through SAMPIT (the South Australian Marine Parks Information Tool).

The next step is for the scenarios to be worked on over the next six months by the MPLAGs and key stakeholders, such as the seafood industry, tourism operators, local government and conservation interests, who all have important information to bring to the table.

It is expected that this work will result in changes to what is initially provided. Indeed, this is the purpose of MPLAGs and key stakeholder engagement - to better inform and assist the Government in this process - so we can help ensure that the needs of local communities and industries are met.

The State Government has not adopted an arbitrary percentage target for the size of sanctuary zones. Instead, it remains open to the advice of the community as to how to best design the marine parks network to protect and conserve marine biodiversity and marine habitats in a manner that accords with the objects of the *Marine Parks Act 2007*.

To assist MPLAGs, key stakeholders and other community members to develop their preferred zoning scenario(s), you will be provided with some indicative zoning guidelines.

These guidelines have been developed with due regard to advice from the Marine Parks Scientific Working Group and Marine Parks Council of South Australia, which provide independent advice on marine park matters.

One of these zoning guidelines is that sanctuary zones should cover about 20-25% of each marine park - this would translate to about 10% of our State's waters.

However, this is a guideline only and may not be achievable in some marine parks, particularly where there are significant policy commitments in place to provide for various current and future activities.

Your attention is drawn to the marine park policy commitments made by the Government in 2009, in particular the assurance given to the commercial fishing industry that the outcome of marine parks zoning will have no more than a 5% economic impact (as per the 2007 EconSearch report).

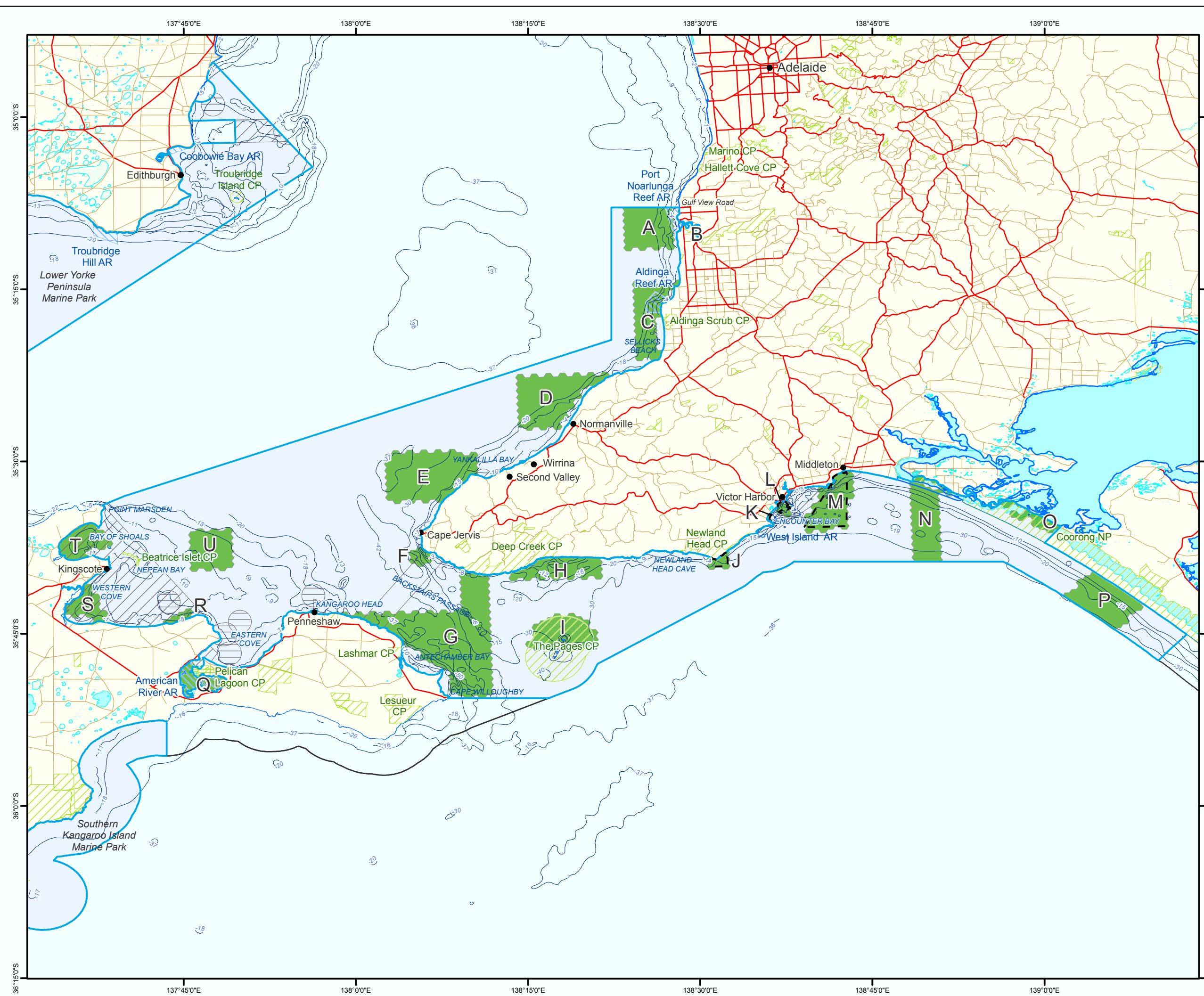
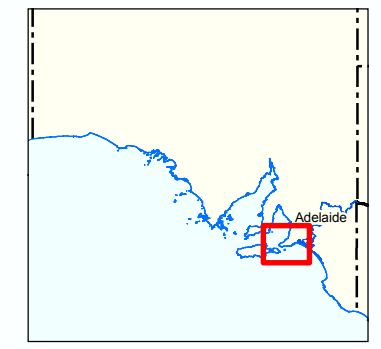
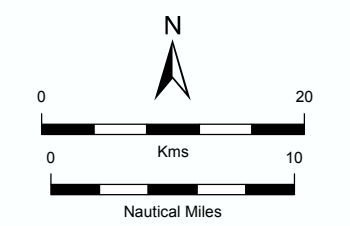
In developing your preferred zoning scenarios it will be important that you apply the full zoning checklists and policy commitments, to help ensure your suggestions meet the marine park design requirements. Doing this will help you develop a proposal for your park(s) that is good for conservation and good for commercial and community interests.

