

# Investigator 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).

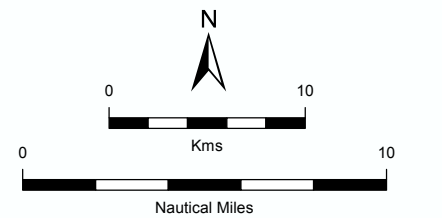
In developing your preferred zoning scenarios it will be important that you apply the full zoning checklists and policy commitments, to help ensure your suggestions meet the marine park design requirements. Doing this will help you develop a proposal for your park(s) that is good for conservation and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

**For more information**, please contact your MPLAG Executive Officer via email at [DENRmarine@sa.gov.au](mailto: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 4 Investigator Marine Park

## Preliminary Sanctuary Zone Scenario Starting Point Version 1

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

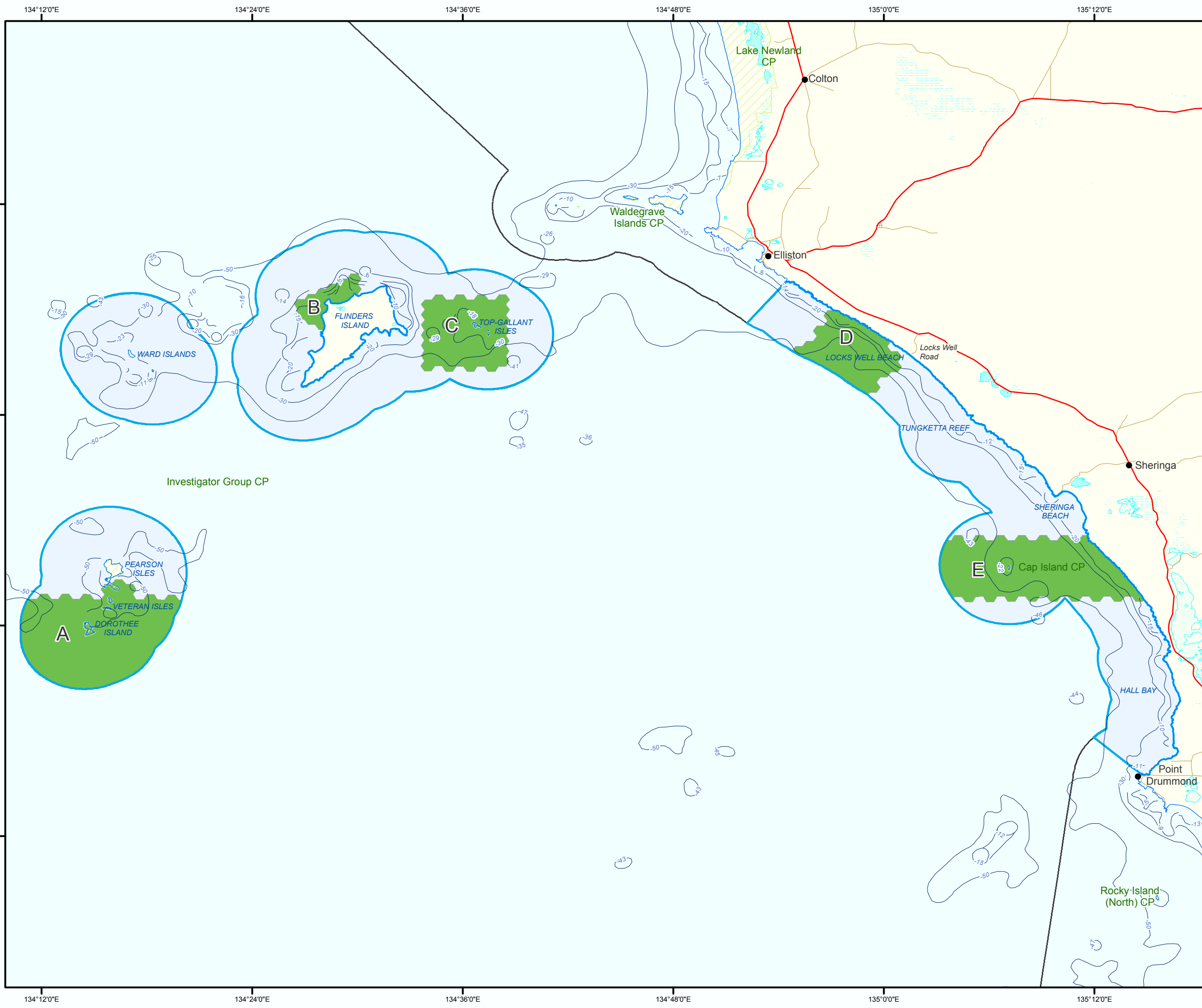


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**Data Source** Marine Parks, Parks and Reserves,  
Topographic Data, Bathymetry - DENR  
Coastal Waters of the State - Geoscience Australia  
10 November 2010

