

Western Kangaroo Island 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).

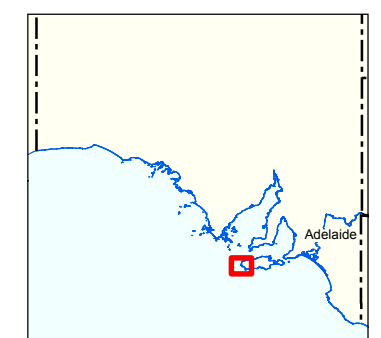
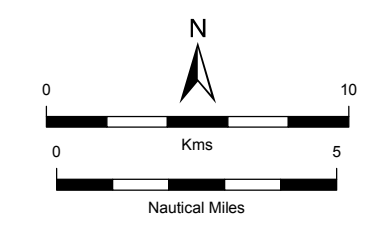
In developing your preferred zoning scenarios it will be important that you apply the full zoning checklists and policy commitments, to help ensure your suggestions meet the marine park design requirements. Doing this will help you develop a proposal for your park(s) that is good for conservation and 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 16 Western Kangaroo Island Marine Park

Preliminary Sanctuary Zone Scenario Starting Point Version 1

- Possible Sanctuary Zones
- Marine Parks
- Lake - Perennial
- Lake - Intermittent
- Land Subject to Inundation (STI)
- Parks and Reserves
- Bathymetry
- Coastline (median high water)
- Coastal Waters of the State
- Major Road
- Minor Road