For more information, please contact your MPLAG Executive Officer via email at DENRmarine@sa.gov.au, or phone the Coast and Marine Conservation Branch, Department of Environment and Natural Resources, on Freecall 1800 006 120.

Marine Park 15 Encounter Marine Park

Preliminary Sanctuary Zone Scenario Starting Point Version 1

- Possible Sanctuary Zones
- Marine Parks
- Lake - Perennial
- Lake - Intermittent
- Land Subject to Flooding (STF)
- Land Subject to Inundation (STI)
- Parks and Reserves
- Aquatic Reserves
- Special Purpose Areas (Harbours)
- Special Purpose Areas (Prospective Anchorage Locations)
- Special Purpose Area (Underwater Cable)
- VHGSRS Scenario Option
- Bathymetry
- Coastline (median high water)
- Coastal Waters of the State
- Major Road
- Minor Road



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Department of Environment and Natural Resources
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www.marineparks.sa.gov.au

Data Source Marine Parks, Parks and Reserves,
Topographic Data, Bathymetry - DENR
Aquatic Reserves - PIRSA
Prospective Anchorage Locations - Flinders Ports
Harbours - DENR & Harbours and Navigation Act
Coastal Waters of the State - Geoscience Australia
8 November 2010

Compiled Projection Datum Geographic
Geocentric Datum of Australia, 1994

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Basis for 'Starting Point' Preliminary Sanctuary Zone Scenario – Encounter Marine Park (Park 15)

Location of possible Sanctuary Zone	Area	Rationale for possible Sanctuary Zone
<p>Zone A: From Gulf View Rd, Christies Beach in the north to Onkaparinga Head, 500m south of the Onkaparinga Estuary extending 7km in a westerly direction.</p>	<p>44 km²</p>	<p>The possible zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone represents rocky reef, seagrass meadows, soft-bottom habitat and unmapped habitats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone contains the only soft-sediment, large macroalgae bed habitats at medium depths within Sanctuary Zones in this Marine Park. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone overlays the existing Noarlunga Reef Aquatic Reserve. This Zone considers the diversity of marine uses by providing for shore based fishers, except in the area near Witton Point where the zone aligns with the existing Aquatic Reserve 'no fishing' area. Fishing from the Port Noarlunga jetty will not be affected. A section of this Zone is within a Native Title Claim area. This Zone was designed to provide for boat launching facilities nearby. To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east lines.
<p>Zone B: Along the Onkaparinga River commencing approx 100m N the old railway bridge near South Rd and extending N downstream for approx 1 km</p>	<p>~ 1km²</p>	<p>The possible zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone represents habitats characteristic of the Onkaparinga River estuary. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> It is important to include estuarine habitats as they have high environmental, social and economic significance. Estuarine habitats are often vulnerable habitats which are highly important breeding and nursery areas for many commercially and ecologically important species of fish and other organisms. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> Fishing activity generally occurs either end (north and south) of this possible Sanctuary Zone. This Zone is within a Native Title Claim area.
<p>Zone C: Commences in the south at the southern extent of Sellicks beach, extending north (but not including Silver Sands Beach), along the coast approx. 12.5 km to Maslins Beach, and seaward 6km at its widest section.</p>	<p>45 km²</p>	<p>The possible zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone includes a combination of inshore rocky reef habitats and seagrass beds and offshore soft-bottom habitats across a range of depths out to 30m. The shoreline in this Zone is dominated by fine-medium and coarse sandy beaches with a small sections of cliffs fronted by rock platforms. The deeper waters of this Zone, which account for approximately one third of its size, have not yet been mapped. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone overlays the existing protected Aldinga reef, home to many species of reef fish including western blue devil and harlequin fish. The seagrass beds in the southern section of the Zone include representative examples of the seagrass species <i>Posidonia coriacea</i> which has been lost from most of the balance of the Adelaide coastline. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone overlays the existing Aldinga Reef Aquatic Reserve, in which fishing is currently not permitted. This Zone complements existing management practices and provides for ongoing education, appreciation and recreation by including the intertidal monitoring site established by the Flinders University, Adelaide and Mount Lofty Ranges NRM Board and Reef Watch. This Zone considers the diversity of current activities by providing for shore based fishers from the north boundary of the Aldinga Aquatic Reserve to Port Willunga and along Silver Sands Beach. A section of this Zone is within a Native Title Claim area.

