



Admiralty Gulf WA13.03.02

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 Davidsons Point to Cape Bougainville.

Justification of sensitivity

The sensitivity rating is a 3 as the shoreline is stable and likely to remain stable. The low susceptibility is attributed to the rocky cliffed coast. A higher susceptibility rank (4) is attributable to the depositional landforms, the tidal flats and cay, which are stable but likely to start eroding in future.

Other comments

Admiralty Gulf is a broad basin with two elongate inlets. The headwaters of the larger and more open inlet, Port Warrender, have been infilled with substantial tidal flats and channels. The second narrower inlet is an extension of the Mitchell River, which follows a fault line and flows into Walmesley Bay. A large reef and cay are located offshore in the entrance to Admiralty Gulf. The shores of the compartment include cliffs, tidal flats and



creeks, and beaches between headlands (62%). In places, tidal channels and flats back onto low cliffs and sand ridges (26%).

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

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, available literature, aerial photography and a site visit to the Mitchell River.

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);

Australian Maritime Safety Authority (AMSA). (2006) Oil Spills Response Atlas. Australian Government Canberra. Available at <https://www.amsa.gov.au/environment/maritime-environmental-emergencies/national-plan/general-information/OSRA/index.asp>

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