



De Grey River WA12.01.02

Regional Setting

The dominant regional processes are the sub-tropical arid climate (Trade winds), El Nino Southern Oscillation (driving sea-level variability), mega to meso semi-diurnal tides, waves dominantly seas, episodic high river sediment discharges, mixed carbonate-terrigenous sediments, and tidal sediment transport.

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

This coastal lowlands compartment extends from the Yan Well coast to Condini Landing.

Justification of sensitivity

The sensitivity rating is a 2 as the shoreline is stable but likely to start accreting. The coast of the compartment spans the mouth and active delta of the De Grey River, one of the major rivers of the region delivering sediment to the coast. The landforms of the delta mouth are highly dynamic.

Other comments

Common landform assemblages:

The compartment includes the mouth of the De Grey River. Either side of the mouth are chenier ridges, spits and tidal flats. Fringing mangrove vegetation occurs along the coast and in the estuarine funnel. Water depth is <5m for approximately 10 km from shore. Large sand ridges extend up to 60 km offshore from the delta shore.

Tidal flats extend more than 3 km from shore, particularly on the subaqueous levees adjoining the main discharge channel of the De Grey River. There is limited



supratidal flat development in the backshore where some channels back onto low cliffs and sand ridges.

Geomorphological features include a pro delta, active De Grey River delta, and mangroves.

This compartment has a N aspect.

Confidence in sources

Low confidence: Limited or no information describing landforms or coastal landform change is available for the historical period.

Interpretation of landform assemblages from satellite imagery, aerial photography, available literature and site visits by helicopter along the shore.

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 (also see Surf Life Saving site)

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