		<ul style="list-style-type: none"> To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east lines.
<p>Zone D: In line with Normanville Jetty extending 6km west and 7km to the north to 500m south of Coweelunga Bay (Myponga Beach) with approx 4 km of shoreline included at the northern end of the zone.</p>	70 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> A diverse range of habitats is protected in this possible Sanctuary Zone, including part of the largest seagrass meadows on the Fleurieu Peninsula. Semi-sheltered headlands and a coastline mostly of shoreline bedrock platform provide complex intertidal and shallow subtidal rocky shore habitat. As a precautionary measure, unmapped sea floor habitats were included up to 50m depths. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone contains the largest area of shallow seagrass on the gulf-facing Fleurieu coast of Encounter Marine Park. This Zone contains the largest soft-bottom habitat within possible Sanctuary Zones in the Encounter Marine Park. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone considers the full diversity of marine uses by providing for shore based fishing activities in an area from Haycock Point to Carrickalinga Head. The southern boundary of this Zone provides for the major recreational and commercial fishing areas in waters south of the Normanville Jetty. A section of this Zone is within a Native Title Claim area. This Zone was designed to provide for boat launching facilities located at Normanville and at Wirrina (10kms). To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east lines.
<p>Zone E: Adjacent to Rapid Head encompassing 6 km in a south-west direction along the shoreline and extending seaward approx 4 km in a northerly direction and 13 km from Rapid Head in a westerly direction</p>	85 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone protects a semi-sheltered coast of cliffs, rocky headlands and shores, with adjacent subtidal habitats including seagrass, sandy plains and rocky reef. This Zone includes about 6km of coastline from Rapid Head. The shoreline habitats in this area comprise boulder beaches, cliffs and shoreline bedrock platform, all of moderate exposure. This Zone contains the only boulder beach of any exposure within possible Sanctuary Zones in the Encounter Marine Park. This Zone comprises unmapped and soft-bottom habitat, seagrass, rock reef and macroalgae habitat, mostly at shallow depths. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone contains the largest area of deep water habitats (30-50m) within the Encounter Marine Park. The Rapid Bay area is a well known habitat for the protected leafy seadragon. The Zone is influenced by strong tidal currents and is ecologically linked with other areas of the Encounter Marine Park by providing a settlement area for larvae carried from the Deep Creek and Newland Head areas through Backstairs Passage. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone was designed to provide for important recreational fishing locations including the Rapid Bay Jetty and boat fishing areas further north such as Yankalilla Bay. There is no vehicle access to most of the coastline in the Zone. This Zone one was designed to provide for boat launching facilities located at Wirrina (8kms), Normanville (16kms) and at Rapid Bay. To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east lines. Recreational diving is a feature of the use of this Zone. A section of this Zone is within a Native Title Claim area.
<p>Zone F: Beginning 2km south of Cape Jervis and extending 2km south around the cape to Fishery Beach and seaward for about 2km.</p>	7 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This relatively small Zone includes a variety of near-shore habitats including soft-bottom habitat, sandy swales created by the high current flow, rocky reef and large brown macroalgae beds. Beyond 20m depth, habitats include invertebrate communities living on rocky surfaces amongst the soft-bottom habitat, which are currently surveyed to 40m depth. The Zone also contains habitats in deeper waters offshore (up to 50m deep) that are yet to be mapped. This Zone includes about 2km of shoreline bedrock platform at the base of a low rocky coast.

