



## Henri Freycinet Harbour WA09.02.03

### Regional Setting

The dominant regional processes are the Mediterranean to arid climate; the El Nino Southern Oscillation (driving sea-level variability); Southern Annular Mode (driving south-westerly swells and storms); strong sea breezes; micro to meso tidal, mainly diurnal; south-westerly swells; southerly seas; and carbonate sediments with moderate northerly longshore transport.

This coastline is susceptible to regional hazards, including extra-tropical cyclones, mid-latitude cyclones (depressions), storm surges, and river flooding (sub-regions only).

This coastal lowlands compartment extends from Giraud Point to Goulet Bluff.

### Justification of sensitivity

The sensitivity rating is a 3 as the coast is currently stable and likely to remain stable. Spits anchored to headland salients indicate phases of northern littoral drift along the eastern shore and salt flats at the southern head of the basin, suggesting marine inundation during extreme storm events.

### Other comments

Common landform assemblages:

Narrow sandy beaches flanked by wide subtidal terraces and shallow inshore waters border approximately 95% of Henri Freycinet Harbour, a hypersaline basin.



Geomorphological features include a hypersaline basin, wide subtidal terrace, spits, beaches and dunes.

This compartment has a NW aspect.

### **Confidence in sources**

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

### **Additional information (links and references)**

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>

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[http://www.transport.wa.gov.au/mediaFiles/marine/MAC\\_R\\_ShiresOfSharkBayAndExmouthFullReport.pdf](http://www.transport.wa.gov.au/mediaFiles/marine/MAC_R_ShiresOfSharkBayAndExmouthFullReport.pdf).

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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.

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