

Upper Spencer Gulf 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.

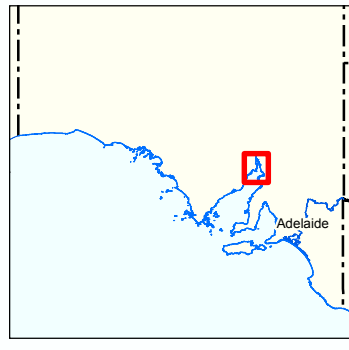
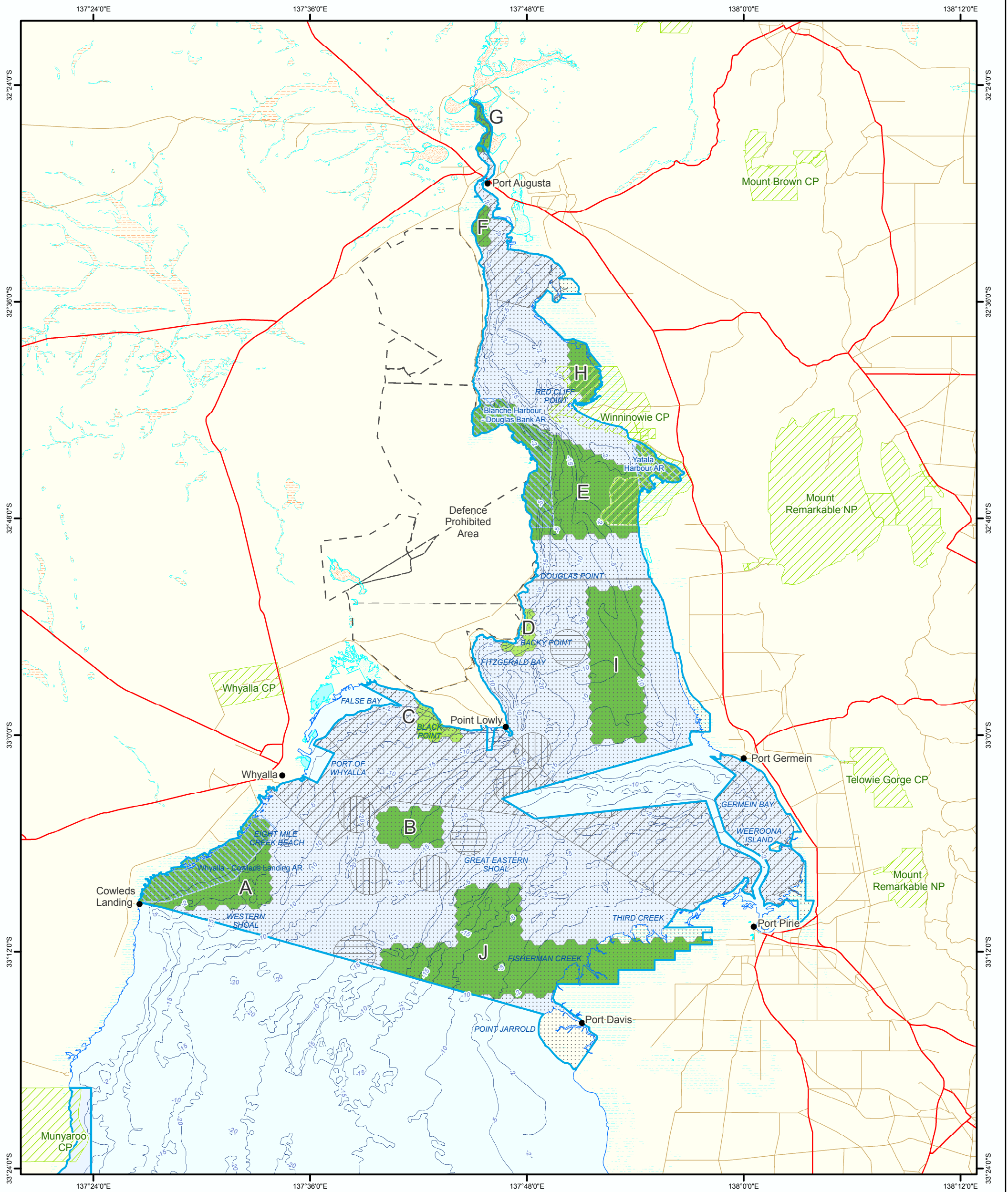
Your attention is drawn to the marine park policy commitments made by the Government in 2009, in particular the assurance given to the commercial fishing industry that the outcome of marine parks zoning will have no more than a 5% economic impact (as per the 2007 EconSearch report).