		<p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone contains the only mapped representative sample of soft bottom (sand) invertebrate communities within the Encounter Marine Park. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> Shipping lanes and the ferry terminal will be accommodated within this possible Sanctuary Zone. This Zone was designed to provide for a boat launching facility located at Cape Jervis. This Zone is within a Native Title Claim area. Due to the nature of the terrain and the land ownership, vehicle access is not available to most of the Zone.
<p>Zone G: Extends east of Baudin Conservation Park to Cape Willoughby on Kangaroo Island, north across Backstairs Passage to Fleurieu Peninsula and abuts the western boundary of Deep Creek Conservation Park extending along the coast approx. 4km east.</p>	<p>160 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> The seafloor habitats included in this possible Sanctuary Zone are near-shore rocky reef and soft-bottom habitat which occur along both the Dudley and Fleurieu Peninsula coastlines of the zone. On the Fleurieu side, finer-scale mapping has detected large red, green and brown macroalgae bed habitats growing on the sandy bottom in front of Deep Creek Conservation Park, a portion of which is included in this Zone. The majority of the deeper waters of Backstairs Passage in this Zone are yet to be mapped. The coastlines on both the Dudley and Fleurieu Peninsulas in this Zone are characterised by moderately exposed high cliffs (greater than 50m) fronted by shoreline bedrock platforms. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone contains one of only two known deep sea sponge habitats within the Encounter Marine Park, and within state waters. The 'sponge gardens' are found in the deepwater trenches of Backstairs Passage where they can grow to large sizes. The result is a complex habitat based on animals rather than plants, which may be unique in SA. A diversity of mobile species are associated with the 'sponge gardens' including snapper, blue devil fish, brittlestars, cowries, magpie perch and rock lobster. On the northern coast of Dudley Peninsula (as shallow as 12 metres) filter feeding animals such as sponges, soft and gorgonian corals, bryozoans and ascidians thrive in the fast currents where they would otherwise be outcompeted by large algae such as kelp, for the light. Sheltered coves of the Deep Creek coast are protected as a source of abalone larvae and are regionally important to larval dispersal patterns. Strong tidal movements and associated currents in Backstairs Passage provide an important ecological linkage between the rocky reef of the Fleurieu Peninsula coast, Encounter Bay and other deepwater rocky reef in the Encounter Marine Park. Deep Creek Conservation Park is gazetted to 80m below MHW creating an overlap with the marine park and a connection between protected areas of land and sea. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone has been designed to provide for the intensive fishing inshore in Antechamber Bay and Moncrieff Bay. There is limited vehicle access to most of the coast of this possible Zone.
<p>Zone H: Abuts Deep Creek Conservation Park commencing approx. 3km east of Zone G, and extending a further 12km along Tunkalilla beach, to 1km from Tunk Head. At its widest point this zone extends 4km seaward.</p>	<p>35 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone is characterised by a mixture of shallow water habitats (less than 10m) including soft-bottom habitat, platform rocky reef and large red, green and brown macroalgae bed habitats. Habitats more than 1km offshore have not yet been mapped. The shoreline of this Zone is comprised of high cliffs as well as a fine-medium grained sand beach (Tunkalilla Beach), and experiences moderate levels of exposure from the Southern Ocean as it is partially sheltered by Kangaroo Island. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone protects the only whole example of a surf beach coastal sand habitat within the Encounter Marine Park. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> Vehicle access to this beach is limited; cars are parked behind a locked gate and visitors walk down a steep track to access the beach. The steep cliffs along the western section of coast further restrict access to this Zone with 4WD drive only access to Boat Harbor beach at the boundary

