



Montague NSW02.06.04

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 Bingie Bingie Point to Cape Dromedary.

Justification of sensitivity

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

Other comments

Bingie Beach runs south from Bingie Bingie Point to Tuross Heads. It is a stable beach, with the predominantly closed entrance to Coila Lake at the southern end (slow responder). By contrast, the mouth of Tuross River is generally open and sandy shoals characterise the entrance south of Tuross Heads, and more dynamic Tuross Beach (fast responder). In 1974, the low foredune at the mouth of the lake was destroyed by combination of river flood and wave forces. During post-storm recovery, sand is moved back onto the beachface and into the flood tide delta (Roy and Peat, 1976; PWD, 1980; Thom et al., 1986). There are minor inundation issues, particularly on the southern margin of Coila Lake. Brou Beach has transgressive



dunes; it appears to be stable and impounds three coastal lakes. South of Dalmeny, the coast is predominantly rocky with small pocket beaches that are not particularly sensitive. The mouth of Wagonga Inlet at Narooma has been engineered. A long straight beach occurs, impounding Corunna Lake; it appears stable at the moment, but sand swept from the beaches such as this as sea level rises may be transported in part into lagoons along this stretch of coast.

Confidence in sources

Medium confidence: There is little specific research.

Additional information (links and references)

Hudson, J.P., Ferland, M.A., 1987. Seismic results from the inner continental shelf of the Twofold Bay/Disaster Bay region, southern NSW> Geological Survey NSW Report No 1987/093, 55pp.

PWD, 1980. Tathra Erosion Study, prepared by the Department of Public Works [PWD] Coastal Engineering Branch, Report No. PWD 79015, February 1980.

Roy, P.S., and Peat, C., 1976. Bathymetry and bottom sediments of Tuross estuary and Coila Lake. Records of the Geological Survey of New South Wales 18, 103-134.

Thom, B.G., Roy, P.S., Short, A.D., Hudson, J., Davis, R.A., 1986. Modern coastal and estuarine environments of deposition in southeastern Australia. Department of Geography, University of Sydney, 12th International Sedimentology Conference. Guide to Excursion 4A, p. 279.