



Merimbula NSW02.06.07

Regional Setting

The dominant regional processes influencing coastal geomorphology in this region are the humid warm to cool temperate climate, micro-tides, south-easterly Tasman Sea swells, easterly seas, dominantly quartz (terrigenous) sediments with northerly longshore transport in the northern part, and the El Nino Southern Oscillation (driving beach erosion/accretion cycles, cyclone frequency).

Regional hazards or processes driving large scale rapid coastal changes include: East Coast Lows (extra-tropical cyclones), mid-latitude cyclones (depressions), and storm surges (<1m).

This compartment extends from Tathra to Worang Point.

Justification of sensitivity

Sensitivity rating is a 3, with local issues associated with erosion and flooding at estuarine entrances.

Other comments

The northern section of this secondary compartment is rocky and resilient. However, there are several tertiary compartments. Wallagoot-Bournda Beach impounds Wallagoot Lake and a smaller coastal lagoon. North Tura Beach and Tura-Short Point beaches appear stable, but while the former comprise transgressive dunes backed by a sequence of Holocene deposits, the latter has undifferentiated Pleistocene deposits behind it, and may be less resilient.

Merimbula-Pambula Beach may be moderately sensitive (Chapman et al, 1982). The northern part impounds Merimbula Lake and is low-lying with the airstrip on the



backbarrier flat. There is a prominent flood tide delta in Merimbula Lake that will most likely continue to be fed from sand eroded from the beachface as sea level rises.

Confidence in sources

Medium confidence: Drilling by Thom (unpublished) confirmed the stability of the stationary barrier and backbarrier flat at the airport over the past 6000 years.

Additional information (links and references)

Chapman, D.M., Geary, M., Roy, P.S., Thom, B.G., 1982. Coastal Evolution and Coastal Erosion in New South Wales. Coastal Council of New South Wales, Sydney.