		of the Deep Creek Conservation Park.
Zone I: Within The Pages Conservation.Park in Backstairs Passage. This zone is specifically the North Pages Island area.	41 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone extends across the northern example of two discrete granite outcrops surrounded by fringing rocky reef and unmapped habitats to 30m deep. • The North Pages Island is exposed to high wave energies and is characteristic of exposed offshore rocky reef systems in this region of South Australia. • This Zone surrounds and protects the third-largest Australian sea lion breeding colony in the state. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • The Pages Islands provide habitat to approximately one quarter of the world population of the Australian sea lion, which is listed as a vulnerable species. • The white shark, also listed as a vulnerable species, is sighted regularly around the islands. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This Zone provides for a range of commercial fishing including the abalone fishery and the significant Cape Jervis-based charter boat operations by not including the South Pages Island. • The Zone overlays part of the Pages Conservation Park establishing a protected corridor from the land to the sea.
Zone J: Abutting Newland Head C.P. and east of Waitpinga Beach extending approx 2km seaward to the south	5 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone protects exposed coastal cliffs with fringing rocky reef unique to the Encounter Marine Park. • This area includes representative samples of rocky reef, soft-bottom habitat and unmapped sea floor habitats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • Rocky reef in this possible Sanctuary Zone facilitate ecological linkages with other rocky reef in Backstairs Passage and Encounter Bay. • This Zone provides important habitat for seabirds including the ‘vulnerable’ white-bellied sea eagle. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone is as recommended by a working group comprising members of the Victor Harbor/Goolwa Sea Rescue Squadron, following ongoing consultation with the Department of Environment and Natural Resources since the release of the 2005 Encounter Marine Park Draft Zoning Plan. • This Zone lies approximately 12km from the nearest boat launching facility, located at Victor Harbor. • This Zone was designed to minimise impacts on recreational and commercial fishers, and provide for beach fishing from Waitpinga Beach, which is completely excluded from the possible Zone. • The Zone lies adjacent to the Newland Head Conservation Park, establishing a protected corridor from the land to the sea. • Land based access to this Zone is via a walking trail through the Newland Head Conservation Park. • This Zone is within a Native Title Claim area. • To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east lines.
Zone K: Within Encounter Bay east of the Victor Harbour Boat Ramp extending to Fell St	< 1km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • This area includes 1 kilometre of sheltered coarse sandy beach and intertidal shore platform rocky reef. • This area includes small samples of rocky reef, seagrass and soft-bottom habitat habitats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • The intertidal rocky reef/shore platform rocky reef is the only significant example of this habitat type within the Encounter Bay area. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone is as recommended by a working group comprising members of the Victor Harbor/Goolwa Sea Rescue Squadron, following ongoing consultation with the Department of Environment and Natural Resources since the release of the 2005 Encounter Marine Park Draft Zoning Plan. • This Zone was designed to provide for a boat launching facility located nearby at Victor Harbor. • This Zone is within a Native Title Claim area. • This Zone was designed to provide for recreational fishers further seaward and towards Victor Harbor. • This Zone provides an opportunity as an important community intertidal monitoring site, providing for education and appreciation.

<p>Zone L: Within Encounter Bay between Granite Island and the Inman River area</p>	<p>4 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This area includes small samples of rocky reef, seagrass and soft-bottom habitat habitats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> Granite Island is an ecologically important area for the little penguin. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone is as recommended by a working group comprising members of the Victor Harbor/Goolwa Sea Rescue Squadron, following ongoing consultation with the Department of Environment and Natural Resources since the release of the 2005 Encounter Marine Park Draft Zoning Plan. This Zone lies approximately 4km from the main boat launching facility in Victor Harbor. This area includes part of the Granite Island Recreation Park, providing connections with existing protected areas. A small boat launching area is adjacent to the Zone at the Inman River estuary. This Zone is within a Native Title Claim area. With its close proximity to Victor Harbor, this Zone provides significant educational and community involvement opportunities.
<p>Zone M: Extending approx 7 km southward from Horseshoe Bay and in an easterly direction to an area between Middleton and Goolwa</p>	<p>41 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone protects a diverse range of inshore and offshore habitats, across a range of depths and exposures, including rocky reef, soft-bottom habitat habitats and an island habitat. As a precautionary measure, this area also contains representative samples of unmapped sea bed habitats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This Zone protects part of a recognised major whale aggregation and calf sheltering area. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> This possible Sanctuary Zone is as recommended by a working group comprising members of the Victor Harbor/Goolwa Sea Rescue Squadron, following ongoing consultation with the Department of Environment and Natural Resources since the release of the 2005 Encounter Marine Park Draft Zoning Plan. This Zone provides for shore-based fishers starting adjacent to Bashams Beach Rd. This Zone provides for shore-based fishers by not overlaying Crockery Bay, adjacent to the Bashams Beach Caravan Park. This Zone was designed to provide for important recreational and commercial fishing locations close to Victor Harbor. This Zone is within a Native Title Claim area. This Zone lies approximately 6km from the main boat launching facility at Victor Harbor. A dinghy launching facility is located at Horseshoe Bay in Port Elliot. Access is controlled by the DC of Alexandrina.
<p>Zone N: In the Coorong Lagoon from Goolwa Barrage extending in an easterly direction along the Coorong lagoon for 3.5 kms. The deeper channel (for 1.5kms from the barrage) is included. The possible Sanctuary Zone overlays the Sir Richard Peninsula, the Goolwa beach and seaward to the state waters limit</p>	<p>50 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone protects a wide range of connected habitats including a section of the estuarine waters and fringing mudflats of the Coorong Lagoon adjacent the Goolwa Barrage, a 4km section of the Sir Richard Peninsula barrier sand dune system, a 4km section of the high energy sandy beach, and adjacent marine habitats to depths of approximately 50m. Marine habitats in this Zone are mostly unmapped but thought to be comprised of soft-bottom plains and offshore low profile platform rocky reef. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> The mud flats on either side of the Coorong Lagoon are extensively populated by local and migratory shorebird species, the latter of which are protected under international treaties and by State and Commonwealth legislation. Fish passage through the barrages are vital for estuarine and migratory fish species and the possible Sanctuary Zone would assist in protecting community structure in the region. This will in turn provide a diversity of food sources for predatory fish and birds. This Zone would assist in maintaining a key refuge area for invertebrate species that will enable recolonisation of the North and South Coorong Lagoons once conditions become more favourable. This would provide a critical food resource for fish and birds in the region. This Zone offers an opportunity to protect large scale ecological linkages by connecting a series of habitats from estuarine waters to deep offshore waters.

