



False Orford Ness - Red Cliffs QLD03.02.02

Regional Setting

The dominant regional processes influencing coastal geomorphology in this region are the wet tropics to humid sub-tropical climate, south-east trade winds, mega-meso tides, strong tidal currents, low to moderate south-east seas (local wind-waves), the dominantly terrigenous sediments with interrupted northerly longshore sediment transport (low-moderate), the El Nino Southern Oscillation (driving sea-level variability, tropical cyclone frequency, beach erosion/accretion cycles); 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, river flooding, and variable longshore sand transport.

This compartment extends from False Orford Ness to Red Cliffs.

Justification of Sensitivity

The sensitivity rating is between 3 and 4. The shoreline is stable but sediment supply is limited and predicted to decline.

- The whole section of coast has backing transgressive dunes and a continuous northerly drift of sand along the 20 beaches.
- There is evidence of migratory intertidal sand ridges nourishing beaches that are protected by lateritic promontories and fringing reefs.



Other comments

- While the extent of sand migrating north in the intertidal zone appears less than the neighbouring sediment compartment, it is unlikely that this supply would be eroded over the next 100 years.
- The wave energy along this coast is reduced by the presence of a number of fringing reefs.
- The impacts of cyclonic events are likely to be more severe, with longer beach recovery times.

Confidence in sources

Medium confidence in sources.

Additional information (links and references)

Short, A D (2006) *Beaches of the Northern Australian Coast: The Kimberley, Northern Territory and Cape York*, Australian Beach Safety and Management Program, University of Sydney Press