**Compiled Projection Datum** Geographic  
Geocentric Datum of Australia, 1994

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Basis for 'Starting Point' Preliminary Sanctuary Zone Scenario – Investigator Marine Park (Park 4)		
Location of possible Sanctuary Zone	Area	Rationale for possible Sanctuary Zone
Zone A: Dorothee and Veteran Islands	111 km <sup>2</sup>	<p><b>This possible Sanctuary Zone represents the following habitats</b></p> <ul style="list-style-type: none"> <li>• Included in this possible Sanctuary Zone is soft-bottom habitat, reef including granite and limestone as well as some habitats that are yet to be mapped.</li> <li>• The Zone includes the transition of habitats down very steep slopes from shore to more than 50m deep.</li> </ul> <p><b>Other important features and natural processes</b></p> <ul style="list-style-type: none"> <li>• The Zone has a high degree of 'naturalness' due to its isolation.</li> <li>• This possible Sanctuary Zone is very exposed to a warm current from Western Australia (the Leeuwin Current) which supports species more common in tropical waters.</li> <li>• Water in this area is exceptionally clear, with significant light penetration and strong deep water swells.</li> <li>• The area also supports a high diversity of many species including mature fish and invertebrates such as hard and soft corals, sponges, macroalgae, ascidians and echinoderms.</li> <li>• Also found in the area are breeding colonies birds including white-faced storm petrels, little penguins and short-tailed shearwaters and nesting sites for the endangered white-bellied sea-eagle as well as habitat for migratory birds whose habitats are required to be protected under international treaties.</li> <li>• New Zealand fur seals and the vulnerable Australian sea lion also make use of the area to breed and haul out.</li> <li>• This Zone contains unique granite inselberg landforms.</li> </ul> <p><b>Social and economic considerations</b></p> <ul style="list-style-type: none"> <li>• This possible Sanctuary Zone is complemented by the Investigator Group Conservation Park, which protects the land based assets of the islands.</li> <li>• The isolated nature of this Zone means it is not a popular recreational fishing area.</li> <li>• This Zone complements numerous scientific surveys and studies on benthic ecosystems.</li> <li>•</li> </ul>
Zone B: North-west Flinders Island	15 km <sup>2</sup>	<p><b>This possible Sanctuary Zone represents the following habitats</b></p> <ul style="list-style-type: none"> <li>• Along the shoreline of this possible Sanctuary Zone exposed and sheltered sandy beaches and shoreline rock platforms are represented, while out to sea soft-bottom habitat and reefs (including limestone and granite) are found, along with some habitats that are yet to be mapped.</li> <li>• This Zone also connects deep water habitats with habitats closer to the shore.</li> </ul> <p><b>Other important features and natural processes</b></p> <ul style="list-style-type: none"> <li>• The limestone reefs in the area are important in life stages of various fish and invertebrates including rock lobster and abalone.</li> <li>• The area also provides habitat for the unique crested threefin (a reef fish endemic to SA) as well as several bird species including the endangered osprey, red-tailed tropic bird and rare eastern reef egret.</li> </ul> <p><b>Social and economic considerations</b></p> <ul style="list-style-type: none"> <li>• To ensure ease of identification, compliance and enforcement the Zone aligns with prominent headlands.</li> </ul>
Zone C: Topgallant Islands	56 km <sup>2</sup>	<p><b>This possible Sanctuary Zone represents the following habitats</b></p> <ul style="list-style-type: none"> <li>• Along this shore of this possible Sanctuary Zone exposed cliffs can be found and reefs (including limestone reefs) as well as some habitats which are yet to be mapped.</li> <li>• On the sheltered side of the Topgallant Islands are steep underwater slopes while on the exposed side shallow habitats include underwater ridges, canyons, caves and tunnels.</li> </ul> <p><b>Other important features and natural processes</b></p> <ul style="list-style-type: none"> <li>• This area is considered significant because it is home to one of the highest recorded levels of macroalgal species diversity in the world, thought to be assisted by the strong currents between the islands and localised upwellings</li> <li>• The area contains exceptionally clear water, with significant light penetration and strong deepwater swells.</li> <li>• Top Gallant Island is also the only known place in the world where the light-emitting golden roughy is found.</li> <li>• The Zone is also home to high species diversity and abundance of fish, invertebrates (ascidians -filter feeding, soft organisms with vertebrae) and is also a haulout site for the vulnerable Australian sea lion.</li> </ul>

