



## Yeagarup Beach WA04.03.01

### Regional Setting

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.

This sandy coast compartment extends from Point D'Entrecasteaux to Black Point.

### Justification of sensitivity

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

Evidence of phases of large scale cut and fill are apparent in the dune topography, with a low plain seaward of truncated frontal dunes and active dunes. Sediment bypassing is likely to occur around Black Point.

### Other comments

This compartment has a SW aspect.

Geomorphological features include rocky headlands, limestone cliffs, beaches and dunes.

The majority of the coastline features broad, gently-sloping, coarse grained sandy beach with some active dunes and unstable blowout areas (66%). The remainder of the coastline comprises narrow sandy beach backed by continuous, stable, well-vegetated high dunes which may include calcarenite (23%). These are without extensive beachrock.



### **Confidence in sources**

Low confidence. There is little information available describing landforms or coastal landform change over the historical period. Interpretation of landform assemblages comes from site visits, satellite imagery and aerial photography.

### **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)

Australian Maritime Safety Authority (AMSA). (2006) Oil Spills Response Atlas. Australian Government Canberra. Available at <https://www.amsa.gov.au/environment/maritime-environmental-emergencies/national-plan/general-information/OSRA/index.asp>

Brearley A. (2005) Ernest Hodgkin's Swanland: Estuaries and Coastal Lagoons of Southwestern Australia, University of Western Australia Press, Crawley.

Eliot I, Nutt C, Gozzard B, Higgins M, Buckley E & Bowyer J. (2011). Coastal Compartments of Western Australia: A Physical Framework for Marine & Coastal Planning. Report to the Departments of Environment & Conservation, Planning and Transport. Damara WA Pty Ltd, Geological Survey of Western Australia and Department of Environment & Conservation, Western Australia.

Richardson L, Mathews E & Heap A. (2005) Geomorphology and Sedimentology of the South Western Planning Area of Australia: Review and synthesis of relevant literature in support of Regional Marine Planning. Geoscience Australia Report Record 2005/17

Sharples C, Mount R, Pedersen T, Lacey M, Newton J, Jaskierniak D & Wallace L. (2009) The Australian Coastal Smartline Geomorphic and Stability Map. Version 1: Project Report. Geoscience Australia & Department of Climate Change, [www.ozcoasts.gov.au/pdf/SmartlineProjectReport\\_2009\\_v1.pdf](http://www.ozcoasts.gov.au/pdf/SmartlineProjectReport_2009_v1.pdf)



Short AD. (2005) Beaches of the Western Australian Coast: Eucla to Roebuck Bay: A guide to their nature, characteristics, surf and safety. Australian Beach Safety and Management Program. University of Sydney Coastal Studies Unit and Surf Life Saving Australia. Sydney University Press. Sydney, New South Wales