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 10 - Upper Spencer Gulf Marine Park

Preliminary Sanctuary Zone Scenario Starting Point - Version 1



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|---------------------------------------|---|-------------------------------|
| Possible Sanctuary Zones | Special Purpose Area (Marine Park 10) | Defence Prohibited Area |
| Possible Sanctuary Zones (Cuttlefish) | Special Purpose Areas (Harbours) | Bathymetry |
| Marine Park | Special Purpose Areas (Prospective Anchorage Locations) | Coastline (median high water) |
| Lake - Perennial | Special Purpose Area (Prospective Transhipment Locations) | Major Road |
| Lake - Intermittent | Special Purpose Area (Underwater Cable) | Minor Road |
| Lake - Mainly Dry | | |
| Land Subject to Inundation (STI) | | |
| Land Subject to Flooding (STF) | | |
| Parks and Reserves | | |
| Aquatic Reserves | | |

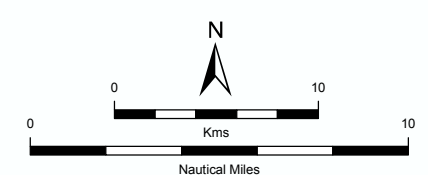
Produced by Coast and Marine Conservation
Department of Environment and Natural Resources
GPO BOX 1047 Adelaide SA 5001
www.marineparks.sa.gov.au

Data Source Marine Parks, Parks and Reserves, Topographic Data, Defence Prohibited Area, Boat Ramps, Bathymetry - DENR, Prospective Transhipment & Anchorage Locations - Flinders Ports Aquatic Reserves - PIRSA, Harbours - DENR & Harbours and Navigation Act

Compiled Projection Datum 9 November 2010
Geographic
Geocentric Datum of Australia, 1994

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Basis for 'Starting Point' Preliminary Sanctuary Zone Scenario – Upper Spencer Gulf Marine Park (Park 10)

Location of possible Sanctuary Zone	Area	Rationale for possible Sanctuary Zone
<p>Zone A: Overlays the existing Whyalla-Cowleds Landing Aquatic Reserve south of Whyalla and extends out to take in part of Western Shoal.</p>	<p>64 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • Sheltered mixed beaches, interspersed with mangroves and saltmarsh habitats. • The Zone contains extensive beds of seagrass up to 10m deep. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • Areas of saltmarsh located above median high water are included in this possible Sanctuary Zone to ensure the protection of ecological linkages across the land and marine environment. • The seagrass habitat provides important nursery, breeding and feeding grounds for blue swimmer crabs, western king prawns, whiting, garfish and numerous other species. • The Zone contains a particularly important nursery area for snapper. • The saltmarsh, mangrove and intertidal habitats provide important nesting and feeding grounds for resident shorebirds as well as feeding grounds for migratory shorebirds whose habitats are required to be protected under international treaties. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> • This Zone includes the protected shipwreck the <i>Rooganah</i>. • A Native Title claim for the Barngarla people is located over this Zone. • The Zone provides for important fishing areas on the beaches adjacent to Whyalla. • The Zone builds upon the Whyalla-Cowleds Landing Aquatic Reserve, making the seaward boundary square for easier navigation.
<p>Zone B: Approximately 8km south of Black Point in the centre of the gulf a 6 X 4 km rectangle over the Fairway Bank.</p>	<p>21 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • The offshore waters of upper Spencer Gulf are included in the Zone. This area, which includes Fairway Bank, is currently being mapped. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • The Zone contains nursery areas for snapper. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> • The Zone was designed to provide for popular beach fishing and inshore boating around Pt Lowly and Whyalla. • Shipping activity will be unaffected by this Zone. • To ensure ease of identification, compliance and enforcement the Zone uses straight north, south, west and east lines.
<p>Zone C: Extends around the coastline of Black Point.</p>	<p>9 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • Rocky reef, soft-bottom habitats interspersed with macroalgae and seagrass meadows. • The coastline habitats include sections of mixed beach and bedrock platform. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> • The possible Sanctuary Zone includes a section of the giant cuttlefish breeding ground. • The Zone contains the vulnerable red algae known as <i>Pterothamnion flexile</i>. • This Zone is a potential nursery site for King George whiting and snapper. <p>Social and Economic planning considerations of the possible Sanctuary Zone</p> <ul style="list-style-type: none"> • Port Bonython will be unaffected by this Zone. • The Zone includes areas that have been indicated to be of importance for recreational fishing and scuba diving.
<p>Zone D: Along the coastline at Backy Point and northward for approximately 4 km.</p>	<p>6 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> • The coastline of this possible Sanctuary Zone includes sections of sheltered coarse sand and pebble cobble beaches and moderately exposed mixed beaches.