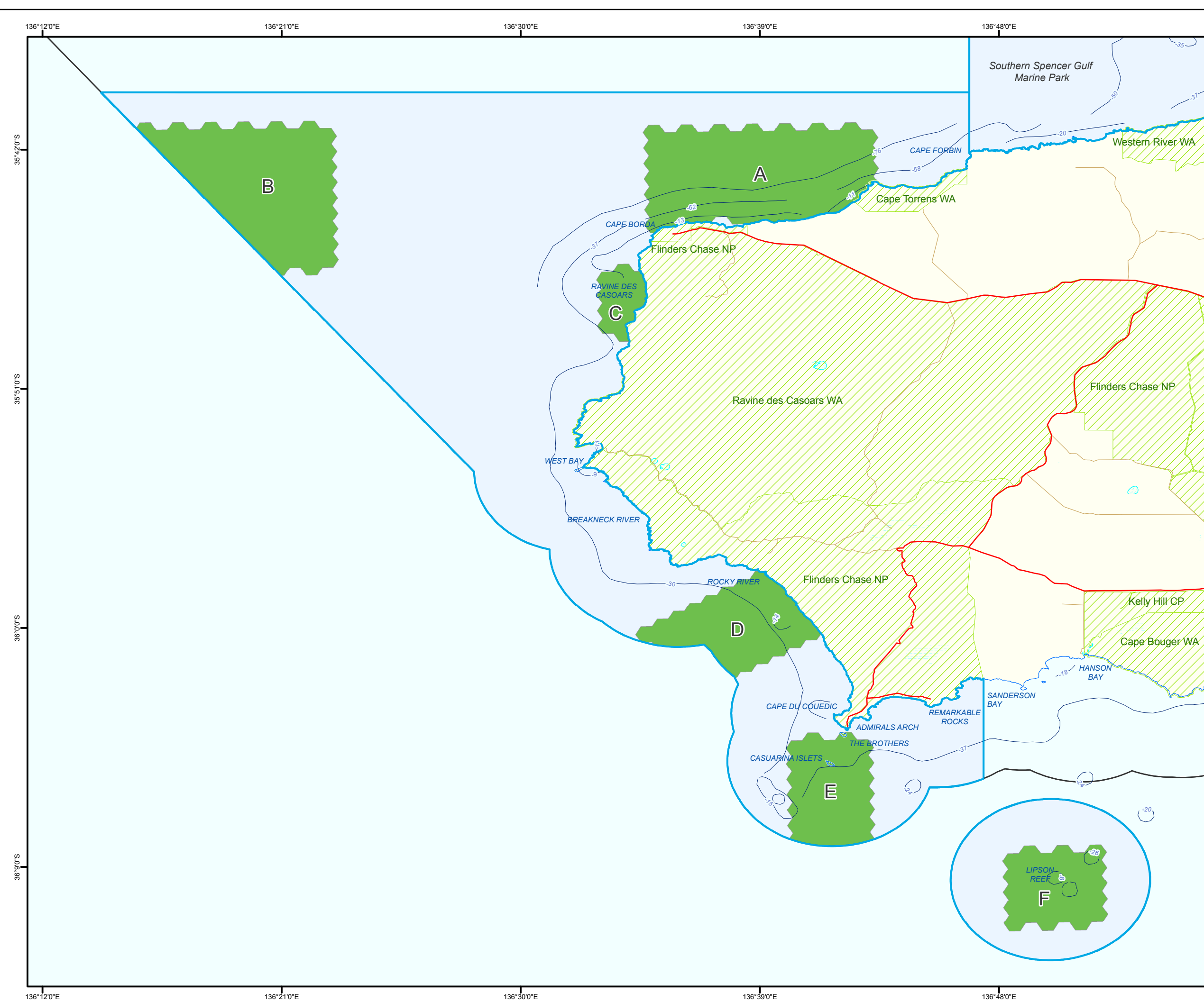


Produced by Coast and Marine Conservation
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Data Source Marine Parks, Parks and Reserves,
Topographic Data, Bathymetry - DENR
Coastal Waters of the State - Geoscience Australia
8 November 2010

Compiled Projection Datum Geographic
Geocentric Datum of Australia, 1994

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Basis for 'Starting Point' Preliminary Sanctuary Zone Scenario – Western Kangaroo Island Marine Park (Park 16)

Location of possible Sanctuary Zone	Area	Rationale for possible Sanctuary Zone
<p>Zone A: East from Cape Borda for approximately 14km to the western end of the Cape Torrens Wilderness Area and extending seaward to the north for approximately 6km.</p>	<p>82 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • The shoreline in this possible Sanctuary Zone is predominantly exposed bedrock platform backed by high cliffs (Cape Torrens cliffs up to 300m). • There is a 700m boulder beach at the western edge of the Cape Torrens Wilderness Protection Area. • This Zone includes near-shore rocky reef habitat with soft-bottom habitats beyond it extending out to 1km offshore. • The largest area of this Zone is taken up by deep water habitats (deeper than 50m) which are yet to be mapped. <p>Other important features and processes</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone represents an example of the steep descents that occur along the western and north-west coastlines of Kangaroo Island with habitats deeper than 50m within 1km of the shore. • The near-shore reef is known to provide habitat for site-attached fish including western blue groper, harlequin fish, and western blue devils. • There is an Australian sea lion haul out site at the base of the cliffs at Cape Borda and nests of the endangered white-bellied sea eagle have been recorded on the cliffs at Cape Torrens and between Harvey's Return and Cape Borda. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone lies adjacent to the Ravine des Casoars and Cape Torrens Wilderness Areas and the Flinders Chase National Park establishing a protected corridor from the land to the sea. • This Zone was designed to provide for important recreational and commercial fishing areas further seaward and along the north coast of KI. • Formalised access to the coast exists at Harvey's Return in the Ravine des Casoars Wilderness Area where locals and tourists can camp and access the coast for swimming and fishing. • This Zone considers the diversity of marine uses by providing for shore based fishers west of Western River Cove between the headlands east of Harvey's Return and west of Scott Cove. • To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east boundary lines.
<p>Zone B: Commences approximately 17km west of Cape Borda extending 10km north and then west to the marine park boundary.</p>	<p>75 km²</p>	<p>The possible Sanctuary Zone represent the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone represents the deep waters (50m+) of the Marine Park at the western entrance to Investigator Strait. • The depth and distance from shore of the zone means it has not yet been mapped for habitats and species. • All of this Zone is a deep-water column representing the vertical transition from the seabed to the surface. <p>Other important features and processes</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone is exposed to major ocean currents and strong swells due to its relative proximity to the continental shelf and represents an example of oceanic conditions within state waters. • Western Kangaroo Island upwellings of cold nutrient-rich waters originating from beyond the shelf move through this Zone on their way towards the mouth of Spencer Gulf. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone was designed to provide for important commercial fishing locations • To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east boundary lines.
<p>Zone C: Ravine des Casoars Extends approximately 4kms along the shoreline and 3kms seaward to the west.</p>	<p>11 km²</p>	<p>The possible Sanctuary Zone represent the following habitats</p> <ul style="list-style-type: none"> • The role of this relatively small possible Sanctuary Zone is to protect the Ravine des Casoars estuary mouth. • High, vegetated cliffs extend 2km either side of the estuary mouth with a small (100m) sandy beach in between them. • The seafloor includes a mix of bare sand and reef at 0 - 30m deep. <p>Other important features and processes</p> <ul style="list-style-type: none"> • When the mouth opens, freshwater inputs to the marine environment in this area create unique conditions for species specifically adapted to living in the mixing zone between fresh and salt water. • This possible Sanctuary Zone provides an intermittent refuge for estuarine species, such as mulloway, to feed, breed and rest.

