



## York Sound WA13.02.03

### Regional Setting

The dominant regional processes are the wet-dry tropical climate (trade winds, monsoons); El Niño Southern Oscillation (driving high sea-level variability); Madden-Julian Oscillation (driving weather patterns including monsoons and tropical cyclones); mega to meso (limited) semi-diurnal tides; waves dominantly seas; episodic high river sediment discharges; mixed carbonate-terrigenous sediments; tidal sediment transport, and limited longshore transport.

This coastline is susceptible to regional hazards, including tropical cyclones, storm surges and river flooding.

This rocky coast compartment extends from Cape Wellington to Augereau Island.

### Justification of sensitivity

The sensitivity rating is a 2 as the shoreline is stable but likely to start accreting. Low susceptibility is attributed to the rocky cliffed coast. Also, tidal flats and the fluvial delta of the Roe River and smaller streams discharging into Prince Frederick Harbour are depositional features of the highly irregular ria coast, particularly in the upper reaches of York Sound.

### Other comments

Cliffs are common throughout the compartment, and some beaches have formed between headlands in the outer reaches of York Sound (59%). Tidal flats, some with channels backing onto cliffs, and covered by extensive mangrove forests (40%) occur along inlets and streams entering Prince Frederick Harbour, particularly close to the mouth of the Roe River.



Geomorphological features include coral reefs, deep complex embayment and mangroves.

This compartment has a WNW aspect.

### **Confidence in sources**

Moderate confidence: Limited or no information specifically describing landforms or coastal landform change is available for the historical period. However, multiple photographic runs and other regional investigations of landforms have been published.

Interpretation of landform assemblages from satellite imagery, available literature 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);

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