



Capricorn Coast (south) QLD04.03.03

Regional setting

The regional processes dominating this region include the wet tropics to humid sub-tropical climate, south-east trade winds, meso-macro tides (3.6m), strong tidal currents, low to moderate south-east seas (local wind-waves), 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 Yeppoon to Zilzie Point.

Justification of sensitivity

Sensitivity ratings range from 3 on the bedrock headlands, to 4 on the presently stable beaches and tidal flats, and 5 along the eroding Kinka Beach.

Other comments

The southern Capricorn Coast consists of 20 km of bedrock-controlled shoreline, several prominent headlands, a mix of 15 tide-modified and tide-dominated embayed beaches, the tidal flats and mangroves of the central Kinka-Causeway Creek, and the Keppel Islands. The coast is sheltered by the Keppel Islands and some of the headlands, resulting in lower energy beaches compared to the northern Capricorn Coast. The coast has, however, been supplied with fine quartz sand from the Fitzroy River and any modification to the river will ultimately reduce sediment transport to the beaches. The Keppel Islands are a mix of bedrock and embayed beaches which



range from 3 to 4 in sensitivity. The island's main resort beach is a cusped foreland that has experienced recent beach erosion and destruction of property during tropical cyclone Marcia, and rates at 5.

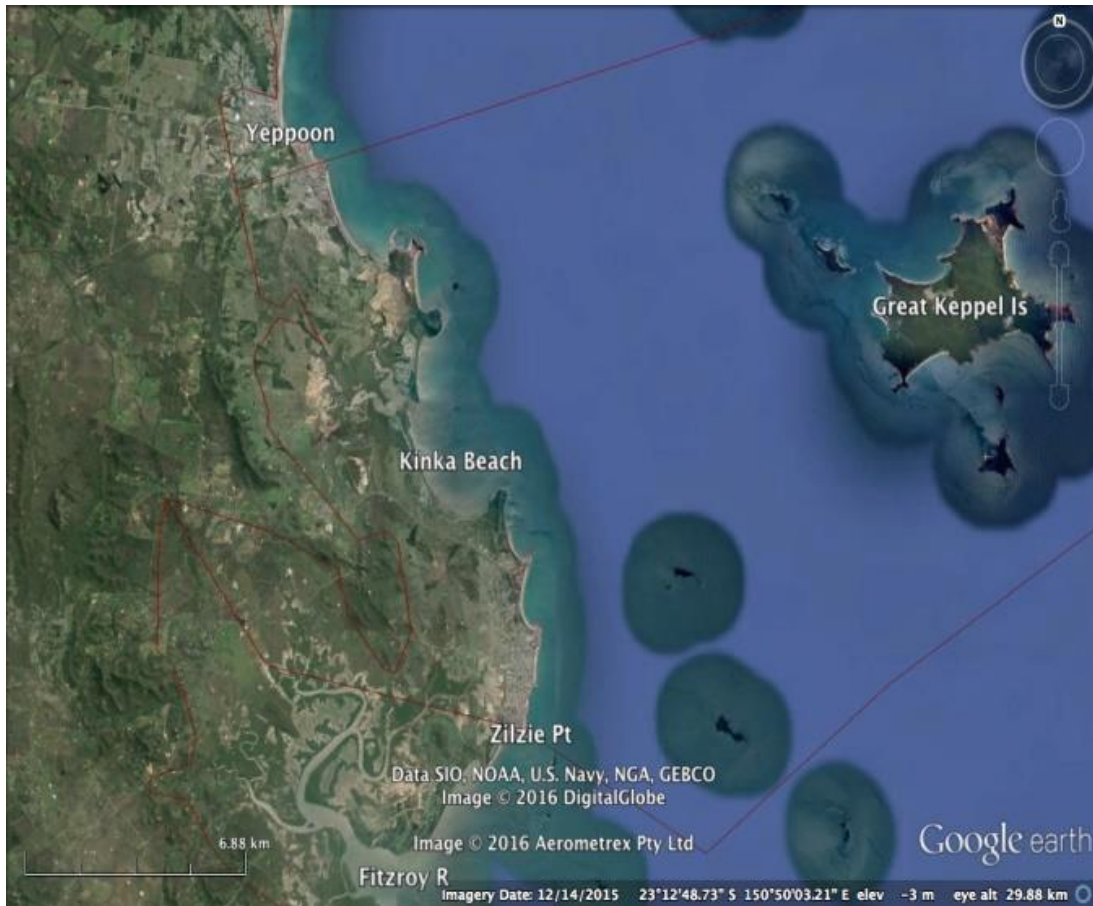
The coast is moderately developed, with most development on higher ground, apart from Kinka Beach and Causeway Lake, which are susceptible to inundation from storm surge and sea level rise, and Kinka Beach, which has been subject to erosion in recent years.

Additional information (links and references)

BPA, 1979, *Capricorn Coast Beaches*, Beach Protection Authority, Brisbane, 238 pp.

Piorewicz., J 1999, History of Kinka Beach changes : analysis of meteorological conditions along Capricorn Coast, Central Queensland University, Rockhampton, Qld., <http://hdl.cqu.edu.au/10018/37430>

https://www.ehp.qld.gov.au/coastal/management/maps/pdf/9051-133_mulambin.pdf



Capricorn Coast (S) – Yeppoon to Zilzie Point. Capricorn coast sediment transport (from BPA, 1979).