Bardi (King Sound - north west) WA12.04.01

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 mixed sand and rock coast compartment extends from Swan Island to Cornambie Point.

Justification of sensitivity

The sensitivity rating is a 3 as the shoreline is stable and likely to remain stable. The beaches are small, and their sediment supply appears to be determined by the tidal currents and limited movement of sediment along the shore from the active delta of the Fitzroy River at the head of King Sound. Also, it is likely that exchange between embayments is limited and more local sediment cells could be determined.

Other comments

Common landform assemblages:

This compartment contains four main landform assemblages: [1] Narrow sandy or silty beach with a high tide range, may be marked by cheniers, beach ridges or low cliffs (36%). [2] Limited tidal flat development with some channels, may back onto low cliffs and sand ridges (26%). [3] Tidal creek channels and flats, with complex relict sandy beaches and some tidal flat development between headlands (23%). [4] Complex, exposed,

resistant low cliffs; beaches may be formed between headlands due to high tidal range (12%). Most beaches are landward of a wide intertidal and subtidal terrace, and several - such as those on Deep Water Point- are perched on coral platforms.

Geomorphological features include fringing coral reefs, sandstone headlands, embayments and tidal creeks.

This compartment has a ENE 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, aerial photography and site visits to beaches in the vicinity of Cygnet Bay and Deep Water Point.

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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