



Milingimbi NT02.03.03

Regional Setting

The dominant regional processes influencing coastal geomorphology in this region are the wet-dry tropical climate, trade winds, monsoons, mega to meso (limited) tides, semi-diurnal, waves dominantly seas, episodic high river sediment discharges, mixed carbonate – terrigenous sediments, tidal sediment transport, limited longshore transport, the El Nino Southern Oscillation (driving high sea-level variability), and the Madden-Julian Oscillation (driving weather patterns including monsoons and tropical cyclones).

Regional hazards or processes driving large scale rapid coastal changes include: tropical cyclones, storm surges, king tides and river flooding.

This compartment extends from Cape Stewart to Woolen River mouth.

Justification of sensitivity

Sensitivity rating is a 3 overall. There is no evidence on which to indicate patterns of shoreline change, although low-lying areas are likely to be threatened by inundation.

Other comments

There are extensive wetlands on prograded coastal plains flanking Castlereagh Bay, adjacent to Milingimbi, which sits on an island in the bay. The freshwater wetlands of Arafura Swamp (~700km²), form the floodplains of the Goyder and Gulbuwangay Rivers incised within the Arnhemland plateau. These wetlands are low-lying and appear threatened by saltwater intrusion.



Confidence in sources

Medium confidence: There is little evidence on which to base assessment.

Additional information (links and references)

- *An inventory of all the beaches in northern Australia has been compiled by Short (2006). This provides details of the geomorphology of each beach and other information that will be useful in determining the functioning of tertiary compartments:*
Short, A.D., 2006. Beaches of the northern Australian coast: the Kimberley, Northern Territory & Cape York. Sydney University Press.
- *There has been little comprehensive study of the coast of the Northern Territory. There is little information on the offshore characteristics of NT. A workshop was held in 2007 that summarised the nature of the offshore environment, recognising Joseph Bonaparte Gulf in the west, Arafura in the north, and the Gulf of Carpentaria in the east. The report is available at www.environment.gov.au/system/.../characterisation-workshop-report.rtf*
- http://www.lrm.nt.gov.au/_data/assets/pdf_file/0016/13921/20_arafura.pdf
- http://www.lrm.nt.gov.au/_data/assets/pdf_file/0018/13923/18_boucaut.pdf
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