



## Moreton Bay (south) QLD05.02.02

### Regional setting

The regional processes dominating this region include the wet tropics to humid sub-tropical climate, south-east trade winds, micro tides (1.8m), strong tidal currents, very low south-east seas (south-east 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 Brisbane River to Amity Point.

### Justification of sensitivity

Overall sensitivity rating of 4. Sensitivity ratings range from 3 on the bedrock headlands, to 4 for most of the shore, including the tidal islands, flats and sandy shores.

### Other comments

The southern half of Moreton Bay extends for 38 km south of the Brisbane River down to the top of the Broadwater. It is 27 km wide in the north, narrowing southwards to 5 km as a series of meandering tidal channels, sand islands and tidal flats, many covered with extensive mangroves. The western shore is a mix of bedrock headlands with tidal flats in between and is heavily developed down to Point Talburpin, while the central Macleay and Russell Islands are also developed. The eastern Stradbroke Island shore is predominately sand fronted by mangrove covered



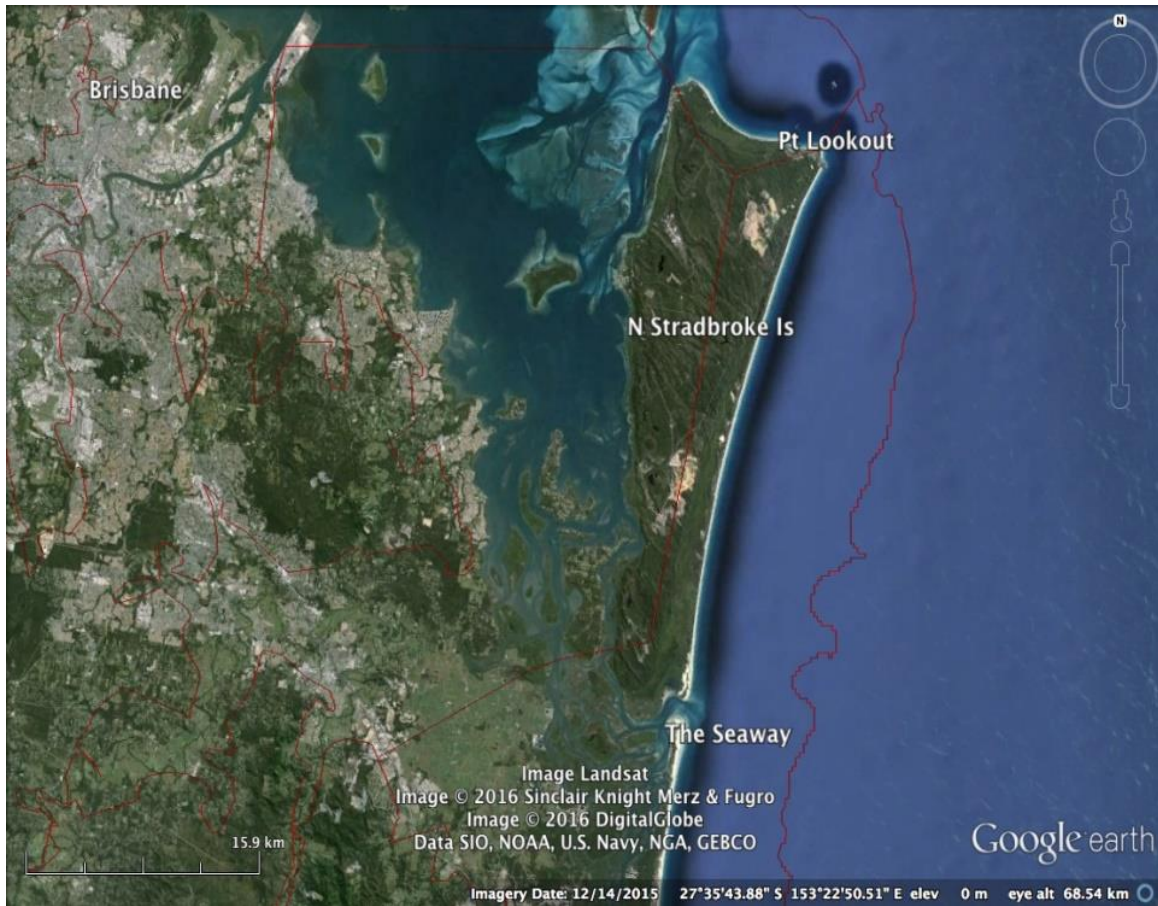
tidal flats, with two small communities at Dunwich and Amity Point. The tidal flats and sandy shores will be susceptible to sea level induced erosion, while the entire tidal system will be impacted by rising sea level, increasing the tidal prism and tidal flows and possibly changing the tide range. South Passage-Amity, Jumpinpin Inlet and their adjacent shores will be particularly impacted by the sea level-tidal changes.

**Additional information (links and references)**

Short, A D, 2000, Beaches of the Queensland Coast: Cooktown to Coolangatta. Sydney University Press, Sydney, 360 pp.

<https://www.ehp.qld.gov.au/coastalplan/coastalhazards.html>

<https://www.moretonbay.qld.gov.au/BribieSEMP/>



*Moreton Bay (S) – Brisbane River to Amity Point.*