



Dampier Archipelago WA11.03.03

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 rocky coast compartment extends from West Intercourse Island to Dolphin Island (North point).

Justification of sensitivity

The sensitivity rating is a 3 as the shoreline is stable and likely to remain stable. The western shore of the Burrup Peninsula has a rocky coast, with small sandy beaches either perched on rock platforms or located at the heads of small embayments. Some have shore stabilisation structures.

Other comments

Common landform assemblages:

North of the mudflats and tidal creeks flanking the Dampier Salt ponds, the western shore of the Burrup Peninsula has a rocky coast with small sandy beaches either perched on rock platforms or located at the heads of small embayments. Several of the beaches, including those at Hampton Harbour, King Bay, Withnell Bay and Conzinc Bay, are fronted by narrow tidal flats and mangrove vegetation. With



localised exceptions, the coastal hinterland largely comprises the rugged bedrock terrain of the Burrup Peninsula and Dolphin Island.

Geomorphological features include Western Dampier Archipelago, peninsular, rocky coast and tidal flats.

This compartment has a NW aspect.

Confidence in sources

High confidence: Detailed information describing landforms and metocean processes is available from multiple sources, although it does not specifically consider local sediment budgets.

Interpretation of landform assemblages from satellite imagery, aerial photography, available literature and site visits.

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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Short AD. (2005) Beaches of the Western Australian Coast: Eucla to Roebuck Bay: A guide to their nature, characteristics, surf and safety. Australian Beach Safety and Management Program. University of Sydney Coastal Studies Unit and Surf Life Saving Australia. Sydney University Press. Sydney, New South Wales.

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http://www.transport.wa.gov.au/mediaFiles/marine/MAC-R-Pilbara_CoastalSedimentCellsL.pdf