



Beagle Bay WA12.03.04

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 Coulomb Point to Swan Island.

Justification of sensitivity

The sensitivity rating is a 3 as the shoreline is stable and likely to remain stable. Tidal creeks, especially those in the longer inlets at Carnot, Beagle and Pender Bay, maintain an onshore-offshore sediment exchange in discrete cells between rocky, commonly cliffed headlands. Some of the headlands are coastal limestone ridges flanked by wide coral platforms. A higher ranking (4) would be relevant for individual beaches, tidal creeks, tidal flats, dunes and salt flats in the embayments and inlets.

Other comments

Common landform assemblages:

Several streams drain the hinterland between Coulomb Point and Swan Island, and the coast has several deep bays: Carnot Bay, Camp Inlet, Beagle Bay and Pender Bay. Additionally, arcuate sandy beaches are located between rocky headlands in the north of the peninsula near Chile Head and Cape Leveque. The dissected coast includes tidal



channels and flats (46%); broad, gently-sloping beach with an extensive intertidal and supratidal zone (30%); and narrow, sandy or silty beach which may have cheniers, beach ridges or low cliffs (17%). The northern beaches are perched on coral platforms.

Geomorphological features include offshore coral reefs, sandstone embayed coast, rias and mud flats.

This compartment has a NW 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 near Chilli Creek and Packer Island.

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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