



## Nine Mile Beach WA07.02.06

### 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 mixed sand and rock coast compartment extends from Nine Mile Beach to Cape Burney.

### Justification of sensitivity

The sensitivity rating is a 3 as the shoreline is currently stable and likely to remain stable. Inshore reefs, high rock platforms and perched beaches or dunes are common features in the compartment, and comprise approximately 80% of the coast. Other sandy beaches occurring in association with gaps in the platforms and inshore reefs are likely to retreat and have a higher susceptibility rank (4).

### Other comments

Common landform assemblages: Broad sandy beach with well vegetated primary dune, often backed by parallel beach ridges or stabilised parabolic dunes. Much of the shore is fronted by high rock platform (80%) which drops into deep water. Sandy beaches occur where there are gaps in the platforms and inshore reefs.



Geomorphological features include limestone platforms, perched beaches, high parabolic dunes and the Greenough River.

This compartment has a SW aspect.

### **Confidence in sources**

Moderate: Coastal landforms are well described in available management literature. However, neither the volume of sediment moved along the rocky coast or nor the sediment budget for the coast is well known. Interpretation of landform assemblages comes from satellite imagery and aerial photography, as well as site visits and published information.

### **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)

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