		<ul style="list-style-type: none"> The shallow waters of this Zone include cobble and soft-bottom habitats habitat. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone includes the most northward section of the recorded giant cuttlefish breeding aggregation. The coastal habitats provide important breeding and feeding grounds for resident shorebirds. The Zone contains a vulnerable red algae species. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> The possible Sanctuary Zone and its precise boundaries can be adjusted to minimise disruption to the popular fishing sites around Backy Point. This Zone is adjacent to some coastal homes. The location of the Zone provides for the important recreational fishing areas of Fitzgerald Bay and Point Lowly.
Zone E: Overlays the existing Blanche Harbour-Douglas Bank Aquatic Reserve and extends across the gulf and overlays the existing Yatala Harbour Aquatic Reserve.	110 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> The coastline of this possible Sanctuary Zone includes sheltered coarse sand beaches, mixed beaches, intertidal sand/mud flats and areas of mangroves backed by saltmarsh habitats. Soft-bottom habitats and cobble interspersed with extensive seagrass meadows make up the habitats within this Zone. The Zone was designed to incorporate large sand waves located in the middle of the gulf, just off Middle Bank. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> The saltmarsh, mangrove and sand/mud flat habitats provide important nesting and feeding grounds for resident shorebirds, while migratory shorebirds, whose habitats are protected under international treaties, use the area for feeding. Mangrove-seagrass habitats are known nursery areas for species such as King George whiting, yellow fin whiting, blue swimmer crab and western king prawn. The Zone includes a sponge garden community located in the middle of the gulf in close proximity to the sand waves. This Zone is a potential nursery site for King George whiting and snapper. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> The possible Sanctuary Zone overlays the Yatala Harbor and Blanche Harbour-Douglas Point Aquatic Reserves and includes part of Winninowie Conservation Park. The Zone has been positioned south of Red Cliff Point to provide for popular fishing grounds off the point. The Zone provides for commercial haul net fishing grounds. A protected shipwreck, <i>Alpha</i>, is located within this Zone.
Zone F: South of Port Augusta at Commissariat Point, on the western side of the gulf opposite the power station.	5 km ²	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> Saltmarsh, mangrove, tidal creeks and shallow soft-bottom habitats are represented. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> The mangrove and seagrass habitats provide a nursery area for species such as King George whiting, yellow fin whiting, snapper, blue swimmer crab and western king prawn. <p>Social and Economic planning considerations of the possible Sanctuary Zone</p> <ul style="list-style-type: none"> A Native Title claim by the Barngarla people exists over this possible Sanctuary Zone. The Zone was designed to provide for important recreational fishing areas adjacent to Port Augusta, the deep water near the power station and areas further south from Snapper Reach to West Sands. The Zone provides for all known commercial fishing grounds.

