Woolgoolga NSW01.02.02

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 Wooli to Bare Bluff.

Justification of sensitivity

Sensitivity rating is 5 (or 4) where beaches exist; coast appears to be sediment starved.

Other comments

The northern section of this compartment is rocky and backed by Pleistocene dunes that overlie bedrock. Beaches appear to function as closed sediment cells closed with shingle eroded from Palaeozoic rocks occurring in some locations. There seems to be very little supply of sand off the shelf or as a result of longshore sand transport.

Holocene sands occur north of Red Rock (a red jasper), within a tertiary compartment that is enclosed at its northern end by Station Creek and rock headland.

The coast is relatively sediment starved and sensitive, for example around Arrawarra Headland; trees are falling into the sea near the mouth of Arrawarra Creek.

Confidence in sources

Medium confidence: Little research has been done since the synthesis by Chapman et al. (1982).

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.