		<p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • Access to this possible Sanctuary Zone is via a walking trail which is currently closed/under repairs following the 2007 Kangaroo Island bushfires. • Boat access is only by large vessels. • This Zone lies adjacent to the Ravine des Casoars Wilderness Area establishing a protected corridor from the land to the sea.
<p>Zone D: Maupertius Bay Extending approximately 6km along the coastline and 7km out to the limit of South Australian waters.</p>	38 km ²	<p>The possible Sanctuary Zone represent the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone protects the complete depth range of soft-bottom habitats from the shore out to waters deeper than 50m. • The dominant shoreline type in this Zone is a 2km stretch of fine medium sand beach backed by dunes which is south of the Rocky River estuary mouth. • The shoreline also includes examples of bedrock platform and coarse sand beaches backed by cliffs up to 50m high. • The coarse sand beaches included in this Zone are fronted by submerged bedrock platforms, some extending out to 300m offshore. <p>Other important features and processes</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone extends the protection of the Rocky River estuary (which is protected in the Flinders Chase National Park), whose catchment is considered to be one of the only undisturbed catchments in South Australia. • This Zone is exposed to the cold nutrient-rich waters that well up from the edge of the continental shelf, just to its south. <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone lies adjacent to the Flinders Chase National Park and so creates a protected corridor from the land to the sea. • There is a formal walking trail to the Rocky River estuary mouth. • It is reported that park visitors access the sandy beach south of the river mouth for shore-based fishing. • There is potential for commercial abalone fishing on the submerged rock platforms close to shore.
<p>Zone E: North and South Casuarina Islets Extends 7km south from the offshore side of North Casuarina Islet to the State waters limit. This Zone is approx 5kms wide</p>	35 km ²	<p>The possible Sanctuary Zone represent the following habitats</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone represents rocky reefs extending from the islet shores down to 50m deep and some soft-bottom habitats on the southern side of South Casuarina Islet. • The majority of this Zone is seafloor habitats at depths between 10m and 50m which are yet to be mapped. <p>Other important features and processes</p> <ul style="list-style-type: none"> • The seasonal upwelling in this region creates a nutrient-rich environment which strongly influences the food webs within this Marine Park. The resulting, highly productive waters close to shore make this an attractive location for seabirds, fur seals, whales and predatory fish species, as well as commercial species such as abalone and rock lobster. • North Casuarina Islet is a permanent breeding location for New Zealand fur seals and an opportunistic breeding site for Australian sea lions. It is also the only known breeding location for Australian fur seals in South Australia. • South Casuarina Islet is a haul out site for Australian sea lions. • Both islets are summer breeding grounds for seabirds such as Pacific gulls and terns (crested and fairy). <p>Social and Economic Considerations</p> <ul style="list-style-type: none"> • This possible Sanctuary Zone complements existing management arrangements (North and South Casuarina Islets are protected within the Flinders Chase National Park) by protecting some of the foraging areas for the species that breed and rest on the islets. • This Zone was designed to avoid important recreational and commercial fishing locations further west and closer to Cape Du Couedic. • To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east boundary lines.
<p>Zone F: Lipson Reef. This possible Sanctuary Zone extends approximately 6km by 5km over the reef with the north extent of the Zone 12kms south east of Remarkable Rocks.</p>	30 km ²	<p>The possible Sanctuary Zone represent the following habitats</p> <ul style="list-style-type: none"> • The seafloor habitats of this possible Sanctuary Zone are yet to be mapped due to its distance offshore and rough seas in the area. <p>Other important features and processes</p> <ul style="list-style-type: none"> • Lipson Reef is an isolated reef formation and of great interest because it is about 20km offshore and breaks the surface of the water although it is surrounded by waters deeper than 50m.

