



## L'Haridon Bight WA09.03.02

### 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 Monkey Mia to Petit Point.

### Justification of sensitivity

The sensitivity rating is a 4 as the coast is currently stable but likely to start eroding. Spits along the shore indicate phases of northern littoral drift, as well as points where sediment appears to be lost into deeper water. These are likely to change with future variation in climate.

### Other comments

Common landform assemblages:

The compartment includes the western part of Faure Sill and the tidal channels connecting the marine waters of Herald Gulf with the hypersaline waters of L'Haridon Bight. Narrow sandy beach with extensive reaches of beachrock is common (68%). Beachrock dominated beach with occasional sandy sections, and which may have a low undercut beachrock cliff face comprises 25%. The SE beach - Shell Beach - is comprised of *Coquina* sp. considered to drift south alongshore to the head of the bight.



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

This compartment has a NNE aspect.

### **Confidence in sources**

Low confidence: Limited or no information describing landforms or coastal landform change over the historical period is available, except for the coast in the vicinity of Monkey Mia. The Faure Sill was recently subject to geological investigation. Interpretation of landform assemblages comes from satellite imagery and aerial photography. Numerical modelling of water circulation around Monkey Mia has been completed and regular monitoring of beach profiles on Shell Beach is undertaken by a commercial agency.

### **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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