



Israelite Bay WA01.03.03

Regional Setting

This sandy coast compartment extends from Israelite Bay (N) to Point Malcolm.

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

Sensitivity rating is a 4 as the shoreline is currently stable but likely to start eroding. The dominant landform feature is a stationary barrier in a broad, shallow embayment. Some sediment linkage is apparent between this and adjacent embayments.

Other comments

This compartment has a SE aspect.

Geomorphological features include the Recherche Archipelago, granite headlands, spits, coastal lagoons, beaches and dunes.

Almost all of the coast is comprised of broad, gently-sloping, sandy beach with well vegetated primary dune, often backed by parallel beach ridges or stabilised parabolic dunes (98%).

Confidence in sources

Low confidence: Interpretation of landform assemblages comes from satellite imagery and aerial photography. Aerial photographic runs between Kalbarri and Israelite Bay that have been flown at approximately 5 year intervals since 1955.



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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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

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.