



## Twilight Cove WA01.01.03

### Regional Setting

This sandy coast compartment extends from Scorpion Bight to Twilight Cove.

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 mid-latitude cyclones (depressions), storm surges and shelf waves.

### Justification of sensitivity

The sensitivity rating is a 4, as the shore is stable but likely to start eroding. High frontal dunes and sand sheets are migrating landward over older dunes and leaving beachrock or pavement reef exposed inshore.

### Other comments

This compartment has a SSW aspect.

This compartment is mainly comprised of variable width sandy beach which have formed in areas protected by offshore reefs, and may include some beachrock as low cliffs or headlands (59%), There are also some broad gently-sloping coarse grained sandy beaches with some active dunes and unstable blowout areas (25%). Other features include limestone platforms and seagrass banks.

### 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.



### **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>

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.

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.

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