<p>Zone G: The head of the Spencer Gulf to the north of the Princess Highway Bridge in Port Augusta.</p>	<p>4 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This sheltered coastline includes saltmarsh habitats fronted by mangroves and tidal sand and mud flats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> This possible Sanctuary Zone includes the most saline waters of the Gulf. The mangrove habitats within this Zone provide important breeding, nursery and feeding grounds for most commercial fish, prawn and crab species. The northern boundary of the Zone lies adjacent to the salt works conservation area, establishing a protected corridor between the land and sea. The head of the Spencer Gulf has the largest tidal range in South Australia, reaching nearly 3m. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> The possible Sanctuary Zone was designed to provide for important fishing areas adjacent to and south of Port Augusta. The Zone will preserve the area for education, appreciation and recreation including existing ecological tourism operations.
<p>Zone H: The bay north east of Red Cliff Point overlaying a part of Winninowie Conservation Park.</p>	<p>13 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This possible Sanctuary Zone contains six seagrass species (four of which have warm water origins due to the high summer water temperatures only found in the upper reaches of the gulf) and two algal species including a red algae. The area is characterised by a system of tidal creeks bordered by mangroves and sand and mud flats backed by saltmarsh habitats. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> Large communities of razorfish and hammer oysters. The saltmarsh, mangrove and sand/mud flat habitats provide important nesting and feeding grounds for resident shorebirds, while migratory shorebirds, whose habitats are protected under international treaties, use the area for feeding. This Zone is a potential nursery site for King George whiting and snapper. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> The possible Sanctuary Zone partially overlays Winninowie Conservation Park, establishing a protected corridor between the land and sea. The Zone was designed to provide for important fishing areas in the deeper waters of Flinders Channel which is located to the west of the zone. The southern end of the Zone lies adjacent to the edge of the Chinaman Creek boat channel to allow for boat launching and fishing. The Zone was designed to provide for the coastal shacks in the Chinaman Creek area.
<p>Zone I: Starts just offshore from Douglas Point, runs east and then stretches approximately 15 km down the centre of the gulf in 5 km-wide band.</p>	<p>73 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This Zone contains areas of soft-bottom habitats habitat and seagrass located in both shallow and deeper waters. Strong tidal currents flow along the Flinders Channel causing sand to form into megaripples and sand waves more than 1.5m high. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> The seagrass habitat provides important nursery, breeding and feeding grounds for blue swimmer crabs, western king prawns, King George whiting, snapper, garfish and numerous other species. <p>Social and Economic considerations</p> <ul style="list-style-type: none"> The possible Sanctuary Zone was designed to provide for important recreational fishing areas located in the deeper waters to the north of Douglas Point and the shacks along the coast to Douglas Point. The Zone has been designed to accommodate commercial marine scale haul net fishing in the waters less than 5m. To ensure ease of identification, compliance and enforcement the Zone uses straight north, south, west and east lines.
<p>Zone J: Begins in the mangroves north of Port Davis and runs in a 5km-wide band west toward the centre of the Spencer Gulf and extends northward towards the centre of</p>	<p>139 km²</p>	<p>The possible Sanctuary Zone represents the following habitats</p> <ul style="list-style-type: none"> This Zone includes an extensive network of tidal creeks lined by mangrove and saltmarsh habitats. Large seagrass beds are located in shallow and deeper waters, and soft-bottom habitats habitats, with the deeper water habitats of this zone yet to be mapped. <p>Other important features and natural processes</p> <ul style="list-style-type: none"> The saltmarsh and mangrove habitats in this Zone provide breeding, feeding and nursery areas for a range of bird and fish species.

the gulf.		<ul style="list-style-type: none">• The tidal creeks in this Zone have been identified as coastal wetlands of national importance.• The mangrove and seagrass habitats provide a nursery area for species such as King George whiting, yellow fin whiting, snapper, blue swimmer crab and western king prawn. <p>Social and Economic considerations</p> <ul style="list-style-type: none">• The possible Sanctuary Zone was designed to provide for important recreational fishing areas adjacent to, and south of Port Pirie, including First, Second, Third and Fourth Creeks.• The Zone has been designed to provide for fishing at the Port Davis estuary.• The Zone overlays some waters less than 5m, which may affect commercial haul net fishing.
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This table shows the environmental values represented in each possible Sanctuary Zone within Upper Spencer Gulf 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			
Ecologically Important Species														
Coastal Shorebird Sites	Count	21				3			8	7			39	328
Reef Fish Sites	Count			1									1	2
Sea Bird Breeding and Nesting Sites	Count											1	1	4
Underwater Habitats														
Cobble (0 to -10m)	Km ²				<1	<1							0	2
Macroalgae (0 to -10m)	Km ²			1									1	5
Macroalgae (-10 to -30m)	Km ²			<1									<1	6
Rocky Reef (0 to -10m)	Km ²			1									1	2
Seagrass (0 to -10m)	Km ²	49		4	1	70	1	<1	5	43	58		231	714
Seagrass (-10 to -30m)	Km ²			2						22	41		65	166
Soft-bottom Habitat (0 to -10m)	Km ²	9		1	5	30	1	1	<1	<1	1		47	242
Soft-bottom Habitat (0 to -10m)	Km ²									7	2		9	80
Unmapped (0 to -10m)	Km ²		5										5	9
Unmapped (-10 to -30m)	Km ²		16									1	17	220
Shore Habitats														
Bedrock Platform (Sheltered)	Km			6									6	9
Coarse Sand Beach (Moderate)	Km													10
Coarse Sand Beach (Sheltered)	Km				1	13			1				14	79
Emergent Land	Count	11				2							13	28
Estuary	Km ²					8	5	4		<1	71		88	389
Mangrove	Km ²	4			<1	8	3	1	6		5		25	62
Mudflats and Sandflats (Sheltered)	Km							<1					<1	<1
Mixed Beach (Moderate)	Km				1								1	4
Mixed Beach (Sheltered)	Km	9		2		3							13	55
Pebble Cobble Beach (Sheltered)	Km				3								3	3
Saltmarsh	Km ²	1			<1	1	<1	2	2		29		36	78

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