



Limmen Bight NT04.01.01

Regional Setting

The dominant regional processes influencing coastal geomorphology in this region are the wet-dry tropical climate, trade winds, monsoons, irregular meso-tides, large seasonal mean sea-level range, low to moderate seas, seasonally high river sediment discharges, terrigenous sediments, the El Nino Southern Oscillation (driving sea-level variability & tropical cyclone frequency), 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 and river flooding.

This compartment extends from Port Roper to Rosie Creek Delta.

Justification of sensitivity

Sensitivity rating is 2 or 3. The coast has prograded over millennia and appears to continue to have plenty of sediment, primarily mud.

Other comments

The Roper River is a major river flanked by estuarine plains that extend upstream to Roper Bar. There is evidence that the smaller tidal creeks have meandered across the plains, but the main river course appears more stable. It is low-lying and likely to be subject to inundation. A wide coastal plain extends from the Roper mouth to the Towns River mouth, and a slightly narrower plain extends to Limmen Bight River, and in a narrower form again to the Rosie Creek delta.



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.parksandwildlife.nt.gov.au/parks/find/limmen-bight-marine-park#.Vvlqv3rLJ94>.
- http://www.lrm.nt.gov.au/_data/assets/pdf_file/0004/13909/32_limmenbight.pdf