		<p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • The region is of inherent cultural value to the Ngarrindjeri nation and the creation of Sanctuary Zones would contribute to the well-being of both the region and the Ngarrindjeri people. • The possible Sanctuary Zone overlays part of the Coorong National Park and the Sir Richard Peninsula establishing a corridor from the land to the sea. • The Zone would help protect the values of the site which are linked to its status as a wetland of National Importance under the Ramsar Convention, as outlined in the Coorong, Lower Lakes and Murray Mouth Long Term Plan. • Fishing activity currently occurs in the deeper waters of the Coorong Lagoon and in some areas along the shoreline. • This Zone considers the diversity of marine uses by providing for shore based fishers near the Goolwa Barrage. • Boats launch from Beacon 19 and access through the Goolwa Barrage. • This Zone was designed to provide for important recreational fishing locations near the Murray Mouth. • This Zone is within a Native Title Claim area. • To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east lines.
<p>Zone O: Abutting the Tauwitcherie and Ewe Island barrages and extending into the North Coorong lagoon, Boundary Creek and an area of approx 150m around its estuary. Also including 2 bays along the Younghusband Peninsula.</p>	<p>12 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone includes a range of habitats of the North Coorong Lagoon and adjacent mudflats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • The mud and sand flats of the north Coorong Lagoon are important bird sites. In excess of 200,000 migratory birds use the Coorong each year as a summer habitat. Migratory birds are protected under international treaties and by State and Commonwealth legislation. • On the Younghusband Peninsula side of the possible Sanctuary Zone, the small bays provide different habitats and include freshwater soaks. • The Coorong and Lower Lakes are considered significant for 49 fish species. • The transitional environment from fresh to marine waters makes this site a unique habitat for fish. • Fish passage through the barrages are vital for estuarine and migratory fish species and the possible Sanctuary Zone would assist in protecting community structure in the region. This would in turn provide a diversity of food sources for predatory fish and birds. • The Zone would assist in maintaining a key refuge area for invertebrates that will enable recolonisation of the North and South Coorong Lagoons once conditions become more favourable. • Ewe Island provides feeding grounds for the NPWSA listed Musk Duck and, before the drought impacted on macroinvertebrate communities, Ewe Island mudflat provided significant and diverse food sources for migratory wading birds. • Habitat diversity within Boundary Creek would also be protected due to the presence of remnant woodlands and lignum shrub lands. This Zone also provides opportunities for fish passage between the Lakes and Coorong. The isolation of Boundary Creek provides an important fish and bird habitat. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • The region is of inherent cultural value to the Ngarrindjeri and the creation of this possible Sanctuary Zone would contribute to the well being of both the region and the Ngarrindjeri people. The Sir Richard Peninsula and Hindmarsh Island areas in particular are of significant cultural importance to the Ngarrindjeri nation. • This Zone is within a Native Title Claim area. • This Zone is not intended to extend into the deeper water channel of the Coorong lagoon, which is important for commercial fishers. • This Zone was designed to provide for important recreational and commercial fishing locations in the North Coorong Lagoon and near the Murray mouth. • The Zone would help protect the values of the site which are linked to its status as a wetland of National Importance under the Ramsar Convention, as outlined in the Coorong, Lower Lakes and Murray Mouth Long Term Plan. • The Zone overlays the Coorong National Park to MHWMM establishing a corridor from the land to the sea. • This Zone was designed to provide for a boat launching facility located in Mundoo Channel (6 km away). • No public vehicle access is available to this site.
<p>Zone P: Abutting the Coorong National Park from a location adjacent to Long Point extending approx 10km to the north west and out to the state waters limit. Including about 5</p>	<p>49 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone includes around 9km of exposed, high energy, fine-medium sandy beach habitat along the Coorong coastline. • As a precautionary measure, this Zone contains unmapped exposed sea floor habitats up to 50m depths. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • This isolated section of the Coorong ocean beach is an important site for a range of migratory and local bird species including the vulnerable hooded