		<p><b>Social and economic considerations</b></p> <ul style="list-style-type: none"> <li>• This possible Sanctuary Zone is part of the Investigator Group Conservation Park providing a protected corridor from the land to the sea.</li> <li>• A large number of scientific surveys have been conducted in and around this Zone, providing baseline data to measure the success of the Zone in the future.</li> <li>• The shape and location of this Zone provides for connection between deep water habitat and habitat closer to shore.</li> <li>• To ensure ease of identification, compliance and enforcement the Zone is designed with straight, easily identifiable, north, south, east and west boundaries.</li> </ul>
<b>Zone D:</b> West of Locks Well	44 km <sup>2</sup>	<p><b>This possible Sanctuary Zone represents the following habitats</b></p> <ul style="list-style-type: none"> <li>• The shoreline within this Zone includes exposed cliffs and sandy beaches while out to sea are seagrass meadows, reefs and some habitats which are yet to be mapped.</li> </ul> <p><b>Other important features and natural processes</b></p> <ul style="list-style-type: none"> <li>• This area is influenced by exposure to waves and wind from the south east and upwellings of cold, nutrient rich water during summer and autumn which help create diversity and abundance of many species.</li> <li>• The Zone would protect connections between habitats from the surf to 5km offshore.</li> </ul> <p><b>Social and economic considerations</b></p> <ul style="list-style-type: none"> <li>• This Zone is complemented by a netting closure, which extends from Locks Well to Cape Blanche.</li> <li>• This Zone is designed to provide for the popular recreational fishing area of Locks Well and public access points.</li> </ul>
<b>Zone E:</b> South of Sheringa to Cap Island	98 km <sup>2</sup>	<p><b>This possible Sanctuary Zone represents the following habitats</b></p> <ul style="list-style-type: none"> <li>• Coastal areas within this possible Sanctuary Zone include exposed cliffs while out to sea are a variety of reefs and some habitats that are yet to be mapped.</li> <li>• The Zone contains a transition of habitats from the coastal zone to the extent of State waters offshore and Cap Island represents nearshore island habitat.</li> </ul> <p><b>Other important features and natural processes</b></p> <ul style="list-style-type: none"> <li>• This area influenced by upwellings of cold, nutrient rich water during summer and autumn which help create diversity and abundance of many species.</li> <li>• This possible Sanctuary Zone provides important habitat for a range of fish and invertebrates including various life stages of rock lobster and abalone as well as the vulnerable Australian sea lion and a breeding colony of the white-faced storm petrel.</li> </ul> <p><b>Social and economic considerations</b></p> <ul style="list-style-type: none"> <li>• This possible Sanctuary Zone includes the Cap Island Conservation Park providing a protected corridor between the island and the mainland.</li> <li>• To ensure ease of identification, compliance and enforcement this Zone uses straight east, west boundaries.</li> <li>• This zone is positioned to provide for areas with significant public access.</li> </ul>

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

Environmental Values	Units	Possible Sanctuary Zones					Total in all Zones	Total in Marine Park
		A	B	C	D	E		
<b>Ecologically Important Species</b>								
Australian Sealions (breeding sites)	Count	1					1	3
Australian Sealions (haulout sites)	Count	2		1		1	4	5
Coastal Shorebird Sites	Count	9	1	1		3	14	43
New Zealand Fur Seals (breeding sites)	Count	1					1	3
Reef Fish Sites	Count		2	3			5	16
Sea Bird Breeding and Nesting Sites	Count	6		2		1	9	14
<b>Underwater Habitats</b>								
Rocky Reef (0 to -10m)	Km <sup>2</sup>	<1	2	1	4	2	10	40
Rocky Reef (-10 to -30m)	Km <sup>2</sup>		5	1	4	<1	9	28
Rocky Reef (-30 to -50m)	Km <sup>2</sup>		<1	<1		<1	<1	2
Seagrass (0 to -10m)	Km <sup>2</sup>	<1	2				2	8
Seagrass (-10 to -30m)	Km <sup>2</sup>		1				1	5
Soft-bottom Habitat (0 to -10m)	Km <sup>2</sup>	<1	<1				<1	3
Soft-bottom Habitat (-10m to -30m)	Km <sup>2</sup>	<1	3				3	11
Soft-bottom Habitat (-30m to -50m)	Km <sup>2</sup>		1				1	3
Unmapped (0 to -10m)	Km <sup>2</sup>	4		1	1	3	8	23
Unmapped (-10 to -30m)	Km <sup>2</sup>	2	<1	4	4	9	18	105
Unmapped (-30 to -50m)	Km <sup>2</sup>	8	<1	33	26	45	113	473
Unmapped (>-50m)	Km <sup>2</sup>	96		16	4	39	155	481
<b>Shore Habitats</b>								
Bedrock Platform (Exposed)	Km							1
Bedrock Platform (Moderate)	Km							2
Cliff (Exposed)	Km				8	10	17	66
Cliff (Sheltered)	Km							2
Coarse Sand Beach (Exposed)	Km							2
Coarse Sand Beach (Moderate)	Km							4
Coarse Sand Beach (Sheltered)	Km							1
Emergent Land	Count			1			1	2
Fine-medium Sand Beach (Exposed)	Km				<1		<1	7
Offshore Islands	Count	5		1		1	7	10

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