



Oldfield River WA02.02.01

Regional Setting

This mixed sand and rock coast compartment extends from Shoal Cape to Mason Bay

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.

Zeta form beaches are separated by rocky headlands, some with apparent sediment transfer around them. Several beaches are perched and backed by rock outcrops.

Other comments

This compartment has a S aspect.

Geomorphological features include granite islands, rocky platforms and headlands, beaches, dunes and the Stokes Inlet.

Around half of the coastline (55%) can be described as broad, arcuate sandy beach, which may be cusped or crenulate, formed between or in association with resistant headlands. Narrow sandy beaches with extensive beachrock are less common but also present (22%). The remainder of the coastline (17%) is made up of exposed high energy shorelines, with eroded igneous or metamorphic rocks associated with overlying beachrock or eolian limestone.



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 (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>

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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.

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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.