		<ul style="list-style-type: none">• It is an example of a vertical benthic gradient which experiences oceanic conditions due to its proximity to the continental shelf. <p>Social and Economic considerations</p> <ul style="list-style-type: none">• This possible Sanctuary Zone is within an extensive area off the southern coast of Kangaroo Island which is used for seasonal trolling of southern bluefin tuna, as well as some deep-water charter fishing.• To ensure ease of identification and enforcement, the Zone uses straight north, south, west and east boundary lines
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This table shows the environmental values represented in each possible Sanctuary Zone within the Western Kangaroo Island Marine Park

Environmental Values	Units	Possible Sanctuary Zones						Total in all Zones	Total in Marine Park
		A	B	C	D	E	F		
Ecologically Important Species									
Australian Fur Seals (breeding sites)	Count					1		1	1
Australian Sealions (breeding sites)	Count					1		1	1
Australian Sealions (haulout sites)	Count					1		1	4
Coastal Shorebird Sites	Count				8	5		13	24
New Zealand Fur Seals (breeding sites)	Count					1		1	10
Reef Fish Sites	Count	8						8	9
Sea Bird Breeding and Nesting Sites	Count	1				5		6	9
Underwater Habitats									
Rocky Reef (0 to -10m)	Km ²	2		5		<1		7	34
Rocky Reef (-10 to -30m)	Km ²			2		2		5	20
Rocky Reef (-30 to -50m)	Km ²					2		2	5
Soft-bottom Habitat (0 to -10m)	Km ²	7		2	7			15	32
Soft-bottom Habitat (-10m to -30m)	Km ²	2		1	7	<1		11	40
Soft-bottom Habitat (-30m to -50m)	Km ²				11	<1		11	34
Soft-bottom Habitat (>-50m)	Km ²				4			4	5
Unmapped (0 to -10m)	Km ²	<1				<1	<1	<1	1
Unmapped (-10 to -30m)	Km ²	6		<1		3	<1	9	27
Unmapped (-30 to -50m)	Km ²	8				8	<1	17	72
Unmapped (>-50m)	Km ²	57	75		9	19	29	188	745
Shore Habitats									
Boulder Beach (Sheltered)	Km	1						1	1
Bedrock Platform (Exposed)	Km	3		4	3			11	59
Bedrock Platform (Moderate)	Km	2						2	7
Coarse Sand Beach (Sheltered)	Km				1			1	1
Emergent Land	Count								1
Estuary	Km ²			<1	<1			<1	<1
Fine-medium Sand Beach (Exposed)	Km				2			2	7
Offshore Islands	Count					2		2	4

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