



## Doubtful Island Bay WA03.01.01

### Regional Setting

This mixed sand and rock coast compartment extends from Red Island to Point Hood.

The dominant regional processes are the mediterranean to humid cool-temperate climate; southern annular mode (driving dominant south-westerly swells and storms); micro-tidal; high energy south-westerly swells; westerly seas; carbonate sediments; and interrupted swell-driven longshore transport.

This coastline is susceptible to regional hazards, including mid-latitude cyclones (depressions), storm surges and shelf waves.

### Justification of sensitivity

Sensitivity rating is a 4 as the shoreline is currently stable but likely to start eroding.

Sediment supply to the coast is likely to be less than sediment demand, due to the trapping of stream flow by barred estuaries and mobile dunes.

### Other comments

This compartment has an ESE aspect.

Geomorphological features include zeta formed bays (in the south), granite headlands and coast (in the north), beaches, dunes, and the Fitzgerald Inlet.

A large proportion (44%) of the coastline consists of exposed, high energy shorelines with eroded igneous or metamorphic rocks associated with overlying beachrock or eolean limestone.

Also common along the coastline are broad gently-sloping sandy beaches with well vegetated primary dunes, often backed by parallel beach ridges or stabilised parabolic dunes (37%).



Broad arcuate sandy beaches can also be found (11%); these may be cusped or crenulate, formed between or in association with resistant headlands. The remainder (8%) consists of broad, gently-sloping, coarse grained sandy beach with some active dunes and unstable blowout areas.

### **Confidence in sources**

Low confidence: Interpretation of landform assemblages comes from satellite imagery and aerial photography. There is limited or no information available describing landforms or coastal landform change over the historical period. Some information is available for the coastal lagoons and estuaries.

### **Additional information**

Australian Beach Safety & Management Program (ABSAMP) database of over 12,000 beaches can be accessed at [http://www.ozcoasts.gov.au/coastal/beach\\_intro.jsp](http://www.ozcoasts.gov.au/coastal/beach_intro.jsp) (also see Surf Life Saving site)

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