km to MHWL along the ocean beach		<p>plover.</p> <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • The region is of inherent cultural value to the Ngarrindjeri and the creation of this Zone would contribute to the well being of both the region and the Ngarrindjeri people. • This Zone is within a Native Title Claim area. • The possible Sanctuary Zone overlays part of the Coorong National Park to MHWL establishing a corridor from the land to the sea. • The Coorong ocean beach is within the commercial harvest area for pipis. • This Zone was designed to provide for important recreational fishing locations closer to 42 Mile Crossing. • Public access to this Zone is either via boating to the Younghusband Peninsula and then walking across dune system or through either Tea Tree Crossing (72 kms to the south) or 42 mile Crossing (84 km to the south). Both access points are currently subject to either management or environmental closures. • Under current management arrangements, this section of the ocean beach is closed to vehicle access, apart from licensed fishers working in that area, for the period Oct 24th to Dec 24th annually. • Commercial fishers access this Zone by vehicle from either Barkers Knoll (approx 20kms north) or Parnka Point (approx 35kms south).
Zone Q: Inside Pelican Lagoon, Kangaroo Island.	16 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • The back bays of the lagoon are dominated by shallow (less than 10m deep) dense seagrass whilst the entrance is a patchwork of seagrass and soft-bottom habitat. • The shoreline is mostly comprised of intertidal seagrass and soft-bottom habitat which become exposed at low tide. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • Pelican Lagoon is an important representative habitat, being the only sheltered coastal lagoon in the Kangaroo Island area of the Encounter Marine Park and is a Wetland of National Importance. • It also has considerable importance as a nursery habitat for numerous fished species including King George whiting, salmon and southern calamari whose movements provide important ecological linkages with waters outside of the lagoon. • This Zone hosts uncommon species and species of conservation concern such as pipefish, and is an important site for resident and migratory species of seabirds and shorebirds. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • The management arrangements for this Zone would maintain current levels of use permitted under the gazettal as the American River Aquatic Reserve, under which fishing is currently not permitted.
Zone R: Commences west of Twin Heads, extending approx. 4km along the shoreline towards Point Morrison and approx. 1km seaward parallel to shore.	4 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone has seagrass close to shore with soft-bottom habitat covering the majority of the seafloor at depths less than 10m. • The shoreline is a 2km stretch of fine-medium sandy beach which gives way to high cliffs towards Point Morrison. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • The sheltered fine-medium sand beach in this possible Sanctuary Zone is the only example of that beach type included in this Zone on the Kangaroo Island coast of the marine park. Other potential representative examples of this beach type are Island Beach and Antechamber Bay beach. • A nest of the endangered white-bellied sea eagle is located on the cliffs towards the eastern end of the Zone. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This Zone provides for more heavily used recreational and commercial fishing sites closer to Kingscote. • No public vehicle access is available to this Zone.
Zone S: This possible Sanctuary Zone extends from north of the Cygnet River to the eastern end of the Nepean Bay Conservation Park, excluding an area in the south west corner	19 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • The seagrass habitat in this possible Sanctuary Zone is a combination of sparse meadows closer to shore with denser patches in the middle of the bay. • Soft-bottom habitat fronts the shoreline at the Nepean Bay township and a small patch of rocky reef lies offshore from the Nepean Bay Conservation Park. • The shoreline in this Zone is sheltered intertidal flats in the corner of the bay with mixed sand/shellgrit beaches on each side.

of Nepean Bay.		<ul style="list-style-type: none"> This Zone extends beyond median high water to include a portion of the Cygnet River Estuary saltmarsh and tidal creeks. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> The Cygnet River Estuary, a Wetland of National Importance and an important habitat for resident and migratory shorebirds, would be protected within this possible Sanctuary Zone. This Zone also contains part of the most extensive saltmarsh habitat on Kangaroo Island and in the entire Encounter Marine Park. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> The eastern extent of this possible Sanctuary Zone provides for recreational and commercial line fishing at sites such as Redbanks and in the corner of Western Cove in front of the Nepean Bay township. The Zone lies adjacent to the Nepean Bay Conservation Park establishing a protected corridor from the land to the sea.
Zone T: Within the confines of the Bay of Shoals including Busby Islet but excluding an area around the boat ramp and channel.	27 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone is characterised by extensive, dense seagrass meadows in shallow water less than 10m deep. It also includes Busby Islet Conservation Park and its associated spit and tidal flat extending north to Cape Rouge. The shoreline within this Zone is sheltered coarse sand beach which extends around the length of the bay from the boat ramp to Cape Rouge. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This is an important nursery area for species such as King George whiting and provides ecological linkages with other waters through exchange of juvenile, immature and adult animals. This bay is an important feeding and roosting area for migratory shorebirds, and an important breeding area for resident seabirds and shorebirds. Busby Islet is recognised as a Wetland of National Importance and an important location for numerous seabirds and resident and migratory shorebirds. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> The possible Sanctuary Zone provides for waters immediately adjacent to the major town of Kingscote to allow for commercial and recreational fishing. The placement of the south eastern boundary of the Zone allows continued access to several recreational fishing grounds, including the channel and bank habitats in the vicinity of the boat ramp.
Zone U: This possible Sanctuary Zone is located 8km east of Beatrice Islet.	36 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone includes a combination of deeper water (10 - 30m) seagrass and soft-bottom habitat that has not been represented in any of the other possible Sanctuary Zones in the park. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This Zone includes a variety of deeper water habitats influenced by strong tidal flows through Investigator Strait and Backstairs Passage. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> Access is only available by boat and this possible Sanctuary Zone was designed to provide for a boat launching facility at Kingscote. To ensure ease of identification and enforcement the Zone uses straight north, south, west and east lines.

