



Repulse Bay (North) QLD04.01.01

Regional setting

The regional processes dominating this region include the wet tropics to humid sub-tropical climate, south-east trade winds, meso tides (3.1m), 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 Cape Conway to Conway Beach.

Justification of sensitivity

Overall sensitivity rating is 3.5. Sensitivity is a 3 on Cape Conway; 4 in the Inlet - Repulse Creek which will be inundated, and also on the Conway-Wilson Beaches which will erode.

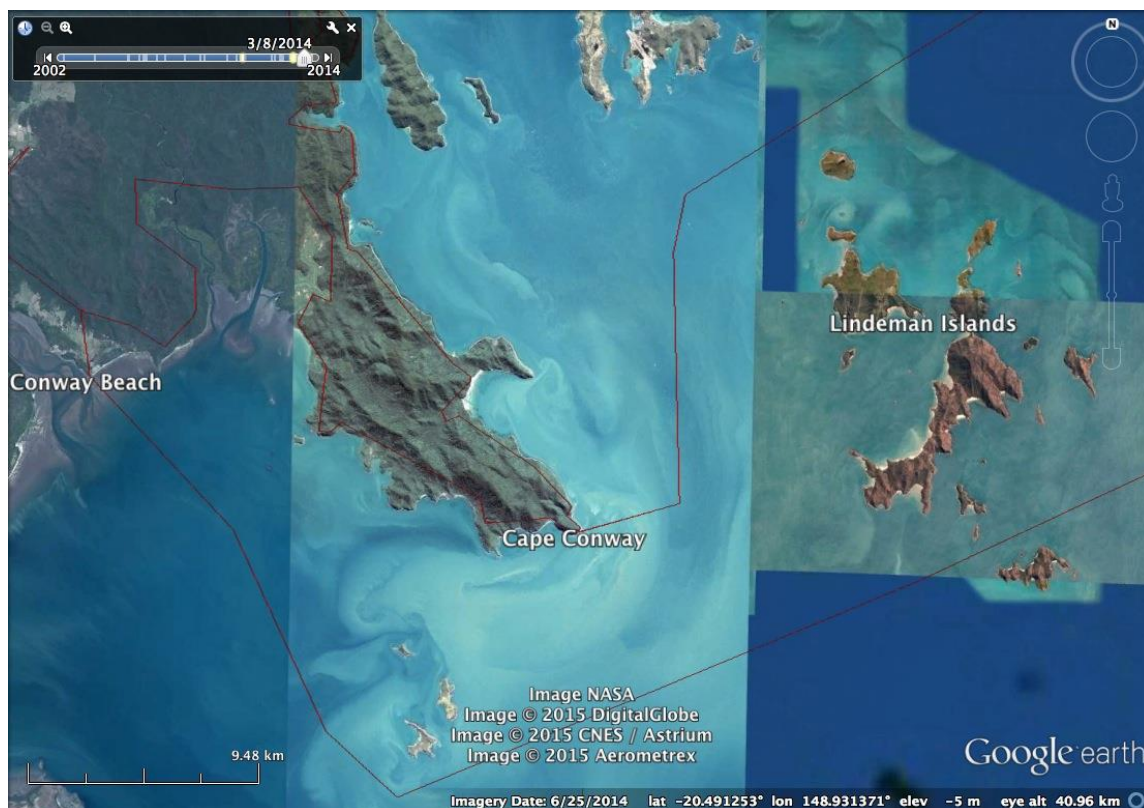
Other comments

Roughly half of the 30 km of mainland coast consists of the steep, rugged bedrock Cape Conway coast plus the Lideman Island group. The western half consists of the low lying tidal flats and mangroves of The Inlet and Repulse Creek, and the adjoining, tide-dominated Conway and Wilson Beaches located on the east side of Proserpine River mouth and part of the delta system. All of the low-lying areas are susceptible to storm surge, flooding and sea level rise. Tide flats extend up to 2 km



bayward of the inlet and beaches. The bedrock Lindeman Island group lies between 15-20 km off the Cape and contain several small embayed beaches.

The Inlet and Repulse Creek are predicated to erode by up to 400 m by 2100, the Conway and Wilson beaches by about 100 m, and the offshore island beaches by up to 100 m.



Repulse Bay (N) – Cape Conway Head to Conway Beach



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>