This table shows the environmental values represented in each possible Sanctuary Zone within the Encounter Marine Park

Environmental Values	Units	Possible Sanctuary Zones																				Total in all Zones	Total in Marine Park
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T		
Ecologically Important Species																							
Australian Sealions (breeding sites)	Count									1												1	2
Australian Sealions (haulout sites)	Count																						1
Coastal Shorebird Sites	Count	4		179	1			2	13	5	2	26	51	875	81		6		67	40		1352	2588
Reef Fish Sites	Count	2		3	4	9		16		1	1		3	3								42	105
Sea Bird Sites	Count									3			1	2			7		1	6		20	34
Underwater Habitats																							
Deep Sea Sponges	Km ²						1	59														60	93
Dense Seagrass Patches (0 to -10m)	Km ²																		6			6	7
Invertebrate Community (0 to -10m)	Km ²						<1															<1	<1
Invertebrate Community (-10 to -30m)	Km ²						1															1	2
Invertebrate Community (-30 to -50m)	Km ²																						1
Macroalgae (0 to -10m)	Km ²					1	<1	1	10													12	18
Macroalgae (-10 to -30m)	Km ²	<1					<1															<1	1
Rocky Reef (0 to -10m)	Km ²	<1		6	1	2	<1	3	6		1	<1	2	4								26	68
Rocky Reef (-10 to -30m)	Km ²	2		3			<1						<1	12								17	28
Seagrass (0 to -10m)	Km ²	<1		6	12	5	<1	<1				<1	2	<1			14	<1	8	21	1	69	263
Seagrass (-10 to -30m)	Km ²	2		2	<1		<1						<1								6	4	45
Soft-bottom Habitat (0 to -10m)	Km ²	<1		6	11	5	<1	<1	3		3	<1	<1	5			1	4	4	5	2	47	289
Soft-bottom Habitat (-10m to -30m)	Km ²	2		4	5	<1	<1						<1	3							11	14	39
Soft-bottom Habitat (-30m to -50m)	Km ²																						<1
Unmapped (0 to -10m)	Km ²			<1	2	9	<1	28	16	1	1			4		11	<1	<1	1	<1		72	245
Unmapped (-10 to -30m)	Km ²	36		15	21	24	2	53		40	1		15	32		34					16	275	1362
Unmapped (-30 to -50m)	Km ²			3	17	39	2	14					3	8		3						89	571
Unmapped (>-50m)	Km ²																						<1
Shore Habitats																							
Boulder Beach (Exposed)	Km																						1
Boulder Beach (Moderate)	Km			1		4																4	9
Boulder Beach (Sheltered)	Km																						2
Bedrock Platform (Exposed)	Km							1					1									2	12
Bedrock Platform (Moderate)	Km			1	3	2	2						1									9	20
Bedrock Platform (Sheltered)	Km																						2
Cliff (Exposed)	Km										4											4	20
Cliff (Moderate)	Km					2		19	11													32	49
Cliff (Sheltered)	Km																	1				1	17
Coarse Sand Beach (Exposed)	Km																						2
Coarse Sand Beach (Moderate)	Km			<1																		<1	12
Coarse Sand Beach (Sheltered)	Km											1	2	1					2	13		19	51
Emergent Land	Count																						2
Estuary	Km ²	3	<1			<1		<1	<1				1	<1			15		2	<1		22	45
Fine-medium Sand Beach (Exposed)	Km									1			1	4		9						15	61
Fine-medium Sand Beach (Moderate)	Km			6					5				1	3								15	50
Fine-medium Sand Beach (Sheltered)	Km																	2				2	7
Mudflats and Sandflats (Sheltered)	Km																		6			6	7
Mixed Beach (Moderate)	Km						<1																1
Mixed Beach (Sheltered)	Km						<1											1	4			5	13
Offshore Islands	Count									1			1	1							1	4	11
Pebble Cobble Beach (Moderate)	Km					<1																<1	1

Environmental Values	Units	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	Total in all Zones	Total in Marine Park
Pebble Cobble Beach (Sheltered)	Km																							2
Saltmarsh	Km ²		<1												<1	1		<1		1	<1		2	4
Seagrass (Sheltered)	Km																	25					25	32

* note that numbers have been rounded to the nearest whole number.